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Alkhunini, Abdulmalik

Title:

Exploring Primary Teachers' Understanding of and Practices in Inclusive Education with Students with Autism Spectrum Disorder (ASD) in Saudi Arabia

A Case Study of a Tatweer School

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Exploring Primary Teachers’ Understanding of and Practices in Inclusive Education with Students with Autism Spectrum Disorder (ASD) in Saudi Arabia: A Case Study of a Tatweer School

Abdulmalik Alkhunini

A dissertation submitted to the University of Bristol in accordance with the requirements for award of the degree of Doctor Philosophy in the Faculty of Social Science and Law.

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Abstract

In the last few decades, as the number of individuals diagnosed with Autism Spectrum Disorder (ASD) has risen globally, the matter of how to educate students with ASD has gained increased attention (Lindsay et al., 2014). Inclusive education has become popular in many countries, as it recognises that all students, including those with special educational needs and/or disabilities (SEND), have a right to be educated in the general education classroom. The Tatweer project, introduced in Saudi Arabia in 2007, promoted further changes to the public education of those with SEND, seeking to reform public education and improve the quality of education, including special education services. Consequently, in 2016, Saudi Arabia established the first six public schools in the country to implement a fully inclusive education approach. This interpretive case study explores teachers' understanding and the practices involved in this new implementation of inclusive education. It specifically explores the factors influencing the practices with regard to students with ASD in one of the six primary-level inclusive education schools in the Saudi educational context. The data was collected through document review, direct and indirect observation, and semi-structured interviews with general education teachers and special education teachers and other SEND staff members. The findings obtained from the qualitative data via a thematic analysis demonstrate that teachers differ in their understandings of inclusion. The general education teachers described it as integration in the classroom, and lack understanding of disability and ASD, which affects their classroom practice. This contrasts with the special education teachers, who demonstrated a better awareness of inclusive education and ASD but lacked the means to implement their knowledge in practice. This study further demonstrates the factors affecting the implementation of inclusive education in the Saudi context, including lack of use of the new guidelines concerning inclusive education, lack of collaboration, and lack of teaching assistants. The thesis concludes by identifying the factors affecting implementation, along with the related implications and practical recommendations, primarily targeting stakeholders and the Ministry of Education, and recommending that each pay considerable attention to the issues of teachers' understanding and knowledge of inclusive education, and to the related training and leadership requirements.

Key Words: Inclusive Education, Primary Education, Autism Spectrum Disorder, Special Education Teacher.

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Author's Declaration

I declare that the work in this dissertation was carried out in accordance with the requirements of the University's *Regulations and Code of Practice for Research Degree Programmes* and that it has not been submitted for any other academic award. Except where indicated by specific reference in the text, the work is the candidate's own work. Work done in collaboration with, or with the assistance of, others, is indicated as such. Any views expressed in the dissertation are those of the author.

SIGNED: Abdulmalik Alkhunini DATE: 28/04/2021

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List of Abbreviations

ABA	Applied Behaviour Analysis
ADHA	Attention Deficit Hyperactivity Disorder
APA	American Psychiatric Association
APD	The Authority for the Care of Persons with Disabilities
ASD	Autism Spectrum Disorder
BERA	British Educational Research Association
CDC	Centres for Disease Control and Prevention
DSM	Diagnostic and Statistical Manual of Mental Disorders
ICD	International Classification of Diseases
IDEA	Individuals with Disabilities Education Act
IEP	Individual Educational Plan
NCLB	No Child Left Behind Act
NHS	National Health Service
PECS	Picture Exchange Communication System
RSEPI	Roles and Regulations of Special Education Programs and Institutions
SEND	Special Educational Needs/ Disabilities
Tatweer	King Abdullah bin Abdul-Aziz Project for Public Education Development
UAE	United Arab Emirates
UK	The United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	The United States
WHO	World Health Organization

Chapter 1 **Introduction**

1.1 Overview

In recent decades, perspectives on the education of individuals with special educational needs and disabilities (SEND), including those with Autism Spectrum Disorder (ASD), have changed in many countries (Ainscow, 2020). As a result of studies, movements, and global policies concerning the education of students with SEND, their segregation into special educational institutions has declined internationally, and many are now included in public schools (Ainscow, 2020). The most substantial international document on the education of those with SEND was the Salamanca Statement (UNESCO, 1994), which advocated for the concept of inclusive education and proposed that settings such as schools should be responsible for incorporating all students, including those with SEND. Schools, according to the Statement, should ensure that all students with SEND can obtain an effective education; education systems must further provide all of the resources needed so they can access opportunities that are equal to those available to their peers, which will enable students with SEND to achieve their potential (UNESCO, 1994).

A range of factors underpin this significant shift in the approach to inclusive education, including an increasing emphasis on the right for those with SEND to be educated with their peers, and an enhanced awareness of the social justice argument that all students, including those with SEND, should have equal opportunities to achieve personal development and participate in society (Florian, 2019). Furthermore, these movements and global policies are a reaction to the practice of integrating individuals with SEND into general schools but only in specialised classrooms reserved for those students: this approach has been criticised as viewing such students as a problem to be solved (Oliver, 1996).

Opponents of the inclusive approach argue that the inclusion of individuals with SEND, including those with ASD, in the general classroom would deny them special interventions; confining their education to special classrooms provides them with specialised and individualised educational services (Kauffman et al., 2018). Opponents have also brought up the issue of adjustment for all students, as the successful implementation of inclusive education may involve the provision of additional services and resources that are not necessarily accessible in all schools and could therefore prove expensive (Avramidis & Norwich, 2002).

Not everyone believes inclusive education is a solution to SEND education (Kauffman et al., 2018). However, existing studies show that inclusive education leads to positive social and academic outcomes, including an increased level of engagement and social interaction on the part of students with ASD, together with the fact that it enables them to achieve a higher level of social skills and interact in larger social networks (Van Der Steen et al., 2020). Additionally, increasing awareness and acceptance for those with ASD and allowed them to experience the same social situations as other children. (Humphrey & Symes, 2013; S. Lindsay et al., 2014; Sansosti & Sansosti, 2012; Segall & Campbell, 2012). Meanwhile, Elder et al. (2010) argued that it is not only the pupils with ASD who benefit from inclusive education, but also their peers, who benefit from being exposed to students with diverse abilities.

More recent adaptations to the notion of inclusion were introduced by the United Nations (UN) in 2015, when the UN unveiled a new global plan of 17 sustainable development goals (SDGs) intended to transform the globe by 2030 (United Nations, 2015). The SDGs are based on the Incheon Declaration, and SDG 4 is specifically on a vision of education wherein all children (including those with SEND) will be guaranteed access to equal and inclusive education (UNESCO, 2015). Ainscow at al. (2019) argued that the adoption of this recent policy demonstrates global agreement around providing equal access and quality learning for *all* children.

Previous conceptions of inclusive education focused on providing basic opportunities for students with SEND, such as the opportunity to *attend* school, while the inclusive education approach is more concerned with issues related to the *equality* of education (Ainscow et al., 2019; Florian, 2019; Glazzard, 2018). Moreover, inclusive education is not only limited to teaching those with SEND: Florian and Black-Hawkins (2011) have argued that inclusive education is a very wide concept and can range from including students with SEND in general settings to a much more comprehensive approach to encompass a diverse range of learners without considering their ‘categorisations’. Norwich (2013a) explained that inclusive education is linked with additional forms of diversity beyond SEND, and may involve equal inclusion of groups including different ethnicities, socioeconomic statuses, and genders (see Chapter Two for a broader discussion of inclusion).

In response to the spread of the inclusion movement in the 1990s, Saudi Arabia turned its focus to the provision of inclusive education, and a major shift occurred in the country’s traditional approach to education. During that time, reforms meant that SEND (including ASD) moved from being taught in special schools to being integrated into special classrooms at the public schools, an approach that is not considered completely inclusive. More recent, Saudi

Arabia introduced the King Abdullah bin Abdul-Aziz Project for Public Education Development, otherwise known as the Tatweer Project, which translates into English as 'to develop'. This project is a collaboration with the Ministry of Education in Saudi Arabia, and it seeks to reform the education system and improve the quality of education, including SEND education (Tatweer Project, 2016). As a result of this project, in 2016, the Saudi Ministry of Education established the first six primary schools in the country that employ the inclusive education approach, with SEND learners included in general education classrooms.

This second reform, in moving away from special education classrooms and toward general education inclusion, seems a response to the Incheon Declaration in ensuring that all students should have access to high-quality education and can continue learning throughout their lives (UNESCO, 2015). Saudi Arabia thus introduced a strategic direction for education that aligns strongly with the Education 2030 Framework for Action (United Nations, 2015). One of the strategies in the Saudi Vision 2030 is related to inclusive education, where the government calls for a system to "enable those of our people with disabilities to receive education and job opportunities that will ensure their independence and integration as effective members of society" (Government of Saudi Arabia, 2016, p. 37).

However, even with these goals, the concept of inclusive education appears to be a challenge in many countries, with differences in the literature about its definition (Ainscow et al., 2006; Florian, 2019; G. Lindsay, 2003; Winter & O'Raw, 2010). Despite the fact that students with SEND are increasingly being educated in the general school classroom, the process of implementing inclusive education faces a range of challenges (Ainscow, 2020; Florian, 2019; S. Lindsay et al., 2014; Symes & Humphrey, 2011). There is a need to explore understandings of inclusion as previous studies found that the concept of inclusive education is complex, and there is variation in how teachers understand inclusive education and how much that affects educational practice (Florian, 2019; Hassanein, 2009; S. Lindsay et al., 2014).

Furthermore, within educational research in the Saudi context, the topic of the inclusive education of students with SEND, specifically those with ASD, is in its infancy, and few studies have been conducted around the inclusive education of students with ASD in the general classroom (Alhudaithi, 2015); fewer still investigate the reality of the education setting both within and outside of the classroom (Almasoud, 2011; Alnemary et al., 2017). Therefore, this study seeks to explore the complexity of inclusive education implementation for students with SEND in Saudi Arabia, with a focus on teachers' knowledge and understanding of inclusive education and ASD, and how their understanding is related to their practice in teaching students with ASD in inclusive classrooms in the context.

1.2 The Research Problem

While we cannot underestimate the importance of the Saudi Ministry of Education's efforts to reform education provision in the country, which resulted in the Tatweer project, the reality of special education provision in Saudi Arabia has a long history of not providing an inclusive approach in schools. Moreover, there has been little discussion to date around the current inclusive education practices, which again underlines the importance of carrying out a study that focuses mainly on the issue of teachers' understandings of inclusion and the factors affecting the implementation of inclusive education in schools in Saudi Arabia. In this section, I discuss the importance of conducting such research, and I particularly argue for a focus on exploring teachers' understandings and practice, within the wider school implementation setting.

A considerable number of previous international studies have emphasised the value of school staff understanding the concept of inclusive education; further, understanding of the characteristics of certain disabilities has been identified as essential for the effective implementation of inclusive education practices (Fleury et al., 2014; S. Lindsay et al., 2014; Roberts & Webster, 2020; Van Der Steen et al., 2020). In the classroom context, teachers have direct responsibility for implementing inclusive education, and their understandings, beliefs and motivation are crucial for affecting changes to their practice. Different authors have argued that the effective implementation of inclusive education is dependent on the positive knowledge, abilities, and experience of educators, given the importance of their role within the classroom (A. C. Armstrong et al., 2010; Burke & Sutherland, 2004; Florian, 2019; Norwich, 2008; Van Der Steen et al., 2020).

Furthermore, researchers in different countries have highlighted various issues that influence the implementation of inclusive education in schools, including the school's capacity and classroom size (Simpson et al., 2003), the importance of staff training opportunities (Avramidis & Norwich, 2002; Florian & Black-Hawkins, 2011) and collaborative teaching practice (S. Lindsay et al., 2014; Simpson et al., 2003), the necessity of human resources, such as teaching assistants (Alquraini, 2011; Butt, 2016; Emam & Farrell, 2009; Symes & Humphrey, 2011), and the essential role of leadership (Harding, 2009; Webster, 2018). Therefore, as inclusive education is in its infancy in Saudi Arabia, exploring and identifying the relevance and appropriateness of these factors in the Saudi context, as well as investigating

the teachers' understanding and practice of inclusive education with students with SEND, appears valuable.

In the Saudi context, there is a paucity of studies concerning the inclusive education of individuals with SEND, and specifically ASD, and few studies engage with the perceptions and understandings of teachers regarding inclusive education in general. Previous studies of ASD in the Saudi context (Al-Salehi et al., 2009; Aljarallah et al., 2007; Almasoud, 2011; Alnemary et al., 2017) have been mostly conducted outside of the education context, applying quantitative methods without investigating the respective education setting to establish the views and practices of inclusive education inside the classroom and in broader school settings. These studies focused on the attitudes of teachers in inclusive education (Alanazi, 2012; Alhudaithi, 2015; Alshahrani, 2014) without probing their actual understanding of inclusive practices. Aspects such as teachers' beliefs and knowledge of ASD have not yet been explored in the Saudi context. More inquiry is needed, for example, around teachers' perceptions of the right for students with SEND to be in the general education setting, or concerning their perceptions of the ability of students with SEND; both aspects drive opinions, attitudes, understandings, and practices amongst teachers engaged in delivering inclusive education (Florian & Black-Hawkins, 2011; Specht et al., 2016).

In part, the lack of research around these topics is due to the newness of the approach. The inclusive education approach in the Saudi context is relevantly new, as it has only been implemented since 2016, and so there are presently no studies exploring the current practices of inclusive education from the perspective of teachers' understanding and beliefs concerning inclusion and ASD, or the implementation of such practices in the Saudi context. Therefore, the current study aims to respond to the gap in the literature regarding the inclusive education of students with ASD, and it is the first to explore the understanding and practices of inclusive education in depth by conducting an exploratory case study at one of the Tatweer project schools implementing inclusive education practices.

1.3 Importance of the Study

The new Saudi educational reform, also known as the Tatweer project, seeks to reform the education of those with SEND by including them in general education classrooms (Tatweer Project, 2016). As noted above, this is a relatively recent phenomenon that has not previously been researched and documented. Thus, this research seeks to address the gap in knowledge by exploring the understanding of inclusive education, including the factors that impact the

inclusive education for students with ASD, in Saudi Arabia. This study is important as it reflects the actual situation and experience of inclusive practice within the school context, which has not previously been explored in Saudi Arabia.

This qualitative and interpretive study is important to the field of inclusive education both globally and in Saudi Arabia in practical terms, as it gives teachers a voice in identifying the factors affecting the way they implement the inclusive education approach with students with SEND, and especially those with ASD, and because it investigates the knowledge and practices of inclusive education in context, identifying the implications for policy makers and providing suggestions for improvement. I hope the study's findings can be used to improve the current practice of inclusive education for students with SEND in Saudi Arabia. I also hope that the implications and recommendations discussed by this study provide direction for future modification by policy makers and stakeholders in the country. While the findings of this research relate to the Saudi context in particular, they are also relevant to similar contexts in which the introduction of inclusive education is in its infancy.

1.4 Rationale for conducted the Study

This study was undertaken in part because of my own professional experience in the field of education with students with SEND and those with ASD in the context of Saudi Arabia. This interest stems from both my background studies and my professional life. In 2010, I was one of the first students in Saudi Arabia to graduate with a bachelor's degree in Special Education, specialising in ASD. Following the completion of my bachelor's degree, I taught as a special education teacher for students with ASD in one of the primary schools (not a Tatweer school) in Saudi Arabia where students with ASD were relegated to a special education classroom specifically for those with ASD; thus, though the students were located in the same school as students without disabilities, the approach to inclusive education was very limited and differed from the fully inclusive classroom approach introduced by Tatweer. In 2013, I undertook postgraduate studies in a different international context: the United States, where I experienced the inclusive education approach being implemented in the schools that I visited. This encouraged me to focus on the teaching approaches that can be used in inclusive classrooms with students with ASD. During investigation of inclusive education for my master's degree, I engaged deeply with the teaching practices and factors affecting inclusive education globally, and specifically in context of Saudi Arabia, as my country of origin.

The year that I began my PhD – 2016 – was the same year that the inclusive education approach was launched in Saudi Arabia. The research for this PhD was therefore carried out in the Saudi context at one of the first six schools where inclusive education was being implemented and from my previous experience, I recognised the significant change of approach that this shift represented. While my nearness to the context and the education environment may raise concerns of objectivity and validity, it can be argued that it is impossible to entirely extricate independent research from a researcher's values, as researchers inevitably play a significant role in the analysis and interpretation involved in research (Bryman, 2016). This research is purposed to contribute a better understanding to the field, including the development and analysis of inclusive education change in the country, of the theory involved, and of its practice. The study includes implications and recommendations for policy makers and teachers and concerning the upcoming improvement of the teaching of students with SEND, especially those with ASD, individuals who have long been ignored in the Saudi context. These implications and recommendations are also broadly relevant in other contexts where inclusive education is also employed.

Thus, the study focusses on the primary-level inclusive education of male students in one city in Saudi Arabia; all six of the schools that have implemented inclusive education due to the reforms introduced in 2016 are in Riyadh. All of these schools are primary level and have a similar standard in aspects such as the school buildings. They are centrally managed and run by the Ministry of Education in collaboration with the Tatweer project. Importantly, due to the gender segregation system mandated in the context (Chapter Three discusses the gender segregation system in Saudi Arabia), as a male researcher I was only permitted to access the three all-boys' schools that have adopted the inclusive approach. The specific school chosen from those three had eighteen students with ASD when the research was carried out, the highest number of students with ASD present across the male-primary Tatweer inclusive schools.

1.5 Aim and Objectives of the Study

As stated previously, the aim of this research is to obtain a more in-depth understanding of the implementation of inclusive education in Saudi Arabia, focusing on teachers' understanding and practice of inclusive education, disability, and ASD, and how their understanding influences their teaching practice at a primary-level inclusive education school in the Saudi Arabian education context. The objectives of this research are therefore as follows:

- To explore teachers' knowledge, beliefs, and understandings of primary-level inclusive education schools in the Saudi context;
- To explore teachers' understanding of students with SEND, and specifically those with ASD, in primary-level inclusive education schools the Saudi context;
- To explore teachers' inclusive practice in school, and specifically in the inclusive education classroom in primary-level inclusive education schools in the Saudi context;
- To explore the implementation of inclusive education practices? in primary-level inclusive education schools in the Saudi context;
- To determine the most important factors affecting the implementation of inclusive education in primary-level inclusive education schools in the Saudi context;
- To support further learning for implementation of inclusive education practices for students with SEND in primary-level inclusive education schools in Saudi Arabia.

1.6 Research Questions of the Study

In order to address those objectives, this research employs a case study, with the use of qualitative methods, including a document review, direct and indirect observation, and semi-structured interviews in an all-male primary-level school in Riyadh, Saudi Arabia which is set to implement an inclusive education approach. Data collection was carried out for a duration of twelve weeks. The main research questions were as follows:

Research Question 1:

What are the main factors affecting the implementation of inclusive education in the Saudi's study school?

Research Question 2:

How do teachers in the Saudi context understand the concept of inclusion, and how does this relate to their practice?

Research Question 3:

How do teachers in the Saudi context understand students with ASD, and how does this relate to their practice?

1.7 Terminology of the Study:

For clarification, the following definitions are provided to make clear some terminologies used in this study, as some of these terms are related to the Saudi context specifically.

- ***Special Educational Needs and Disabilities (SEND):*** This term is found in the policy introduced in England and Wales, the *Special Educational Needs and Disability (SEND): Code of Practice* (1972), which mandates the provision of support for those identified as special education needs. SEND are defined as those who have a learning difficulty or disability that require SEND provision (DfE & DfH, 2015). Importantly, the term previously used was Special Educational Needs (SEN), but it was changed to SEND by this policy in 2015.
- ***Autism Spectrum Disorder (ASD):*** ASD is defined as a lifelong neurodevelopmental disorder characterised by impairments in social interaction, verbal, and non-verbal communication, and a restricted repertoire of activities and interests (American Psychiatric Association, 2013). ASD is a concept that includes all those disorders that were previously described, including autistic disorder, Asperger's syndrome, or pervasive developmental disorder not otherwise specified (PDD-NOS), as all of them have been joined under the one umbrella of ASD (American Psychiatric Association, 2013). Students with ASD are a specific subclass of students with SEND. Pupils with ASD can often encounter difficulties with social interaction and verbal and nonverbal communication, and they can also experience restricted, repetitive sand sensory patterns of behaviour which could affect individuals with ASD educational performance (IDEA, 2004; S. Lindsay et al., 2014).
- ***Special Education:*** In Saudi Arabia, the term "Special Education" is used for both the services provided to those with SEND and as a term describe those students with SEND. In the Saudi context, the special education categories include hearing impairment, visual disability, intellectual disability, learning disability, Autism Spectrum Disorder (ASD), Language and Speech Disorder, and Attention Deficit Hyperactivity Disorder (ADHD).
- ***Inclusive Education:*** This term is defined by UNESCO (2005) as a process of meeting the diverse needs of all students by increasing students' participation in learning and reducing their exclusion from education (explained in detail in Chapter Two). In the Saudi context, this term is explained as educating those students with special education needs in the general education classroom while providing all of the support and resources required

(Ministry of Education, 2002). However, Saudi Arabia's current practices of inclusion can be seen in two different approaches:

  - *Special education classrooms for only those with SEND* within the public school, where they can interact with other students (students without SEND) during the breaks and other activities in the school. The term "self-contained classroom" also related to these practices.
  - *Tatweer inclusive schools* are the six schools that apply an inclusive education approach where students with SEND (including students with ASD) study together in the same classroom with other students, with the school providing additional support and resources.

- ***General Education Classroom:*** This term describes a mainstream classroom in the Saudi context. It is a general education classroom within a public school, where students with SEND can study alongside their peers. It differs from special education classrooms that are only for those with SEND.
- ***Special Education Teacher:*** This term describes those teachers who have a qualification degree for working with students with SEND, who fall under the Saudi categorisations of special education noted above. These teachers have a bachelor's degree or master's degree in special education with different sub major, such as Learning Disability, ASD, or Intellectual Disability. These teachers are specialists at modifying and developing curricula, assisting and teaching students with SEND, and conducting other activities that address their needs.
- ***Tatweer Project:*** This is a name for the King Abdullah bin Abdul-Aziz Public Education Development Project, which began a programme of reforms for the Saudi Arabia educational system in 2007. It is a project under the Ministry of Education's provision, and, as noted, in 2016, Tatweer Project established six schools incorporating the inclusive education system. They established three schools for boys, and three for girls; these schools were named the 'Tatweer schools'.

1.8 Thesis Structure

This thesis is presented with eight chapters. The first chapter, *Chapter One*, introduces the study's context, and discusses the current gap in the literature that inspired the research, as well as the important and rationale for carried out the research. Then, the chapter indicating the

research aim and objectives, the three research questions and definitions of some of the terminology used in the study.

Chapter Two presents a review of the literature, divided into several sections. It commences with a presentation of the relevant definitions, terminology, and understandings of SEND, and then explores the current models of disability that facilitate its understanding. It also surveys the matter of inclusive education, including a discussion of integration and inclusion. The chapter then moves on to ASD, discussing its prevalence and perspectives on education of those with ASD. This is followed by a review of the literature concerning general understandings of inclusion for those with SEND, and specifically ASD, and in the Saudi context in particular, including background on the implementation of inclusive education.

Chapter Three focusses on the Saudi context and provides further background information on Saudi Arabia's education context, including the history and current practice of the general education system, and the history of policy and special education settings in the Saudi context, such as the movement that prompted the inclusion of students with disabilities in the 1990s. It then explores inclusive education practices in Saudi Arabia, and finally discusses the new education reform, namely the Tatweer project that introduced six inclusive education schools in Saudi Arabia, ending with reiteration of the aims and the research questions for the present study.

Chapter Four describes the methodological assumptions and the research design of the present study, namely the exploratory case study using qualitative methods which include document analysis, observation, and semi-structured interviews. It also details the study's participants and the data collection methods, before discussing the data analysis process, and addressing the ethical considerations, noting that trustworthiness and positionality were adhered to at all stages of the research.

Chapter Five provides a detailed account of the findings relating to the first research question of the study: inclusive education implementation in the school. In the chapter that follows, *Chapter Six* provides the findings related to the second and third research questions concern concerning teachers' understandings and practices in the study school.

Chapter Seven offers a consolidated discussion of the findings from both Chapters Five and Six in relation to the study's research questions. In Chapter Seven, the order of findings and research questions is reversed, and I first discussion the Saudi Arabian teachers' knowledge, beliefs, and practice regarding inclusive education and ASD (RQ 2 and 3), and then move to the second section, where I address the case study school's implementation of inclusive education, including the factors affecting its implementation at the school (RQ 1).

Finally, *Chapter Eight* summarises the study and the key findings identified, including the teacher participants' understandings of inclusive education, and the main factors affecting its implementation in Saudi schools. It then presents the implications for theory, policymakers, and stakeholders, including recommendations for practice. Then, the chapter considers the limitations of the study and discusses the areas for future research. The last section concludes with a final, personal reflection from this study.

1.9 Conclusion

This chapter presented the outline of the research, commencing with an overview of the study and then identifying the research problem, the research objectives, and research questions, before proceeding to discuss the rationale for carried out the research and the important of the study. The next chapter (Chapter Two) presents the relevant literature to this study regarding SEND, models of disabilities, the difference between inclusion and integration, and autism spectrum disorder, and provides a review of literature regarding teachers' understandings of inclusive education and the factors important in implementing the inclusive approach in schools.

Chapter 2 **Literature review**

2.1 Introduction

The aim of this research is to develop more in-depth knowledge of teachers' understanding of inclusive education and autism spectrum disorders (ASD) and how their understanding is related to their practice in teaching students with ASD in inclusive classrooms in the context of Saudi Arabia. This chapter reviews the relevant literature. It first discusses the literature regarding understanding of special educational needs and disability (SEND). Then, the chapter considers the models of disabilities for supporting students with SEND include the medical, social, interactional, organisational and affirmative model, as well as the new neurodiversity paradigm. Following, the chapter reviews and discusses inclusive education, including the history of inclusion, definitions and considers the differences between the definitions of integration and inclusion. After this, the chapter discusses Autism Spectrum Disorders (ASD), including definition, characteristics, prevalence, and the educational classifications for those with ASD. Then, it discusses teachers' knowledge and beliefs regarding inclusive education and ASD. Finally, the chapter examines the practices for teaching students with ASD in inclusive settings and presents the main elements required for the implementation of inclusive education in schools.

2.2 Special Educational Needs and Disability (SEND)

The term 'special education needs' has been utilized globally to describe the learning needs of individuals with disabilities (Demetriou, 2020). It tends to focus on identifying the needs of this particular group in regards to their education provision, learning opportunities, and the provision of additional resources that are suitable for children with disabilities and correspond to their abilities (Demetriou, 2020). In the past, terms such as 'impairments' and 'handicaps' have been used to refer to those with disabilities (Demetriou, 2020). However, in the United Kingdom (UK), the Warnock Committee (1978) stated that handicap education categories should be replaced with a focus on the individual's educational needs, and thus, the term 'special education needs' was introduced (Department for Education and Science (DES), 1978). This shift reduced the negative portrayal of those with special needs as disabled people,

and the term ‘special education needs’ became socially more acceptable and used (Norwich, 1999).

Criticism around this term centres on how it is overly broad and it includes a diverse range of those who need educational support (Demetriou, 2020). Further, Norwich (2014) showed that identifying children as having special education needs may be viewed as negative and thus those children may be stigmatised, as they will be viewed differently from other children. The negative views about special education needs can be seen in stereotypes which hold that special education needs learners have lower achievements and lesser abilities than those without disabilities, and so using this term could lead to discrimination (Norwich, 2014; Tassoni, 2003). However, Norwich argued that it supports the identification of difficulties that those children face. Consequently, were they not identified as special education needs, there would be a risk of their individual needs not being met (Norwich, 2014).

There are different definitions of what is meant by having special needs depending on the international context, and those definitions often reflect the way a specific culture views disabilities. For example, in Saudi Arabia, where this study has been conducted, a review of the terms used in legislation regarding students with disabilities, the 2002 Regulations of Special Education Programs and Institutes (RSEPI), reveals that the term “abnormal student” is used to describe those with special education needs. In this policy, an ‘abnormal student’ is defined as a student who is different from his/her peers with respect to their intellectual, physical, emotional, behavioural, and academic status and so requires special educational provision (Ministry of Education, 2002).

The Saudi context differs from the situation in the UK; the UK has a long history of focusing on disability and inclusion when compared to Saudi Arabia, where there was no real focus until the 1980s (Alquraini, 2010). In the UK, A recent policy was introduced in England and Wales for the provision of support for those identified as special education needs. In the policy *Special Educational Needs and Disability (SEND): Code of Practice* (DfE (Department for Education) & DfH (Department for Health), 2015, p. 15), children and young people with SEND are defined as those who have a learning difficulty or disability that require SEND provision (DfE & DfH, 2015). This policy differs with existing SEND terminology in that it recognises both groups as having special education needs. Indeed, these two different definitions reflect views of those with disabilities in these two different contexts: the RSEPI (2002) legislation in Saudi Arabia delineates a difference between those with SEND and those without disabilities, using the language of “normal” and “abnormal” regarding the need for

special education provision (Ministry of Education, 2002); this is in contrast to the UK definition, where the focus is on the difficulties and abilities that require such provision (Norwich, 2014).

Categorization of those with SEND also differs within each educational context (Florian, 2019). In the Saudi context, the educational system is modelled mostly on the US educational system (see Chapter Three for an explanation of the Saudi context). The new Regulation Guide for Special Education (2015), which is based on the RSEPI (2002) legislation, is similar to the Individuals with Disabilities Education Act (IDEA, 1997) in the US. Across these policies, including IDEA (1997) in the US and both the RSEPI (2002) and the recent Regulation Guide for Special Education (2015) in Saudi Arabia, categorize those with SEND according to the group of their disability, such as hearing impairments, intellectual disability, autism, speech or language disorders, and behavioural and emotional disorders (Alquraini, 2013). This approach differs from the UK's *SEND Code of Practice* (DfE & DfH, 2015), which identifies those with SEND as having one or more of the four following areas of need: 1) cognition and learning; 2) communication and interaction (Autism Spectrum Disorder) is included in this area); 3) social, mental and emotional health; and 4) sensory and/or physical needs.

The benefit of categorizing those with SEND according to their disability, such as autism or intellectual disability, is that it helps to give an enhanced picture about their abilities and difficulties; as Norwich (2014) has pointed out, the categorization related to decisions based on the policy focuses on identifying who needs additional support or special educational provision. If the categorisation policy did not exist, there would be no appropriate additional support or special educational provision for those with SEND (Norwich, 2014). Florian (2019, p. 2) further claimed that "even in countries that do not use disability categories, some process of classification remains in place to determine eligibility for services".

Throughout this thesis, the term SEND is used to denote children with disabilities, as this study focused on those with Autism Spectrum Disorder (ASD), and was written in the UK for a UK academic institution. Additionally, since this thesis focussed only on individuals with ASD, and the term 'ASD' is used as a descriptor in the Saudi context, the thesis includes an explanation of the disability classification of those with ASD (see Section 2.5 of this chapter for a full explanation of the term 'ASD'). Therefore, throughout this thesis, the term ASD also used. Here, it is important to think at how disability is seen, as it affects both the individuals with SEND and the policies that provide support for such individuals. In the next section, I turn to focus on the models of disability.

2.3 Models of Disability

Many social scientists have found the concept of "disability" confusing, and they have struggled to provide an operational definition since there are different ways of understanding this concept (Haegele & Hodge, 2016). However, it is important to understand disability because it affects people and their ways of interacting with those with disabilities (Haegele & Hodge, 2016). Traditionally, in the literature, there are two main theoretical that emphasise different views regarding disability: the medical model of disability and social model of disability., in a school context, there are also different theoretical views of disability such as the interactional model of disability and organizational model of disability. Additionally, the affirmative model of disability and the new neurodiversity paradigm discussed in detail in the following sections.

2.3.1 The Medical Model

A medical model classifies a disability based on the medical impairment of bodily functions, which can be the result of injury, disease, or health circumstances (Dewsbury et al., 2004; Forhan, 2009). Thus, the medical model views disability as the result of a physical or mental deficit, and considers that the problem or 'deficit' requires medical treatment, in order for the individual concerned to fit in with, or to function within society (Brandon & Pritchard, 2011; Skidmore, 2004). Moreover, it considers that a disability places the individual concerned at a disadvantage; such individuals are considered to be disabled, since they are unable to function in the same way as other individuals (Roush & Sharby, 2011). The focus is on the individual body, rather than on an evaluation of how the environment operates around that body (Samaha, 2007).

The model also classifies the degree of disability, defining it under a range from mild to severe; this means that such individuals, who in the context of the present study were students, are considered to differ from those in wider society, according to the severity of their disability (Haegele & Hodge, 2016). As Lynas (2013) argued, within the medical model, students must change, in order to benefit from general education settings. According to the model, the educational context for treating those with SEND generally involves such individuals attending a special school, or the use of private classrooms for teaching only those with SEND (Palmer & Harley, 2012). Significantly, the model depends on medical professionals, who are considered to be the essential gatekeepers that can provide those with

SEND with access to education and resources (Haegele & Hodge, 2016). For example, according to the medical model, students with disabilities, such as ASD, must have a specific medical diagnosis, which categorizes them on a scale from mild to severe, in order to obtain access to educational services, such as inclusive settings.

Mason et al. (1994) emphasized equal opportunity for those with SEND argued that the medical paradigm focuses on impairment rather than their needs as individuals. This is also supported by G. Lindsay (2003) outlined a critical perspective on inclusive education, where he argues that the medical paradigm considers the view of medical professionals without considering the viewpoint of educators, such as teachers, in teaching students with SEND. Furthermore, the model does not consider the environmental factors that impact the disability, Researchers have argued that viewing disability through a medical model lens represents a failure to seek a solution beyond placing the responsibility on the disabled individual (Lewis & Norwich, 2004; G. Lindsay, 2003). This model can cause educators to have a negative view of working with children with SEND that engenders a negative assumption about such individuals, as the educators consequently perceive an individual's impairment, and not their needs.

2.3.2 The Social Model

In opposition to the medical model, the social model states that it is society that inflicts disability on individuals (Haegele & Hodge, 2016; Moore & Dunn, 1999; Shakespeare, 2017). The social model views the problem as located in the social, cultural, and political system, rather than focusing on the impairment itself (Haegele & Hodge, 2016). This model, developed by the disability movement, is based on the theories and principles of activist and educationalist such as Michael Oliver (Shakespeare, 2017). Goodley (2001) explained that the social model is based on the principle that disability and impairment are separate terms. Impairment is identified as a defect of the body, such as a limitation, and 'disability' is identified as the disadvantages caused by social associations that do not consider the needs of individuals with impairment and so exclude them from society (Goodley, 2001). In other words, the social model of disability suggests that it is not a function of the body that limits individuals' abilities but instead it is society.

Within the context of education, the social model is built on the belief that society presumed to take away all barriers that may lead to the exclusion of pupils with SEND (Goodley, 2001; Lewis & Norwich, 2004; Oliver, 1996). The social model promotes looking for and recognizing the problems within the educational settings rather than finding problems

within the individual (Oliver, 1996). It is believed that educators and teachers expected to improve educational settings to meet all students' needs, including the needs of those with SEND or those specifically with ASD. Thus, Frederickson and Cline (2015) argued that crucial within the social model is the rejection that there are children with *learning* difficulties and instead a focus on schools as having *teaching* difficulties. Hodkinson (2019) believed that the social model of disability promotes a more inclusive approach to education than what has previously been applied in education. Similarly, Oliver and Barnes (2010) indicated that due to the social model, individuals have improved their attitudes and awareness of the social and political barriers faced by those with disabilities, and necessitated inclusive education approaches for including those students with SEND (Villa & Thousand, 2005).

This model has been introduced to remove all obstacles faced by those with SEND and to provide opportunities for those with SEND so they have the same chances as all students. Within such a model, schools would support making changes in their learning environments and teaching methods to welcome and provide learning opportunities for students with SEND (Ainscow, 1999). Ainscow et al. (2004) also claimed that the social model has shifted the attention and focus away from the difficulties of the individuals to the difficulties of the school and classrooms and how they create barriers to learning for those with SEND. Additionally, the social model of disability also has changed how disability is viewed, and this has had a substantial influence on the relevant legislation, such in recent anti-discrimination laws. Mason et al. (1994) argued that the social model has a better impact compared to the medical model due to the more feasible goals that work in more diverse aspects. Furthermore, as it has captured the difficulties and struggles that minority and oppressed groups have faced, this model creates a better situation allowing them to live and access learning (Mason et al., 1994).

Basically, the social model of disability has had a considerable impact on efforts to improve inclusive education, and inclusive education research and practice always references the social model rather than the medical model (G. Lindsay, 2003). However, Bingham et al. (2013) argued that the main weakness of the social model is that it is trying to entirely separate impairment from disability, even though the individuals' characteristics are crucial to explain the educational experience of those with SEND (Barton, 1996). This view was also supported by Clough and Corbett (2000) who highlighted two decades ago the extensive contribution of the social model is related to the education of those with SEND has shifted from the special education sector to better inclusion in society at the level of rule and policy making. However, they also pointed out that the social model did not propose approaches for educators in schools

and classrooms when they face difficulties that appear due to individual students' characteristics.

It could be argued that both the medical model and the social model of disability have limitations. Indeed, neither of these models can give a complete picture of disability; each model focuses only on an aspect. For example, the medical model seems to disregard the role of environmental factors that create obstacles for students with SEND, as this model's focus is on changing the individual. On the other hand, the social model focuses on ensuring that the environment is welcoming to those with SEND, but disregards the role of individual factors. Thus, a focus on students with SEND supposed to be built on both the assimilation of the difficulties and abilities of the students and accommodation from the environment (G. Lindsay, 2003). In this regard, Frederickson and Cline (2015) argued that there is a need for a model that combines individual factors and environmental concerns in order to understand SEND. Such a model would give a better understanding and provides a universal view of those with SEND (Frederickson & Cline, 2015).

2.3.3 The Interactional Model

Both the medical and social models of disability help to understand those with SEND. However, the implementation of the medical model in education could lead to the segregation and isolation of those with SEND, while implementing the social model would lead to inclusive education (inclusive education is discussed in detail in this chapter) (Hodkinson, 2019). G. Lindsay (2003) argued that there was a need for a model that acknowledges the needs of children by taking into account their weaknesses and strengths and considering the nature of their environment. Therefore, the interactional model was introduced, which interacts between the two main elements: (1) difficulties within the educational environment, and (2) difficulties relating to within-child factors (G. Lindsay, 2003). In other words, its consider the educational provision, the level of support, and the student's weaknesses and strengths (Frederickson & Cline, 2015). Such a model seems more in the line with the principles of inclusive education, as it uses both the medical and social models in conceptualising SEND (G. Lindsay, 2003)

Furthermore, different researchers (Frederickson & Cline, 2015; G. Lindsay, 2003; Norwich, 2002; Skidmore, 2004) have argued that it is not possible to separate students' education from the contexts of the external environmental, since both the individual and the environment can alter over time. Consequently, when dealing with a child with ASD, we expected to look at his or her weaknesses and strengths at the same time as examining other

environmental factors, such as curriculum, teaching methods, teachers' practices, and so on (G. Lindsay, 2003; Norwich, 2002). Therefore, Norwich (2002) believed that the debate between the use of the social and the medical model is moot, as disability can be conceptualised according to both models. In the classroom, the medical model should be applied if the focus identifies certain additional support for a learner, and the social model should be applied if the focus is on preparing curricula to meet requirements for a variety of individuals (Norwich, 2002).

2.3.4 The Organizational Model

In a school context, there is a need for a model that focuses on removing the difficulties embedded in the school system itself, leading schools to accommodate the needs of all students. The organizational model considers that the difficulty lies not in the individual, but in the school system (Skidmore, 2004). The model's main concept "sees difficulties in learning as arising from deficiencies in the way in which schools are currently organized: concomitantly, the solution advocated is to restructure schools to remove these difficulties." (Skidmore, 2004, p. 7). The organizational model adopts a more real-world approach to inclusive education that addresses the diversity of all students. This approach was supported by Villa and Thousand (2005), who recommended a "zero reject" school that is restructured to address the needs of individual learners, including those with SEND.

Ultimately, the theoretical views of these models are all worthy of consideration, as they provide a comprehensive understanding and definitions of disability, including ASD. The medical model is helpful for diagnosis and for identifying specific educational provision requirements, while the social model requires educators to demolish barriers, and to create environments that allow those with SEND to participate, However, both of these models provide a theoretical view, without including supportive empirical evidence (Skidmore, 2004). In contrast, the organizational model focuses on removing the difficulties of the school system, by restructuring it to create an inclusive school programme that meets all students' needs.

2.3.5 The Affirmative Model

Another model that conceptualized disability was proposed by Swain and French (2000), who claimed that the group identity developed through the disability movement has assisted the development of an affirmative model. An affirmative model is defined as a "non-tragic view of disability and impairment which encompasses positive social identities,

both individual and collective for disabled people grounded in the benefits of lifestyle and life experience of being impaired and disabled" (Swain & French, 2000, p. 570). In other words, this model of disability illustrates that those with SEND should feel positive and proud about their disability identity. This model also expresses the voices of those with SEND who say, "this is who I am why would I want to change". Glazzard (2018) argued that an affirmative model rejects the view of the medical model, but it develops within the social model by demonstrating that disability is valid and by improving the lifestyle. This model celebrates differences of race, culture, gender, age, and disability; also, it views diversity as a positive force that enriches people's lives (Glazzard, 2018); this is related to the neurodiversity paradigm, which will be discussed in the next section.

2.3.6 The Neurodiversity Paradigm

ASD is often conceptualized based on the two models discussed earlier in this chapter: the medical model and the social model. However, there is a new term 'neurodiversity', which stemmed from the autism rights movement in the 1990s and was coined by an autism activist Judy Singer. Walker (2014) defined neurodiversity as "the diversity of human brains and minds the infinite variation in neurocognitive functioning within our species". Neurodiversity is the biological variation in neurocognitive functioning within the human species, and includes a wide range of neurocognitive styles, including bipolar disorder, obsessive compulsive disorder, autism, and ADHD, as well as a range of other disorders (Walker, 2014). In other words, the neurodiversity movement promoted the discussion of brain diversity as we discussed cultural diversity, as those with ASD have a different kind of brain and different ways of thinking. This movement was formerly used by those in the ASD community, who were keen to move away from the medical model of disability and reject the belief that ASD is something to be fixed. Instead, they sought to change society to make it more welcoming of those with ASD and other neurodivergent groups (Department for Education, 2016).

In relation to education for those with SEND, neurodiversity involves a rejection of the traditional notion that involves division into SEND categories, such as ASD and ADHA, as explained in Section 2.2 (Armstrong, 2021). A neurodiversity paradigm is based on the recognition that so-called SEND categories contain a great deal of variance (Lewis & Norwich, 2004). Still, the paradigm is founded on the ultimate idea that all humans are neurodiverse, which means that learning differences are a normal part of human differences, and that this

difference might be considered as a human ecosystem (Armstrong, 2021). Armstrong also suggested that an understanding of learning differences such as neurodiversity can represent a paradigm shift in conceptualising learning and thus in classroom teaching approaches. Armstrong (2021) explained the differences between teaching within a special education approach and teaching within the neurodiversity approach in the following ***Table 1***:

Table 1 Special Education and Neurodiversity Approach Differences

	Special Education approach	Neurodiversity approach
Emphasis	Disability	Diversity
Instructional approaches	Remediating weaknesses	Building on students' strength to overcome challenging
Theoretical Foundations	Genetics, neurobiology	Evolutionary psychology, social and ecological theory
Student Goal	Learning to live with your disability	Learning to maximize your strengths and minimize your weaknesses

Within the neurodiversity paradigm, when teaching those with SEND, teachers should not seek to 'fix' or 'repair' the student's disability, but they should seek to discover the student's best development, as Armstrong argued that the neurodiversity paradigm objectives involve using the developing literature on the strengths of students with SEND and emphasising also students' interests, abilities, and gifts. Ultimately, this movement focuses on improving quality of student's life by reducing barriers to inclusive education through shifting of attitudes, changing social and physical environments, and working with autism community (den Houting, 2019). den Houting, therefore, claimed that it's the time to re-examine the educational needs of students with ASD from different stakeholder viewpoints within the ASD community to support inclusive in schools informed by the neurodiversity of student needs.

2.4 Inclusive Education

This section provides a brief history of inclusion, the definitions for integration, inclusion, and inclusive education which are utilised in this study. Further, I consider understandings of inclusive education, autism spectrum disorder, and teachers' understanding regarding inclsuvie education. I draw specifically from UK based literature, as this study is written in England, and I also reference literature from Saudi Arabia as that is the context where it is carried out, and that context is primarily modelled on US systems.

2.4.1 Brief History of Inclusion

Since the social model of disability was introduced, there have been many shifts to academic and general approaches for educating students with disabilities, moving from the special education sector to one of inclusive education (Frederickson & Cline, 2015; Hodkinson, 2019). However, in order to understand inclusive education, a brief review of legislation could enhance understanding of how inclusive education has been introduced, since legislation provides those with disabilities the right to an inclusive education. In the UK, the concept of inclusion originated in the early 1900s with the welfare pioneers, who believed in a school system without segregation (O'Brien, 2001). The concept of inclusion progressed in the 1960s and 1970s, as civil rights movement called into question the policies of segregation operating in the UK (O'Brien, 2001). In the late 1970s, the Warnock Report (Department for Education and Science (DES), 1978) was the outcome of these social movements; it was a policy which increased the numbers of pupils with SEND educated in inclusive settings (Glazzard, 2018).

In the US, the concept of inclusion rights for students with disabilities is guaranteed by the 1975 federal law, the Education for All Handicapped Children Act Public Law 94-142, which is called now the Individuals with Disabilities Education Act (IDEA, 2004). IDEA ensured that students with SEND are to be provided with free, appropriate public education that meets their individual needs. Internationally, no legislation that emphasised inclusive education was passed until 1989, when the United Nations Convention on the Rights of the Child (UNICEF, 1989) required inclusion as a key principal for educating students with SEND; it was the first time that policy makers worldwide had been pushed to consider inclusive education for students with disabilities. ***Figure 2-1*** below summarises the development of international policies and declarations from the 1960s until 2015.

1960	UN convention against discrimination in education
1975	The rights of Disabled person
1989	convention on the right of the Child
1990	UNESCO Declaration for All
1994	Salamanca Declaration by UNESCO
2000	Dakar Framework for action on education
2006	UN convention the right of persons with disabilities
2015	Ncheon Declaration by UNESCO

Figure 2.1. International policies and declarations from the 1990s until 2015.

A significant change in inclusive education for those with SEND happened when 99 countries and 25 organizations (including the US, the UK, and Saudi Arabia) attended the conference in Salamanca, Spain, in 1994 and signed the Salamanca Declaration, thus confirming their commitment to inclusive education (UNESCO, 1994). This commitment stated that each child has a right to education and he or she must be granted with a full chance to achieve an acceptable level of education (Hardy and Woodcock, 2015). This historical declaration highlighted the inclusion of students with SEND and the importance of providing supportive learning for them. This statement represents the most substantial international document regarding the education of those with SEND (Ainscow, 2007). Subsequently, Ainscow (2020) declared that there was a growth of interest in inclusion following this declaration, which demonstrates the value of equal opportunity, social respect, and solidarity for those with disabilities. Lastly, the recent notion of inclusion was introduced by Incheon Declaration by (UNESCO, 2015). Where this declaration emphasised providing equal access and quality learning for *all* students (Ainscow et al., 2019)

2.4.2 Definitions of Inclusion

The definition of inclusion is an issue in education systems around the world as there is no universal definition for inclusion (Finkelstein et al., 2019). Different policies have provided different interpretations of inclusion (Glazzard, 2013). Norwich (2005) raised the question of whether inclusion means including students with SEND in mainstream schools or whether it refers to inclusion in society. A review of the literature shows that there are many aspects to inclusion, which can be considered from different views.

The first view of inclusion can be seen as including each child in the education system without giving any consideration of exclusion as Florian (2019, p. 3) explained this view "where all were welcome and no one was excluded". This perspective can be seen in the definition given by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2005, which viewed inclusion as the process of meeting the full range of students needs' by growing the enrolment of students in that learning to reduce exclusion from education (UNESCO, 2005). The same view can also be seen in the definition by Potts (1997), who stated that inclusion means increasing the involvement of students and decreasing exclusion from learning settings. Barton (1998) also defined inclusion as the participation of all students and the removal of all manners of exclusion. The focus of these definitions is on

students' right to be in settings which have no discrimination, thus allowing them to participate in appropriate forms of education.

Another understanding of inclusion is a political view, and looks at inclusion as an individual right and a form of social justice. This view could be seen in the definition by Clough and Corbett (2000), who considered inclusion as the right of access for all individuals without any restrictions. The same view is found in Puri and Abraham (2004) in their chapter *Why Inclusion?*, where they viewed inclusion politically based on individual rights and access to justice for those who face any form of discrimination. These definitions of inclusion focus mainly on political strategies which argue that society supposed to be equal, and it seems that they see inclusion as a response to discrimination.

The third view looks at inclusion as always being associated with SEND. This perspective can be seen in the context of the United Arab Emirates, where the special education department (Special Education Dept, 2010) defined inclusive education as those with SEND accessing education in an ordinary classroom with students of the same age who don't have special needs. Within Bangladesh, policy defines inclusion as putting children with SEND into mainstream settings for learning with proper facilitates that address their needs (Kibria, 2005). In the Saudi context, the concept of inclusion is similar to definitions used in the United Arab Emirates and Bangladesh, as the RRSEP (2002) policy defined inclusion as educating those with SEND by providing services for special education (Ministry of Education, 2002).

Generally, researchers argue that understandings of inclusion differ in each context (Barton, 1998; Norwich, 2008). Ainscow et al.'s (2006) book Improving Schools, Developing Inclusion, which for long time served as a model for applying inclusion, introduced six ways that inclusion could be understood: (1) as a concern for those with SEND; (2) as a reaction to exclusion; (3) as those groups who are seen as vulnerable; (4) as in creating a school that is for all students; (5) as education for all; and (6) as a principle for society and education.

At the same time as seen in recent years that shown an increase of interest in of the idea of inclusive education, it is still confused as to what inclusive education implies. Slee (2004) has claimed that the idea of inclusive education is presenting signs of jetlag and is increasingly used to mean many different things. In many different contexts, inclusive education is still thought of as an educational approach to teach students with SEND within general education classrooms. However, in other contexts, it seen more broadly as a reform that supports and welcomes diversity amongst all students such as the UK context, where inclusive education seems no longer linked with SEND, but rather with school appearance or behaviour (Ainscow

et al., 2006). Moreover, many researchers and policies have focused on inclusion as including those with disabilities or within a SEND group without considering others who may be excluded. However, inclusion is not only related to those groups (Norwich, 2013).

Disability is one of the diverse groups that had been traditionally excluded; other diversity groups that may have experienced varying degrees of exclusion include groups according to gender, sexuality, race, culture, and/or socio-economic status (Norwich, 2013b). Besides, Slee (2004) also argued that there are principals, school psychologists, or administrators who from time-to-time lead students away from their local schools. Therefore, inclusion has changed its focus in recent years and it's now not only about students with disabilities or SEND but includes bigger issues also such as educational reconstruction and school reform (Slee, 2004). This is supported by the Incheon Declaration in 2015 that makes sure inclusive and equitable quality education and promote lifelong learning opportunities for *all* not only those with disabilities (UNESCO, 2015).

A concern in defining inclusion only around disability is that children and young people from other diversity groups can be ignored and experience exclusion (Ainscow et al., 2006). The assumption that inclusion is always linked with disabilities or those with SEND is seen in many different definitions across contexts, such with the UAE definition (Special Education Dept, 2010) and the definition provided by Kibria (2005) regarding South Asia. To this concern, Tutt (2007), who wrote a book *Every child included*, and raised the voice of those who are excluded from educational settings, believed that the issue of associating inclusion only with SEND ignores the plight of others, such as those who have experienced trauma, missed assessment, experienced bullying, and suffered mental health issues.

Some educational contexts justify linking their definition of inclusion exclusively with SEND, since those with SEND had long experienced exclusion from both education and society. Norwich (2013a), indicating that explanations of inclusion mostly associated with those with SEND (e.g. UNESCO, 1994), found that articles were three to 15 times more likely to link disability with inclusive education than linking it with diversity groups such as ethnicity and gender across the English-language research databases in US, UK, and Australia (Norwich, 2013a).

Another concern around definitions of inclusion is that it is often linked with access and placement (Tutt, 2007), evident for those who define inclusion as a movement to place or integrate students with SEND into the general education classroom without mentioning the broader educational system. Conversely, Mitchell (2005) argued that inclusion involves the

right of a child to become a member of not only the mainstream classroom but also the school and to receive suitable aids and support services. Regarding this, Norwich (2008) argued that since the 1990s, there has been a movement to shift to inclusion rather than integration, terms which are discussed in the next section.

2.4.3 Inclusion and Integration

It is important to point that the frequent confusion between integration and inclusion, as some studies use these two terms interchangeably when talking about inclusion (Norwich, 2008). The term 'integration' was introduced before the term 'inclusion'; for example, the UK's Warnock Committee (1978) used the word 'integration' to represent what has more recently been called inclusion (Department for Education and Science (DES), 1978). In the US, Fish (1985) talked about integration as providing placement for those with SEND in mainstream settings. It would seem that integration is more about the accommodation or placement and the right to access schools, while inclusion refers to a more holistic approach, as it is more connected to the student's participation in and belonging to the school (Booth & Ainscow, 2002).

Norwich (2008) described integration as placing those with disabilities in a general education classroom without any form of structural adjustment, whereas inclusion focuses on reforming the whole school to support the inclusion of students and their diverse needs. Glazzard (2018, p. 300) described the policy of integration as a "dump and hope" standard, that focusing on those with SEND "being present" in the inclusive classroom without paying attention to the quality of their education. In contrast, inclusion is a practice where the school works to respond to individual students through reassessing the educational organisation and provision to meet all students (Booth & Ainscow, 2002). This definition seems to view inclusion as a process rather than a goal, that is, as an ongoing process that emphasises students with SEND be included in the school. Norwich's (2008) view is supported by Ainscow (2005), who argued that it is essential for a school to undergo reform to consider including the wide range of diversity between all students.

Furthermore, inclusion has a significant aspect that is not emphasized in integration, which is students engaging or learning together (Avramidis & Norwich, 2002). Similarly, O'Brien (2001) argued that inclusion is not simply attending a mainstream school but, more crucially, the activity of students learning together. The term "engaging" means that the school

welcomes and values each student; schools that apply inclusion promote the valuable practice of viewing all individuals in the school as beneficial (Ainscow, 2005). Students with ASD also highlighted the importance of valuing individual differences and the sense of belonging in inclusion (Goodall, 2020). Goodall's study explores the educational experiences of 12 students with ASD (aged 11–17 years) focusing on how these students experience and define inclusive education. A qualitative participatory approach was used including semi-structured interviews and drawing and writing activities. The participants defined inclusion as belonging, as being valued; all of them viewed inclusion as a feeling (belonging), not just a place (Goodall, 2020). This is also supported by Avramidis and Norwich (2002) as they understand inclusion as belonging, where integration is the first step of the process of achieving belonging.

Since the term "inclusion" was introduced in the Salamanca Statement in 1994, it has been used globally (Demetriou, 2020). Norwich (2008) argued that inclusion emphasises important social and political value obligations that apply to inclusive education. The process of inclusive education started the movement from segregation to integration to inclusion and then to inclusive education. However, both Avramidis and Norwich (2002) in the UK and Hassanein (2009) in Egypt recognised the overlap between the terms integration and inclusion, as they have sometimes been used synonymously (Hassanein, 2009), and so the language used to describe both inclusion and integration is sometimes problematic and confusing (Avramidis & Norwich, 2002). This could be seen clearly in the Arabic language, the official language of Saudi context, as both integration and inclusion are translated as "Al-damj". This leads to confusion regarding the exact meaning of the term (Hassanein, 2009). Similarly, both inclusion and integration have been confused in French (Thomazet, 2009).

2.4.4 Inclusive Education Definition

In this study, I am strongly focused on inclusion and not integration. Inclusive education has a narrower emphasis than inclusion as an educational concept (Spandagou et al., 2020). Inclusive education, as defined by Booth and Ainscow (2002), refers to a method of increasing participation in the culture and curriculum of an inclusive classroom and reducing exclusion from the school community. Winter and O'Raw (2010) defined an inclusive school as one that accommodates the individual needs of all students and values diversity as its crucial approach to developing the teaching practice. As the purpose of this research was to explore inclusion in the Saudi context, it should be noted that the term 'inclusive education' is used in this thesis, as it is employed in the Saudi context to denote students with SEND; the schools that were the

focus of this research are called 'inclusive education schools' (Tatweer Company for Education Services, 2016a). (see Chapter Three for an explanation of Saudi context); the term is further used in recent global policy (UNESCO, 2015).

Table 2 Summary of inclusion definitions

Authors		***Inclusion definitions***
UNESCO	***2005***	Inclusion is a process of meeting the diverse needs of all students by increasing students' participation in learning and reducing exclusion for them in education.
Barton	***1998***	Inclusion is participation by all students and the removal of all manners of exclusion.
Potts	***1997***	Inclusion means increasing students' participation and decreasing their exclusion from learning settings.
Puri and Abrahms	***2004***	Inclusion is a political matter based on individual rights and social justice in the face of any form of discrimination.
Corbett and Slee	***2000***	Inclusion is the right to access for all individuals without condition.
UAE	***2010***	Inclusion refers to those with SEND being educated in a general classroom with their peers without disabilities.
Kibria	***2005***	Inclusion is putting children with SEND into general education settings to learn with support that addresses their needs.
RRSEP	***2002***	Inclusion is educating those with SEND in general education classrooms by providing the services of special education.
Mitchell	***2005***	Inclusion is the right for a child to become a member of not only the mainstream classroom but also the school and to receive suitable aids and support services.
O'Brien	***2001***	Inclusion is not simply attending a mainstream school, but more crucially, learning together.
Winter and O'Raw	***2010***	An inclusive school is a school that accommodates the needs for all individual students and values diversity as its crucial approach to developing their learning practices.

The literature above reveals the complexity of definitions of inclusive education and demonstrates that there is no one universal definition of such a concept (Ainscow, 2005). However, inclusive education can be seen to have a range of features, and Table 2 above provides a summary of these features. These features include: (1) the right for students to access education regardless their needs (placement and access); (2) schools' ability to accommodate the diversity of students (meeting the student's needs); (3) participation by all students (student engagement); (4) the removal of all manner of exclusion/discrimination; and (5) celebrating all students who attend the schools (being welcomed and valued). These features were found in various forms in all of the definitions provided in this section, revealing their importance in implementing inclusive education. For the purpose of this study, and when investigating the case study of this thesis, inclusive education is recognized as having these different features.

This research is focused on inclusive education for children with SEND, and within that group, it is directly concerned with including children with Autism Spectrum Disorder (ASD). Next section, I turn to focus on discussing ASD.

2.5 Autism Spectrum Disorder (ASD)

The term 'autism' was first used by Leo Kanner in 1943 when describing a subgroup of symptoms in schizophrenia; he suggested this term after studying 11 children who demonstrated repetitive behaviours and social interactions (Higgins et al., 2005). Hans Asperger in 1944 also studied four different children who had difficulty socialising with others, a condition which was subsequently named as Asperger's syndrome (Wing, 1981). Then, in 1987, the American Psychiatric Association (APA) published the Diagnostic and Statistical Manual of Mental Disorders (DSM-3) which defined autism as a disorder that is not a part of childhood schizophrenia; this was the first formal acknowledgment of the term 'autism' (Kenny et al., 2016).

According to the fourth edition, DSM-4 (American Psychiatric Association, 2000), autism is a lifelong neurodevelopmental disorder described by deficiencies in social interaction, verbal and non-verbal communication, and a restricted repertoire of activities and interests. Another manual used early on for ASD diagnosis criteria internationally is the tenth edition of international classification of mental and behavioural disorders (World Health Organization (WHO), 1992). This manual still uses terms such as "childhood autism" and "atypical autism"; however, these terms were introduced in the 1990s, and the approach itself may be subject to changes when the ICD-11 is due to be published in January 2022. Additionally, the WHO employed term "ASD" (World Health Organization (WHO), 2019).

In May 2013, the American Psychological Association published the fifth edition, DSM-5 (American Psychiatric Association, 2013), which included the most controversial changes regarding the diagnosis of autism. The changes are as follows: (1) the term 'autism' was replaced with a new term, namely, Autism Spectrum Disorder (ASD), and there are no longer terms such as autistic disorder, Asperger's syndrome, or pervasive developmental disorder not otherwise specified (PDD-NOS), as all of them have been joined under the one umbrella of ASD; and (2) ASD does not include Rett syndrome, as it is diagnosed as a discrete neurological disorder in the DSM-5. In DSM-5, the symptoms of ASD are divided into social

and communication interaction, and restricted and repetitive behaviour (American Psychiatric Association, 2013).

2.5.1 Characteristics of Individuals with ASD

Much like the rest of the population, each individual with ASD is unique, and no case is identical in individuals with ASD (Glazzard & Overall, 2012). Autism is inherently a spectrum disorder, individuals present with a considerable variation in skills and behaviour (Allen & Yau, 2019). Some individuals with ASD may show mild symptoms and others may have much more severe symptoms, with different levels of ability regarding cognitive skills, including verbal and non-verbal intellect, working memory, attention, and planning, which could affect learning experiences (Hodges et al., 2020). Furthermore, individuals with ASD present different behavioural characteristics, depending on age, language, and cognitive abilities (Hodges et al., 2020). The characteristics of those with ASD were classified in the DSM-5 (American Psychiatric Association, 2013) recategorized these characteristics into two specific areas: (1) deficits in social interaction and social communication across several environments; and (2) restricted, repetitive patterns of behaviour, interest, or activities.

The DSM-5's definition of ASD includes impaired communication and social skills, as those with ASD may have difficulty in verbal and nonverbal communication and may exhibit problems with vocabulary, limited eye contact with others, and limited use of facial expressions to convey meaning (Hodges et al., 2020). The domain of social skills includes a lack of interest in other people, difficulties in imaginative play, and a lack of participation in age-appropriate social activities (Hodges et al., 2020). Many of those with ASD have difficulty forming friendships with others, or they respond inappropriately or misread nonverbal interactions. DePape et al. (2012) described individuals with ASD as speaking in a monotonous way, and they also face difficulties understanding different inflections when they talk with others, though the level of difficulty varies, from being unaware of how other people feel to being unable to communicate feelings to others.

Moreover, those with ASD may have difficulties reading the straightforward emotions of others, such as sad and happy emotions (Conallen & Reed, 2016). Riby et al. (2013) found that individuals with ASD struggle to match their feelings with pictures given to them; eye tracking has been used in this study to explore how those with ASD interpret social acts and how they fail to understand the gaze of others. Participants in Riby et al.'s research included young people with ASD (aged 13 - 24); they were provided with images of different drawn

faces, with some images facing in different directions, and other images expressing feelings such as happy and sad faces. Participants with ASD were asked to simply point out which images were looking at them and which images showed a "happy" face. The findings showed that some of those with ASD failed to read facial expressions. In this regard, Conallen and Reed (2016) argued that understanding these emotions can play a part in the development of different social and emotional skills in those with ASD, such as the ability to form friendships and understand social interactions.

Characteristics exhibited by those who are diagnosed with ASD include repetitive and restrictive behaviours (American Psychiatric Association, 2013). Chauhan and Chauhan (2006) argued that a common characteristic for those with ASD is to be overly dependent on specific routines, while most individuals are also sensitive to unusual environments. Changing routines for those with ASD may lead them to feel anxiety; however, this varies between individuals (Newschaffer et al., 2007). Cashin and Barker (2009) claimed that some individuals with ASD do not to know how to deal with changing routines, as they prefer doing things in an ordered "and at times ritualistic, manner" (Cashin & Barker, 2009, p. 29). For example, Warren et al. (2020) conducted a study with 5 students with ASD (aged 9–11) and their 6 teachers regarding the students' everyday experiences, including transitions between special (some schools in the UK offer resource-based rooms) and inclusive classrooms in schools in the UK; the qualitative visual storyboard methodology findings with students with ASD emphasised the importance of friendship and peers in the school that could help them to transit between classrooms. The findings also emphasised that students with ASD need structure and routine, such as having a choice of which activity they want to do after transition, as they frequently chose handwriting as a routine associated with their calm time, and listening to a book was introduced to relax them so they could resume learning after transition (Warren et al., 2020). Additionally, repetitive behaviours and sensory issues of those with ASD may manifest as noisemaking, covering or rapidly blinking their eyes, flapping their hands, or forms of obsessive behaviour (Chauhan & Chauhan, 2006). Additionally, it is common that some of those with ASD may have other comorbid conditions such as ADHA, sleep disorders epilepsy, or intellectual disability (Allen & Yau, 2019). Thus, individuals with ASD may struggle to understand or to communicate their needs to their teachers and classmates (S. Lindsay et al., 2014).

2.5.2 Language Describes Individuals with ASD.

While the DSM-5 criteria has been the largest and best-known diagnosis of ASD, and it has been adopted in health and education systems globally, including in the Saudi context (Tatweer Company for Education Services, 2016c, 2016b) and hence, the term "ASD" is used in this thesis. However, Linton et al. (2014) argued that there are debates between researchers, scientists, and those with ASD and their families about the best way to conceptualise autism. In considering terminologies, people from the disability rights movement believe that seeing disability through the medical model of disability as a medical condition that needs to be "fixed" makes those with a disability dependent on others, which they believe is prejudicial to individuals with a disability (Shakespeare, 2017). Oliver (1996), who proposed the social model of disability, considered disability more inclusively within a social view and believed that disability should not be seen entirely as an issue that affects the individual; it should also take account of the way of society responds (models of disability discussed in Section 2.3).

There is no agreement in the literature about the terminology that should be used for describing autism, and there has been an increase in debates regarding this in recent years (Botha et al., 2021; Bury et al., 2020; Kenny et al., 2016). Person-first language is one of the ways to describe those with SEND, which was originally proposed in the 1970s as an alternative to "disabled", or "handicapped" (Vivanti, 2020). Vivanti (2020) explained that person-first language sets the individual "person" first before a diagnosis, which increases a positive social identity as the language, has power, and can influence an individual's perspective on ASD. Examples of person-first language include terms like "individuals with autism" rather than "the autistic" or "the disabled"; the aim is to refer to the individual first and then the disability (if needed). Others explain that person-first language has been preferred due to its focus on the identity and the human aspect of the person rather than their disability (Wright, 1983). However, the use of person-first language has been criticised for emphasizing disability and continuing stigma. Andrews et al. (2019), for example, argued that using such language may lead to the idea that having a disability is somehow "bad" and that therefore it should be separate from the person.

On the other hand, other researchers claimed that the term "autistic" or "disabled" is the term preferred by the autism community (Kenny et al., 2016), a study showed that 40% of 198 Australian adults preferred to be called 'autistic' rather than 'person on the autism spectrum" (Bury et al., 2020). It been argued that the use of "autistic" in describing those with

ASD is more useful; the word can acknowledge both who they are and what their disabilities are as some of those diagnosed with ASD are proud to be called autistic, stating that it forms a part of their identity (Dunn & Andrews, 2015). Moreover, these views are similar to those of the "neurodiversity paradigm" (discussed earlier in Section 2.3.6), which views autism as a cultural expression that should be valued and celebrated as part of the individual's identity (Robertson & Ne'eman, 2008). However, there is no agreement even in the autism community about the language that should be used (Bury et al., 2020).

Ultimately, Robison (2019, p. 1101) wrote an article titled "Talking about autism - Thoughts for researchers" where he argued that "autism is a highly heterogeneous condition, and the proper descriptive language is heterogeneous too, language that is appropriate to one person is offensive to another". He added, "It is hard to choose words that will be universally acceptable because people's underlying feelings vary so much". In my thesis, I believe Linton et al.'s (2014) claim that language plays a crucial role for people working with ASD, as it drives the assumptions and beliefs about those with disabilities and ASD. Therefore, this thesis uses person-first language, as this language conveys a more positive educators' attitude about those with disabilities and supports the inclusive education approach based on the social model aspect within an interactional approach to disability. Additionally, the use of person-first language in this thesis is also for the reason that it has been used in most of the policies regarding individuals with disabilities and those with SEND, such as the SEND Code of Practice in the UK (DfE & DfH, 2015), the Individuals with Disabilities Education Act in the US (IDEA, 2004), and in all recent policies in the Saudi context, such as a recently created government authority in Saudi Arabia, namely, the Authority for the Care of People with Disabilities, which was founded in 2018 (The Care of People with Disabilities (APD), 2020).

2.5.3 Prevalence of Individuals with ASD

The prevalence of ASD varies across different contexts/countries. In Saudi Arabia, there is no specific data that can give an accurate statistic of the number of individuals with ASD. Al-Salehi et al. (2009) suggested that the prevalence of ASD in Saudi Arabia is estimated to be 1.8 in 1,000 children. However, taking into account global rates, Aljarallah et al. (2007) estimated that 1 in 167 children in Saudi Arabia has ASD. The Care of People with Disabilities (APD) in Saudi Arabia suggested that there are 53,282 people with ASD in Saudi Arabia, though this number is accompanied by a caveat on their website that this is not accurate number

(The Care of People with Disabilities (APD), 2020). Battal (2016) counted students who received additional support within the Saudi education system and found that 925 male and 437 female students with ASD were present in Saudi schools during the academic year of 2015/2016. I searched for the rates of those with ASD during the recent academic years from 2016/2017 until 2020/2021, but found no data. I also emailed both the Ministry of Education and the special education authority without having a response.

Zeina et al.'s (2014) study confirmed that no study has been conducted about the prevalence of ASD in Saudi Arabia and suggested there is a need to examine the process for diagnosing ASD. The limited amount of prevalence data regarding those with ASD raises concerns about accessing a diagnosis of ASD in Saudi Arabia. For example, Alnemary et al. (2017) investigated intervention services available for children with ASD in Saudi Arabia and suggested that many pupils with ASD have not been identified due to issues with appropriate diagnosis. Zeina et al.'s study sample included a survey distributed to the parents of 205 children with ASD; they found that those with ASD did not receive any early intervention since they were not diagnosed early enough, and researchers believe that an early diagnosis of those with ASD results is key for better intervention leading to the right to access services.

From my own experience as a special education teacher, and following various conversations with parents of those with ASD, the main difficulty in obtaining a diagnosis in the Saudi context is due to the fact that those with ASD are served by separate authorities in the country, namely the Ministry of Health, the Ministry of Education, and the Ministry of Human Resources and Social Development, which causes confusion for parents regarding where to obtain the appropriate services for their children, including ASD diagnosis.

Almasoud (2011) carried out another study also examining availability of intervention services and support for those with ASD by surveying the opinions of 36 parents in Saudi Arabia. The findings of this study reported that 88% of the parents were satisfied with the services provided to those with ASD in Saudi Arabia, though they also stated that there was confusion regarding the diagnostic process for ASD, as it was not clear how to access diagnostic services in Saudi Arabia. Therefore, it could be argued that this delay in diagnosis would lead to a delay for those with ASD accessing services as well as educational support. The diagnosis is essential in allowing those individuals with ASD to receive a suitable education that meets their needs (Jordan et al., 2008). Likewise, it helps gather data regarding how many individuals have been diagnosed with ASD and have been provided with the appropriate services, as well as helping the teachers of those with ASD (the focus of this study),

by providing them with more knowledge about the level of needs, including the weaknesses and strengths of the students who have been diagnosed with ASD.

Internationally, the prevalence of ASD varies. For example, the WHO in 2019 estimated that 1 in 160 children globally have ASD (World Health Organization (WHO), 2019). In different international contexts, such as the UK, the National Health Service (NHS) estimated in 2019 that about 1 in every 100 people in the UK has ASD. However, in the US, the Centres for Disease Control and Prevention (CDC) in 2019 estimated that about 1 in 54 pupils in the US had been diagnosed with ASD, while it was 1 in 88 in 2008 (CDC, 2019). Additionally, the CDC also agree with the general consensus that males are four times more likely than females to be diagnosed with ASD (CDC, 2019).

The number of those diagnosed with ASD has increased significantly in recent decades, and questions are often asked about the reasons for this. For example, in the US, the number of those with ASD more than doubled between 2010 and 2012 (CDC, 2019). However, it is difficult to prove or disprove that the increase is based on one element only. Many studies have been written about this dramatic increase in the prevalence of ASD, and reference causes such as; a) including statistical criteria that had been focused on to the exclusion of others, such as group age, b) the shift from diagnosis of intellectual disability to a diagnosis of ASD, c) a diagnosis of ASD for individuals who had previously not been diagnosed due to barriers from parents or clinics, and d) the increase in community awareness of ASD resulting in greater access, such as school and services (Hodges et al., 2020; Williams et al., 2014). Similarly, Russell and Norwich (2012) claimed that some studies have calculated the high prevalence rate by including those who were documented as having shown symptoms but who had never been diagnosed with ASD.

Finally, a factor that has affected the estimated prevalence of ASD because, is the criteria for identifying ASD based on DSM-5, which was updated in 2013. The characteristics for identifying ASD on DSM-5 have become wider and including different groups such as those with pervasive developmental disorder (PDD) (American Psychiatric Association, 2013). Hodges et al. (2020) revealed, the DSM-5 definition is also intended to promote the diagnosis of ASD at an early age, this means that there is a greater screening of those with ASD; thus making the diagnosis more prevalent. Consequently, Hodges et al. (2020) indicated that the ASD rates in DSM-4, compared with DSM-5, indicate that the rate of diagnosis increases twofold with the DSM-5 diagnostic criteria.

2.5.4 Educational Perspective of ASD

The earlier sections focused on the definition, diagnosis, prevalence, and characteristics of individuals with ASD. Those with ASD are now described as being under one umbrella of autism, which is viewed as a developmental disorder that is characterised by deficits in social interaction, communication impairment, and the presence of repetitive behaviours (American Psychiatric Association, 2013). Pupils with ASD show difficulties when higher-level language processing (Van Der Steen et al., 2020). Consequently, those with ASD face a range of learning difficulties that interfere with their academic performance (Van Der Steen et al., 2020). Generally, students with ASD do not reach the same academic outcome as their peers without disabilities (National Research Council, 2001; Van Der Steen et al., 2020).

In considering education, different contexts have different approaches for viewing those with ASD, which in turn affects the support and intervention services available for those with ASD. In the US, the DSM-5 definition and criteria are mainly used for the medical diagnosis of those with ASD, while IDEA (2004) is used to identify an educational placement for children with ASD (Lawrence, 2016). The IDEA (2004), from which Saudi policy and definition are derived, considers a range of special educational needs, including 14 different disability categories, such as ASD. IDEA (2004) defined ASD from the perspective of deficit and the impact this individual deficit would have on their educational performance. ASD, as presented in IDEA, is a developmental disability that considerably affects verbal and nonverbal communication and social interaction; it appears before the age of three years and affects educational attainment (IDEA, 2004).

In the UK, educational provision was set out in the *SEND Code of Practice* in 2015; in this policy, there are four general areas called "broad areas of need". Areas include communication and interaction (ASD is included under this area); cognition and learning; social, emotional, and mental health difficulties; and sensory and/or physical needs (DfE & DfH, 2015). However, the Good Autism Practice Report in the UK introduced by Guldberg et al. (2019) addressed four areas in education that impact the learning of students with ASD; 1) interacting, playing, and developing relationships 2) processing information 3) taking in and perceiving sensory information 4) communicating, understanding and using language (Guldberg et al., 2019, p. 17).

The *SEND Code of Practice* thus does not focus on identifying those with ASD but rather explains that individuals may have different needs at different time; it aims to give a broad view of the individual's needs in order to help schools determine the most applicable

action to provide educational support (DfE & DfH, 2015). Moreover, in the UK legislation, it does not use the categorisation but focuses on the needs of individuals (DfE & DfH, 2015). In this sense, researchers have claimed that such legislation that does not apply categorization is strongly aligning with the social model of disability (Russell & Norwich, 2012). These models seek to eliminate the barriers that prevent people with disabilities from learning by providing appropriate support for them in settings such as schools and not separating them from their peers depending on their disability (Shakespeare, 2017).

On the other hand, education in the Saudi context categorises those with SEND by their disability rather than their needs, which could be seen as relating more to the medical model of disability than the social model. However, categorisation facilitates provision of a complete picture of those with SEND, which could influence policy decisions that focus on identifying *who* needs the additional support or special educational provision (Norwich, 2014). This study focuses on how teachers' understanding of both ASD and inclusion affected their practice. Therefore, in the next section, I turn the focus to teachers' understanding of both inclusive education and ASD.

2.6 Teachers' Understanding.

This study is concerned with primary teachers' understanding and practice of inclusive education and ASD in the Saudi context. Many researchers have confirmed that in implementing inclusive education, teachers are key to effective inclusive education practices, and the implementation of inclusive education is heavily dependent on teachers' understandings and beliefs about inclusive education (Ainscow, 2005; Booth & Ainscow, 2002; Emam & Farrell, 2009; Florian, 2019; Hassanein, 2009; S. Lindsay et al., 2014; Norwich, 2008; Van Der Steen et al., 2020). Therefore, this section reviews global literature related to teachers' understanding of inclusive education and ASD, and also looks at research specifically focused on Saudi teachers' understanding of inclusive education and ASD.

2.6.1 Teachers' Understandings of Inclusive Education.

Glazzard (2013) argued that individual perceptions of inclusive education have an impact on how inclusive education is implemented in practice. Similarly, Burke and Sutherland (2004) underlined the significance of teachers' and leaders' values and beliefs in inclusive education settings. Consequently, Armstrong et al. (2010) argued that unless levels of

understanding of inclusion increase, the quality of inclusive education for students with disabilities is unlikely to improve. Teachers have expressed concerns about their limited levels of knowledge and understanding of inclusion (S. Lindsay et al., 2014; Van Der Steen et al., 2020). Therefore, improving the knowledge and confidence of teachers regarding inclusive education can significantly improve their classroom practices and reduce their anxiety (Burke & Sutherland, 2004).

In the UK, Humphrey and Symes (2013) conducted a study with 53 teachers, including 10 SEND co-ordinators, in 11 mainstream schools in England. The aim of the study was to investigate the understandings of educators regarding inclusive education with students with ASD in secondary schools. Their surveys focused on capturing how teachers viewed forms of inclusion and their own experience and knowledge of ASD. The results showed that participants were positive in their views around inclusion of those with ASD, and they expressed that they were working in an environment that continued the process of including students with SEND. Humphrey and Symes's study further showed that educators believed those with ASD would benefit from social inclusion by adapting new social skills rather than academic skills, and the SEND co-ordinator participants showed a higher self-efficacy regarding the teaching skills required for work with SEND students when compared to other teachers (self-efficacy discussed in section 2.6.3).

In the US, Segall and Campbell (2012) carried out a study with 45 primary schools in Georgia, aiming to evaluate educators' practice in genral education classrooms for those with ASD. Segall and Campbell focused on assessing knowledge, experience, attitudes, and teaching practices. 196 educators participated in a survey, which included 71 special education teachers, 53 general education teachers, 33 psychologists, and 39 administrative staff. The results showed that educators were having a positive attitude to inclusion; further, their approach was more associated with inclusion rather than integration as they indicated the need to adapt learning environments so they could address diverse learners' needs. However, Segall and Campbell study's mentioned that there was a difference in the knowledge, use of teaching strategies, and awareness between educators, with the school psychologist and special education teachers showing more awareness than general education teachers and administrators (Segall & Campbell, 2012). The findings from both Humphrey and Symes (2013) and Segall and Campbell (2012) were based on surveys and did not include interviews and observations of the real practices of educators, including those who work with students with ASD.

Sansosti and Sansosti (2012) on the other hand, conducted a qualitative study and employed interviews with a focus group of 15 primary educators in Florida, including general education teachers, special education teachers, school staff, and psychologists. The focus group centred on those working with students who were categorised as ‘high functioning’ with ASD – the use of the ‘high-functioning’ designation was employed before DSM-5 was introduced (see the discussion of ASD terminology and diagnosis earlier in the chapter). Sansosti and Sansosti's results showed that educators were supportive and gave positive responses around including those with ASD, and they understood ‘inclusive education’ as including those with SEND as much as possible with other students. Participants also believed that inclusive education for those with ASD should support those with ASD to become more independent, and, further, the inclusion of those with ASD is different than the inclusion of those with other disabilities due to their nature of those with ASD (Sansosti & Sansosti, 2012).

Across this study, and the two mentioned earlier in the section, authors mentioned the benefits of inclusive education for those with SEND, and especially learners with ASD; inclusive education increasing awareness and acceptance and allowed those with ASD to experience the same social situations as other children. Authors also mentioned that further research into inclusive education for learners with ASD is needed (Humphrey & Symes, 2013; Sansosti & Sansosti, 2012; Segall & Campbell, 2012).

In Saudi Arabia, there are relatively few studies concerned with teachers about their understanding of inclusion. A review of the literature found that most studies in this field have focused only on the attitudes of teachers towards inclusive education rather than looking at practice. Alshahrani (2014) carried out a mixed-methods study exploring teachers’ and administrators’ attitudes towards the inclusion of learners with auditory disabilities (such as deafness or being hard of hearing) in one city in Saudi Arabia. The study consisted of a survey with 120 teachers and administrators who work with students with hearing disabilities, and the researcher conducted 11 semi-structured interviews with those educators. The findings indicated positive attitudes towards including students who are hard of hearing, but the participants did not positively support to the inclusion of students with more severe deafness. However, interestingly, Alshahrani’s found that participants viewed inclsuvie education as a placement for those with SEND in the general classroom, and their views were related to integration than inclusive education.

Alshahrani's (2014) study focused only on educators' attitudes towards learners with deafness or who were hard of hearing, and the research was conducted before the Tatweer project was introduced in Saudi context in 2016. Because it occurred before the reforms, this means that the teachers had not experienced teaching in the same classroom for both those with SEND and those without. The result of Alshahrani's study showed that while negative attitudes towards including students with deafness were related to several factors, particularly the lack of proficiency in sign language, the educators were more concerned about the lack of teaching assistants to help with the practice of inclusion at that time. The study concluded that Saudi Arabia had far to go in terms of applying inclusion due to the school restructuring that it required (Alshahrani, 2014).

Another study carried out in Saudi context by Alanazi (2012) explored the attitudes and practices of inclusive education in female primary schools by focusing on the inclusive education of students with learning difficulties, particularly those with dyslexia. The data were collected from five schools in the cities of Buraidah, and Al-Hafer. Participants included general and special education teachers and inclsuvie supervisors, parents of children with and without SEND, and the children themselves. Alanazi's findings revealed that while attitudes regarding inclusion were generally positive, they were less positive toward including students who had intellectual disability. However, the findings indicated that half of the teachers in the study viewed inclusion as those with SEND being in the classroom, which is more related to 'integration'. The study suggested that further progress in implementing inclusion would require that certain key issues be addressed, such as the teamwork across and between the different populations of students, teachers, school, and home. When put together with Alshahrani (2014), both of these studies were limited only to the attitudes of teachers towards including students with learning difficulties and students with a hearing impairment, and both were carried out before the Tatweer project implemented the inclusive education approach in Saudi Arabia.

Only one study found in the Saudi context has focused on inclusive education for students with ASD. Like the other two Saudi-based studies, Alhudaithi's (2015) study also focused on attitudes by both surveying and interviewing teachers, but the study looked specifically at attitudes regarding the inclusion of female primary pupils with ASD. In total, 497 teachers (both general and special education teachers) responded to the survey, and 12 interviews were conducted with teachers. The questionnaire showed a positive attitude from both types of teachers toward including those with ASD in general education classrooms.

However, the result of the interviews indicated that all 12 interviewee teachers were not supportive of inclusive education if implemented at the time when the study was carried out. Alhudaithi explained that the interviewees' attitudes came from the schools not being prepared for inclusive education.

Consequently, the attitudes of teachers differed between the individual questionnaires and their interviews. From her interpretation, Alhudaithi suggested that participants in her study were able to articulate their answers using their own words better than when choosing one statement to explain their viewpoint in the survey. Though, Alhudaithi's findings may highlight the potential weakness of the questionnaire methodology in investigating such opinions or understanding of Saudi teachers, as those teachers may be more open to expressing and explaining their personal, contextualised opinions and understandings in interviews rather than in a survey.

From reviewing the literature carried out in the Saudi context, the existing studies seem to suffer from some shortcomings. For example, most of the studies regarding ASD (Al-Salehi et al., 2009; Aljarallah et al., 2007; Almasoud, 2011; Alnemary et al., 2017; Zeina et al., 2014) were conducted using quantitative methods, that is, mostly surveys were used to provide the perspective of parents and did not investigate the educational perspective. Additionally, only a small number of studies investigated inclusive education in general, and only one study was identified which focused on inclusive education for those with ASD (Alhudaithi, 2015). Finally, most of the studies regarding teachers focused on their attitudes and the factors influencing these attitudes (Alanazi, 2012; Alshahrani, 2014). These studies researched the attitudes of teachers without investigating teachers' actual understanding and practices.

Elements such as the teachers' beliefs and knowledge of disabilities have not been explored in the Saudi context. These beliefs - for example, the belief that students with SEND have the right to be in the general education classroom, or beliefs about the abilities of students with SEND – could drive the opinion, attitudes, understanding, and practice of teachers regarding inclusive education. Studies in the Saudi context (Alanazi, 2012; Alshahrani, 2014) have identified the lack of training, teaching assistants, and collaboration, which influence teachers' attitudes, but existing studies have not attempted to investigate how these factors might influence teachers' understanding and their practice with or without those supports. And, most importantly, studies have not observed the actual settings of inclusive education in schools nor investigated the practices of teachers inside inclusive classrooms in the Saudi context.

The concept of inclusive education in general seems to be under-investigated in the Saudi context, perhaps because inclusive education has only recently been implemented in the context, with official implementation beginning in 2016. Since no studies were found that explored the teachers' understanding of inclusion for students with ASD in the Saudi context as well as the call for further research into inclsuve education with ASD in different contexts, my work seeks to fill that gap. This study aims to explore in depth not only the understandings held by teachers but also their practice within the inclusive education approach in order to provide a more holistic understanding of such phenomena, revealing teachers' actual understanding of the inclusive education approach, exploring the features of how inclusion is understood, and examining how that understanding affects teachers' practice in the Saudi context.

2.6.2 Teachers' Knowledge of ASD

Teachers' knowledge explained as "the knowledge that may be found in teachers' heads and in their actions and focus on their own classroom contexts" (Richardson, 2001, p. 15484). Moreover, teachers' knowledge of the ASD may affect their expectations regarding the behaviour of students with ASD; it had been argued that when teachers lack awareness and understading of the nature of ASD, they can misunderstand the behaviour of students with ASD, which in turn can affect their expectations of those students (Brewin et al., 2008; S. Lindsay et al., 2014).

Furthermore, teachers' knowledge and understanding of ASD and their awareness and use of strategies for supporting such students have been identified by education professionals as key factors affecting teachers' practices in classrooms (Fleury et al., 2014; Hay & Winn, 2005; Humphrey & Symes, 2013; S. Lindsay et al., 2014). Still, as discussed in section 2.4.1, simply increasing teachers' awareness about ASD would not fundamentally result in improved support and learning engagement for those with ASD in inclusive settings. However, teachers who are teaching in classrooms that include students with ASD supposed to be aware of the needs of those with ASD; without this understanding and awareness of those with ASD abilities and difficulties, that they may not establish the essential support to meet their needs and engage them in learning (Roberts & Webster, 2020). Moyse and Porter (2015) conducted case studies and interviews three girls with ASD (ages 7–11), as well as their parents, and teachers in inclusive primary schools in the UK. The findings showed that those students with ASD finding difficulty with the hidden curriculum (which is that not taught directly and teachers assuming

that those students with ASD know what they mean) which clearly affects those students' academic progress. Authors argued that those teachers are not seeing the hidden curriculum, as they need first understand how students with ASD themselves learn in order of teaching them (Moyse & Porter, 2015).

Humphrey and Symes' (2013) study with 53 teachers in the UK explored their understanding of those with ASD. From their findings, 14 teachers felt that they did not have skills for teaching those with ASD since they possessed limited information regarding how to support with those students' behaviours, such as students' difficulties with understanding social situations and limited eye contact. In naming the difficulties of practice with those with ASD, the educators felt that communication was the hardest, and those students' imagination was less present than other students. Similarly, in the Canadian context, Brewin et al. (2008) argued that the lack of knowledge about and understanding of those with ASD leads teachers to misunderstand the behaviours of such students, which affects their expectations of their students.

In the US, Fleury et al. (2014) addressed the academic needs of students with ASD in secondary schools, arguing that for teachers to be successful in improving the academic achievement of such students, it is critical they have a better understanding of students with ASD. In their article, they provided strategies for teaching students with ASD, including peer support, video modelling, and self-management. They concluded the article by suggesting that teachers must recognise the cognitive ability of each learner with an ASD profile, acknowledge the multicomponent aspects of the students' needs as being both social and academic, and, finally, inform all educators in the school about ASD. The authors specifically suggested that general and special education teachers should have a training course that focuses on understanding ASD.

In the Saudi context, there are very limited studies examining the knowledge of teachers regarding ASD. Only one study was found that investigates teacher knowledge regarding ASD: Haimour and Obadiat (2013) used a questionnaire with 391 teachers from different levels of teaching (both general education teachers and special education teachers) in Jeddah, the second largest city in Saudi Arabia. The result of the survey showed different levels of understanding according to different variables (position as special or general education teachers, and educational level). The result indicated that teachers showed different level of knowledge, although, it was significant that special education teachers had a higher level of knowledge

when compared to general education teachers. However, not all participants in this study had experience of teaching those with ASD, and not all teachers in the study had taught in inclusive settings. Therefore, to address this gap in the literature, this thesis focuses on exploring teachers' knowledge and understanding regarding ASD in inclusive education settings.

Finally, there are indications that teachers tend to express concern about their teaching skills because of their lack of knowledge; this may affect their confidence in their ability to teach students with disabilities in their classrooms (Cefai et al., 2007; S. Lindsay et al., 2014). This can be seen across the research in the majority of the general education teachers who express concern about their limited knowledge of ASD and their lack of awareness of relevant teaching strategies (S. Lindsay et al., 2014; Sansosti & Sansosti, 2012; Segall & Campbell, 2012; Soto-Chodiman et al., 2012). This trend is also seen in a report by the Australian Education Union in 2016, which found that 63% of teachers lacked sufficient knowledge of disabilities and felt ill-equipped to teach students with SEND (Education and Employment References Committee, 2016). Knowledge and understanding of ASD also varies amongst school staff; special education teachers and school psychologists have rated themselves as being more aware of teaching those with ASD than general education teachers (Haimour & Obaidat, 2013; Humphrey & Symes, 2013; Segall & Campbell, 2012).

2.6.3 Teachers' Beliefs Around Inclusive Education

Teachers' beliefs are defined as "the propositions that are recognized as true by the individual holding the beliefs" (Richardson, 2001, p. 15484), which may affect the learning environment in the classroom and affect the motivation and achievement of students (Ekins et al., 2016; Williams et al., 2014). In this regard, Jordan et al. (2008) argued that effective inclusive practices depend, in part, on the teachers' beliefs about inclusive education, their positions and responsibilities in dealing with those with SEND, and the nature of those disabilities. Glazzard (2011) carried out a study in the UK concerned with inclusive education amongst both teachers and teaching assistants at one primary school in England. One of the qualitative findings from using a focus group interview showed that each educator who participated in the study had their own view about inclusive education; however, the findings indicated that educators could not separate their definition of inclusion from their personal values, which influenced their implementation of inclusive education (Glazzard, 2011).

Similar to the US system, the Saudi educational system has two teaching positions in inclusive classrooms: general education teachers and special education teachers. Those different positions require different qualifications. From the studies mentioned above, and from my own experience of teaching those with ASD in Saudi context, it can be argued that general education teachers have less knowledge about the behaviours, difficulties, and needs of students with disabilities. They may especially struggle with those with ASD due to their lack of experience teaching those students, and lack of qualifications from their education that not focused on teaching those with SEND (Sansosti & Sansosti, 2012; Segall & Campbell, 2012). It had been claimed that those with qualifications in special education can provide more support for inclusive education (Hind et al., 2019; Rakap et al., 2017); in the Saudi context, studies have raised this issue as well (Alhudaithi, 2015).

Van Reusen et al. (2000) argued two decades ago that teachers who have a qualification in special education (including a master's degree) can demonstrate positive views and actions regarding inclusive education for students with SEND. However, having a specialised qualification and preparation does not always align with positive beliefs about including those students with ASD (S. Miles, 2000; Sharma, 2018). Moreover, Scruggs et al. (2011) conducted a review of 40 reports of over 8,300 teachers in a number of countries, including South Korea, the US, and Italy, and showed that 63% of teachers supported the concept of inclusive education but an almost equal number (approximately 62%) expressed doubts about including all students, whatever their disabilities, in mainstream classrooms. As indicated above, the studies by Alshahrani (2014) and Alanazi (2012) in the Saudi context confirmed that most teachers have a positive attitude about including those with SEND in general education classrooms, with the exception of those with cognitive impairments, but Alhudaithi, (2015) confirmed that teachers in interviews were not supportive of the inclusive education approach.

Teachers in inclusive settings are supposed to consider all students as belonging in inclusive classrooms, and they are presumed to have the skills and knowledge of teaching with self-efficacy in educating all students, including those with SEND (Florian & Black-Hawkins, 2011; Specht et al., 2016). Bandura et al. (1999) argued that *self-efficacy* is one of the teachers' characteristics that affects their teaching practices, classroom teaching, and communication with students. Self-efficacy can be defined as the teacher's ability to take action and handle all students, including those with ASD with all of the challenging behaviours that might appear (Bandura et al., 1999). Consequently, teachers expected to consider themselves capable of teaching a diverse range of students, including those with disabilities (Specht et al., 2016). In this respect, Sharma (2018) argued that general education teachers need to develop their self-

efficacy by practical experience and improve their beliefs that they can be effective with teaching those with SEND.

In the UK, Woodcock and Jones (2020) conducted a survey of 122 secondary school teachers to evaluate the relationship that exists between teachers' self-efficacy and their beliefs about inclusive education for all. The findings indicated that teachers who believe an inclusive setting is an effective approach to teach all students showed higher levels of teacher self-efficacy than teachers who did not believe in inclusive education for all. Ultimately, teachers may be uncertain as to whether inclusive education is the best practice for teaching those with ASD, in particular for those whose symptoms are severe. Correspondingly, Florian and Black-Hawkins (2011) in the UK argued that teachers are supposed to believe that all children will be progressing, learning, and achieving goals; this would require a rejection of deterministic beliefs about the ability of students with SEND and whether they could learn (Florian and Black-Hawkins, 2011). In the next section, I discuss what some of those teaching practices for students with ASD entail.

2.7 Teachers' Practices in Inclusive Education Classrooms

Finding a teaching method that meets the needs of students with ASD has been considered a difficult task in education (Conallen & Reed, 2016; Symes & Humphrey, 2011). Teachers in classrooms with students without SEND can make assumptions about the general teaching approaches for the entire group, but students with ASD may exhibit different and diverse forms of ASD, that require applying different teaching methods (Conallen & Reed, 2016). However, in reviewing the literature, there is a wide range of practices available applied to teaching those with ASD and their learning which has been applied in different contexts. In this section, I review the literature regard the teaching methods and school approaches applied for those with ASD in inclusive settings across different international contexts.

2.7.1 Teaching Strategies and Approaches for Students with ASD.

Teaching methods can be applied which allow classrooms and schools to meet the academic, social, and communication needs of those with ASD. In the US, the Individuals with Disabilities Education Act (IDEA, 2004) suggested using "Evidence-Based Practices" with students with SEND as those practices are based on experimental studies and are most effective

in identifying interventions for those with ASD (Guldberg et al., 2019). In 2009, the National Autism Centre in the US did a systematic review for different experimental studies to decide which teaching strategies were most effective for students with ASD; 45 experts evaluated more than 700 studies and suggested a list of specific practices for students with ASD in schools (Guldberg, 2017; National Autism Center, 2009). These practices were again reviewed in 2015 (Wong et al., 2015). ***Table 3*** summarises these practices that can be applied in classrooms for primary students with ASD.

Table 3 Evidence-Based Practices

Practices	Description
Antecedent-Based Intervention	A procedure that anticipated situation or events are expected, aiming to decrease specific behaviour.
Functional Behaviour Assessment	Defines the behaviours to be reduced by focusing on what happened before, during, and after the behaviour to find the purpose of the self-stimulatory behaviours.
Picture Exchange Communication System (PECS)	A student is taught to provide a picture (card) of a desired item to a communicative partner in exchange for the desired item. It has six phases; (1) "how" to communicate, (2) distance and persistence, (3) picture discrimination, (4) sentence structure, (5) responsive requesting, and (6) commenting.
Modelling (Live Modelling)	Illustration of a specific target behaviour want to be learned by imitation, usually paired with other techniques, such as reinforcement.
Video modelling	Illustration targeting behaviour or skills and provided via video to enhance learning, such as a communication way in or engaging in a preferred behaviour.
Prompting	Giving the student a verbal or physical help to engage him/her in an aimed behaviour or skill- usually provided to peer first, then promote to the students with ASD.
Reinforcement	When a student is doing a desire behaviour, an activity or event given/provided to him/her as circumstance to increase such behaviour in the future.
Social Story-Based Intervention	Telling social circumstances in detail to a student by highlighting specific indications and presenting suitable response examples, usually include pictures and visualised material.
Social Skills Training	Interaction given to a student aiming to teach appropriate techniques for interacting with others. Basic instructions are given to acquire and practice communication, or social skills to encourage effective peer relations.
Task Analysis	A method that divided activity into small steps in order to help teaching a specific skill, usually given with reinforcement or video modelling.
Self-management	Guidance centred on students distinguishing between suitable and unacceptable behaviours, with students by themselves recording and watching their behaviours, and rewarding themselves when they did a suitable behaviour.

Adapted from Evidence-Based Practices (National Autism Center, 2009)

However, there appears to be no explicit instruction for teachers regarding where and under what criteria to use these practices. The experimental studies supporting these evidence-based practices were often carried out in clinical settings instead of regular classrooms, and many were conducted utilising one-to-one methods and showed effectiveness which may not work within a group setting such as a classroom (Guldberg, 2017). Guldberg explained that while those practises *can* be applied in the classroom, not all of them were initially conducted and tested within a school setting. Further, Locke et al. (2015) carried out a study exploring the challenges in implementing one of the evidence-based practices, using intervention and field notes methods with nine school staff (teachers and assistants), nine students with ASD, and

100 students without SEND in two primary schools in US. The results of the study showed barriers to implementing those practices include the limited training available for teachers, and even if that training did exist, there were few resources available for teachers to use in schools.

In the UK, Winter and O'Raw (2010) introduced a model for teaching those with ASD, reviewing the principles and practices relating to teaching those with SEND in inclusive education. In this model, the researchers provided ten themes, including themes regarding inclusive policies, physical features, curriculum, and, the specific teaching strategies that can be used with these with SEND in inclusive settings. 1) Teaching strategies provided different instructions for teaching students with SEND, including (small group; prompting; modelling), 2) Co-operative teaching (students working together), 3) individualised planning for each student, 4) co-teaching (teachers as they work together), and 5) peer tutoring (a student teaching another student) (Winter & O'Raw, 2010).

Tiernan et al. (2020) interviewed 27 teachers in 9 primary schools who were teaching in different grade mainstream classrooms that included students with SEND in the Republic of Ireland and Norther Ireland. Tiernan et al.'s study investigated the perspectives of those teachers in terms of how they address the needs of students with SEND in their classrooms by applying the inclusive practices in the literature such as Winters and O'Raw (2010). The interview findings showed that teachers highlighted three of Winters and O'Raw (2010) strategies as follows: 1) different instruction includes the flexibility of grouping, small groups, and one-to-one support; 2) individual planning for each student and for co-teaching (teachers as they work together); and 3) planning, such as IEP, which is valuable in teaching those with SEND, as some of the planning was in relation to academic areas, and other planning was in relation students' behaviour. Two teaching strategies were less frequently indicated by teachers, namely, peer tutoring and cooperative teaching, due to the difficulty involved, as younger students, such as those in grades 1 and 2, need support through one-to-one attention and need to work in a smaller group of students. All teachers in Tiernan et al.'s study reported that the time restrictions are the greatest challenges that they face in applying such strategies (Tiernan et al., 2020).

Another model of teaching was also introduced in the UK by members of the Autism Centre for Education and Research at the University of Birmingham. There, guidelines called "Good Autism Practices" were provided for teaching those with ASD in schools (Guldberg et al., 2019). The guidelines supported a review of the research evidence, including the US-based list of Evidence-Based Practice (Wong et al., 2015) and the corresponding current policies in

the UK, the Code of Practice (DfE & DfH, 2015). Guidelines include eight principles focusing on encouraging students' strengths and interests, giving voice to the students with ASD in planning and decision making, involving parents, providing training for staff and leadership, enhancing the social environment for those with ASD, and, finally, providing teaching curriculum that enhance well-being for students with ASD (Guldberg et al., 2019).

In the Saudi context, from my experience as a teacher, Individual Education Plans (IEPs) were required for all special education teachers when teaching those with SEND also the RSEPI in Saudi required utilizing IEP with students with SEND (Ministry of Education, 2002). IEPs were suggested by the Individuals with Disabilities Education Act in the US (IDEA, 2004) and were subsequently adopted into the Saudi context. An IEP is an official written document that explains specific details plan for a student with SEND, including information regarding their health, family, strengths, and weaknesses (IDEA, 2004). The IEP has two main goals: first, it provides an annual goal for the student and details how to measure for reaching that goal. Second, it states the resources required for teaching the student (IDEA, 2004). The good autism practices (Guldberg et al., 2019) are similar to the underlying principles of the IEP; good autism practices call for a focus on the student's individual strengths and interests, along with two goals of IEP that involvement of parents and the student with SEND in writing the plan.

In reviewing the studies that observed schools for teaching strategies, S. Lindsay et al. (2014) carried out a study exploring Canadian primary teachers' perspectives regarding the strategies used with learners with ASD in inclusive classrooms. They conducted in-depth interviews with 13 educators who had experience of teaching children with ASD in two Canadian cities. The findings discussed five strategies, including using resources (such as visual aids), providing essential training, enabling collaboration, focusing on the strengths and weaknesses of students with ASD (such as IEP), encouraging work as a team with parents and students, and providing rewards. S. Lindsay et al. conclude that teachers must use a variety of strategies and have sufficient training and resources in order to increase the effective inclusion of students with ASD.

In the UK context, Frederickson et al. (2010) conducted interview with teachers and school staff in 26 schools. They explored the services available for students with SEND in school which both had and didn't have a resource base (an additional room providing support services for those with SEND), and focused on the levels of support and teaching methods used

to support students with ASD. Frederickson et al. found that both type of schools applied most evidence strategies except supplemental communication approaches (such as picture exchange communication system; PECS) were used only in resources base schools. They also found that social skills strategies used in both schools, however, it requires appropriate staff training and an ASD-specific resources room, which not all schools had (Frederickson et al., 2010).

Most of the views about the educational practices of students with ASD have been mainly from the perspectives of adult participants, such as teachers, classroom assistants, and parents. However, there are some studies in the literature have focused on those with ASD themselves and their views on matters such as how they have experienced inclusive schools and their response that can help to improve the teaching practices in inclusive settings. Sproston et al. (2017) conducted a study focusing on the voice of those with ASD and their parents regarding the students' experience in inclusive education in England. Interviews were conducted with eight girls with ASD aged between 12 and 17 years. Participants described various characteristics of their education including improper sensory environments, a lack of staff that understood their needs, and a lack of flexibility in the educational approach. Additionally, participants claimed they experienced bullying, isolation, and rejection in the school; however, they acknowledged a love of the social elements of school life (Sproston et al., 2017).

Another study conducted by Hummerstone & Parsons (2021) involving students with ASD regarding the decision-making about the teaching and support they receive in inclusive secondary schools in the UK. The study investigates 10 teachers and 12 students (aged between 11-15) using photo-elicitation (with students with ASD) and semi-structured interviews (with both students and teachers). The findings showed that teachers are more likely to prioritise the needs of the classroom over the needs of specific students with ASD. On the other hand, students with ASD highlighted the significance of being seen and understood in order for them to be supported. The study concluded that it is important to understand the needs of each student with ASD and modify the teaching and strategies appropriately to provide an inclusive educational atmosphere (Hummerstone & Parsons, 2021).

However, both of the studies above and, indeed, most studies in the literature were conducted with secondary students with ASD with limited studies carried out with primary students with ASD. This is due to a lack of clarity about what primary students with ASD mean, as some of the students are nonverbal and so have difficulties in expressing their views given

the communication and interaction difficulties of individuals with ASD (Shaw, 2021). Moreover, regarding the issue of conducting research with visual tools in such a case with primary students with ASD, Shaw (2020) published a paper on the findings of two research projects that involved qualitative visual methodological tools, such as photo-elicitation where participants were 56 students with ASD (aged 4-5) in three schools in the UK. The paper identified that there are both strengths and weaknesses in using such tools for exploring the needs of students with ASD, as it helps to in understanding their voices in matters that affect them. However, Shaw argued that creating pictures and asking young children with ASD to remark on them, or allowing them to draw their own picture, does not minimize the factors that affect image production, and nor does it remove the challenges with interpretation, which are the same as with all other texts.

Literature has also shown that there are different approaches that can be applied in settings which haven't been designed specifically for students with ASD; those approaches focus on the whole education approach of school. For example, in the UK, the inclusive pedagogy framework introduced by Florian and Black-Hawkins (2011) is based on three principles: first, the focus of education in the school should not only concern how to teach those with SEND but how to teach all children. Second, schools should reject the idea and beliefs that those students with SEND cannot progress. Third, schools should see the difficulty experienced by teachers not as a problem but a challenge for success. Thus, this model calls inclusive education approach to be a focus for the whole school. Similarly, Symes and Humphry (2011) carried out 15 interviews to offer another perspective from educators; the interviews were conducted with teaching assistants who were working with students with ASD in secondary inclusive schools in England. The aim of the study was to develop a better understanding of the main elements of an inclusive culture and the teaching assistants' role in the development of inclusive education. Thematic analysis revealed collaboration between teachers is one elements of an inclusive education school culture.

However, while these practices have created a basis for understanding in western context such as of the UK, the US, and Canada, there is concern regarding the universality of those strategies across non-western contexts (Kasari & Smith, 2013). Cultures differ greatly across contexts; the Saudi context itself has cultural, linguistic, and religious norms that differ from the UK and US contexts. Thus, the strategies considered successful and effective in western nations may be a reflection of the communication norms that are associated with cultural values and traditions and thus may not transfer to a very different context (Humphrey

& Symes, 2013). Moreover, the teachers' knowledge and beliefs may not be situated with the specific strategies that are implemented in other contexts (Kasari & Smith, 2013). Therefore, in investigating the teachers' practice within the inclusive education approach in Saudi Arabia, aspects related to culture would be considered.

To conclude this section, there are different strategies suggested in the literature that can be used with students with ASD in the classrooms, and they often include visual focus strategies such as PECS and visual schedules (S. Lindsay et al., 2014; National Autism Center, 2009; Winter & O'Raw, 2010), instructions focus strategies such task analysis, small instructions, and IEP (Guldberg et al., 2019; IDEA, 2004; National Autism Center, 2009; Winter & O'Raw, 2010), and cooperative learning strategies such as peer working (Guldberg et al., 2019; National Autism Center, 2009; Winter & O'Raw, 2010). However, even with this list of 'appropriate' strategies, studies have indicated the challenges facing educators in implementing these approaches in classrooms. Able et al. (2015) argued that such specific teaching strategies would not work unless teachers understand how to organise the classroom to support each student. Additionally, as seen in the research, teachers are limited in their use of resources, access to training, and support for or willingness to engage in collaboration. In the next section, I consider some of the organisational elements required to implemented within inclusive settings.

2.8 Elements of Implementing Inclusive Education in Schools:

In reviewing the literature on inclusive practice, researchers (Able et al., 2015; Florian & Black-Hawkins, 2011; S. Lindsay et al., 2014; Symes & Humphrey, 2011; Van Der Steen et al., 2020) argued that teaching those with ASD in inclusive education is complex, and many different organisational elements need to be addressed. These elements are proposed in the literature of inclusive education that need to be applied in teaching those with ASD in the inclusive education approach. The elements are as summarised as follows: (1) professional training, (2) collaboration, (3) size of classrooms and of classes, (4) teaching assistants, and (5) leadership. These organisational elements were also reported by the literature regarding the Saudi context as influencing the perceptions of teachers around inclusive education (Alanazi, 2012; Alhudaithi, 2015; Alshahrani, 2014). Therefore, these elements are discussed and considered when exploring the inclusive education approach in the case school site for this thesis as they influence the application of inclusive education in the Saudi context.

2.8.1 Training

Undeniably, teachers play a crucial role in employing inclusive education into practice. Different studies conducted on inclusive education have indicated that teacher training is one of the key requirements for ensuring that teachers are able to teach learners with ASD in, as those teachers need to be confidence teaching such students (Alanazi, 2012; Alhudaithi, 2015; Alshahrani, 2014; Florian & Black-Hawkins, 2011; Frederickson et al., 2010; Glazzard, 2011; S. Lindsay et al., 2014; Locke et al., 2015). Harding (2009) argued that the more training teachers have, the more comfortable and positive they are about teaching those learners in inclusive settings. On the other hand, teachers who lack knowledge of how to teach learners with SEND were found to be more stressed; Leblance et al. (2009) found that when teachers experienced stress, they are negatively affected, and the learning and students experience negative outcomes.

Therefore, teachers who teaching students with ASD presumed to be well trained and should have an awareness of the nature of students with ASD and their behaviours, as well be familiar with the strategies they could use to teach learners with ASD (S. Lindsay et al., 2014). Soto-Chodiman et al. (2012) argued that a lack of training would mean that teachers have only limited knowledge and thus would face difficulties in addressing students' abilities and needs, which would be both a challenge and a concern for teachers. Similarly, Cefai et al. (2007) who conducted interviews with general education teachers in Malta to identify their concerns regarding their ability to teach students with SEND; the results showed that a lack of relevant preparation during their training was the greatest of their concerns regarding their ability to teach students with SEND.

In the UK, Morley et al. (2005) carried out a study of 43 secondary teachers from a large city, examining teachers' understanding of inclusive education. Training was raised as an important factor that needed to be addressed before implementing inclusion. The teachers claimed that understanding the ability of students with disabilities could be achieved if they were given intensive training about those with SEND. Indeed, the importance of training is that it gives the teachers more confidence in teaching students with disabilities. If teachers lack confidence in their knowledge, this will affect their ability to implement inclusive practices in their classroom (Hayat et al., 2019). Toward this aspect, Bandura et al. (1999) argued that one of the important elements is teacher *self-efficacy*, as this aspect affects their teaching methods in the class and also their way of interacting with students. Bandura argued that training is the

way to develop teachers' self-efficiency and capability to teach in inclusive classrooms. Another study in Norway also showed that teachers develop a greater degree of confidence when they have years of training and specific coursework directed towards teaching in inclusive settings (Cameron, 2017).

It's been argued that even if teachers have experience working with SEND and have undergone training, it is not always guaranteed that those aspects will have a positive impact on their beliefs about the effectiveness of inclusive education. In Australia, Forlin and Chambers (2011) discovered that when teachers received a 39-hour course to teach students with SEND in inclusive classrooms, their concern around teaching those with SEND actually *rose* after the course. Also in Australia, Subban and Sharma (2006) conducted a survey of 112 teachers to explore the perceptions of primary school teachers about including students with SEND in inclusive classrooms. The data collected indicated that the teachers who had not been trained about SEND had more positive attitudes towards including children with SEND and showed less concern for the challenges of inclusive education than those who had been trained (Forlina & Chambers, 2011).

Training courses for teachers can provide an opportunity to both influence beliefs about the process of including students with disabilities and improve their teaching skills. Sharma (2018) stated that the beliefs held by teachers in Australia cannot be changed but can be modified through appropriate professional educational development programmes to raise awareness of SEND. Avramidis and Norwich (2002) conducted a systematic review on 20-year period of studies in different countries and different journals that focused on the teachers' attitudes. One of the objectives was to investigate why teachers failed to support fully inclusive education, and the authors found it to be due to three variables: student-related (which is the nature of the disability), teacher-related, and education-related. The teacher-related variable was influenced by multiple factors, including training.

Nevertheless, Avramidis and Norwich (2002) concluded that if teachers receive training in mastering the level of skills required to implement inclusive education, they will become more dedicated to and more effective at implementing a fully inclusive approach. Avramidis and Norwich's further suggested that more data should be collected about the quality of training courses, including the duration, content, and quality of the trainings and how intensive these programmes.

Literature has focused on the basics of training for educators in inclusive education, but little has focused on how the training is supposed to be implemented in schools and classrooms.

Sharma (2018) argued that inclusive education cannot work unless teachers apply their knowledge in practice. However, there exists necessary knowledge and theories that those teachers need to be taught. In this regard, researchers argue that any training courses in this field should take into account the principles of inclusive education (Ainscow, 2005; G. Lindsay, 2003; Mitchell, 2005).

A global teacher training and inclusion survey by UNICEF (2012) found that most of the research participants (school staff, including teachers) stated that the theories they had been taught during their training were not easily translated into inclusive education. In other words, teachers felt that the theories and lectures regarding training did not seem to apply in the real world. In this regard, Avramidis, (2006) in his book *Promoting Inclusive Education: From 'Expertism' to Sustainable Inclusive Practices* argued that training courses provided to educators should not be based only on theories but should involve giving practical examples of how to teach such students in inclusive classrooms and how to engage with those with ASD.

2.8.2 Collaboration

Collaboration in inclusive education with students with SEND defines as educators of an inclusive school, work together as equal to support the educational and learning outcomes of students with SEND (Mulholland & O'Connor, 2016) as the inclusive education approach cannot succeed without the support of different educators (Able et al., 2015). Within inclsuvie students with SEND, collaboration include inclusive education members to take part in the decision making on the classroom organisation, curriculum modification, teaching approach, students' evaluation and the ability to find solutions of students differences to meet the objectives and goals of students with SEND (Mulholland & O'Connor, 2016); the parties involved include general education teachers, special education teachers, assistant teachers, professionals, families, and students (Boshoff & Stewart, 2013). The value of collaborative teaching in inclusive classrooms, with regard to teachers' understanding of SEND and their ability to work with other members of staff, has been acknowledged as contributing to the positive educational experience of students with disabilities (Florian et al., 2010). Research studies on collaborative work in inclusive settings have demonstrated that, for teachers, collaboration is an important dimension of inclusive practice (Mulholland & O'Connor, 2016).

Collaboration between educators is considered critical in including those with ASD (Boshoff & Stewart, 2013; Florian & Black-Hawkins, 2011; S. Lindsay et al., 2014; Mulholland & O'Connor, 2016). In the context of a country such as Saudi Arabia, there are two categories of teacher for teaching students with ASD in inclusive education classrooms: general education teachers and special education teachers. These educators need to plan for and collaborate on the goals for students with ASD. Simpson et al. (2003) argued that special education teachers are required to support other teacher such as general education teacher in teaching those with ASD in inclusive settings, to be responsible for teaching students with ASD in the inclusive education classrooms. Therefore, the general education teachers must acknowledge that students with ASD are their responsibility since those students are in the general education classroom (Simpson et al., 2003). Thus, general education teachers are supposed to play a part in the decision making processes related to their students with ASD, and they are also supposed to be provided with all the necessary support from the school, such as training and consultation (Simpson et al., 2003).

The "ASD inclusion collaboration model," introduced by Simpson et al. (2003) working in the US, emphasised the significant in both special and general education teachers sharing decision making (collaboration) and professional development (training). In addition, this inclusion model proposed that in order to provide education for those with ASD and meet their needs in inclusive settings, a curriculum is required that is appropriate and flexible with instructional methods, and the school should provide an ongoing evaluation of classroom practices, reduce class sizes, and provide teaching assistants in inclusive classrooms (Simpson et al., 2003)

However, nearly two decades ago, Harrower and Dunlap (2001) argued that teachers did not know how they should team up and how they could achieve collaborative practices. Simpson et al. (2003) introduced a collaboration approach by provided strategies to support parents, other professionals, students, and teachers by focusing on general educators for making sure all this collaboration occurs. The approach considers "ongoing collaboration", as it is essential and should be planned periodically. Simpson et al.'s model has four elements: environmental and curricular support, attitudinal and social support, coordinated team commitment that include all stakeholders related to teaching the student (including teachers, supervisors, parents and students), and home-school collaboration.

The strength of this model is its emphasis on sharing the responsibility for decision making by holding regular meetings. The model also encourages having a smaller number of students in inclusive classrooms and considers class size reduction as of "paramount

importance" because students with ASD often require one-to-one teaching, and it is easy to manage the behaviour of all students including those with ASD. These basic aspects cannot be made available in a classroom with a large number of students (Simpson et al., 2003, p. 8).

In the Saudi context, Alsharani (2014) and Alanzi (2012) considered the lack of collaboration as a factor that influences teachers' opinions regarding inclusive education, which is in opposition to research such as the work of S. Lindsay et al.'s (2014) in Canada, where teamwork between all school staff was one of the strategies used in teaching those with ASD. Nonetheless, inclusive effective practices cannot be achieved simply by some members of the school working together. Collaboration requires whole school engagement, as Symes and Humphry (2011) argued: inclusive education does not depend on the interest and enthusiasm one or two educators but requires a whole organisation approach. Otherwise, students, including those with ASD, would fail. Therefore, in investigating the case school for this thesis, collaboration is considered one of the factors in achieving inclusive education.

2.8.3 Teaching Assistants

A teaching assistant is a member of the educational staff whose role is to support the main teacher (Butt, 2016). Specifically, teaching assistants help in providing support for all students including students with SEND; they support in the organisation and implementation of the curriculum, as well as supporting the participation of students in all school-related activities (Butt, 2016). Booth and Ainscow (2011) indicated that the teaching assistant could facilitate the participation of learners in inclusive settings. Indeed, teachers often argue that a teaching assistant is critical for inclusive education, and they are thus concerned about the lack of teaching assistants in the classrooms (Subban & Sharma, 2006).

On other hand, criticism around teaching assistants that they can hinder the inclusion of children with SEND, as some teaching assistants are not qualified or trained to work with students in general and with those who have SEND in particular (Butt, 2016). In inclusive settings, students without SEND may receive instruction from a qualified teacher, while students with SEND receive responsibility and instruction from teaching assistants without any assurances about their qualifications, which is unfair (Butt, 2016).

In the UK, Emam and Farrell, (2009) explored the tensions that teachers may experience in including students with ASD in inclusive education classrooms. Semi-structured interviews and observation notes were carried out with teachers, special education planners, and teaching assistants around the inclusion of 17 students with ASD, aged 7 to 16. The results

showed that the tensions arose mainly from the social and emotional symptoms of students with ASD. Teachers express that in order to manage these tensions, teaching assistants were extremely important to them as they were working closely with the students with ASD. However, observation data showed that there were no delicate data about the positive impact of having a teaching assistant in the classroom (Emam & Farrell, 2009)

In the Saudi context, Alshahrani's (2014) study explained that teachers argue that with more students in the inclusive classrooms, it is important to have a teaching assistant to reduce the teachers' workload. Therefore, a lack of teaching assistants may negatively affect the implementation of inclusive education. This supported by Alquraini (2011), who conducted a study about the challenges in special education in the Saudi context, emphasised the importance of sufficient numbers of teaching assistants before implementing inclusive education and argued that the Ministry of Education in Saudi Arabia should not implement such programmes without ensuring there are teaching assistants in the classroom.

2.8.4 Leadership

The school leader or principal plays a major role in implementing inclusive education. They are responsible for maintaining the school and for developing the inclusive education within the school to support the progress of all students, including those with SEND. Villa et al. (1996) argued two decades ago that the support from the school leader/principal is the main predictor of whether the school is able to provide an effective inclusive education for students with SEND. As with teachers, the school leader's beliefs are crucial in an inclusive education culture. For example, their belief in the ability of students with SEND to be educated in an inclusive school is essential, as it affects the decisions about acceptance, placement, and providing suitable support for students with SEND. Harding (2009) claimed that teachers' and leaders' values, beliefs, and agreement with an innovation make the success of inclusive education possible in schools.

However, in Australia, Webster (2018) argued that even if the school leaders believe in the inclusive education approach, they frequently face difficulties when addressing the needs of students with SEND within the school environment. This has also been reported by school leaders. For Christensen et al. (2013), school leaders reported that even though they support the rights of students with SEND, they have not been provided with the resources and training to help them addressed the needs of students with SEND; they claimed that it was hard to support those with SEND while the curriculum has not been suitably modified. In the Saudi

context, Alshahrani's (2012) study found that school leaders had limited knowledge of students with disabilities. The analysis by Alquraini (2010) further suggested that, given the limited training programmes for leaders and teachers in the field of inclusive education, the Ministry of Education in Saudi Arabia has failed to include students with SEND, especially students with ASD.

In other words, the limited knowledge of the school leader regarding students with SEND affects their understanding of the needs of students with ASD, which in turn affects their support for the teachers. For example, F. Armstrong (2006) argued that many special education teachers were concerned about the limited support given to them by their school leader. This was also reported by Webster (2018), who found that the lack of effective leadership for a complex approach such as inclusive education has a major impact on the participation of students with SEND in schools.

Only limited studies have been conducted on the role of the school leader in an inclusive education approach, and there is no specific model of leadership that was found to be recommended for implementation in inclusive education for students with ASD. However, Shaddock et al. (2007) highlighted that for the school leader to offer an effective inclusive education culture for all students with SEND including students with ASD, they need to have a clear vision for including such students. Effective school leaders in inclusive schools build an environment in which all school staff engage in ongoing improved knowledge and skills of interacting with students with SEND and continually improve their ability to not only collaborate with each other but also to collaborate with the students' families (Shaddock et al., 2007).

In this regard, Webster (2018) wrote about the translation of school leaders' theories into practice, arguing that to have effective student outcomes in the practice of inclusive education, school leaders must consider five elements in applying their knowledge into practice. The elements include shared leadership (school leaders should share decision making with staff and students' parents), curriculum and teaching (school leaders should ask educators in the school to review the teaching practices for measuring the student outcome), conditions for learning (school leader should review the school practices and look to remove the barriers that limit student participation and learning engagement), professional development (school leaders should identify staff learning needs which can be addressed through professional training), and, finally, parent and community support (parents' knowledge and ideas must be valued in solving problems and in all processes).

2.9 Conclusion

The chapter has reviewed a range of literature regarding the understanding and practice of inclusive education. It started by conceptualising students with SEND, then discussed the models that conceptualise disabilities. Then, the chapter moved on to discuss the history and different perspectives regarding inclusion and presented a definition for inclusive education used in this study. This was followed by discussion of ASD definitions with specific focus for students with ASD characteristic behaviours. Then chapter move to the knowledge and beliefs of teachers, as teachers themselves are crucial in implementing inclusive education, and I provided a review of studies regard teaching practices in inclusive education with students with ASD. It also considered the elements of training, collaboration, teaching assistants, and leadership that have been identified in the literature review as crucial for the implementation of inclusive education. In the next chapter (Chapter Three), I provide a brief background of the Saudi Arabian context as is relevant for this study, including background information regarding the country's education system, the importance of religion, and the history of special education provision and current SEND practices. There, I elaborate more upon the specific form of inclusion within the context by discussing the education reform project, Tatweer, that recently launched in Saudi Arabia and is tasked with implementing inclusive education in the country, amongst other goals.

Chapter 3 **Saudi Arabia Context**

3.1 Introduction

This chapter introduces the study's context and provides a brief but crucial background on the Saudi Arabian context in relation to general education and the education of students with disabilities, as well as inclusive education. First, the chapter gives a concise overview of the Saudi context and the historical perspective of education and special education there, including how the educational system is run, the cultural aspects, and the value of Islam in the context. Then, the chapter discusses how students with special educational needs and disabilities (SEND), specifically students with Autism Spectrum Disorder (ASD), are educated, when and how the process of inclusive education started, and the current provision in Saudi Arabia. Then, the chapter focuses on the "Tatweer project", which is the new public education development project in Saudi Arabia that introduced inclusive education in the country. Finally, the chapter address the aim and research questions of this study.

3.2 Historical Perspective of Education in Saudi Arabia

In 1932, the Kingdom of Saudi Arabia was officially formed with the unification of different tribes and parts of the Arabian Peninsula in western Asia. Saudi Arabia is thus the largest country in the Arabian Peninsula, encompassing four-fifths of the size of the landmass, which makes it the second largest Arab country after Algeria; today, the population is estimated at 34 million (Saudi General Authority for Statistics, 2019). Additionally, Saudi Arabia has 13 administrative regions with more than 5,000 cities and villages; Riyadh, the capital city, is at the centre of country. See ***Figure 3-1*** for a map of Saudi Arabia.

The country is probably most known for both Islam and oil. On one hand, over many centuries, Saudi Arabia has claimed status as an important religious site as the birthplace of Islam, which is the country's official religion; 95% of the population are Muslims with most of its citizens are adherents of the majority Sunni (Aljabreen & Lash, 2016). On other hand, it is one of the world's largest oil producers. In the 1950s, the oil fields were discovered, and the profits from oil have allowed the government to invest heavily in many areas, including health, infrastructure, and education (Aljabreen & Lash, 2016).

Figure 3-1 The Location Map of Saudi Arabia

Furthermore, from when its unification until these days, the educational system in Saudi Arabia has been substantially influenced by the role of the religious authorities. All legal decisions, including educational policy, are based on the *Sharia,* which is the Islamic law (Elyas, 2011). The first formal education system launched in 1923 and was based in mosques where pupils were taught the *Quran*, the holy book for Muslims, and *Haddith,* the prophet Muhammad's sayings (Al-Ajmi, 2006). The education system started in two locations: the *Kuttab (*primary education located in the mosque) and *Madrssa* (private primary education school outside the mosque). Since the *Kuttab* was located within mosques, instruction was limited to religion and Arabic literacy (Elyas, 2011).

Kuttab played a crucial role in offering basic education for adults and children across society at that time. Ansari and Akhdar (1998) explained that the *Kuttab* focused on different aspects of Saudi Arabian society; it transferred religious and cultural heritage from one generation to the next, prepared those students to take on different social roles, and it maintained the strength of religious belief in society. As a first foray into formal education, *Kuttab* offerings in 1923 were only for boys (Elyas, 2011); throughout that decade, a few *Madrssa "*private schools" began offering other forms of limited education, though this was limited for boys only (Ansari & Akhdar, 1998).

In the country, a remarkable shift occurred in 1945, when the Arab Gulf countries in the Arabian Peninsula, including Saudi Arabia, began an intensive effort to invest the money from oil profits. This investment resulted in a shift in the education system and led to universal education to allow more boys access to schools. Thus, within six years, Saudi Arabia had 226 schools for males (Al-Ajmi, 2006). This remarkable turn increased the demand for teachers to such an extent that the existing supply of Saudi teachers was not enough, and so the government

invited and recruited teachers from neighbouring Arab countries, such as Egypt, Jordan, Lebanon, Syria, and Palestine (Elyas, 2011). However, women were not permitted in schools until 1959 (Al Rawaf & Simmons, 1991). Geel (2016) has indicated that although 1959 marked the start of formal education for women in Saudi, it also signifies the start of formalised gender segregation in the context.

In education, it is crucial to examine the surrounding cultural context that drives the practices of schools; Sadler (1900) argued that "the things outside the schools matter even more than the things inside and govern and interpret the things inside" (p. 49). Given the influence of the religious base, most of the cultural, social, and traditional values and lifestyle features in Saudi Arabia, including the education system itself, are associated with conservative Islamic beliefs (Al-Saggaf & Williamson, 2004). This is seen throughout all the public and private education system, including in special education programmes, where students are segregated based on gender (Al-Saggaf & Williamson, 2004). In each school, all teachers, leaders, staff, and students are of the same gender.

All teachers who teach in public schools are Muslims; most are of Saudi nationality, and some continue to come from neighbouring Arab countries, such as Egypt, Jordan, or Palestine, which are also Muslim countries. Undeniably, the Saudi Arabian education system is one of few worldwide that uses a single-sex system. Segregation in the educational system and instances of single-sex schools can also be found in few countries in the Middle East, such as Jordan and Bahrain at primary level (Al-Saggaf & Williamson, 2004). Nevertheless, in the case of the Saudi context, the extent of sex segregation is more complex: it is in place at all levels of education and results in entirely separate schools and universities.

The broader gender segregation system restricts interaction between males and females in the wider context, and so has an influence on the data collection and the interactions possible for research in schools: as a male, I would only be allowed access to male schools. Conversely, a female researcher could not have access to investigate male schools, meaning that both male and female researchers are limited in exploring their research phenomenon. Thus, gender segregation poses a quandary that affects this research in preventing me from having access to female schools to explore the inclusive education practices that recently implemented in the context, and so I am unable to explore the research questions for both male and female perspectives and practices.

Additionally, this study is related to inclusive education, a concept of education which is based on the value of equity and allowing all children – whatever their gender, sexuality, race, culture, and/or socio-economic status – to access and learn together in the same classroom

(Norwich, 2013a), as discussed in Chapter Two. Aspects of inclusiveness, then, are not implemented in the Saudi context due to the current practice of single-sex education. Therefore, this study is focused on exploring inclusive education as understood in the Saudi context, as implemented for a group of students with SEND, and according to male teachers' perceptions within a male school.

3.3 An Overview of the General Education system in Saudi context.

The education system in Saudi Arabia is provided through both public and private institutions. General education is compulsory in Saudi Arabia for children from six to 15 years old (Ministry of Education, 2019). General education and higher education (including the oversight of special education) are highly centralised and overseen by the Ministry of Education, which provides services and resources, including those for special education students. For public schools, the Ministry pays teachers' salaries and organises training programmes (Alquraini, 2010). The Ministry of Education has 44 educational districts, which are the offices responsible for administration and for maintaining links between the Ministry and schools in the different districts across Saudi Arabia (Ministry of Education, 2020). The Ministry of Education's responsibilities also include designing and constructing new school buildings and providing materials and textbooks (Ministry of Education, 2020). ***Figure 3-2*** shows how the educational system is organised and operated by the Ministry of Education.

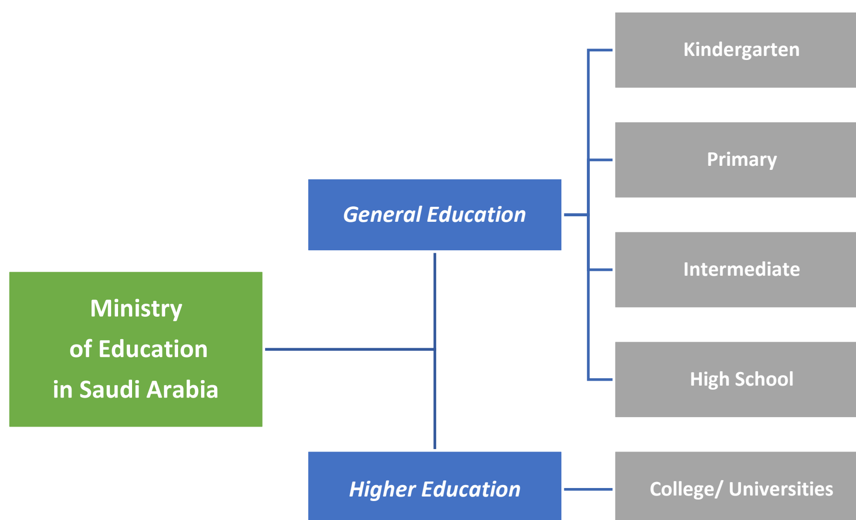

Figure 3-2 Ministry of Education Organisation

Public Education is offered free of charge for all citizens and residents from kindergarten through to high school. Additionally, it is free for all citizens at the public university level (Ministry of Education, 2020). There are four levels of general education: kindergarten/nursery; elementary /primary school for pupils aged six to 12; intermediate school for young people aged from 12 to 15; and finally, high school for those from the ages of 15 to 18. The academic year for general education schools lasts 40 weeks including the exam periods; usually, it commences in September and ends in June. It is divided into two semesters with a one-week break between them, and a break for two Islamic holy days, namely Eid al-Fitr and Eid al-Adha (Ministry of Education, 2020). Across all public general education (primary to high school) offerings, all subjects are taught in the Arabic language. One foreign language – namely, English – is taught, starting at the intermediate level. ***Table 4*** provides the ages and grades for general education students.

Table 4 Categorization of General Education System in Saudi Arabia

Categories	Age Range	Grade
Kindergarten	Age 4 to 6 years old	Two Grades. Each grade = One academic year
Primary	Age 7 to 12 years old	Grade 1 until Grade 6
Intermediate	Age 13 to 15 years old	Grade 7 until Grade 9
High school	Age 15 to 18 years old	Grade 10 until Grade 12

The Ministry of Education administers a curriculum unit, which formulates the national curriculum, and so oversees a unified education approach for all districts of Saudi Arabia (Ministry of Education, 2020). Furthermore, the Ministry of Education is accountable for providing all textbooks in all grades and levels to schools. In primary, in 1st to 3rd grade, children are mainly taught Arabic, Islamic studies, mathematics, science, art subjects, but from 4th to the 6th grade, advanced subjects such as history and geography are added in. At the primary education level, children do not have examinations, as the teachers are responsible for evaluations and providing assessment of students' achievements (Alafaleq & Fan, 2014). The traditional timetable of a state primary school in Saudi Arabia is from Sunday until Thursday with six, 45-minute lessons and one 30-minute break each day. Public primary schools usually start at 7:00am and finish around 12:30 pm, while intermediate and high schools finish at 1:30pm. All students have the breakfast break, which usually starts at 8:15 am.

In describing the regular primary education classroom in Saudi Arabia. It should be remarked that the children remain in the same classroom for the entire school day and the teachers move between these classrooms, depending on the subject schedule. For example, if the first 45-minute session of the day is Arabic, and maths is the second, the Arabic teacher will leave after his session and the maths teacher will arrive. The students remain in the same classroom except for breaks or for specific sessions that have designated rooms, such as physical education sessions or if they are going to be taught in the resources room such as science lab room in the school. The usual teaching approach in primary schools is teacher-centred approach, which involves teachers in the front of the room; those teachers lecture students and ask questions from the textbooks.

Aspects of the education system in Saudi Arabia are broadly modelled on the U.S. education system, such as with timetabling and the two-semester system. Today, U.S. policies also serve as a model for Saudi policies around educating students with SEND: Saudi policies are based on U.S. education policy such as the Individuals with Disabilities Education Act (IDEA,1997), with respect to the goal of offering appropriate and free education for all children, including children with SEND (Alquraini, 2011). U.S./Saudi similarities can also be seen in terms of the system for special education. For example, in the Saudi education system, there is the position of a “special education teacher”, a position which is also found in the U.S. Special education teachers are considered to be specifically qualified for working with children with SEND; those teachers are required to obtain a bachelor’s degree or higher in the field of special education to be able to teach students with SEND. Therefore, in this study, there are two types of teachers working with students with SEND in schools: special education teachers and general education teachers, who hold a degree in a specific subject such as mathematics, language, Islamic religion, or science.

3.4 An Overview of Special Education in the Saudi context

The focus on educating those with SEND in Saudi Arabia started in the early 1960s, when the Ministry of Education founded the Department of Special Learners for those with visual impairments and intellectual disabilities (Al-Ajmi, 2006). Following the founding of this department, in 1964, three institutions for individuals with visual impairments were established in three cities in Saudi, namely in Mecca, Unayzah, and Alhofouf (Al-Mousa, 2010). This was the first time such learners had been educated in the formal education system in the country.

When the 1970 educational law was published, this law made clear that all students with disabilities had the right to be educated, which then led to the services being expanded. In 1971, for the first time, "the Directorate General of Special Education" was established under within the Ministry of Education. In the year that followed, the first institute was established for students with intellectual disabilities as well as for students with hearing loss or deafness (Alquraini, 2010). This first policy with the Ministry of Education gave people with disabilities a right to education; by establishing regulations, the services for special education were increased and improved for students with disabilities. Hence, with the increased quality and quantity of special education services, there was a need for better education for the professionals who would then be qualified to teach learners with special needs (Al-Mousa, 2010).

The Directorate General of Special Education represented a significant development for the services for students with disabilities. The directorate was split into three divisions, with one each for blind, deaf, and disabled students. At that time, the divisions were tasked with providing training for educators, starting new programs, offering equipment, and modifying the curriculum, as well as providing educational supervision (Al-Mousa, 2004). Their services were subsequently expanded, so they eventually had more than three divisions covering other disabilities, including developmental disabilities (with autism considered under this division), learning disabilities, physical disabilities, and multiple disabilities. ***Figure 3-3*** gives the timeline from the onset of special education services.

1960s	Ministry of Education established the department of special learners for those with visual impairments and intellectual disabilities
1964	Three institutes for students with visual impairments were established in three cities in Saudi
1971	Established "the directorate general of special education" under the vision of Ministry of Education
1972	First institute for intellectual disabilities as well as for those with deaf students was established

Figure 3-3 Timeline of Special Education Services in Saudi Arabia.

3.4.1 Move to Integrate Students with SEND in Public Schools.

Al-Mousa (1999) indicated that 1994 was a significant year for the perception of students with SEND in Saudi Arabia and how they received their education, as the Directorate General of Special Education under the management of the Ministry of Education was expanded to include those with SEND in general education settings. This represented a major shift from the traditional approach which in the context of teaching those with SEND in special schools and integrated them into the general education settings. Al-Mousa (1999) explained that this shift also offered schools special education teachers to teach those with SEND in those special education classrooms, which means that they offered a classroom for only those with SEND. The shift increased the programmes of education available for those with SEND in schools near their homes (Al-Mousa, 1999) and was followed in 1996 by the launch of 76 special education programmes within general educational settings with the aim of integrating 9,424 students with SEND. In 2000, the number of programmes had increased to 226, and a year later, the number continued to rapidly increase, resulting in 901 programmes (Al-Mousa, 1999). In 2015, the number of programmes had increased to 746 programmes, within 47 for those with ASD (Aldabas, 2015)

This framework was related to integration rather than inclusion (see the discussion of the differences in these terms found in Chapter Two). Otherwise, the framework would place students with SEND in their own self-contained classroom (Alquraini, 2012), meaning that those students with SEND were in a general education school near their home, but they were still in separate classrooms. However, such practices improved the quality of services and the educational provision for students with disabilities in Saudi Arabia. Al-Mousa (2010) argued that these programmes of self-contained classrooms for students with SEND launched new educational services in schools, bringing in resource rooms, speech therapists, psychology consultants, and teachers who were well-prepared for teaching students with SEND. Moreover, these programmes implemented in schools included more students with disabilities who, prior to 1996, would not have been educated, such as those living in the suburbs and in rural areas who would not have had access to special schools (Al-Mousa, 2010). Additionally, these programmes expanded the range of students with SEND who could receive educational services in public schools including those with ASD, those with multiple and physical disabilities, and those with special education needs, including those identified as gifted and

talented students. However, special schools for students with disabilities still continued for those with severe disabilities (Al-Mousa, 2010).

There are multiple reasons for this significant, mid-1990s shift from *special education schools* to *integration* into general educational settings in Saudi Arabia. An increasing number of Saudi educators had been educated in and graduated from British and American universities with degrees in special education, and they strongly supported movement from educating students with ASD in special schools to including them in schools. The media also played a major role in this new trend of awareness of diversity and special education needs by introducing the inclusive approach through television and newspapers. Moreover – and importantly – as discussed in Chapter Two, this era represented a global turning point, with the Salamanca Declaration and UNESCO introducing inclusive education in 1994 (UNESCO, 1994). The Declaration made individuals and governments aware of the principle of inclusion and asked countries to support inclusive education for all students including those with SEND. Saudi Arabia signed this declaration alongside 99 other countries and 25 organizations, affirming the concept of inclusion as a process to provide education for all students, including those with SEND. However, at that time, students with SEND were still confined to separate classroom, as discussed above.

To initiate the programmes for integrating students with SEND into general education schools, the Ministry of Education worked with the Saudi Arabian government to create a disability code and regulations for special education programmes and institutions (Alquraini, 2010). One policy was introduced in 2002, the Regulations of Special Education Programmes and Institutes (RSEPI). (Ministry of Education, 2002). The model for this policy was derived from U.S. education policy, namely the Individuals with disabilities Act (IDEA,1997). According to Alquraini (2010), the RSEPI identifies the "special education" term in describing the services in the context, with special education categories including intellectual disabilities, learning disabilities, deafness, blindness, autism, and other disabilities. In accordance with this law, an individual education programme (IEP) is required when teaching learners with disabilities (Alquraini, 2010). In 2015, there were 63,461 students receiving special education services in Saudi Arabia; 92% were integrated into general education schools, and 8% received services in special schools (Battal, 2016). However, the expansion of special education practice did not guarantee the full inclusion of all children with SEND, as it was organised based on the type of disability or special educational needs. For example, there were general education

schools that provided self-contained classrooms only for students with ASD, while other schools focused on students with intellectual disabilities.

3.4.2 Number of Students with SEND Integrated into General Schools.

In total, 1,445,723 million individuals have disabilities in Saudi Arabia (Saudi General Authority for Statistics, 2019). Of the estimated five million students aged 6 to 17 who study in general education, the number of students who may have disabilities and are considered SEND is approximately 665,000 students, and of those, 35,000 students are estimated to have ASD (Battal, 2016). The following ***Table 5*** provides the only data that is available from the Ministry of Education, providing information regarding the types of disabilities represented amongst students in the academic year of 2014-2015. As discussed in Chapter Two, since this date, there appears to be no further information available.

Table 5 Students with SEND in Academic year 2014 – 2015 in Saudi Arabia.

Special education categories	*number of Students*
Hearing impairment	6881
Visual impairment	3214
Intellectual disabilities	20576
Autism	1464
Multiple disabilities	490
Learning disabilities	26225
Physical & health disabilities	4530

3.4.3 Move to Inclusive Education for Students With SEND

A significant shift occurred in the Saudi context in mid-1990s from private schools to introducing the framework for integrating students with SEND into general education schools. However, it fails to implement a fully inclusive approach. Saudi Arabia signed the Salamanca Declaration in 1994, the main aim of which is to pursue full participation in inclusive education, these declarations (UNESCO, 1994), and passed the law RRSEP (Ministry of Education, 2002) nearly two decades ago. Nevertheless, discussions with former teaching colleagues who are still teaching in special schools, indicate that, in many institutions, schools still provide separate classrooms only for students with SEND, and Saudi Arabia still lacks a policy that requires full

inclusive education, where students with SEND study in the same classroom with other students in those general education schools. Those learners have been excluded from the mainstream education classroom and from being with other students without disabilities. At the time that the research for this thesis was being carried out and written, there were still no policies from the Ministry of Education that would require schools to apply fully inclusive education for students with SEND.

There are indications that Saudi Arabia is moving towards inclusive education practices. For example, in 2016, the Saudi Arabian crown prince Mohammed bin Salman announced a vision of 2030 for Saudi Arabia (Government of Saudi Arabia, 2016). It's a social economic reform that guided the country's strategic direction for the coming decade. This Saudi vision aligns strongly with the Education 2030 Framework for Action (United Nations, 2015), which is based on the Incheon Declaration in ensuring that all students should have access to high-quality education and can continue learning throughout their lives (UNESCO, 2015). One of these strategies indicated in the Saudi vision is related to inclusion, in that:

> we will also enable those of our people with disabilities to receive the education and job opportunities that will ensure their independence and integration as effective members of society. They will be provided with all the facilities and tools required to put them on the path to commercial success. (Government of Saudi Arabia, 2016, p. 37).

More recently, in 2021, the capability development program introduced under the Vision 2030 also presented their strategies for emphasising inclusive education as their strategies include that "introduce policies to accommodate students with disabilities within their area of residence based on the demand and need to ensure appropriate access and to optimize infrastructure across multiple schools"(Government of Saudi Arabia, 2021)

Further, another step toward inclusive education was made in the same year of 2016 when the Ministry of Education, along with the King Abdullah Project for General Education Development (known as the "Tatweer project") identified six schools that would implement inclusive education where students with SEND could study alongside other students without disabilities in the same classroom. Thus, the Tatweer project represents the first real practice of inclusive education in the context of Saudi Arabia. In the next section, I discuss this project that introduced the six inclusive schools.

3.5 King Abdullah Project for General Education Development: Tatweer Project

In 2007, Saudi Arabia introduced a large-scale project named the King Abdullah Project for General Education Development. This project was in collaboration with the Ministry of Education and is known as the "Tatweer Project," which translates into English as "to develop". In this project, Saudi Arabia has invested a budget of approximately 2.4 USD billion, and it was initially planned to last from 2007 until 2013 (Tatweer Project, 2016). It was then supported with a further 1.5 USD billion for another five years, aiming to improve Saudi Arabian public schools (Tatweer Project, 2016). This project is run by the Tatweer Company, which is a private company owned by Public Investment Fund of Saudi Arabia (Tatweer Project, 2016). In the Tatweer website, Tatweer has a strategic role in supporting the Ministry of Education (Tatweer Project, 2016). Tatweer has four divisions: the Tatweer Company for Educational Services, Tatweer Educational Transportation Services, the Tatweer Building Company, and the Tatweer Educational Technology Company (Tatweer Project, 2016).

The aim of this project is to work with the Ministry of Education to broadly reform the educational system in Saudi Arabia. The Tatweer project plan focuses on five aspects: improving the quality of education; improving the professional development of educators; developing the curriculum to meet students' needs in the social, mental, and psychological aspects; employing teaching technologies; and supporting students' supplementary activities to grow their social skills, creativity, and self-confidence at schools in all levels across Saudi Arabia (Tatweer Project, 2016).

One rationale for this reform (Tatweer Project) is to improve the Saudi Arabian economy by focusing on creating productive and efficient workers. Given that Saudi Arabia is economically dependent on oil as a main source of income and a high percentage of the national population is made up of the youth, with 65% of the country under 30 years of age, there is considerable attention from the government on youth education to meet global movements in economic development, and this attention is evident in the Human Capability Development Program in the Saudi Vision 2030 (Government of Saudi Arabia, 2016, 2021). In this regard, Tayan (2017) argued that the educational reforms (via Tatweer) are a response to the need to develop a generation who will contribute to the economic well-being of the country and who will not depend solely on the oil economy. Improving youth education to address improvements and diversification of the country's economy will result in more productive and efficient workers.

Another rationale of this reform project has been indicated by Saudi education and curriculum researchers, who have demonstrated that the Tatweer project is a reaction to considerable tension both inside and outside Saudi Arabia which calls for the government to evaluate the education system (Elyas & Al-Sadi, 2013). Critics of the system have argued that Saudi Arabian education has placed too much emphasis on religion (Alyami, 2014; Elyas & Al-Sadi, 2013). For instance, Rugh (2002) indicated that 31% of Saudi education related to religious coursework, while 20% of instructional time is dedicated to maths and sciences at the primary level. While Rugh argued that it is understandable that Saudi people would learn about their religion, the main dilemma is around what amount of learning about Islam is required and how much time students should focus on religion instead of expanding their other studies.

The education system has been criticised because the focus on intensive religious education detracts from the teaching of other subjects, which results in professional shortages. This trend is evident in Saudi students' poor achievement in maths and science when compared with students in other high income countries in the 2011 Trends in International Mathematics and Science Study (TIMSS, 2012). Scholars across western countries who have also criticised the Saudi curriculum point out that the extreme religious stance in the education system supports religious intolerance (Shea & Al-Ahmed, 2006). Therefore, Mathis (2010) believed that the Tatweer project was needed, since this project involves changing the educational system as well as controlling certain aspects of the current curricula in Saudi schools.

3.5.1 Tatweer; Inclusive Education Project

As noted above, the Tatweer reform project focuses on improving the quality of education, improving the professional development of educators, developing the curriculum to address students' social and mental needs (such as psychological needs), supporting students' additional activities to increase their social skills, creativity, and self-confidence, and employing teaching technologies. The project's strategy was also developed to ensure that the educational system was more globalised and in tune with international institutions in order to address the 21st-century demands placed on Saudi Arabia (Alyami, 2016). Furthermore, inclusive education (which is the focus of this study) aims to achieve the three main goals stated in the strategy of the Tatweer project: giving students access to quality education and supporting all students' needs, and supporting students' additional activities to increase their social skills, creativity, and self-confidence (Tatweer Project, 2016). It should be noted that

inclusive education was not introduced in the first plans of the Tatweer project when it started in 2007 but was added later on.

In 2015, the Tatweer project initiated a collaboration with the U.S.-based University of Oregon which is worth USD $440,000 (University of Oregon, 2015). This collaboration has introduced two projects. The first project launched the Prince Sultan Centre for Special Education Support Services, which is one of the institutes run by Tatweer Company in Saudi Arabia. This institute aimed to offer an ideal model for providing support services to those with special educational needs, with a focus on diagnosis, assessment, and rehabilitation that could not be offered in public schools for those with SEND. The second project, which is related to the focus of this study, is the partnership to establish the first 'inclusive' schools in the country, with three inclusive schools for boys and three for girls, all located in Riyadh (University of Oregon, 2015).

In 2015, the Ministry of Education announced that those six inclusive education schools would be opened for the 2016-2017 academic year and indicated the coming move towards inclusive education across the entire country (Altayar, 2015). The aim of the Tatweer project regarding inclusive education was to prompt special education's transition from segregated, semi inclusive, and/or self-contained classrooms to an inclusive education approach. With the University of Oregon partnership, the six model schools would help develop capacity. Dan Close, associate professor in University of Oregon, explained that the collaboration helped "to provide training and technical assistance to Saudi Arabian educators so they can develop their own pilot projects" (University of Oregon, 2015, p. 1). He added that the training would take place in both Saudi Arabia and at the University of Oregon, and would include "the theory and research in developing and implementing an Inclusive Education services program" (p. 1).

As Dan Close explained it seems this partnership is due to the source of 'expertise' of– the US and their approaches in the field of inclusive education. However, the nature of this partnership is not immediately clear. Moreover, I could find no document which discussed both the Tatweer inclusive education schools and the collaborative project with the partnership between the University of Oregon and Tatweer. However, there are a few statements in the official Saudi Arabian news regarding these inclusive school project. Dr Mohammed Alzaghibi, the CEO of Tatweer for Educational Services, announced in 2015 that Tatweer was working on building a technical manual that provide the main guidelines in achieving inclusion in education, and that manual would be produced in collaboration with the University of

Oregon. He indicated that these manuals would provide the guidelines for school buildings, assistive technology, and teaching strategies for those with SEND (Saudi Press Agency, 2015 para 1).

Alquraini (2013) argued that past failures to include those with SEND in Saudi education was due to the limited training programmes offered by the Ministry of Education for school leaders and teachers in the field of inclusive education. Accordingly, the director of the special education development programme at Tatweer, Alia Albazie, confirmed to the Saudi Press Agency in 2015 that teachers and supervisors of special education were trained by experts from the Council for Exceptional Children in the US, where they focussed on early intervention, individual educational programmes (IEPs), assistive technologies, and teaching strategies. They also prepared teaching assistants, offered transitional programmes, and modified the general curriculum, aiming to change the attitude of educators regarding inclusive education to include all students, regardless of their disabilities, within general education classrooms alongside their peers (Saudi Press Agency, 2015 para 2).

3.5.2 Tatweer Manuals

In 2016, Tatweer introduced the manuals with collaboration with the University of Oregon as a roadmap for implementing inclusive education in the country, a technical manual, an individual education plan manual and an implementation manual. The first manual, the technical manual(Tatweer Company for Education Services, 2016c), provides an overview of the “what” of inclusive education, that is, information about what needs to be in place for inclusive education practices to occur. There are two sections in this manual: the first gives an overview of disabilities and the second considers the school structure. The overview of disabilities provides a description of 13 disabilities based on the United States’ 2004 Individuals with Disabilities Education Act (IDEA, 2004). Each disability section is presented with example strategies and assistive technology that can be used when working with students with that disability. The following school structure section includes information about developing a school activities schedule for all students, including children with disabilities. In addition, this section discusses how a school’s facilities and environment affect students’ growth and development, and further provides a demonstrate of how to monitor student progress (Tatweer Company for Education Services, 2016c).

The second document, the implementation manual (Tatweer Company for Education Services, 2016a), is concerned with the "how" of inclusive education and includes details of how to implement activities and processes related to inclusive education, such as service delivery and early intervention. The service delivery section presents strategies and tools for delivering services directly to students with SEND in the inclusive setting, including developing the school and classroom culture, planning for inclusive education in the general education setting, designing instruction, directing classroom management, and supporting student motivation. Next, the early intervention section presents the service delivery approach for children under the age of six and for their families by explaining the components of the early intervention program, which are as follows: how to identify children who are eligible for the services, how to plan for the program and service provision, and how to follow-up on progress and transfer. However, the early intervention is not related to the primary schools, as it's for students under the age of 6 (Tatweer Company for Education Services, 2016a).

Finally, the manual for individual education planning (Tatweer Company for Education Services, 2016b) provides a guide to negotiate Individualized Education Plans (IEP), a concept that was introduced in the IDEA (2004). The Tatweer IEP manual provides the steps for completing an IEP for each student with SEND who being served in special education program. The definition of the IEP is summarized on the first page of the manual:

> *The IEP is a process and a written, legal document that states all of the specific details for the education of a child with disabilities. There are two overarching purposes for the IEP. The first is to establish measurable, annual goals for the child. The second is to document and state the services for special education and related services as well as the supplementary aids and services that the public agency will provide to the child in achieving the goals.* (Tatweer Company for Education Services, 2016b, p. 19)

3.5.3 Studies into Tatweer Schools.

There are two types of schools supervised by Tatweer. They first supervise general schools, with Tatweer implementing 416 Tatweer schools projects in Riyadh, Makkah, Jeddah and Al-Ahsa (Tatweer Project, 2016). They also oversee inclusive education schools, with the six schools described above all located in Riyadh (Saudi Press Agency, 2015). This section reviews the literature in the context regarding the Tatweer schools in general. Alyami (2014) argued that non-Tatweer schools in Saudi operate according to a centralised educational system, while the Tatweer schools have aimed to transform the Saudi educational system into

one that is decentralised. Tatweer schools allow the school leader to have more manage over the classroom, allowing that leader increased autonomy to make decisions and thus achieve that school's vision and goals. Hakami (2013) noted the contrast with the traditions of the education system in Saudi Arabia, which has been centralised; the Tatweer project aims to decentralise the system by giving greater autonomy to schools.

There are relatively very few studies that focus on Tatweer schools; those that do look at the schools' forms of leadership and use of technologies. Alyami (2016) conducted a qualitative case study to investigate the perceptions around the reform held by female leaders and teachers who have been involved in Tatweer schools project. At a school in Riyadh, data was collected through interviews with head teachers and Tatweer members, and the researcher also relied on analysis of documents and focus groups. Alyami's findings demonstrated that there is level of independence in managing Tatweer schools, and the school system was not fully autonomous; while schools are independent for internal decision-making, they lack independence for student evaluation and curriculum development.

Another finding from Alyami (2016) indicated that within Tatweer school management, there has been a remarkable shift from centralisation in belonging to the Ministry of Education to a semi-decentralised system in terms of decision making. Furthermore, Tatweer schools have moved from positions as traditional or "isolated schools" (Alyami, 2016, p. 247), to schools that are more close and related to the community. Changes were positively noted by students, teachers, and parents. Alyami's (2016) study focused more on the leadership of Tatweer schools than on teachers, and it was limited to the female perspective. She recommended that more research be conducted from the Tatweer male educators' perspective.

Further, Kamal (2012) conducted a mixed-methods study investigating teacher practices in 30 Tatweer schools in Jeddah, the second largest city in Saudi Arabia, and focused on the factors that impact the implementation of technology assistance in Tatweer schools. The study used a survey to gather data from 640 teachers (both male and female), and it included closed and open-ended questions. The qualitative methods indicated that the factors affecting the implementation of technology in Tatweer schools included classroom size, Ministry support and services, training in technology, teacher preparation, and a flexible curriculum. The study suggested that Tatweer schools should offer a better learning environment and professional technological access (Kamal, 2012). Both studies recommended that more research is necessary to evaluate and explore technology use in Tatweer schools.

From these two examples, it is clear the limits of the research that has been conducted in Tatweer schools in general. More particularly, to date, there have been no studies investigating how Tatweer project schools have adopted the inclusive education approach. This gap influenced my decision to carry out research in one of the Tatweer inclusive education schools. Next section provides the literature gap from Chapter Two and this chapter and addressed the aim and research questions of the current study.

3.6 Aim and Research Questions of This study

The literature review (Chapter Two) examined the teachers' understandings regarding inclusion, disability, SEND, and ASD. That chapter indicated that understandings of inclusive education are complex and controversial, and the terms themselves are often hard to define, with resulting confusion between the term of *integration* and *inclusion*. Furthermore, the literature indicates there is variation in how teachers understand inclusive education and how much the importance of teachers' understandings as that understanding affects their practices. To some extent, the literature has indicated that inclusive education has expanded in the last two decades; however, further research and studies in the area of inclusive education for those with ASD appears needed.

Furthermore, both Chapter two and this chapter showed that the very recent reforms around inclusive education in Saudi Arabia demonstrate that for that context, research around the topic of inclusive education and SEND is in its infancy in that context. I could find no studies investigating both the teacher's knowledge and practice in the recently constructed Tatweer inclusive schools; further, studies in the broader field of inclusive education and ASD were mostly conducted in quantitative nature in Saudi context. Therefore, the current study aimed to explore understandings and practices linked to the recent implementation of inclusive education by conducting a qualitative case study at one of the Tatweer inclusive schools. My object was to attain a holistic understanding of teachers' actual understanding and knowledge of inclusive education approaches and ASD, observing their practices both inside and outside inclusive classrooms, as well as observing the factors that affect their understanding of the implementation of inclusive education in the Saudi context. In an attempt to fill the research knowledge gap, the following three research questions are proposed:

- Research Question 1:

What are the main factors affecting implementation of inclusive education in the study school?

- Research Question 2:

How do teachers in the Saudi context understand inclusive education and how does this relate to their practice?

- Research Question 3:

How do teachers in the Saudi context understand ASD and how does this relate to their practice?

3.7 Conclusion

This chapter discussed the Saudi context in which this study was carried out. Background information was provided about Saudi Arabian education in general and specifically how education has been influenced by religion and the historic stages of education for students with SEND. To educate those with SEND, Saudi Arabia moved toward introducing inclusive education, primarily as a response to global movement in the 1990s, when early implementation involved the creation of special education classrooms within the general education schools. The most important and recent shift toward inclusive education in Saudi Arabia occurred with the introduction of the Tatweer project, which is a broad reform of public education. This new project requires changing the educational system and improving the quality of education by focusing on teacher training, modifications to the curriculum, improving the process of meeting students' diverse needs, and introducing technologies in education as a response to internal and external challenges. The Tatweer project resulted in six fully inclusive schools in Saudi Arabia. The next chapter (Chapter Four) describes the case study which reviews one of those inclusive schools and provides the methodology and methods used, that is, document reviews, semi structured interviews, and observations notes. Take all together, these methods account for the historical context described in this chapter and provide a valuable approach to exploring the understandings of participants and for studying the case of the school in depth.

Chapter 4 **Methodology**

4.1 Introduction

This study aims for an in-depth exploration of inclusive education in the Saudi context through investigation at a Saudi inclusive all-male school with a high percentage of students with autism spectrum disorder (ASD). To address these research aims, I chose to conduct a case study in one school context to address three research questions:

- Research Question 1: *What are the main factors affecting implementation of inclusive education in the study school?*
- Research Question 2: *How do teachers in the Saudi context understand inclusive education and how does this relate to their practice?*
- Research Question 3: *How do teachers in the Saudi context understand ASD and how does this relate to their practice?*

Consequently, in this chapter, I present the research framework, methodology, and methods applied in conducting this study. The chapter starts with description of the philosophical stance of the study, which takes an interpretivist approach. Then, the chapter moves to the rationale for conducting a qualitative study, highlighting the design of this research and the rationale for selecting a case study methodology. The chapter presents the chosen data collection strategies, including the design of instruments used (including semi-structured interviews, observation notes, and documentary reviews) during the fieldwork period; I then turn to a discussion of how data analysis was conducted. Finally, the chapter concludes with considerations of ethics, trustworthiness, and reflexivity, with a final note on the role of the researcher in this study.

4.2 Philosophical Stance and Research Approach

The common paradigms used in social sciences are positivism and interpretivism. The positivist paradigm holds that knowledge is objective. Guba (1990) explained that for positivists, the world exists as ‘out there’, and a researcher who adopts positivism is figuring out the ‘true nature’ of reality and how that true nature operates. Therefore, the aim of the researcher within the positivist paradigm is to find this truth and discover its impacts, aiming to predict or control phenomena. Generally, positivism as philosophy is rooted in natural

scientific methods (Lincoln & Guba, 1985), and positivists believe that methods used in the natural scientific research (such as in biology, physics, and chemistry) can have the same value in the social science research (Chambliss, 1996). This belief is based on assumptions that human behaviour is predictable; it is caused and subjected by internal and external variables, which can be measured and identified and therefore, there is no difference between natural science and social sciences (Hitchcock et al., 1995).

In educational research, positivists may examine a theory or hypothesis via measurements such as statistics and other purely quantitative methods which allow findings to be generalized, as within natural scientific inquiry (Bryman, 2016; Phillips et al., 2000). For my area of study, a positivist study might use a survey to provide statistical evidence about kind of services students with ASD have received in one school, attempting to produce generalizations based on statistical analysis with the 'objective' assumption that the researcher does not interact with the participants. However, many researchers believe that social and behavioural phenomena are excessively complex; it is limiting to use only natural science methods and researchers must pay attention to the reality of a social context, recognising that values, beliefs, and morals in humans are subjective phenomena and they invariably affect the research results (Morris, 2006).

An interpretivist paradigm disagrees with the principles of positivism, arguing that the positivist stance does not sufficiently focus on the social context or on human meaning-making and beliefs (Morris, 2006). An interpretivist paradigm is thus built on the belief that there are various interpretations of reality since knowledge is created by individuals; therefore, interpretivism is subjective to the individual and not objective (Have, 2004; Usher, 1996). Smith (1993) claimed that there is no single right or proper way to knowledge; there is "no special method that automatically leads to intellectual progress" (p. 120). The interpretivist approach is most useful for my study, where I am attempting to explore inclusive education in a context where it is shaped by human understandings, behaviours, and the human experience of educators who work with individuals with disabilities. Here, I will explain the ontology and epistemology of interpretivists and connect both to my own study.

Most basically, ontology is described by Crotty (1998) as "the study of being and the nature of reality" and identifying "what things are there in the world?" (p. 10). Ontological assumptions for interpretivists hold that different interpretations of reality are perceived and framed by the different sociocultural approaches of individuals (Cohen et al., 2007); reality is

thus socially constructed (Ferguson & Ferguson, 1995). In my study, the literature review demonstrates this philosophical stance: as indicated in Chapter Two, there are no single definitions for inclusion and the concept itself is complex. With an interpretivist approach as a researcher, I can best explore and understand the social reality recognised by different individuals in the Saudi context, since both the notion of inclusion and the understandings or interpretations of ASD itself are perceived differently by different educators. Those individuals have their own realities where they have different understandings and perspectives on ideas of inclusive education and their implementation.

Ontology involves what is 'out there', while epistemology, as described by Robson (2011), is a "theory of how things can be known" (p. 525), or, from Crotty (1998), "how we know what we know?" (p. 8). In other words, epistemology is the knowledge that is produced and valued about that which is 'out there'. Within interpretivist epistemology, individuals have their own knowledge regarding reality and each develops different meanings (Maxwell, 1996). Priestley (2003) argued that individual perspectives and experiences are greatly influenced by aspects of the social and cultural context, including sociocultural beliefs and approaches to education and organisation. Ferguson and Ferguson (1995) noted that for interpretivists, it is not possible to separate the subjective and objective, and for my topic, a subjective epistemology is required to explore and understand the complexities of inclusion for those with disabilities. A subjective epistemology allows me to explore of the social world of participants in order to understand their behaviours, and this study further considers the factors influencing those understandings and practices. Therefore, I attempt to see the different participant teachers' individual understandings and perspectives regarding "disabilities" and "inclusion" which are formed depending on his/her beliefs, values, and experiences within a shared culture.

From a broad interpretivist epistemology, I can narrow down to the practical perspective related to the study: I am using social constructionism, an approach that helps the researcher to make sense of how reality is constructed (Burr, 2006). This stance is supported by Wahyuni (2012), who described the epistemology of interpretivism in viewing reality as socially constructed, and knowledge itself is not constant but changes the moment that people interact with different social contexts and settings. The advantage of this approach is that it allows for a close relationship between the researcher and individual participants, which allows those participating in a study to express their stories (Crabtree et al., 1999). In practice, when participants are telling their stories, they are able to convey their view of reality, which enables the investigator to better analyse their behaviours (Lather, 1992).

Within my study, it was important to interpret reality as perceived by participants (teachers) since their perspectives and beliefs constitute their own social reality. What they believe, for example, about disability and inclusion (according to and as their different realities), has implications for what they do in their classrooms (their behaviours) and therefore has implications for their students' social reality. Those beliefs about inclusion and disability are examples of social beliefs; understandings of both terms were explored earlier in Chapter Two. The inclusion movement recognises that disability is located in a society's beliefs and thus adheres to an understanding of disability according to a social model (Haegele & Hodge, 2016; Moore & Dunn, 1999), which proposes that a society frames participants' actions and interpretations toward understanding disability. Concerns for access, services, attitudes, and beliefs around people with disabilities greatly influence the ways in which an individual with disabilities can live in society (Ferguson, 1993). Therefore, disability itself can be a social construction. By understanding how teachers construct and understand the label of disability, this study works to illustrate what is meant by an 'inclusive school context' and thus help to make sense of the participants' worlds. It necessarily requires an interaction between the researcher and participant in order to discover different perspectives and visualise the individual's understanding of the social world.

4.3 Research Methodology: Qualitative approach.

Clough and Nutbrown (2007) explained that methodology helps the researcher to answer the research questions via selection of appropriate methods. In my own study, I adopt an interpretive approach which requires interaction between individuals; for those individuals, their different experiences have influenced their perspectives and understandings of reality, and so this work is inherently qualitative since it focuses on different experiences rather than on facts and numbers. It gives voice to participants and opens up space for unanticipated situations and responses (Eisner, 2017). Corbin and Strauss (2014) argued that qualitative research aims to learn about individuals, and thus emphasises building relationships between the research and participants on a human level.

Quantitative research has been used in research on special educational needs and disability (SEND); as noted in the previous section, researchers have used surveys or experiments that draw out cause and effect relationships based on control variables with large sampling populations and often focus on examining or measuring one practice or intervention

with students with ASD. However, Avramidis and Smith (1999) have claimed that education studies with a large sample population are not able to provide deep understandings of the realities of practice in schools, such as how teaching and learning practically occur for students with SEND in inclusive education schools or special schools. They argued for a shift to more descriptive, qualitative research with SEND and disability conditions so that researchers can focus on improving the experience of learning for those with SEND (Avramidis & Smith, 1999). As such, I have selected a qualitative methodology as my study aims for an in-depth exploration of the reality of inclusion, and I seek to gather detail-rich data that is not available through survey methods. Thus, I rely instead on interviews and direct observations with a small population.

4.4 Research Design: The Case Study

I have opted for an interpretivist qualitative approach: with it, I wish to go beyond my own beliefs and values in order to realise the perceptions of Saudi educators to answer my study questions. I decided to use a case study as the main approach for this study. Methodologists have indicated that the case study method should be employed when a study sets out to answer "how" and "what" (Baxter & Jack, 2008; Yin, 2009): in my study, I am looking to focus on "how" and "what" regarding inclusive education in the Saudi context and specifically within a particular school. Further, as Baxter and Jack (2008) have argued, the case study is designed to explore a phenomenon within a specific context, a focus which provides a wealth of directions for data collection. Similarly, Yin (2009) pointed out that case studies provide a variety of forms of data from different resources in order to illustrate the case. I took a broad approach to framing my case study, and, in order to understand teachers' beliefs and practices within my study, I needed to look at the larger picture of the inclusive education system in the Saudi context as well as to look at the whole picture of my chosen school. Within that school context, framed by national policy, I could focus on teachers to allow them to explain their different perspectives on reality.

Case studies, as Merriam (1988) explained, involve "an intensive, holistic description and analysis of a bounded phenomenon" (p. 8). Merriam indicated main characteristics that a qualitative case study structure should include. First, the study should be particularistic, meaning that it concentrates on a specific situation or phenomenon. Thus, this study focusses on a school's approach to inclusive education, centring policy, teachers, and practices. Secondly, a case study should be descriptive, offering rich and thick description of the

phenomenon. Through multiple methods within the case study approach, this study provides a rich and detailed description of the inclusive school and teachers in Saudi context. Thirdly, the study should be heuristic, meaning that it provides the reader with a clear understanding of phenomenon. Thus, this study imparts to the reader a deep understanding of this specific school's approach to inclusive education under the Tatweer project, focussing on teachers and their practices at this inclusive education school.

In adopting a case study, it was important to make several determinations. First, I had to decide what the case consists of, or where to draw the boundaries of the case. Miles and Huberman (1994) presented the case as "in effect, your unit of analysis" (p. 25), and Baxter and Jack (2008) suggested that the researcher should answer some questions to help determine the 'case' itself. Therefore, following that suggestion, with an experienced colleague at the University of Bristol, I discussed questions such as *Do I want to analyse the teachers? a programme? Or the difference between organisations?* Eventually, I settled on one inclusive education school as the unit of analysis. Since a main aim of my work was to present an in-depth understanding of the recent implementation of inclusive education in schools, the choice of a single school (located in Riyadh, the capital of Saudi Arabia) would allow me to widely investigate how the inclusive education approach was implemented with all students, including students with ASD. However, in considering the school as the 'case', there were multiple aspects to consider: in the school, there are (a) the teachers who teach at that primary inclusive school (accessed through interviews, observations, and 12 weeks spent in the school), and (b) the process of implementation itself (accessed through observation and documents).

Once the decision was made to centre the school as the unit of analysis, I considered several reasons to selecting the specific school for the study. First, Riyadh is the biggest Saudi city in Saudi Arabia and has a large multicultural population, Secondly, as mentioned in Chapter Three, there are only six schools that have implemented inclusive education from the reforms introduced in 2016, and all six are located in Riyadh. All of these schools are primary level and the standards are the same across the schools, even down to architectural aspects, such as the form of the school buildings. They are centrally managed and run by the Ministry of Education in collaboration with the Tatweer project. Thirdly, due the gender segregation system mandated in the Saudi context (see Chapter Three for an explanation), a total of three boys' schools have adopted the inclusive approach, and, as a male, I would only be allowed to access and observe one of those three schools. Finally, the specific school chosen from those

three has 29 students with disabilities, with 18 of which have ASD, which is the highest number of students with ASD across those three schools.

Other determinations were made regarding whether to gather data as a single case study at one school site or as multiple cases across multiple schools which could be then be compared. There were practical justifications for choosing a single case study context. Based on the explanation of the school sites that was mentioned above, I did not expect robust differences between the potential schools. Further, like many doctoral researchers, I was limited by time: the permissions obtained from the Saudi Ministry of Education allowed me three months of access time and so conducting multiple case studies required more time and resources than I had available.

But beyond practicality, there were also theoretical and methodological reasons to support the single case as more appropriate in my study: Dyer and Wilkins (1991) have claimed that adopting a single case study is better than several cases since a single case study can create more and better theory. From there, I had to decide on the type of single case study. Yin (2009) claimed that the selection of the study design will be led by the study objective, and he provided two subsequent study design types: exploratory and descriptive. In an exploratory case study, the researcher explores the data at a deeper level in order to explain a phenomenon; conversely, in a descriptive case study, the instead researcher describes natural phenomena within the case (Yin, 2009). My case study is holistic, encompassing both of these design types, which works to explain the complexities of a particular inclusive educational context. This case study includes in-depth description of the broader cultural context, school, teachers, management, and two relevant authorities in the Saudi educational context, namely Tatweer and the Ministry of Education.

The holistic approach is strengthened through using different methods to support to analyse the investigated phenomenon analysis (Yin, 2009). From this point of view, using different methods allowed me to provide a broad illustration of inclusive education in the Saudi context as I could see various angles of the chosen school. In my study, three different methods were planned for understading inclusive education practices in the Saudi context. A review of existing policy and government documents showed how inclusive education was formalised in the Saudi context. Interviewing educators provided their different views and perspectives regarding the complex concept of inclusion and ASD. Finally, I was able to observe the real practices of teachers both inside and outside of their classrooms and take in the whole school

environment, including the buildings, the necessary supportive services for students, and the resources used by teachers.

However, one of the limitations of a case study is that the findings cannot always be generalised since they rely on a small number of topics or upon a single group within a specific context (Yin, 2009). This study does not declare that the educators within the study are representative of all educators in Saudi context, and, as qualitative work, it is not aimed at generalising the findings for all inclusive education schools. However, since there are only six inclusive schools in Saudi context, findings from the study could be relevant and have some generalisable aspects for across these six inclusive schools, as all six must follow the same specific standards. Thus, the main aim of this case to present an in-depth insight into the new implementation of inclusive education and the practice of inclusive education for students with ASD in the Saudi context, focussing on teacher's understandings and practices. This study seeks to assist key stakeholders and policymakers in providing a current understanding of how inclusive education is carried out, along providing with a window into the practices of teachers and the factors that influence the implementation of inclusive education. For other researchers, this case study offers a first step for those also interested in inclusive education in the Saudi context.

4.4.1 The School

As stated above, the chosen school context is a male, inclusive education, primary-level public school, one of the six schools that implement inclusive education in Riyadh, Saudi Arabia. It is supervised by Ministry of Education in Saudi Arabia, as that government body is the responsible for hiring and paying teachers' salaries and providing services and resources, include overseeing the curriculum and organising training programmes. However, Ministry supervision for this school (and the other five inclusive education schools) is shared with the Tatweer Company, which offers training for teachers, guidelines for teachers and the school as a whole, and has some role in hiring teaching assistants for the inclusive classrooms in the school.

Foreshore, at the time of data collection (October 2018 – January 2019), the chosen school had 1,250 pupils, including those with SEND; this primary school has the highest number of students with ASD who study in an inclusive programme. The school has a school leader and two supervisors, with one supervisor specifically assigned to the inclusive classrooms. In the school, there are 29 students with SEND, 18 of whom have ASD. There are

two possible positions for teachers, and all teachers are either general education teachers or special education teachers, with 18 general education teachers and 8 special education teachers in total. The school also has one psychologist, and there was no teaching assistant employed in the school at the time of data collection.

The school building was constructed in the five years before data collection; construction was done by the Tatweer Company. The building has three floors: a ground floor, a first floor, and a second floor and one lift. There are more than 20 classrooms, only 6 inclusive classrooms that has students with SEND, all of which are on the ground floor. There are also three supportive rooms: a resources room, a sensory room, and a play room. Both the play room and the resources room are located on the ground floor and the sensory room is located on the second floor. There is a large garden outside of the building where the students go during the break. The school leader's office is on the ground floor, where the general education teachers' room and school administration office are also located. The special education teachers' office is on the first floor.

4.4.2 The Participants

A review of the literature indicates that teachers are the most crucial factor for effective inclusive education practices, and the implementation of inclusive education is significantly dependent on teachers' understandings and beliefs about inclusive education and ASD, primarily since their understanding impacts their practice (Ainscow, 2005; Booth & Ainscow, 2002; Hassanein, 2009; S. Lindsay et al., 2014; Norwich, 2008; Van Der Steen et al., 2020). Therefore, teachers were the most appropriate resource in providing rich information for this case study as they related to the inclsuvie education practices in their classrooms, they have direct interactions with the students with ASD, and, as indicated in Chapter Two, across, Saudi Arabia, teachers' perspectives on the implementation of inclusive education in the Saudi context have not been heard. Other educators, such as head teachers for inclusive education and child psychologists, were also considered important in this research and their input helps to achieve a complete picture with different perspectives for understanding inclusive education implementation in the Saudi context.

The sample for this study consists of general education and special education teachers who were teaching primary students with ASD in inclusive classrooms, along with the head of the inclusive programme and the psychologist, all present at the chosen school. All participants for the study were male (see discussions of gender segregation in Chapter Three), and so this

gender dimension is one shortcoming of the study. As a male researcher in the Saudi context, I would not be allowed to have access to a girls' schools to conduct interviews or observations with female teachers; further, all staff at a boys' school are also required to be male. Therefore, it is important to indicate that the findings of this study articulate the views of *male* teachers and other female educators may perhaps have other concerns and perspectives.

Due to the focus on teachers in the inclusive education approach, purposive sampling techniques were chosen. In qualitative research, purposive sampling is frequently used as it involves of the selection of participants possessing key knowledge or information related to the purpose of the study (Teddlie & Tashakkori, 2003). This purposeful sample is justified because it allows the researcher to select the most active and valuable sample to answer his/her research questions (Marshall, 1996). As the case study was conducted in one of the inclusive schools in Riyadh, potential participants were sampled from teachers within the school: there were eighteen general education teachers, along with eight special education teachers, and the head of the inclusive programme (who is also one of the special education teachers).

As with any research within schools, it is essential to gain permission from the leader of school (Wiles, 2012). In Saudi Arabia, I was required to have permission from the Ministry of Education in order to enter the selected school and have contact with the teachers as participants. I was asked to provide the researcher's supervisor support letter (see Appendix 3) and the interviewee questions that I intended to use (see Appendix 10), after doing so, official permission was sought from the Ministry of Education in Riyadh. It proved essential to have this official permission to access the inclusive school in Riyadh and communicate with teachers to conduct this research (see Appendix 2). I also adhered disciplinary ethics by following the guidelines put forth by the British Educational Research Association (2011). For more information, (see Appendix 1).

In a study that necessitated observation of teachers in their classrooms, it was important for me to gain the trust of the teachers so that they felt comfortable with me. As such, during the first two weeks, I visited the school three days a week in order to become familiar with the school, to build contacts, and to become familiar to the teachers. The leader of school introduced me to the head of the inclusive education programme, who showed me the buildings and the classrooms and introduced me as a researcher to most of the teachers in the school. I spent time with teachers during the breakfast break, discussing general topics and talking about my experience as researcher studying in the UK and the purpose of this research. Then, I started

selecting participants based on the purposeful sampling mentioned earlier. I invited them to participate in my study and I asked them for a suitable time to meet if they decided to take part in the study. I answered all of their questions related to this research and explained information related to my identity, the reason that I am at the school, and the purpose of my study. If they agreed to take a part, I provide a letter with written information about the project (see Appendix 4).

Table 6 Demographic Data of the Participants

	Teacher's position	Qualifications	Years of teaching	Years with inclusive education	Years with SEND
1	**Special Education**	Bachelor's degree in Special Education – autism	4	2	4
2	**Special Education**	Bachelor's degree in Special Education – autism	6	2	6
3	**Special Education**	Master's and bachelor's degree in Special Education – intellectual disability	8	2	8
4	**Special Education**	Master's and bachelor's degree in Special Education – intellectual disability	10	3	10
5	**Special Education**	Bachelor's degree in Special Education – autism	4	1	4
6	**Special Education**	Bachelor's degree in Special Education – autism	5	2	5
7	**Special Education**	Master's degree in Education Technology, bachelor's degree in Special Education – learning disability	15	2	15
8	**General Education**	Bachelor's degree – in Arabic language	17	1	1
9	**General Education**	Bachelor's degree – in Mathematics	17	2	2
10	**General Education**	Bachelor's degree – in Islamic education	7	1	1
11	**General Education**	Bachelor's degree – in Arabic language	12	1	1
12	**General Education**	Master's and bachelor's degree – in Physical Education	20	3	3
13	**General Education**	Diploma from teaching institution with no specific major	35	1	1
14	**Inclusive Supervisor**	Bachelor's degree in Special Education – autism	5	3	5
15	**Psychologist**	Bachelor's degree – Education Psychology	7	3	7

With a purposeful sampling procedure, my selection included both general and special education teachers who were teaching students with ASD in the six inclusive classrooms during the academic year of 2018/2019. The data regarding the participants' demographics is summarised in ***Table 6***. In total, 15 participants from the chosen inclusive school were selected for the semi-structured interviews employed for this study, with the participant group consisting of six general education teachers, seven special education teachers, the head of inclusive education, and a psychology specialist. From each classroom, there was one special education teacher, and one general education teacher. 12 out of the 15 participants were

observed in their classrooms for this study – all six general education teachers and six of the special education teachers. Only the psychologist and head of inclusive education (who was also a special education teacher) were not observed as they did not teach in classrooms.

As can be seen in ***Table 6,*** the seven special education teachers had between four and ten years' experience teaching students with disabilities, and between one and three years' experience teaching in inclusive classrooms. All seven of the special education teachers had a bachelor's degree in special education, and two of them had master's degrees in special education. The six general education teachers who participated in this research had between 10 and 30 years of teaching experience, and most of them had one year's experience in teaching in inclusive classrooms, with the exception of one participant, who had three years' experience in inclusive classrooms. All of them had a bachelor's degree, though that degree was in a variety of different subjects. The psychology specialist had a bachelor's degree in psychology education, and seven years' experience of working with individuals with disability, especially for students with ASD. Finally, the supervisor of inclusive education held a bachelor's degree in special education and had five years' teaching experience, including three years in inclusive education.

4.5 Methods of Data Collection

One strength of the case study is that it employs multiple sources of data. Using range of methods supports holistic analysis of the phenomena that is being investigated (Stake, 1995; Yin, 2009) and allows for triangulation, especially to ensure the quality required by the interpretivist approach. This study uses a range of methods, including document analysis, observation notes, and semi-structured interviews, to explore inclusive education focussed on teachers in the Saudi context. ***Figure 4-1*** and ***Figure 4-2*** illustrates the methods employed in data collection and the sequence and resulting forms of data produced, all of which were undertaken at the chosen school for a period of twelve weeks between October 2018 and January 2019. In the subsections that follow, I discuss each data collection method and the type of data collected from each.

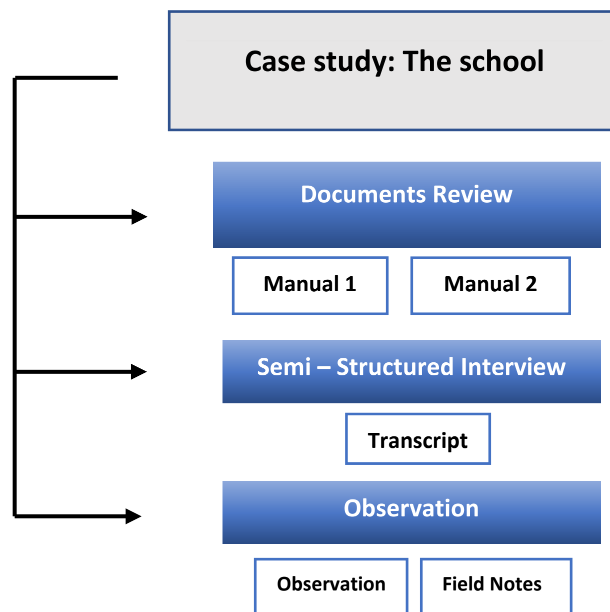

Figure 4-1 Methods employed for Data Collection.

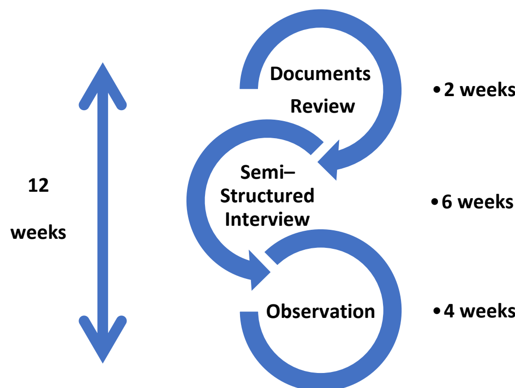

Figure 4-2 Diagram Showing the Sequence of Data Collection.

4.5.1 Semi-Structured Interview

The first method used in this study is interview. Creswell (2013) indicated that the in-depth data that interpretive research requires can be achieved through interviews, which provide rich insight into the perspectives of participants. Within my study, this form was deemed the most useful: interviews can provide rich data in exploring teacher's perspectives regarding inclusive education and ASD, and it seemed to be the most appropriate method for collecting teacher's views, behaviours, and interactions within the classroom (Krogh &

Lindsay, 1999). Utilizing semi-structured interviews allowed me to gain full, participant-led descriptions. Barbour (2000) stated that the use of semi-structured interviews to undertake research around disabilities allows flexibility and a focus on topics that are relevant to the participants. Harrell and Bradley (2009) also noted that interviews let the researcher to remain in overall monitoring but at the same time gives 'space' to the participants. This was the case in my study: interviews enabled each participant to expand upon the aspects of their work that they felt were most significant.

Semi-Structured Interview Questions Procedure. In order to ensure consistency of the questions and to guarantee the exact area of data gathered from each participant, I used an interview guide with the participants. Interview questions were designed in respect of the research objective and research questions that emerged from the literature review. I ensured that the interview questions allowed participants to provide relevant information and they were designed with language that the participants would find comfortable and understandable (Bryman, 2016). To achieve comfort and familiarity, interview questions continually used phrases such as "in your opinion" and "what do you think?. Interview questions covered a number of subjects related to teachers' understandings, practices, and implementation of inclusive education. The questions were divided into two sections: Section A focussed on *exploring teachers' preparation, training, guidance*, and Section B on *exploring classroom practice and experiences* (see Appendix 10 for lists of Section A & B interview questions).

I initially planned for a pilot study to be carried out in March 2018 to check the suitability of questions and begin the selection of participates in preparation for data collection in October 2018. However, data collection approval from School of Education in University of Bristol was not available until July 2018, at which time the school summer holiday started in Saudi Arabia. Also, I could not access a school in Saudi Arabia without having permission from the Ministry of Education since it required the University of Bristol approval (which was delayed). Nevertheless, suitability of questions was reviewed by my doctoral supervisors and one of the members of my progression at the University of Bristol before data collection was conducted; further, significant feedback was provided by a colleague who was studying for a PhD in ASD in the US and had three years' experience working as a primary teacher for students with ASD in Saudi Arabia.

In conducting in qualitative research, it has been suggested that the researcher should use the same language as the participants use, which ensure that participates provide honest

and accurate expressions, opinions, and sensitive matters (Irvine et al., 2008). Therefore, translation of questions was required as the participants' and the researcher's native language is Arabic, which is also the language used in the school. Translation of the research questions was carried out by the researcher before data collection. To ensure clarity of meaning, the Arabic version of the questions was reviewed both by the same colleague who reviewed the English version and another PhD student at the University of Bristol, who is also an Arabic native speaker.

When I conducted the interviews, I asked all of the questions from the interview question list. However, I did not use the same question order with all participants, since sometimes a subject was raised in the beginning of interview and then, in response, I provided a related follow-up question from the list, trying to give more time to that subject's answers without his response being impacted by my bias. This approach aligns with Creswell (2013), who argued that semi-structured interviews offer flexibility for the interview questions to be reworded. Further, after conducting the first interview, the questions order was changed, as I felt that teachers' opinions regarding the implementation of inclusive education should not be in the beginning of the interview, as I had initially planned.

Conducting the Interview. Each participant interview lasted between 30 and 45 minutes and took place during working hours within the school. I conducted one interview per day, asking teachers for their preferred time during the school hours, such as during gaps between their classes or the break time. In conducting interviews in qualitative research, its essential for participants to feel comfortable in a private space so they can be open and not be overheard (DiCicco-Bloom & Crabtree, 2006). Therefore, interviews were conducted in a quiet area away from other teachers or students. Most of the special education teachers preferred to use the special education teachers' waiting room when it was empty. I asked for the participant's preferences for the location of the interview so they would be at ease. For general education teachers, two interviews were held in classrooms when the students were not there, and two interviews took place in the office of the head of the inclusive education programme when that room was empty. All interviews took place in Arabic and a portable digital voice recorder was used for recording (Sony ICD-PX470) since it removes the background noise and makes it easier to manage the audio recordings.

I started conducting the interviews after spending almost a month with teachers in November 2018; I wanted to build the trust and confidence needed for effective, conversational

semi-structured conversation and to avoid damaging the integrity of the research (Mertens & McLaughlin, 2011). Towards building trust, from the first week of my work within the school, I sought to talk to each teacher individually, introducing myself and sharing my experiences. Since I used to be a teacher, I was able to establish a bond with them around this aspect. As the teachers became more familiar and interacted more casually with me, we had different conversations before conducting the interview; I felt that this lead-up period was a valuable contribution to the interviews, because it seemed to create a friendly and relaxed environment and one with trust between the researcher and participant.

The interviews started with discussion of general topics for five to ten minutes; I informed the participants that there are no right or wrong answers, and that they had the right to choose to not answer any question that they wished. I emphasised that I was not examining or evaluating the school, as the research focussed only on observing what occurs in the school, and there was no comparison with other schools, and no judgments or evaluations of their performance were considered in the writing up the research findings and discussion. I ensured that all the participants understood the nature of the research and the process from the start of the research until the end, including why their participation was necessary, how the data would be used, and how the data would be reported. During the interviews, I made notes about the interviewees, such as their tone of voice, their eye contact, their confidence on certain points, and their physical gestures (Mero-Jaffe, 2011). Finally, at the end of each interview, each participant was offered the chance read the transcript for their feedback and comments in order to validate the transcripts as further suggested by Mero-Jaffe (2011).

4.5.2 Observation

The second method used for this case study was observation. Observation is defined as the process of watching a real world situation and recording or make notes as activities occur (Matthews & Ross, 2010). In educational research, Kozleski (2017) explained that observation helps to understand the nature of the context and the classroom by capturing the teacher's role, confidence, teaching skills, and any form of discussion between teachers and students, all of which cannot be captured by a researcher without their attending and seeing the real world of a setting. Observation also allows the researcher to obtain depth and meaning in context and provides comparison between what was said in the interview and what is observed in the classroom (Cohen et al., 2007; Merriam, 2009).

For this study, I used direct observation for the following objectives: to identify how teachers apply their understanding of inclusive education and ASD; to record teachers' use of specific strategies; to see if teachers are following the inclusion manuals and to observe first-hand how frequently such strategies are employed; and to explore aspects that might not have been identified if I were to only carry out interviews. During the observations, I took notes. I also used note-taking to record observations around the school, focussing on behaviours and events in the environment. These field notes were an important source of data to capture what I saw, heard, and experienced in the settings; they helped in my reflection on all of the different methods used in this case study (Cohen et al., 2007).

Conducting the Observation. All of the teachers, along with the parents/guardians for students with ASD, received an information sheet that had details about the observation to be conducted (see Appendices 4 and 5). After they agreed to take part or to allow their child to take part, teachers and parents/guardians were provided with a consent form (see Appendices 6, 7, and 8). In the interviews, all of the teachers agreed to be observed in their classrooms, and all parents signed to show their approval for me to observe students with ASD in the classroom. On the form, I provided my contact details so that parents could call me with questions: one parent took advantage of this and I answered all of her inquiries and she agreed for her son to be observed. The students with ASD also were asked for their consent, but that consent request was less formal and restrictive.

Six inclusive classrooms were observed; each had two teachers during the different subject lessons: a general education teacher and a special education teacher. Each of the six direct observations were organized on different days to have more focus on each observation; this choice also helped for adding notes later in the day. For the observation inside the classroom, I created a 'proforma' which used the guidelines of the inclusive programme in Saudi context from the Tatweer manuals and included spaces for the information needed for this study. These proforma assisted me to capture the practices of each teacher concerning the strategies available for use with ASD students, the strategies implemented in the classroom, and how both of the teachers were or weren't able to implement them.

The classroom observations took place during the last four weeks of my data collection period. When conducting classroom observations, I ensured that my location did not distract the students, so I would sit in the back corner of the room. I was focussed on the teachers' interaction with the ASD students and the interaction between students with ASD and their

teachers. I hold that direct observations were crucial in investigating the implementation of inclusive education guidelines (as indicated in the Tatweer manuals), in understanding whether those policies were transformed into real practice in the classrooms, and in being able to see first-hand whether teachers applied what they said in the interview about teaching students with ASD.

I encountered a few challenges and difficulties in the direct observations. A common concern with the method is that teachers may change their performance when an observation is conducted (Cohen et al., 2007). I also found that a number of the students with ASD did not come to school every day and I had asked for the reasons for their absences and I could not find answers. Therefore, I visited each classroom several times before conducting the observation, checking with the teachers if students with ASD were present or not. This step helped and made teachers feel comfortable; it also helped me to make students more familiar with my face, as they may also act differently when a new person enters the classroom (Cohen et al., 2007). A final challenge was that I planned to observe the teachers and see their interactions with the students in the three supportive classrooms in the school (the Play Room, Resource Room, and Sensory Room). Disappointedly, I found that the teachers did not use these classrooms during my data collection in the school as they all required maintenance.

Field Notes. My general observation of the school and the resulting field notes strengthened the data collected from the interviews and documents and ensure the credibility of research by providing triangulation for the data (Shenton, 2004). From the second week into my data collection, with permission from the leader of school, I observed daily school life, focussing on the environment, including the school buildings, maintenance, and facilities. Specifically, notes were taken regarding aspects of implementing inclusive education practices in the school, and I wrote down relevant information such as events that happened or behaviours of teachers and other staff, such as teachers' interactions with students (Cohen et al., 2007). For example, I observed and noted teachers' behaviours, actions, and if they were implementing inclusive education practices in the morning assemblies. I also noted relevant discussions between teachers that were around the students with ASD in the school. Field notes was taken for every day that I was in the school, and my field notebook was with me at all times.

4.5.3 Document Review

The third method used for this case study was a review of key documents. As discussed in Chapter Three, the King Abdullah Project for General Education Development (known as the Tatweer Project), which includes the six inclusive schools amongst other initiatives, is a new project, two main documents for the project such as the project guidelines which I considered very important to my study. A review of documents was important as it provided rich information regarding how Tatweer intended implementation of inclusive education, and what guidelines and definitions were adopted in the school. Therefore, documents from the Tatweer manuals provided crucial data to understand how inclusive education was planned in the context, including the standards of implementing inclusive education and the strategies for teaching in inclusive education. These documents were official Tatweer manuals issued by the Tatweer Company in collaboration with the Ministry of Education in Saudi Arabia. The documents included:

1) The technical manual (Tatweer Company for Education Services, 2016c), which provides an overview of the "what" of inclusion: that is, information about what needs to be in place for inclusive educational practices to occur.

2) The implementation manual (Tatweer Company for Education Services, 2016a), which is concerned with the "how" of inclusion, with details of how to implement the activities and processes related to inclusive educational practices, such as service delivery and early intervention.

4.6 Data Analysis

After data has been collected, the next step in the research process is to make meaning from that raw data (Cohen et al., 2007), though meaning making is not a simple process due to the variety and richness of the qualitative methods used. Creswell (2013) noted that there is no singular approach to data analysis with qualitative research, but approaches such as thematic analysis are widely used (Bryman, 2016). Here, thematic analysis is defined as a technique "for identifying, analysing, and reporting patterns (themes) within data" (Braun & Clarke, 2006, P.79). I used the six phases of thematic analysis suggested by Braun and Clarke (2006) (see

Figure 4-3); however, these six phases were not used in order as I moved back and forth within the process.

Phase	Description
Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code
Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme
Reviewing theme	Checking if 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.
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
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.

Figure 4-3 Braun and Clarke's (2006, p. 87) Approach to Thematic Analysis.

Thematic analysis was chosen for analysing the documents, interviews, and observation data because of the theoretical assumption of my study: Braun and Clarke argued that thematic analysis develops a link between individuals and the social world, as the data represents an individual's perspectives and ideas as well as looking at the context that surrounds those individuals. Within my theoretical assumptions, thematic analysis overlaps with the guiding foundations of this study, namely those of interpretivism and social constructivism which assume that the views of individuals have a link with the context. In the following subsections, I discuss in detail my process of data analysis.

4.6.1 First Phase: Becoming Familiar with the Data

I began by re-familiarising myself with the data obtained during the collection process; this re-familiarisation started during transcription, where I engaged more deeply with the interview data especially. I began transcribing once I finished data collection and returned to the UK in January 2019. All interviews were conducted and transcribed in Arabic. Once all 15 interviews were transcribed, each was printed for re-reading and notation, with ideas also identified in Arabic. At this stage I also attempted to highlight relevant information while producing the transcripts, and I took notes and drafted ideas that assisted in analysis.

However, with such a large amount of raw data from the interviews, observations, and documents, I experienced difficulties in manually organising all of the data. Therefore, I

decided to use the software programme NVivo as an organisational tool. I was aware it would not perform data analysis, as might a statistical software package such as SPSS, but NVivo would be especially useful as an organisational tool with flexibility to create new codes, to un-code, to add codes together, and to reduce data in order to find and link themes together. To conduct that work with a manual method would be challenging and require more time for analysis (Basit, 2003; Bazeley & Jackson, 2009). In order to use NVivo software, translation of data into English was required since the software did not supported the Arabic language.

It has been argued language is fundamental in qualitative inquiry and some researchers have called into question the process of translation involved when the data is collected in one language and analysing in another (Temple & Young, 2004). However, since I share the linguistic and sociocultural context of my participants, I worked to produce a translation that would have a strong change of expressing their meaning with validity (Baker, 2011; Temple & Young, 2004). Therefore, data from interviews and observations were re-read and I then translated the data into English, which helped for more engagement and familiarisation within the data. My translation was then member-checked by an Arabic-speaking colleague from the University of Bristol to ascertain the accuracy of the translation. As I went through these stages of transcription and translation, I highlighted new and few relevant initial codes, though the entire process of writing the transcription and translating all of the data was time-consuming. However, this time was not wasted: as Braun and Clarke (2006) have explained, all of these tasks function as early stages of analysis that help to develop an understanding of the data.

4.6.2 Second Phase: Generate Initial Codes

The second phase of Braun and Clarke's (2006) analytical method involves the production of initial codes, and they explained that in order to identify the requisite themes, researchers can use either an inductive or a deductive approach. Grounded theory tends to employ an inductive approach to extracting themes from the researcher's findings, whereas a deductive approach is useful for focusing on a specific feature of the data, or a particular finding that is better clarified or understood in the context of the pre-existing literature (Braun & Clarke, 2006). My approach was a combination of these: I commenced by using the deductive approach, first highlighting the codes that were related to the extant literature, and then adding the other codes that emerged, which were not related to the previous literature. At this stage, I created a handwritten mind map of the aspects that arose within the previous literature. However, as noted, other topics also emerged that were not related to the literature relevant to

my study. ***Figure 4-4*** shows in blue the points from the extant literature, including teachers' understanding of inclusion, collaboration, teachers' training, and teachers' teaching strategies. Meanwhile, the additional topics that emerged that were not present in the previous literature relating to my study are shown in green, and include 1) teachers' preparation, 2) competence of teachers, 3) inclusion policy, 4) teachers' finance, and 5) teachers' motivation.

Figure 4-4 Handwritten Mind Map of Themes.

When the English transcriptions data were uploaded into NVivo. I started to generate codes for the interviews again, which was the most substantial source of data. I created a list of initial codes (called 'nodes' in NVivo); under each node, I created sub-nodes as well. The list of nodes was created through consideration of the transcription and translation notes, ideas from Phase 1, and mainly came from the features of literature that related to the research questions. The list of codes including the main elements derived from the literature such as teachers' understading of inclusive education, the elements affecting inclusive education implementation in schools include training, collaboration, teachers teaching strategies explained in Chapter Two.

After compiling an initial list of nodes in NVivo, I re-read each interview line by line and categorised relevant extracts with the initial nodes and added new nodes while reading (the codes emerged that were not related to the literature of my study); this process was to ensure that the transcriptions were fully categorised (see interview and observation transcriptions with coding examples in appendices 11 and 12). However, not all lines were categorised, as some

of the data were not relevant to my study focus; this data-reduction technique helped focus on the data which would be meaningful to the research questions (M. Miles & Huberman, 1994). I followed the same process with the observation notes and Tatweer documents, and categorised them with existing nodes and new nodes added throughout the coding process. Taken together, the interviews, observation notes, and Tatweer documents data account for 70 nodes classified at this stage. Examples of these codes can be found in ***Table 7.***

Table 7 Sample Codes.

<table>
<tr>
<td>1. Cases are not alike.
2. No Interactions.
3. No communications.
4. Lack of eye contact.
5. Hand flapping.
6. Isolated.
7. Disability relative.
8. Personal reasons.
9. Randomly.
10. Religion.
11. Reward.
12. Near school.
13. Self-learning.
14. Small number of students.
15. Reward.
16. Salary.
17. Job opportunities.
18. Satisfied with teaching.</td>
<td>19. Supportive.
20. Positive.
21. Negative.
22. Only high function. students
23. Before teaching opinion.
24. After teaching opinion.
25. Social skills.
26. Communication strategy.
27. Visual strategy.
28. Eye contact.
29. Assistive technology Tatweer.
30. Resource.
31. One to one teaching.
32. Simple.
33. Lecture with questions.</td>
<td>34. Lack of participation in school.
35. Activities with other students.
36. Special education teachers' responsibilities.
37. Not specific strategy.
38. Peer tutoring.
39. No attention
40. Labelling
41. Administration.
42. Not support.
43. Support.
44. Collaboration.
45. Classroom size.</td>
<td>46. Teacher's assistant.
47. Supervision.
48. Self-training.
49. Three days training.
50. No- training.
51. Students with SEND.
52. IEP plan.
53. Saudi's community.
54. Tatweer strategies.
55. Tatweer supervision.
56. Tatweer training.
57. Tatweer not suited with the Saudi culture.
58. Huge guidelines.
59. Manuals not obligated.</td>
<td>60. Tatweer commitment.
61. SEND students.
62. Include general Education classroom.
63. Access.
64. Participation.
65. All students Together.
66. Social skills.
67. Their Right.
68. Boys and girls.
69. Engagement.
70. No difference.</td>
</tr>
</table>

4.6.3 Third Phase: Searching for Themes

In this phase, I focussed on a broader level of data analysis by merging these codes into potential themes and adding the relevant extract data from the codes into the named themes. During this process, I wrote down these 70 codes on paper to visualise how to order or group these codes into potential themes with consideration given to themes related to the existing literature of this study. At this stage, patterns from the data were identified related to the research questions. Initial thematic maps were identified including thematic mappings such as Teachers' understanding of inclusion, behaviour of students with ASD, issues of inclusive education in the school, Tatweer resources, high number of students (student numbers), teaching strategies, teamworking, school activities, training, and school influence. ***Figure 4-4*** illustrates a mapping of those initial themes.

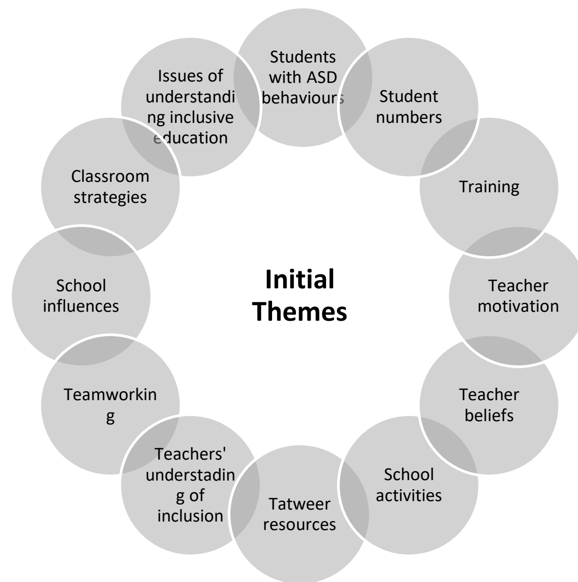

Figure 4-5 Initial Thematic Map.

4.6.4 Fourth Phase: Reviewing the Themes

In the fourth phase, I mapped different themes for the case study. In order to review the themes, I used NVivo to match relevant codes together and look for ways to separate and differentiate the code. For example, I separated codes in relation to the two types of teachers, looking for relationships between a node and whether the participant was a general or a special teacher. I was also looking for codes that related to each other and tied them together coherently. I found that teachers' motivation and beliefs appeared related to their understanding of inclusive education, and so I created a new theme named *factors affecting understanding of inclusive education*, which included the sub-themes of motivation and beliefs. The data thus demonstrated that special education teachers had different motivation from the general education teachers. I created further sub-themes within the motivation/belief subthemes, to account for these differences, as illustrated in ***Table 8.***

Table 8 Sample Themes 1

Theme	*Sub theme*	*Subthemes*	*Codes*
Factors affecting teachers' understanding and practices	***Teacher's Motivation***	*General education teacher motivation*	9. Randomly. 10. Religion. 11. Reward. 14. Small number of students.
		Special education teacher motivation	7. Disability relative. 16. Salary 17. Job opportunities. 8. Personal reasons. 12. Near school to home 13. Self-learning. 18. Satisfied with teaching.
	Teacher's Beliefs	*Beliefs around inclusive education*	19. Supportive. 20. Positive. 21. Negative. 23. Before teaching opinion. 24. After teaching opinion.
		Beliefs around improving the social skills for students with ASD	22. Only high function. students. 25. Social skills.

Another example that emerged at this stage was how classroom strategies and school activities were tied to each other since both related to practices of teachers in the school. Therefore, I created a new theme called *inclusive practices* that replaced both *classroom strategies* and *school activities* from ***Figure 4-4***; I assigned it two sub-themes: inclusive pedagogy inside of the classroom and inclusive pedagogy outside the classroom. This new theme included all nodes that were related to both types of teachers' practices as gleaned from interviews and observation (see ***Table 9***).

Table 9 Sample Themes 2

Theme	*Subthemes*	*Codes*
Teaching practices	***Inclusive pedagogy inside the classroom.***	26. Communication strategy. 27. Visual strategy 28. Eye contact. 31. One to one teaching. 32. Simple. 54. Tatweer strategies. 33. Lecture with questions. 36. Special education teachers' responsibilities. 37. Not specific strategy. 38. Peer tutoring. 29. assistive technology Tatweer. 30. Resource.
	Inclusive pedagogy outside the classroom	34. Lack of participation in school. 35. Activities with other students. 39. No attention 40. Labelling

In focussing on the school practices, different themes emerged from those evident in the first thematic map (see ***Figure 4-4*** above). In this stage, I made changes to several of the themes that were present in that initial mapping, including *school influence*, *teamworking*, *Tatweer resources*, *training*, and *student numbers*. In reviewing the themes related to the *school influences*, the data were used in this process came from documents were used to find relevant information related to the teachers' perception and practices; I was also interested where the data showed how Tatweer manuals were used in planning the approach to inclusive education. A new theme emerged in this process called *Tatweer implementation*, which included two sub-themes: Tatweer manuals (where I moved the earlier theme of *Tatweer resources*) and teacher's assistant (which appears later in the discussion of data: see Chapter Five). Additionally, in reviewing the theme of *school influence*, I found that *teamworking*, *student numbers* and *training* were related to the theme of *school influence*, and so I collapsed the other themes into this broad theme. Consequently, the theme *school influence* at this stage had four subthemes: Tatweer implementation, lack of training, lack of teamworking, and high number of students. (See ***Table 10***).

Table 10 Sample Themes 3

Theme	*Subthemes*	*Codes*
Tatweer implementation	***Tatweer manels***	54. Tatweer strategies. 55. Tatweer supervision. 56. Tatweer training. 57. Tatweer not suited with the Saudi culture. 58. Huge guidelines. 59. Manuals not obligated. 60. Tatweer commitment. 52. IEP plan. 53. Saudi's community.
	Lack of teacher's assistants	46. Teacher's assistant.

4.6.5 Fifth Phase: Defining, Naming, & Further Review of Themes

In this fifth stage of thematic analysis, I continued to revise the themes and the codes within the themes. Braun and Clarke (2006) described the fifth stage as a process of continuing analysis to enhance the particulars of each theme and to generate definitions and names for each theme in order to produce a holistic picture of the data. In reviewing the thematic maps, I looked for 'border' spaces and overlaps between themes or codes in order to refine each. Eventually, I decided to label the main 'umbrella' themes as *sections*, under which are 11 main themes; a litany of different sub themes emerged from the codes and are placed according to the relevant section. The five main sections, themes and sub-themes, including the codes, are presented in ***Figure 4-6*** and ***Table 11.***

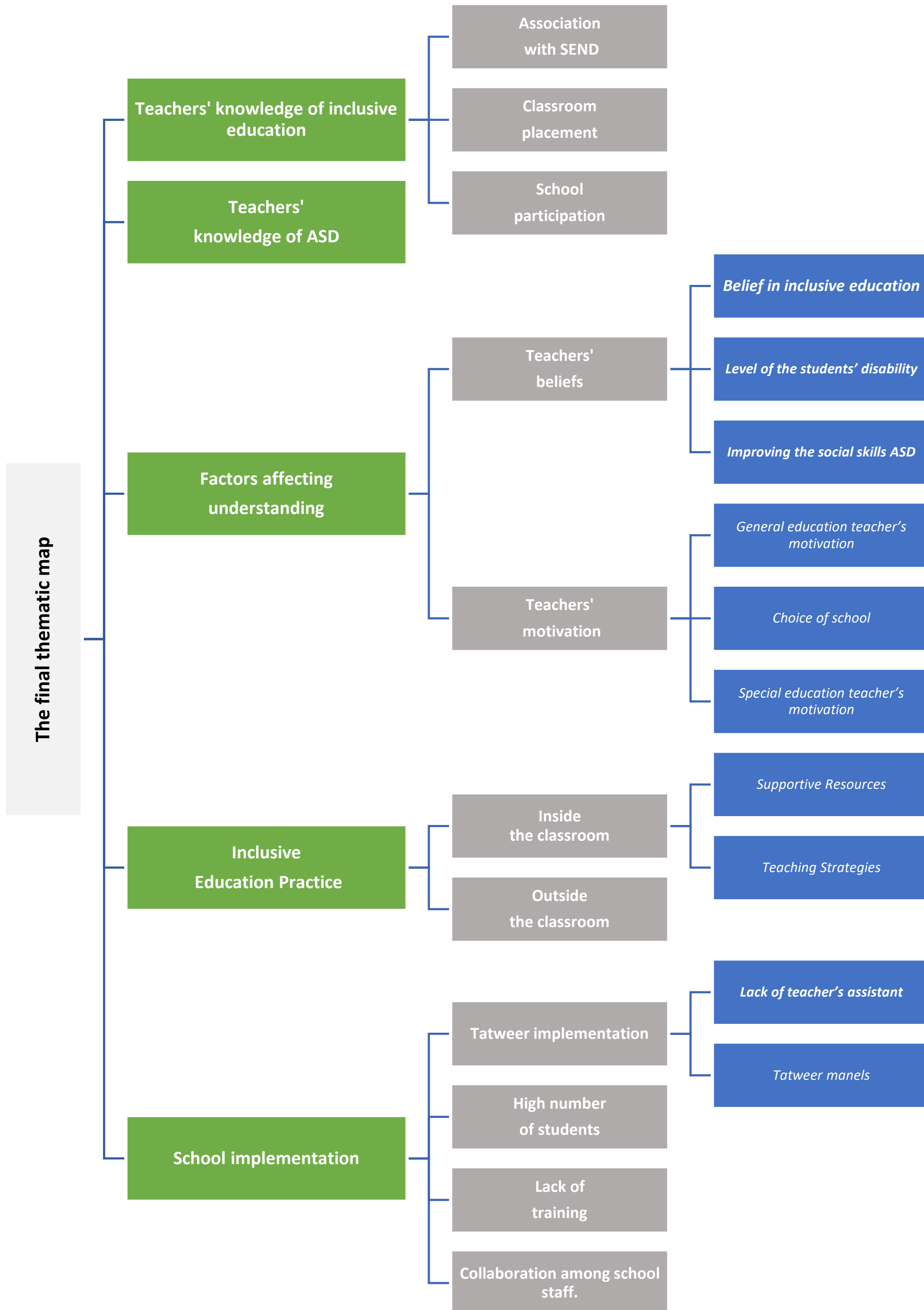

Figure 4-6 Final Thematic Map

Table 11 Final Thematic Table.

Sections	Main Themes	Sub-themes	Codes
School implementation	**1- Tatweer implementation**	*Tatweer manels*	54. Tatweer strategies. 55. Tatweer supervision. 56. Tatweer training. 57. Tatweer not suited with the Saudi culture. 58. Huge guidelines.
		Lack of teacher's assistant	59. Manuals not obligated. 60. Tatweer commitment. 52. IEP plan. 53. Saudi's community. 46. Teacher's assistant.
	2- High Number of students.		48. Self-training. 49. Three days training. 50. No- training. 56. Tatweer training.
	3- Lack of training.		45. Classroom size. 51. Students with SEND.
	4- Collaboration among school staff.		41. Administration. 42. Not support. 43. Support. 44. Collaboration. 47. Supervision.
Teacher's knowledge of inclusive education	**5- Associated with Special Educational Needs and disability** **6- Classroom placement.** **7- School participation.**		61. SEND students. 62. Include general education classroom. 63. Access. 64. Participation. 65. All students Together. 66. Social skills. 67. Their Right. 68. Boys and girls. 69. Engagement. 70. No different.
Teacher's knowledge of Disability and ASD			1. Cases are not alike. 2. No Interactions. 3. No communications. 4. Lack of eye contact. 5. Hand flapping. 6. Isolated.
Factors affecting Teacher's understanding	**8- Teacher's Beliefs.**	*Belief in inclusive education*	19. Supportive. 20. Positive. 21. Negative. 23. Before teaching opinion. 24. After teaching opinion.
		Level of the students' disability	22. Only high function students.
		Improving the social skills ASD	25. Social skills
	9- Teacher's Motivations.	*Choice of school*	12. Near school to home
		Special education teacher's motivation	7. Disability relative. 8. Personal reasons. 13. Self-learning 16. Salary. 17. Job opportunities. 18. Satisfied with teaching.
		General education teacher's motivation	9. Randomly. 10. Religion. 11. Reward. 14. Small number of students.
Inclusive Education practices	**10- Inside the classroom.**	*Teaching Strategies*	26. Communication strategy. 27. Visual strategy 28. Eye contact. 31. One to one teaching. 32. Simple. 54. Tatweer strategies. 33. Lecture with questions. 36. Special education teachers' responsibilities. 37. Not specific strategy.
		Supportive Resources	38. Peer tutoring. 29. assistive technology Tatweer. 30. Resource.
	11- Outside the classroom.		34. Lack of participation in school. 35. Activities with other students. 39. No attention 40. Labelling

4.6.6 Sixth Phase: Producing the Report

The final phase for thematic analysis suggested by Braun and Clarke (2006) is the production of the report. For my research, the thematic analysis and findings presented are separated in two chapters (Chapter Five and Six). Chapter Five provides the data related to Research Question 1 regarding the main factors of inclusive education implementation; Chapter Six presents the data of this research regarding Research Questions 2 and 3, which are concerned with teachers' understanding of inclusive education and ASD and their practices. These chapters present the findings derived from analysis and provide extracts from the different data sources to support the findings generated.

4.7 Ethical Considerations

Bryman (2016) indicated that ethical issues are important considerations in social research since they directly reflect the honesty of the research. Therefore, this research was conducted within the guidelines provided by the British Educational Research Association (BERA, 2011), and the research plan was approved by the Ethics Committee at the School of Education at the University of Bristol (see Appendix 1). The principles of informed consent, voluntary participation, and avoidance of harm to participants are evident in the published ethical guidance documents and are discussed in detail here.

4.7.1 Informed Consent

The main ethical considerations for qualitative research involve of obtaining informed consent from participants and offering them the right to withdraw, along with protecting their identity and confidentiality (BERA, 2011; Bryman, 2016; Christians, 2005; Cohen et al., 2007; Wiles, 2012). Indeed, the BERA Revised Ethical Guidelines for Educational Research (BERA, 2011) explained informed consent as ensuring that all participants understand the research process:

> *Researchers must take the steps necessary to ensure that all participants in the research understand the process in which they are to be engaged, including why their participation is necessary, how it will be used and how and to whom it will be reported. (p. 5)*

All participants involved in this research were provided with an information sheet and a staff consent form in Arabic language (see Appendices 6, 7, and 8) which contained details about the proposed observation and interviews, including the purpose of my study, the duration of the observation and interview, the kinds of questions that would be asked, their role in taking part, the voluntary nature of participation, a promise of anonymity, and data security with the use of a secured, password-protected computer, and, finally, all of the contact details regarding the researcher and the supervisor from the University of Bristol.

In addition to participants, there were ethical issues related to the exposure to students at the school site and during the classroom observations. The students in the study were children with ASD, aged between 7 to 12; even though the children were not directly providing data as participants, I was still conducting observation within their classrooms since their interactions with the teachers were relevant for my research. Therefore, the parents/guardians of the students with ASD were provided with consent forms and detailed information sheets, as indicated earlier (see Appendices 5 and 8). The information sheets for parents/guardians included the promise that I was only focussed on teachers and not the students. In order to conduct the observation, I only took written notes, and no recording was made of the students.

However, even with these procedures, I was still concerned with ensuring that pupils themselves were informed about the study. In relation to this point, Flewitt (2005) indicated that in conducting research with young pupils, the pupils have the right to articulate their viewpoints as the matter involves them directly. In this research, the children with ASD were asked for their consent, and, Flewitt suggested, the nature of the consent with young children was less formal and restrictive and took the form of 'provisional consent' (p. 565). Therefore, in each classroom that I visited, I explained the nature of the study and why I was in the school; I provided this information with a basic, simplified level of language to ensure that all of the students understood that I was visiting the classroom to observe the practice of the *teachers*.

4.7.2 Ethical Considerations in Writing the Thesis

As noted in this chapter, this research was carried out in one of the six new schools that adopted an inclusive approach, and thus careful considerations were made regarding sensitivity in presenting the outcomes of the study. Consideration had to be made in term of how the gatekeepers would receive information regarding the findings and how participants would be protected from any reaction from their gatekeepers. Wiles (2012) argued that ethical decisions

are made to ensure the protection of participants' rights and the prevention of every kind of harm to that may happened to participants as consequence of their involvement in the study. Treweek and Linkogle (2000) provided examples where research may not directly harm participants, but the researchers demonstrated that those participants may feel they have been used without respect being shown to their sense of privacy. Therefore, in relation to the participants, a researcher must consider ethical approaches to protect the participants and ensure their confidentiality in the resulting research (Wiles, 2012).

In this study, all the fifteen participants were involved from the beginning of the research process. I informed all the participants that their participation was voluntary and that, to protect their relationship with the school, they would be asked for their consent at each stage in the process. In addition, the participants' privacy and anonymity was carefully protected during the writing up and reporting of the findings, and no personal information was reported, especially since some participants shared sensitive information about their opinions regarding administration of their schools, the Ministry of Education, and the Tatweer Company. Hence, in presenting the findings in Chapters Five and Six, each teacher's number and name were removed; this ensured that teachers were completely anonymous and non-traceable. In some sections, there was also no distinction between special and general education teachers for the same reason. Moreover, each participant was informed that their data would be securely stored and used only for my thesis and accompanying academic publications, and academic conference presentations, in accordance with the legal requirements of data protection and usage.

Another ethical consideration in this research was regarding how the gatekeeper would receive the findings of this study. In this research, the gatekeepers belong to two different areas of administration: first, the leader of school, and second, the Ministry of Education. I involved the leader of school and Ministry of Education engaged with the process of research from the beginning. They were aware of the reasons for this study and that it is the first of its kind to investigate inclusive education practices in the Saudi context, and so it might have potential to influence policy and practice there. I assured them that all data would be kept confidential and used only for the purpose of this study, such as using a pseudonym for the school and ensuring that no personal information is reported in the writing of the thesis. I kept the leader of school informed about my progress every time I met him in the school, and I answered all of his inquires. Also, on the last day of my data collection, I went to his office, and providing a brief of all steps of my data collection process, and he was supportive and provided me with a letter

to confirm that I had collected data in his school. Then, I went back to the Ministry of Education in Riyadh and provided them with a brief about the data collection, and they offered a letter certifying that I had completed the data collection (see Appendix 2).

4.8 Trustworthiness of the Study

The quality of qualitative research is based on the trustworthiness of the results of the study (Merriam, 1988). In measuring trustworthy of research in the qualitative studies, Lincoln and Guba (1985) proposed various measures can help ensure trustworthiness, which include credibility, transferability, and confirmability. Credibility is dependent on how to prove truth regarding the results of the study (Lincoln & Guba, 1985). This research used a number of procedures to ensure credibility, one of which was triangulation (Ghesquière et al., 2004). Bryman (2016) explained triangulation as employing more than one method for gathering specific in the studying a social phenomenon. Within my study, the three different sources included documents review, semi-structured interviews, and observation, which were employed to complement each other within the case study (Yin, 2009).

Peer debriefing or member checking is another approach employed for the credibility of this research (Ghesquière et al., 2004). Member checking involves the research to engage regularly with a person who is aware of the research and can provide questions and analysis the interpretations which can help to limit the bias of the research (Ghesquière et al., 2004). In doing the data analysis in this study, I used several forms of member checking, for example when themes and codes were discussed with two colleagues from the University of Bristol School of Education who were also studying for a PhD. There, each step of the data analysis was discussed and feedback was provided multiple times to ensure that data expressed the participants' ideas and beliefs whilst limiting the influence of my own personal attitudes (Shenton, 2004).

Transferability is another measure that enhances the trustworthiness of the study. Transferability is concerned with whether the results within a specific context can be applicable in other contexts (Shenton, 2004). The data collected in this study was for one inclusive school in the Saudi context, and so there are possible limitations regarding the transferability of data. However, Shenton (2004) has claimed the research should offered rich description in the specific study context which may allow for transferability to a similar context or situations. In this research, rich data is presented around some of the following aspects: education policy for

inclusive education in the Saudi context, teaching strategies in inclusive classrooms, Saudi sociocultural norms, and the different positions of participants; there is also richness in the sheer amount of data collected, which includes fifteen semi-structured interviews, six classroom observations, and review of two lengthy Tatweer documents. Also, the methods used for collecting the data in this study, including the technique of conducting interviews and observations, have been explained in great detail to ensure the dependability of the research (Guba, 1981).

Finally, this research used confirmability as measures for the trustworthiness. Shenton (2004) explained that confirmability in qualitative studies is concerned with establishing objectivity and ensuring that a researcher can overcome bias in reporting the results of the study. This study employing different sources of data (interviews, observation, and document review) to reduce the bias of the researcher. Also, different types of participants (general education teachers, special education teachers, the head of inclusive education, the psychologist, etc.) provided richness of data, giving opportunities to look at the data from different perspectives (Lincoln & Guba, 1985). Additionally, self-reflexivity is another way to ensure better objectivity and transparency; my forms of self-reflexivity are discussed in the next section.

4.9 Positionality and Self-Reflexivity

The researcher plays both direct and indirect roles in data collection and analysis process, and the positionality of the researcher – whether 'outsider' or 'insider' – needs to be considered (Dwyer & Buckle, 2009). A researcher who is considered an 'insider' is one who conducts research with a group that they belong to and engage with; conversely, an 'outsider' researcher studies a group who they do not belong to. In positionality as the researcher, from my theoretical approach I should be concerned with the relationship between me and the participants, and what my position is within the sample and the study (Guba & Lincoln, 1994). In interpretivist research, where epistemology is subjective rather than 'objective', the researcher may have an influence on the research since the investigation is concerned with the interactions between individuals (the researcher and the participants).

I was born and raised in Saudi Arabia, and I share the same common characteristics with participant Saudi teachers, such as language, identity, nationality, gender, primary education, and the experience of being in the general educational system as a student and

teacher, where I worked as a special education teacher with students with ASD from 2010-2011. Therefore, I acknowledge myself as an insider researcher. Dwyer and Buckle (2009) argued that the benefit of being an insider with participants is that you are ‘accepted’. As I shared the common characteristics mentioned above, participants in this study were welcoming and responded generously to my invitations for interviews and observations, and some of them offered to participate even before I asked them, which indicated to me that they were willingly interviewed.

This positionality helped to provide participants who were open with me in the interviews, which result greater depth to the data gathered. Moreover, being an insider helped me during the interviews as I am familiar with the cultural context, which was reflected in the interviews, for example when participants used phrases and stories that I am familiar with; the participants could be more open and comfortable to discuss what they wanted without giving explanations. However, despite the apparent benefits of being an insider, there is also the concern of bias, especially related to bias in the process of data collection. Teachers might give an answer that I was ‘looking for’ rather than providing honest answers, understandings and beliefs, which could affect the validity of this research (Bryman, 2016). Therefore, during the data collection, I remained objective and avoided my opinions, thoughts or criticising subjects related to the phenomena I studied.

Especially during the data analysis process, self-reflexivity became a focus of consideration for me. Self-reflexivity is an assessment that a researcher uses to minimise their influence on the research process (Johnstone, 2016) by continually questioning their own actions and motivations. Cohen et al (2007) claimed that researchers themselves are the main instruments in qualitative research. Self-reflexivity in this research was built through the ongoing supervision of the progress of the research; I engaged in discussions with my supervisor and other doctoral course members and tutors. Regular and ongoing meetings and talks in the doctoral room with colleagues assisted my self-reflexivity during the time that I was analysing data and writing the thesis; these discussions pushed me to overcome potential biases in the study. Additionally, meeting with my supervisors regularly helped for engaging in self-reflexivity as I was forced to answer questions about my activities, motivations, and rationales for the steps in the research process. This task was especially helpful during data collection, analysis, and interpretation; coming from different contextual backgrounds, my supervisors were able to raise raised critical questions and provide feedback regarding the study that helped me overcome bias.

4.10 Conclusion

This chapter presented the methodological approach and research design that was utilised in this research. The chapter began with explaining the philosophical stance and the research paradigm used in this research; with that interpretivist paradigm, I presented the rationale for adopting a qualitative methodology and a research design with a case study which used multiple data collection methods, including interviews, observation, and documentary analysis. I presented a comprehensive overview of how thematic analysis was conducted to determine the study findings. After that, the importance of ethical considerations were also discussed. Finally, the chapter ended by underlining the role of trustworthiness and how it was achieved in this work, and how I engaged with self-reflexive practices. In the next chapter, (Chapter Five), I begin presenting the findings of this study related to school implementation of inclusive education in the study school.

Chapter 5 **Findings (1): School implementation Inclusive Education**

5.1 Introduction

These next two chapters (Five and Six) are concerned with the finding of the data collected using the qualitative methods described in the methodology chapter to investigate teachers' understanding and practice in inclusive education in Saudi Arabia. As noted throughout, the aim of this study is to gain a more in-depth knowledge of teachers' understanding of inclusive education and ASD and the practices employed by teachers in an inclusive school in the Saudi context, as well as explore the main factors of the school's implementation of inclusive education.

The data analysis discussed in Chapter Four (see Section 4.6.2). Moreover, here I presented the findings for this study that are separated into two chapters. The current chapter will provide the data related to Research Question 1, namely *What are the main factors affecting implementation of inclusive education in the study school?* The findings related to this research question are presented first, as they provide a comprehensive picture of the inclusive school case, and offer a more detailed explanation of the educational context in Saudi Arabia. Chapter Six presents the data related to Research Questions 2 and 3, which are concerned with teachers' understandings of inclusive education and ASD and their practices within the inclusive education school.

Furthermore, anonymisation in this research was particularly important due to the limited number of schools (six) schools that have adopted inclusive education in the context (see Chapter Four; Section 4.7.2). Therefore, when presenting the findings, each teacher's name and the number used for data analysis were removed; this step ensures that teachers are completely anonymous and non-traceable. The following two tables (***Table 13*** and ***Table 13***) show the structuring for the research questions and the findings.

Table 12 Research Questions Structure

RQ	Part	Research questions
1		What are the main factors affecting implementation of inclusive education in the study school?
2	2A	How do teachers in Saudi context understand inclusive education?
	2 B	How does this understanding relate to their practice?
3	3 A	How do teachers in Saudi context understand ASD?
	3 B	How does these understandings relate to their practice?

Table 13 Findings Structure

Chapter	RQ N	Research Question	Data collection Methods	Main Sections	Themes
Chapter Five	1	What are the main factors affecting implementation of inclusive education in the study school?	- *Tatweer documents* - *Semi-structured Interviews* - *Observations notes*	**The main factors of affecting implementation inclusive education**	*1- Tatweer implementation.* *2- High number of students.* *3- Lack of training.* *4- Collaboration amongst school staff.*
Chapter Six	2A	How do teachers in Saudi context understand inclusive education?	- *Semi-structured Interviews* - *Observation notes*	**Teachers' knowledge of inclusive education**	*5- Associated with Special Educational Needs and Disability* *6- Classroom placement.* *7- School participation.*
				Factors affecting teachers' understanding	*8- Teachers' beliefs.* *9- Teachers' motivations.*
	3 A	How do teachers in Saudi context understand ASD?	- *Semi-structured Interviews* - *Observation notes*	**Teachers' knowledge of disability and ASD**	
	2 B + 3 B	How does these understandings relate to their practice?	- *Tatweer documents* - *Semi-structured Interviews* - *Observations notes*	**Inclusive education practices**	*10- Inside of the classroom.* *11- Outside of the classroom.*

5.2 Main Factors of Inclusive Education Implementation

This section provides the findings related to the first research question for this thesis: *What are the main factors affecting implementation of inclusive education in the school?* In answering this research question, I reviewed the Tatweer documents, conducted semi-structured interviews with fifteen participants and collected observation field notes. The data analysis as discussed (see Chapter Four section 4.6.2) showed that around 15 codes arose in relation to inclusive education implementation in the study school. Four main themes derived from mainly teacher's interviews and supported by data from field notes and Tatweer manuals reviews that affected implementation of inclusive education in the school, which I have identified as 1) Tatweer implementation, 2) number of students, 3) lack of training, and 4) lack of collaboration amongst school staff. ***Figure 5.1*** below outlines the main factors related to school implementation.

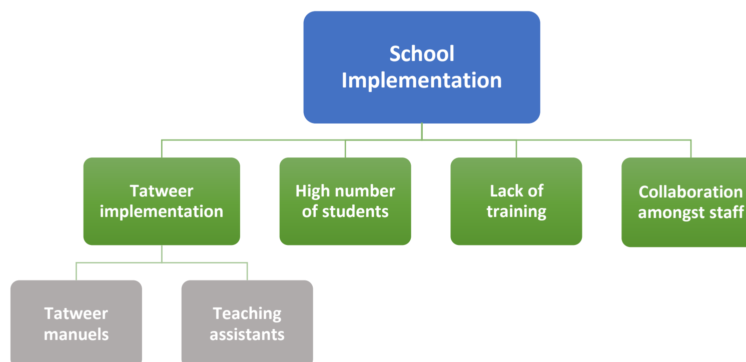

Figure 5-1 The main Factors related to School Implementation.

5.2.1 Tatweer Implementation

As noted in Chapter Three, in 2016, in Saudi Arabia, the Tatweer Company for Educational Services (referenced throughout the thesis as 'Tatweer'), in collaboration with the Ministry of Education in Saudi Arabia, instigated the transition of special education from segregated to inclusive education. Tatweer is a company owned by the Saudi government which acts as an executer for the King Abdullah Bin Abdul Aziz Public Education Development Project, a strategic plan for the reform and development of public education in Saudi Arabia (Tatweer Company for Education Services, 2016c). It is also a proponent of inclusive education for students with SEND, providing training and resources to teachers and educators; towards this goal, the company has forged a partnership with inclusive education academic professionals from the University of Oregon in the U.S. (University of Oregon,

2015). Tatweer has built six new schools in Riyadh to promote the inclusive education of students with SEND; this group of schools includes the case school where the research for the present study was conducted. There, the inclusive education programme had begun two years before the collection of data for this study, which took place from October 2018 to January 2019.

Tatweer Manuals.

In 2016, Tatweer introduced three manuals as a guide for implementing inclusive education in the country, the first of which is a technical manual, which provides an overview of the "what" of inclusive education and suggestions around what needs to be in place for inclusive educational practices (Tatweer Company for Education Services, 2016c). They also released an implementation manual, which presented the "how" of inclusive education, including specifics on how to plan out the procedures and processes associated with inclusive education practices (Tatweer Company for Education Services, 2016a). The third and final document was the Individual Education Planning manual, which provided a guide to writing individualized education plans (IEPs) for students with SEND (Tatweer Company for Education Services, 2016b). These manuals were discussed in detail in Chapter Three.

For this thesis, I focused on the technical and implementation manuals, as both documents provide the school and teachers with a roadmap to implement inclusive education and give detailed strategies for preparing the environment through the latest evidence-based practices for planning, assessment, and evaluation (Tatweer Company for Education Services, 2016c, 2016a). Tatweer has also provided the school building, training courses, teaching assistants, and manuals for implementing inclusive education, and these manuals specifically support the view of the Ministry of Education for promoting inclusive education in Saudi Arabia. The technical manual stipulates ongoing policies that will ensure that every child has the right to attend, participate, and achieve in education, especially children with SEND. Those proposed policies emphasize the philosophy of inclusive education that is necessary for school-wide implementation. Taken altogether, Tatweer's spaces of intervention call for the changing schools so that "both learners with special needs and without any needs can participate and learn there" (Tatweer Company for Education Services, 2016c, p. 12).

However, the data within interviews and observations indicated that Tatweer is not a government authority; it offers school buildings, training, and resources, but it does not have the same authority as the Ministry of Education for promoting roles and ensuring that policies

are being followed within schools. The data from both interviews and observation showed that the school was following the policies of Ministry of Education and of not Tatweer; the school saw Tatweer as an operator who lacked the power to set up the roles or policies that the school would be required to follow. As noted by the inclusive education supervisor in the school, *"My primary supervisor is the Ministry one* [Ministry of Education]. *The Tatweer supervisor is not useful because he is just an operator and not someone who can articulate the roles for the program."*

Data from the 15 interviews and school and classroom observations showed that use of the Tatweer manuals was not obligatory in the school, and the teachers were not required to follow them. Indeed, data confirmed that most general and special education teachers were not following either of these manuals. Only one of the 15 teachers I interviewed had looked at the manuals, and whilst some were aware that there are manuals published by Tatweer, others were unaware of their existence. When I asked the supervisor of the inclusive program in the school if he had copies of the manuals and if he had read them, he told me he had only read the IEP manual and had not read the technical manual or the implementation manual.

Regarding the new Tatweer implementation of inclusive education in the school, I asked teachers about their opinions of the manuals, and one teacher replied with the following:

> *I know there are manuals, but honestly, they're not obligatory. I know there are forms and manuals, but using them depends on your supervisor's vision. Also, the two supervisors* [Tatweer supervisor and Ministry of Education supervisor] *have different views; each one of them has his own vision. I believe they* [Tatweer manuals] *are not obligatory due to Tatweer not having a strict system of leading the inclusive program. For example, in the last two years, Tatweer was hiring assistant teachers for each class, but this year, they haven't hired any assistant teachers.*

He added:

> *As I told you, these policies are not mandatory. For example, the current number of students in inclusive classrooms is around 30, but I heard that in the Tatweer manuals, they say there are not supposed to be more than 20 students in each classroom.*

Another teacher indicated that there was no difference between the pre-Tatweer era and the current program of implementation, stating that *"there is no difference; it's just the same,*

and I haven't read any new policy – only the IEP plan, and it might be changed". Here, he clearly indicated that he has not read the technical and implementation manuals.

One teacher criticized the Tatweer manuals, saying, *"They gave us a huge guide, but it was not clear, and I* [also] *believe it's translated*." In noting that the manuals were translated from English into Arabic, the teacher seems the indicate that the manuals may be in accurate or may not correctly capture meaning within the Arabic language and the Saudi context.

Another teacher criticized Tatweer's approach to its implementation, again noting the problem of cross-cultural translation, and argued that it did not relate to the Saudi culture, as the programme was created in partnership with a university in the U.S. That teacher said,

> *The Department of Special Education* [in the Ministry of Education] *are working hard, and they offer good things, but Tatweer company workers* [who run the programme] *are not. Their jobs are more about copying paperwork from a foreign university and applying it in our schools, and, in reality, they don't do anything.*

He added,

> *Their approach to inclusion is copied from a university outside of Saudi Arabia, whose approach does not relate to our Saudi community/society at all. I am not rejecting ideas that come from people outside Saudi Arabia – I know some of them are experts in the field – but if you want to apply inclusion, you must adapt it to the Saudi culture/society/community. I believe they should get ideas from experts in inclusive education across the world, but they should be fit/modified for our culture.*

Teachers argued that they did not feel that the Tatweer approach worked for them, and so they tended to disregard the manuals in favour of the approach recommended by the Ministry of Education.

Further, as demonstrated throughout these quotes from teachers, the analysis also demonstrated that teachers were confused between the two authorities in the school – the Ministry of Education and Tatweer – as they had been hired and were being paid by the Ministry of Education, but this new approach of inclusive education was being run by Tatweer. Some teachers commented that Tatweer did not have authority over them. Thus, as indicated above, the data broadly shows that teachers rejecting Tatweer's approach because of their seeming lack of formal, governmental authority.

An additional aspect which appeared important was conveyed in one teacher's perception of Tatweer and their lack of ongoing support for the program. He explained:

At the beginning, Tatweer were supportive. They proposed using technological devices, they offered this building, and they had a team who answered all of our enquires. Also, they were offering an emotional and physical support for us, but, after the first year, they gave up, and they didn't follow up with our school and teachers anymore. The first year was outstanding; this year is awful.

Furthermore, during an informal discussion, one member of the school staff member mentioned that the Ministry of Education had started building this school and then Tatweer had taken over responsibility for completing the task. In the observation notes from my three months in the school, I noted the building itself was new; it had been built in the five years before 2018 data collection. It had three floors and additional supports, such as an elevator for those with physical disabilities and easy access to each floor without any barriers that would obstruct students with SEND moving between classrooms and getting into the school, which function as an important step that Tatweer accomplished towards implementing inclusive education.

I further noted that there were three supported classrooms in Tatweer offered within the school, specifically a play room, a resource room, and a sensory room. These supported rooms were designed for those with disabilities, with the sensory room especially organised for those with ASD. While conducting the study, I was looking to see if teachers were using those rooms with their students with ASD. The sensory room in particular had useful features, including devices to modify the room's lighting and colour, technological features which helped "to provide sensory stimulation, encourage relaxation and comfort for those with ASD" (Tatweer Company for Education Services, 2016a, p. 55). The room was not clean, and it seemed that it had not been used for a long time. One teacher talked about the importance of this room, saying,

Yeah, it is good but does not have any resources, it's good for changing the environment for the student with ASD... Also, it's good for a student with ASD to have less distractions and having a bit of entertainment, so I could get his attention easily.

Another teacher confirmed, saying

In this school, we have a high number of students with ASD, and most of these students have difficulties in language, and some are non-verbal, but this school doesn't have

any speech-language therapy for them. Tatweer provides a sensory room for those students but unfortunately without any assistive technology that works. There is a problem of maintenance in this school.

Indeed, all the teachers confirmed that they had not used this room during the academic year 2018, as it had not been maintained, and most of the equipment was not working. It was obvious from my observations in 2018 that the room was built with new equipment, but I also noted that these technological devices did not work. Further, Tatweer's technical manual suggests using assistive technologies in teaching those with ASD, such as "talking calculators, recorder pens, speech to text software, and video modelling to teach social skills" (Tatweer Company for Education Services, 2016c). However, in my observation notes, I noted that those assistive technologies were not provided in the classrooms.

In relation to implementing inclusive education, I asked teachers regarding what changes they had faced after implementation began. From the data, it is clear that teachers saw the change in terms of classroom teaching, with an increased workload and a greater focus by the school on inclusive classrooms than on non-inclusive classrooms. One general education teacher said:

There is a difference now. In general education classrooms, it was easier, as we were more like other teachers in terms of teaching, but now there is a much larger workload in teaching in inclusive education classrooms than in non-inclusive classrooms, so that when I leave the classroom, I feel tired and have a headache.

He added, *"Now there is more monitoring because these classrooms are on the ground floor and it's a new approach."*

Another teacher added,

Of course, in terms of material, I found a change in the method of teaching; it is the same school, but the amount of work is double due to inclusive education. Also, we tried as teachers to simplify the teaching for those with special education, so they do not feel they are discriminated against or made to feel different than other students.

Similarly, another teacher said:

The only new policy is that there is a special education teacher working with me in the classroom. I feel that the special education teacher looks at my teaching methods and tries to teach his students in an appropriate way that matches each student's ability.

However, a special education teacher talked about the new policy as providing equality between the roles of all teachers in school:

> *Special education teachers and general education teachers are the same now, which means equality between teachers, In the past, special education teachers were isolated in the semi-inclusive program… What I mean is, it used to be that special education teachers had different sign-in checks than general education teachers in the morning. Now, I think we are the same and equal. Now, we have the same roles that have previously applied to general education teachers, such as supervising students in breaks; all teachers, whether special education teachers or general teachers, will be on the list.*

Meanwhile, another special education teacher mentioned that, *"If we talk about the general policy, it's still the same. I am talking about the schedule of classes, the school's timetable such as morning line time, leaving time, or break time. All these are the same."*

Teaching (Instructional) Assistants. The data from 15 interviews demonstrated that Tatweer, in the first two years, offered teaching assistants for each inclusive classroom, which were not available prior to the arrival of Tattweer. The instructional assistant, as the Tatweer technical manual (Tatweer Company for Education Services, 2016c) explained, must have a minimum education of a high school diploma. They are trained by schools and school districts in the specific area they are to assist in, and they work directly under the supervision of a licensed teacher to ensure the validity of the instruction. Examples of instructional assistant tasks provided in the manual include the following:

1) Assist in planning and implementing learning experiences for students.
2) Under the direct supervision of a teacher, provide supplemental practice across a variety of learning experiences and activities, using learning strategies designed to reinforce or modify skills.
3) Help students develop positive interpersonal relationships with peers and adults and promote the safety of the students by helping them develop self-confidence.
4) Observe students and assist in recording student development and progress; inform supervisor of any unusual academic or disciplinary problems. (Tatweer Company for Education Services, 2016c, p. 33)

Teachers talked about the importance role of the teaching assistant in their inclusive classrooms. They demonstrated that having a teaching assistant would help them managing the classroom. One teacher noted that*, "Not having a teaching assistant would be a mistake for those with and without SEND students."*

Another teachers added:

> *It's a must to have an assistant teacher in the classroom because some cases with ASD have aggressive behaviours, or they do not like sitting in their seat in the classroom. General and special education teachers will not stop teaching; the assistant will just follow the student if he runs out of the classroom. A teacher assistant is important for those with ASD.*

In addition, general education teachers also expressed the important role of the teaching assistant, with one general education teachers indicated that

> *It is important, especially with students of ADHD* [Attention Deficit Hyperactivity Disorder] *because both me and the other teacher, we care about continuing teaching the curriculum for students during the lesson, and the teaching assistant would care for and watch the student's movement within the classroom and in the school in general.*

Another special education teacher agreed regarding the importance of the teaching assistants in the inclusive classroom, saying that they play a very important role:

> *For example, one of the classrooms has five special education students and one of them has ADHD; if one of the students runs outside of the classroom, the special education teacher will follow him and leave the rest of the students in the classroom, so having a teaching assistant would help the teacher focus on the academic skills of all of the students.*

He added,

> *His* [the teaching assistant's] *main task is to reach the achievements that I have already talked about. It is difficult to keep up with the general education teacher in the lesson and the one special education teacher in the classroom may struggle to support and keep up with all of the students with ASD. Also, the teaching assistant is supporting the special education teacher in taking care of the students outside of the classroom.*

Another teacher talked about the role of the teaching assistant, referring to the role as what he called a "shadow teacher". He explained that some students needed the help of this "shadow

teacher" for such basic things as knowing where to go in the school building and helping for change students with ASD clothes for different activities:

> [It is a] *really important role since to some students need a "shadow teacher" in the classroom and in the school; some students with autism don't know where to go in the school building. Having a shadow teacher for the student helps achieve the goal of improving the student's skills as well as increasing the success of inclusive education.*

All public schools in Saudi context did not necessarily have teaching assistants, but Tatweer specifically offered teaching assistants to the study school when inclusive education was introduced. Tatweer was responsible for hiring those assistants and paying their salaries. Both the teachers and administrative staff confirmed that when Tatweer introduced the inclusive program in the school, they hired teaching assistants. However, during my observation period, from October to December 2018, there were no teaching assistants in the classrooms. When asked about this, one of the teachers said:

> *Tatweer was responsible for hiring teaching assistants, so we asked, as teachers, from the beginning of this semester about hiring new teaching assistants, but he* (the Supervisor from Tatweer) *did not did not respond until now, there are no teaching assistants.*

Teachers emphasised the important role that these teaching assistants play in helping those with SEND in the inclusive settings, and teachers and staff alike noted that the lack of assistants stops teachers from providing supportive services for students with SEND. One of the teachers confirmed that he was not using the resource room because there were no teaching assistants to help him.

5.2.2 High Number of Students in the School/Classroom

The data demonstrated that the number of students in the school and especially in the inclusive classrooms is one of the issues that may negatively affect the implementation of inclusive education. All 15 teachers confirmed that the number of students enrolled in this school was relatively high: the population was more than 1,250 students, even though the official school capacity was not to exceed 700 students, including students with SEND. Furthermore, while there are more than 20 classrooms in the school, there are just six inclusive

classrooms that had students with SEND. In each of these inclusive classroom, the total class size, including those with SEND, was between 28 to 38 students.

One of the teacher talked about the class size within the inclusive classrooms:

> *I am not rejecting the idea of inclusive education, but from my experience here, I think that the environment is one reason why I don't accept it: the environment is not sufficiently prepared to do this step. When I enter the classroom and I see the huge number of students, it makes me annoyed, and when I finish working, I have a headache.*

Another teacher talked about implementation, indicating that

> *The problem, in my opinion, is that this school accepted more students than the maximum number allowed, which has led to negative outcomes for the students especially those who do not have good teachers. Also, there are no assistant teachers this year.*

During my observation period, I visited all six inclusive classrooms and saw that the class size was between 28-38 students. Each classroom had four or five students with SEND, and yet there were only two teachers in the classroom and no teaching assistant. In one example classroom (classroom observation 24/11/2018: Arabic lesson), I noticed that the special education teacher was only focusing on two students with SEND, but the entire classroom had 32 students, five of whom had SEND.

There was no specific or ideal class size specified in the Tatweer technical manual. However, with class sizes of 28-38 students, the large number of primary aged students was thought by teachers to have a negative impact on implementing inclusive education in the school. For example, one of the special education teachers talked about how the large student population affected his students: *"The number of 1,270 students is huge. When I think to take my students to the playground, I always think about those with autism who do not like any loud noise."*

Another teacher criticised the Tatweer approach regarding the number of students and said:

> *As I told you, these policies are not mandatory. For example, the current number of students in inclusive classrooms is around 30, but I heard in that in the Tatweer manuals, they say there are not supposed to be more than 20 students in each classroom.*

However, one of the special education teachers felt the number of students with SEND in the classroom is an improvement on other classes that he was teaching before. He said:

> *When I was in semi-inclusive education* [a class only for students with SEND in the public school], *the school admitted seven to 10 special education students for each classroom. Here, they admitted four to five special education students in each classroom, and even that number depends on the severity of each student's disability. I think that smaller numbers helps to make inclusive education more successful.*

Additionally, while the inclusive classroom had 28 to 38 students (including students with SEND), I noticed that non-inclusive classrooms in the school had between 50-55 students in each classroom.

5.2.3 Lack of Training.

The data showed that both general and special education teachers explained that they lacked necessary knowledge about the inclusive education approach and pedagogy. One cause of their limited knowledge and understanding was their lack of training. The data revealed that lack of training is a significant factor affecting the implementation of inclusive education, and this gap in training was negatively affecting teachers' understanding of the inclusive education approach and their practice (see Chapter Six).

In reviewing the professional development plan specified in the Tatweer technical manual, the section on training staff was fundamental: "Professional development is the strategy schools and school districts use to ensure staff continue to strengthen their skills throughout their career" (Tatweer Company for Education Services, 2016c, p. 67). In the manual, Tatweer defined "professional development" as educating and supporting employees to better understand the expectations of their school, and they indicate the importance of supporting the professional so they can ensure that all students are well educated and have equal opportunities to learn (Tatweer Company for Education Services, 2016c).

In order to provide professional development, that manual provided brief descriptions of proposed professional development plans for a general overview of inclusive education and training of staff to work within the inclusive education model (Tatweer Company for Education Services, 2016c). The general overview of inclusive education aligned with Tatweer's proposal

to focus on providing the educational staff with a broad overview of inclusive education and the individual education plan (IEP) process.

The technical manual stated that the intended training would be delivered to *all* educational staff at each of the schools and related service providers (Tatweer Company for Education Services, 2016c). The content of this training would include the history of inclusive practices in other countries, current inclusive education practices in Saudi Arabia, a plan for the future of inclusive education in Saudi Arabia, the definition and examples of inclusive education, staff roles in the successful implementation of inclusive practices, and the role of the IEP. For training staff to work within the inclusive education model, focuses would be on training for specific strategies to work with students within the inclusive education model, with specific directions on working with those with ASD, intellectually disabilities, learning disabilities, and those who were blind and deaf. This training would also include the IEP process and specify the roles for all staff members working with the student.

As indicated earlier in the thesis, the inclusive education approach in this school started in 2015, three years before my data collection period in 2018. At the time of the research, there were fifteen teachers teaching directly in inclusive classrooms. The data from interviews shows that not all of the teachers had attended training courses either inside or outside of the school. One of the special education teachers had been teaching in inclusive education classrooms for two years; he had received a training course that took place over three days. However, he said,

> *When I arrived here last year, I had a couple of training courses, and some of the courses helped me a lot. It was basic knowledge about the value of inclusive education for special education students – that is, the social value and the psychological value because, in the beginning, I thought it would be impossible to apply inclusive education here.*

Special education teachers explained that those trainings was not sufficient enough to fully prepare them for their work, but they highlighted that importance of offering training for other teachers such as general education teachers. Those teachers lacked basic knowledge of those with disabilities, which in turn affecting their approach to teamwork and collaboration. In discussing training, one of the special education teachers said:

> *Here, there is the problem of training for inclusive education, especially for training general education teachers. We are now in the 11th week of the year, and the general education teachers have not taken any training programs, not even a one-hour lecture,*

which is different from the previous three years. For example, last year, there was a training session in the first week of the year; it was basic training, but it was really helpful for all teachers.

All of the teachers who received these training courses agreed that they were helpful even for providing a basic knowledge of inclusive education. One of the teachers stated that this training, even though it was short and only during the breakfast break, still enabled him to have a basic level of understanding of inclusive education, which changed his beliefs about applying the inclusive approach in the school. This basic knowledge about inclusive education is one of the proposals for professional development within the technical manual (Tatweer Company for Education Services, 2016c). The participants confirmed that it did help them improve their awareness of the inclusive education model.

The data showed that in the training courses, teachers learned that students with ASD were willing to learn in the general education classroom. In the courses, teachers were provided with the rationale for inclusive and special education and they learned the value of IEPs and how to write them. When asked, his thoughts about the training course, one teacher responded that

Regarding the IEP, I feel they gave us enough training on how to write the IEP, but we were not trained regarding the inclusive approach and the role of the teacher, especially the role of two teachers working together (special and general education teacher). I feel we need more training for that so each teacher will know his role.

Even though the majority of students with SEND in the school were students with ASD, the data showed that the teachers had not received specialised training about the characteristics of these students, and teachers indicated that these courses were not focussed on ASD and did not include information on how to deal with students with ASD. The trainings were not seen as practical: all teachers who participated in this study felt this course had not helped them in terms of teaching; indeed, they felt they had not received training related to teaching methods or strategies. In addition, these training courses were not scheduled regularly; some teachers said they attended the training in the middle of year and others at the beginning of the year. Also, the time and duration of these courses differed, as did the subjects for each.

While conducting data collection for this study, I noted that there were no trainings scheduled for teachers during that year, and none were offered even for teachers who were undergoing their first experience of teaching in the inclusive education setting. Four general

education teachers and two special education teachers clearly stated that they had not received any training regarding inclusive education; they had come to the school and started teaching without having received any training, they had entered the inclusive classroom with no idea of how to deal with those students with ASD.

Table 14 Each Teacher Training in the school

N	Teacher Position	Years of Teaching inclusive	Received Training	Duration
1	Special education teacher	2	YES	One lecture
2	Special education teacher	2	YES	Three days during the breakfast break
3	Special education teacher	2	YES	Three days during the breakfast break
4	Special education teacher	3	YES	Three days during the breakfast break
5	Special education teacher	2	YES	Three days during the breakfast break
6	Special education teacher	1	NO	
7	Special education teacher	2	NO	
8	General education teacher	1	YES	One lecture
9	General education teacher	2	YES	Three days during the breakfast break
10	General education teacher	1	YES	One lecture
11	General education teacher	1	NO	
12	General education teacher	3	NO	
13	General education teacher	3	NO	
14	Supervisor	3	YES	Three days in Tatweer company
15	Psychologist	3	YES	One day

Table 14 shows the training each teacher had received. In this school, three out of six general education teachers and two out of seven special education teachers had not received training at the school. Four special education teachers and the supervisor of inclusive education in the school had received lectures over three days during the school's breakfast break, which is 30 minutes break. However, three general education teachers reported that they had received only one lecture about inclusive education. This data confirmed that the special education teachers, who already had basic knowledge about inclusive education due their qualifications and training, still received more training than the general education teachers, who lacked the necessary knowledge about inclusive education and students' disabilities. In the few training sessions that were available within the school, the data showed that those courses did not provide information related to the teacher's role in working with students with ASD, nor did it cover information about ASD, even though the school had a high number of students with ASD.

5.2.4 Collaboration Among School Staff

Another factor influencing the implementation of inclusive education found was the lack of teamwork between staff, primarily between general education and special education teachers. The Tatweer manual, under the section entitled "Working together to meet the needs of all students" (Tatweer Company for Education Services, 2016c, p. 82), explained crucial aspects that teams should consider when working together. Teams are asked to define roles, develop a schedule, know instructional methods, be aware of student characteristics, share classroom experiences, and share responsibility for students. The Tatweer manual highlighted this element of collaboration between teachers, especially considering that the school had two types of teachers in each inclusive classroom: both special and general education teachers. Indeed, when asked about teamwork between the special and general education teachers, one of the special education teachers said:

> *There is a collaboration, but I feel there is disparity; not all of them, but some of them are so formal when they talk to me, they don't say more than two words. I feel comfortable working with some of them; they are collaborative and want to help those students with special education. However, to be honest, some of them come to the classroom, teach their lesson, and leave the classroom without talking to me.*

When asked if they were involved with writing IEPs, he responded, *"No. General education teachers aren't involved with writing the IEP plan. The psychologist specialist, the student's parents, and I are the only ones involved in writing the IEP."*
This isolation was also reported by another special education teacher, who said:

> *Some of the general education teachers do not collaborate. Some of them do not focus on the students with autism, and they don't give the students with autism time to participate in the class. They believe there is a special education teacher who is supposed to teach them.*

Conversely, the general education teachers explained that they valued the role of that special education teachers, since they were well accepted by students, as one teacher explained:

> *I have collaborated with them* [special education teachers] *a lot. Their role is important, but as I told you before, it depends on their sincerity and honesty. I worked with one of the special education teachers who is really good; I enjoyed it, and I learned a lot from him. In particular, I learned that students with autism like the special education*

teachers more than me in general. I believe special education teachers are the first factor in making inclusive education successful.

Another general education teacher reported the same, stating that

> *Special education teachers should encourage the general teachers to work with them. General education teachers have all the students* [those with/without SEND] *so the special education teachers should try to encourage the general education teacher and provide support and collaboration.*

In the section entitled "Share classroom experiences", the Tatweer technical manual (Tatweer Company for Education Services, 2016c, p. 95) explained that schools must ensure that all team members regularly and consistently and share their daily observations and experiences with one another. Collaboration should involve regular meetings between teachers to discuss planning for the students' progression. I asked one of the teachers if the general education teachers and special education teachers held regular meetings to discuss the students' progress and he told me that *"actually, we did not meet, except one time when there was a problem about a student and the leader of the school asked us for a meeting."*

During the data collection period, I did not observe special education and general education teachers talking about their class during the breaks. I noted that the special education teachers had their own staff room in the school, which was separate from the staff room for the other teachers. I visited their room during the breaks between classes, and it was evident that this room was only for special education teachers, and thus only special education teachers discussed their students together, as there were no general education teachers in the room. I visited this room more than 10 times and had coffee or breakfast with the teachers there. This segregation between both general and special education teachers seemed to limit the opportunities for them to talk with each other and share classroom experiences around their students.

In addition, as the Tatweer manual explained in the section "Define roles" (Tatweer Company for Education Services, 2016c, p. 94), it is important to ensure that the roles of all team members are clearly defined and take into consideration different working styles. Therefore, from the above quotes and reflections from the observation notes, the data showed that the main problem in collaboration between teachers was that both general education teachers and special education teachers lacked a clear definition about their roles in the classroom. As a result, they did not work as team. The psychologist specialist confirmed this:

"The problem of not collaborating in this school is because of the lack of identifying the tasks for each teacher, and when they ask what their roles are, they don't find the answers."

Another special education teacher talked about the roles of general education teachers:

> *I am not satisfied with the roles of some of the general teachers right now. They are the ones who are supposed to be responsible for the classroom, but, in reality, they are not committed to the classroom; they don't care. For example, they arrive late to the lessons, and they do not care about the students with special education needs.*

Another factor found to affect the implementation of inclusive education was the lack of teamwork between the school leader and the teachers. One of the teachers, when asked if he talked to the school leader about inclusive education, responded, *"Um, kind of ... The head handed all the responsibilities to the supervisor of inclusive education in the school… The head of school is concerned more about the management of the teachers and buildings."*

When asked if he had raised his concerns about inclusive education, he answered, *"No, I talk with the supervisor about inclusive education, but I talk with the head if I need something relating to management, such as if I need an emergency leave."*

In addition, review of the Tatweer manuals shows there is a section on leadership in the technical manual, where school leaders are called 'school administrators' and are referred to as 'school principals' for the Tatweer project. However, I noticed during my observation that in official school documents, the school principal was referred to as the 'leader of the school'. This title "leader of the school" was introduced recently in all public schools in Saudi as one of teachers conformed. In the Tatweer technical manual, leadership is clearly seen as an essential element of effective inclusive education. There, the role of the school principal is explained as follows:

1) *Identify student and program needs, develop goals and objectives, implement and evaluate programs, including inclusive education.*
2) *Understand and promote sound principles of instruction.*
3) *Plan and implement professional development consistent with school improvement goals.*
4) *Monitor and supervise teachers' ability to provide differentiated instruction.*

5) *Assure equitable outcomes for all students.* (Tatweer Company for Education Services, 2016c, p. 78)

The data showed that teachers were well aware of the large amount of work involved in heading a school and his possible lack of time for personal development in the field of inclusive education. However, the data also demonstrated that teachers expressed concern about the head of school's limited knowledge about students with disabilities. One teacher said, *"He is supportive in a way by making the program stable; he is good in management skills, but I don't think he knows much about disabilities and ASD students."* This statement was also supported by another teacher, who said that *"unfortunately, he doesn't have enough experience of dealing with students with disabilities and inclusive education."*

The data also showed that, all the special education teachers hired in the school to be working in the inclusive classrooms. However, the date showed that the school leader is the one who chooses which general education teachers between all general education teachers who will teach in the six inclusive classrooms (school has inclsuvie classrooms and non-inclsuvie classroom). One general education teacher's response regarding the school leader's selection of him to join the inclusive classrooms was as follows:

> *I found that he believes inclusive education classroom require hardworking teachers, and the reason behind choosing us to teach in these classrooms is that we are outstanding teachers in the school.*

However, the data demonstrated that the special education teachers did not feel that the school leader had chosen appropriate general education teachers to teach in the inclusive education classrooms. One special education teacher said:

> *The problem with the choice of general education teachers is that some of these teachers do not have any positive attitude towards teaching students with disabilities, much less the concept of teaching them within inclusive classrooms. Some teachers believe that students with disabilities are unable to learn and their only job as teachers is to pay attention to the special education students so they will not leave/run from the classroom.*

The above quote, in addition to the additional data provided on the general education teachers' understanding of inclusive education and ASD (see more in Chapter 6), showed that there were some general education teachers teaching in those classrooms who possessed only limited knowledge of inclusive education and the issues impacting students with disabilities. The data further showed that the school leader had created a policy of changing the general

education teachers every year so that teachers would cycle through the inclusive education classrooms. One of the general education teachers explained this policy as follows:

> *The general education teachers change every year in this school. This is an idea from the head of the school to encourage teachers to work hard to get this opportunity* [to earn extra money – a 20% increase of their salary if they teach students with disabilities]. *Also, it makes all the teachers aware of inclusive education, which is good to change the teachers' perspective.*

The data indicating the lack of training showed that four general education teachers were teaching in these classrooms in 2018 without having attended any training courses. Indeed, as demonstrated in the data analysis, collaboration between teachers and the principal were not managed appropriately due to the lack of policy implementation, training courses, and professional leadership that emphasized the importance of collaboration. The Tatweer manual provided guidance regarding collaboration and emphasised the importance of defined roles, the development of a schedule, knowledge of instructional methods, awareness of student characteristics, the sharing classroom experiences, and the distribution of responsibility for students (Tatweer Company for Education Services, 2016c). These elements were not implemented in reality, and teachers confirmed that their inability to understand their roles – due to their lack of definition – was at the root of the lack of collaboration between teachers.

In addition, the school leader did not encourage having these elements in place, which would have ensured teamwork between special and general education teachers. Also, although the teachers were aware of the great amount of work that the head of school took on and his support for the implementation of inclusive education, teachers expressed their concern about the head of school having only limited knowledge about students with SEND and about inclusive education in general. The data analysis regarding Tatweer implementation showed that the head of school had not made the use of Tatweer manuals obligatory, even though those manuals provided a roadmap to implement inclusive education and provide strategies for preparing the environment through planning, assessment, and evaluation according to the latest evidence-based practices. Also, the data demonstrated that the head of school created a policy for changing the general education teachers every year; combined with the lack of ongoing training, it was clear that the new teachers coming in lacked knowledge and experience in being able to teach those with disabilities in the inclusive classroom.

5.3 Conclusion

This chapter has presented the findings directed at the first research question, namely *What are the main factors affecting implementation of inclusive education in the study school?* The chapter presented four factors that affected inclusive education implementation within the chosen school context in Saudi Arabia, including Tatweer's implementation of the policy, the excessive number of students in the school and classroom, the lack of training for teachers and staff, and the lack of collaboration between school staff. The data revealed that the process of implementing inclusive education is the responsibility of the Ministry of Education first, and Tatweer was responsible for running the implementation. However, teachers claimed that Tatweer as an operator did not commit and carry through in providing all of the training and resources for teachers and the schools. Additionally, the data showed that teachers were not aware about their roles, and the leader of the school was not deeply engaged in the supervision of the inclusive classrooms. In the next chapter, (Chapter Six), I present the data related to Research Questions 2 and 3 and focus on teachers' understanding and practice of inclusive education in Saudi context.

Chapter 6 **Findings (2) Teachers' Understanding and Practices**

6.1 Introduction:

This chapter provides the second collection of findings and is focused on the second and third research questions for this thesis. Research Question 2, namely *How do teachers in Saudi context understand inclusive education, and how does this relate to their practice*? Research Question 3, namely *How do teachers in Saudi context understand ASD, and how does this relate to their practice*? It builds upon the contextual information presented in Chapter Five and represents the main focus for the thesis. First, I review teachers' understanding regarding inclusive education and ASD; then, I focus on teacher's practices in the school.

As noted earlier in the thesis, in answering all of my research questions, I conducted-semi structured interviews with 15 participants and made field notes during data collection around the school and within the six inclusive classrooms; I also reviewed manuals from Tatweer company. Additionally, as explained in the methodology chapter, when presenting the findings, each teacher's number and name were removed to ensure that teachers were completely anonymous and non-traceable. Anonymisation in this research was particularly significant since only six schools have adopted inclusive education in Saudi Arabia and because the participants shared sensitive information, not only about themselves but also about the administration of their schools, the Ministry of Education, and Tatweer company. ***Table 15*** below shows how Research Question 2 and 3 are presented in this chapter:

Table 15 Research Question Two and Three Finding Presentation

RQ N	Part	Research Question	Methods
2	2A	How do teachers in Saudi context understand inclusive education?	Semi structured interviews
	2 B	How does this relate to their practice?	Tatweer documents. Semi structured interviews. Observation notes.
3	3 A	How do teachers in Saudi context understand ASD?	Semi structured interviews. Observation notes.
	3 B	How does this relate to their practice?	Tatweer documents. Semi structured interviews. Observation notes.

6.2 Teacher’s Knowledge of Inclusive Education

This section concerns the second research question and explores the teachers’ understanding of the concept of inclusive education and, specifically, inclusive education for students with ASD at a Saudi Arabian primary-level boys’ school. The question was divided into two parts; as listed above in Table 1, Part 2A is concerned with how teachers understand inclusive education and, thus, it addresses the evidence of the teachers’ knowledge and understanding of inclusive education derived from the semi-structured interviews. Part 2B (Section 6.5) focuses on the practice of the teachers as obtained from semi-structured interviews, Tatweer documents, and observations notes.

The exploration of teachers’ understanding of inclusive education focused on their knowledge and understanding of the subject and the factors underlying their understanding. In relation to Part 2A of question regarding how the teachers interpreted inclusion, two aspects arose from the data, including teachers’ knowledge of inclusive education (covered here in Section 1.2) and the factors affecting the teachers’ understanding of inclusive education (presented next in Section 1.3).

Here, in examining teachers’ knowledge of inclusive education, three themes arose from the teachers’ interview data, namely knowledge associated with special educational needs and disability, classroom placement, and school participation. ***Figure 6-1*** below outlines the themes related to teacher’s knowledge of inclusive education as one section of the response to RQ 2, Part 2A.

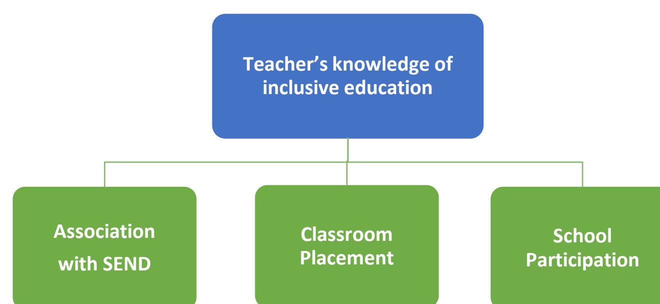

Figure 6-1 Themes related to Teachers’ Understanding of Inclusive Education.

6.2.1 Associated with Special Educational Needs and Disability (SEND).

The first theme that emerged from the data analysis revealed that all 15 participants involved in the study considered the concept of inclusion to encompass students with special educational needs and disability (SEND) in the general education classroom as well as in all other school activities. For example, one special education teacher's response when asked what inclusive education means was as follows:

> *Include the special education students with the general students, in the same class, with more consideration for those with special education… The classrooms* [should] *include a general education teacher, a special education teacher, and a teaching assistant.*

Another teacher explained inclusion as "*Students with special needs learning with general education students in one classroom"*

All 15 teachers associated their understanding of inclusive education with students with SEND studying in inclusive classrooms. For example, one special education teacher said that "*Inclusion means including special education students in the general education classroom and involving them academically, behaviourally, and socially in the school."* Another teacher supported this view, saying that it involved *"including special education students in all the activities of the school, not only in the classroom, by providing appropriate support and services."*

Meanwhile, all 15 participants' definitions of inclusion were strongly associated with the classroom and education for those with disabilities; none of them referred to students being excluded from the classroom, and none discussed inclusion in society. This theme indicates that teachers connected inclusion with SEND only in the school context. Teachers did not talk about other group of students, such as those from non-majority different races, religions, or nationalities. Additionally, as noted earlier the thesis, Saudi Arabia has a segregated system of education in that there are male schools and female schools (see Chapter Three), and so teachers did not talk about including boys and girls in same classroom, even though the word 'inclusion' could also be understood to refer to this issue.

6.2.2 Classroom Placement

The second theme that arose from analysis of the interview data was classroom placement, as all of the general education teachers defined, or explained, inclusive education

as *physically* including students with disabilities, such as ASD, in the general education classroom; they didn't comment that the inclusive classroom should ensure that those students with SEND have been included and have had their needs met. For example, a general education teacher observed that *"including special education students in the general education classroom aims to improve their student outcomes."* This was echoed by another teacher, who noted that *"A classroom* [should be] *for all students, including those with special education."*

Meanwhile, another general education teacher explained, *"Integration* [involves] *special education students and general education students* [together] *in the regular classroom."* Indeed, as the above quotations demonstrate, all six general education teachers exhibited understanding the concept of inclusive education, believing that it simply involves placing students with ASD in general education classrooms. Thus, they displayed a limited understanding of the concept of inclusion. This definition, and indeed, the data collected from the general education teachers, is simply focused on an approach to education which involves SEND present in the general education classroom.

6.2.3 School Participation

The third theme that emerged from the data was school participation. All seven special education teachers' definition of inclusive education involved students with ASD being located in the general education classroom and in the school more widely; they also called for a reform of the school's systems to accommodate the students' needs. One of the special education teachers explained, inclusion as to *"include special education students in the general education classroom, and involve them academically, behaviourally, and socially in the school"*, thereby demonstrating that his understanding of inclusive education was not limited to placement. As he explained, *"Inclusive doesn't mean just putting special education students in the classroom physically… If that were the case, we would not need to have a special education teacher in the classroom."*

All seven special education teachers understood inclusive education to mean ensuring that students with SEND are provided with all the support and services necessary to enable them to participate in all aspects of school life. As a special education teacher explained, it involves *"including special education students in all the of activities in the school, not only in the classroom, by providing appropriate support and services."* This sentiment was echoed by another special education teacher, who noted that it is important to *"include special education*

students in the general classroom [where they can] *interact with the other peers in all activities in the school, from the time they enter the school until they leave."*

Two of the seven special education teachers also noted that students with SEND must be treated in the same way as the students without SEND in the inclusive classroom. As one explained, *"Including special education students for about 75% of their school day in the general education classroom is what is supposed to happen. They should also be considered to be a normal student in the school,* [albeit] *under observation, but without making them feel like a special education student."*

It was therefore evident from the interviews that the special education teachers had an awareness of inclusive education elements. Their responses in the interviews better reflected widely-held understandings of the inclusive education concept (see Chapter Two) than those of the general education teachers. General education teachers appeared to view inclusive education as the admission of students with ASD and their placement alongside other students; those teacher did not mention the need to remove classroom difficulties and address their needs. As one of the general education teachers said, *"Integration* [involves] *special education students and general education students* [together] *in the regular classroom."*

The data showed that the interpretation of the concept of inclusion varied between teachers in this study, as with the general education teachers who linked it with placement in contrast with the special education teachers who saw it as more than placement. Special education teachers talked about the involvement of students with SEND with other students without disabilities and indicated that this involvement should permeate all aspects of school life. Some talked about providing appropriate services to those with disabilities, while other teachers talked about dealing with them as students without SEND. It was evident from the interviews that the special education teachers and the supervisor of inclusive education possessed a better awareness of the definition of inclusive education for students with ASD when compared with the general education teachers. However, there was an apparent gap between their understanding and their teaching practice, as detailed in the later section discussing inclusive education practices (Section 6.5).

6.3 Factors Affecting Understanding of Inclusive Education

The second section related to teachers' understanding of inclusive education revealed the elements that affected the teachers' understanding of inclusive education. The data presented in this section has two themes: the teachers' beliefs and teachers' motivations. ***Figure 6-2*** outlines the themes related to factors affecting teacher's understanding.

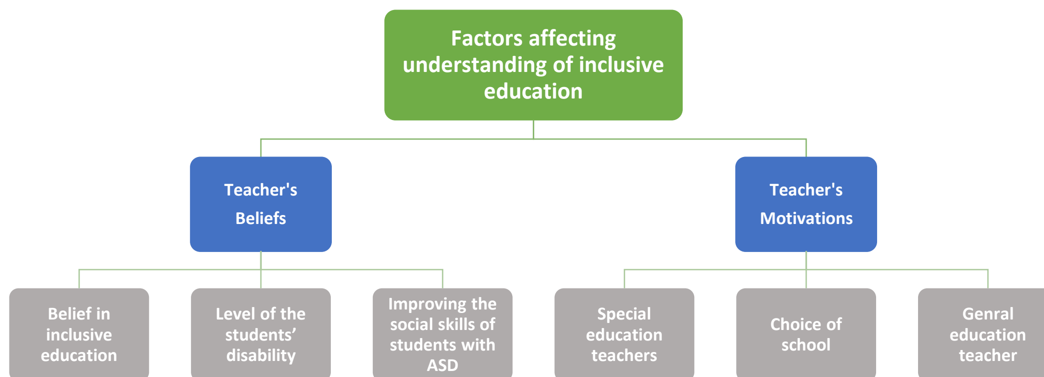

Figure 6-2 Themes related to Factors affecting Teacher's Understanding.

6.3.1 Teacher's Beliefs

The data analysis from interviews found that the teachers' beliefs were one of the factors affecting their understanding of inclusive education. This theme can be divided into the sub-themes, including beliefs in inclusive education, beliefs around the level of a student's disabiltitiy, and beliefs in improving social skills for students with ASD.

Belief in inclusive education. The data revealed that 13 out of 15 teachers interviewed had a positive belief around including students with SEND, and they were supportive of the concept of inclusive education. One of the special education teachers displayed a particularly optimistic view of inclusive education for students with ASD, stating that *"students with ASD will at least not have a zero outcome, because if they are not doing well academically, they will for sure have good outcomes in other skills, such as behaviours or social skills."*

Another special education teacher considered inclusive education to be valuable, but he also had concerns about its implementation, stating that, "*I see it is good as concept and idea, but having experienced it now, I think we should avoid mistakes in the future."* He continued:

> *If a student with autism spends a third of his day with general education students, he or she will imitate their behaviours. This imitating alone is enough to support* [inclusive

> education]. *Also, the equal treatment he or she receives from the teachers makes the student work hard to achieve what the teacher wants. I also saw psychological improvements across the students with disabilities; they became more self-confident.*

This view was echoed by another special education teacher, who explained:

> *I believe inclusive education should be generalized to all schools across Saudi Arabia. I would say that the inclusive education provides better outcomes for the students* [with SEND]*, and I saw that in the students' performance. For example, the students' level of self-confidence and positive behaviours clearly increased compared to when the students were in private classrooms. Also, the students with autism in inclusive classrooms gained more language and improved their speech.*

Both general and special education teachers' beliefs in inclusive education were therefore positive and related to the improved outcomes they witnessed in the performance of the students with ASD in their experience in schools.

Overall, 13 of the teachers interviewed held a positive view of the concept of inclusive education for students with SEND including those with ASD, but there were some who disagreed with the majority view. One of the special education teachers who believed that the approach may *not* be beneficial for students with disabilities argued that *"I am talking about my classroom. I did not see improvements in the student's abilities, either academic or social. It could be that the environment did not help them."* Another teacher did not support including those with ASD, and he said, *"I have three students having autism in my classroom, I feel inclusive education it's not suitable for them because they don't like any loud noise, when there is a noise in the room, they covered their ears by their hands and leave the classroom."*

Level of the students' disability. A further belief that emerged from the data was around the level of disability, and analysis indicated that the teachers' beliefs about inclusive education depended on the level of the students' disability. Eight participants, including five general education teachers, two special education teachers, and the psychology specialist, felt strongly that inclusive education is not appropriate for all students with SEND, and they categorized an individual's appropriateness for inclusion according to the level of their disability. The psychology specialist in the school argued that

> *I don't believe it's supposed to be for all students with disabilities. The company, Tatweer, told us that we should accept all students, whatever their disabilities, and this*

is what I consider to be the first issue with them and the reason for why our motivation about the programme [inclusive education] *has been reduced.*

Moreover, a special education teacher explained that:

> [Inclusive education] *is suitable for some students because they are academically superior, and they don't have apparent problematic behaviours. In this case, they should be included in mainstream classrooms, but if this is not the case, the students should be in special programmes or institutes; it would be better for them. The problem here is the lack of evaluation; they just accept all students, whatever their disability level.*

Another special education teacher observed that inclusive education *"is very effective, and I want it to be generalized across all schools in the Saudi Arabia, but they should re-consider the acceptance criteria for students with ASD."* This idea was supported by a general education teacher, who noted that:

> *To some extent, I see it is successful, but the most important point is that the criteria must be applied according to factors such as the number of students in the school as well as the level of disability of the students they accept.*

Improving the social skills of students with ASD. Seven out 15 teachers interviewed believed that inclusive education offers a student with ASD the opportunity to learn alongside his peers, although their perception of the advantages focussed on improved social skills, rather than academic skills. For example, a special education teacher observed, "*inclusive education classrooms improve the social skills of the autism student, but I would say that if he gains better social skills, he will do better academically, for sure."* This argument was also supported by another teacher, who observed that:

> *Social skills have a higher chance of improving than academic skills, especially for students with autism. I see the autistic students' communication skills going from a level of almost non-existence to improvement that can be noticed by both their teachers and their families.*

Similarly, a special education teacher explained that through inclusion, a student becomes more sociable and has friends in the classroom: for one student, the teacher explained that *"he loves the classroom because he has friends now. So, in this case, it wouldn't be fair if he went back to a private classroom or institution."*

Another special education teacher supported the notion that inclusive education is positive for students with ASD, observing that their behaviour improves because the students attempt to imitate their peers' social skills. He explained:

> *It is good for them; I now see autism students with trying to copy good behaviours of their peers. For example, they now do the morning exercises like their peers, and they line up like their peers… I now see them paying stuff in the school's cafeteria. They are trying to imitate their peers' social skills. All of this is good for them in terms of their social skills.*

A general education teacher explained why he believed that inclusive classrooms improves the social – rather than the academic – skills of students with ASD: *"Inclusive education improves the students socially because most of my academic work with the students involves one-to-one, individual teaching, and when I take* [the student] *to a resources room."*

While the teachers believed inclusive education was beneficial for improving social and behavioural aspects for students with ASD, they argued that it did not improve academic skills for them. This belief seems important, because it could affect their classroom practice. For example, one teacher argued that

> *…If we're talking about academic skills, I still believe private classrooms are more beneficial for those with autism to learn in. In the private classroom, there are no distractions, and it's quieter for them. Also, I have more time as a teacher to teach them individually.*

I have noticed that teachers talked about taking students with SEND to a resource room for one-on-one teaching, as they explained that it was a better environment for those students to have academic lessons and provided a quiet space for one-on-one teaching between only the teacher and student (see Section 6.5.1 in this chapter). However, during the data collection period, I did not witness either special or general education teachers using the resource room during my observation at the school.

In sum, the data showed that 13 of the 15 teachers interviewed for this study expressed positive beliefs about the inclusive education approach. However, eight teachers of the 15 felt strongly that inclusive education is not appropriate for all students with SEND. And, finally, seven of the 15 teachers believed that inclusive education was improving the social skills of students with ASD without any comment on the effect it had on their academic skills.

6.3.2 Teacher's Motivations

The teachers' motivations were found to be another of the factors affecting their understanding and practice of inclusive education, and this overarching theme included the sub-themes of motivation. Sub-themes were focussed on special education teacher motivation (related to the special education field itself and the choice of school), and the general education teachers' motivation as related to include religion, extra salary, the number of students, and experience.

Special Education Field Motivation. At the school in question, both general education teachers and special education teachers were involved in the inclusive education classrooms. The data revealed that different motivations underpinned the special education teachers' decision to pursue their specific career. For example, in the Saudi context, special education is one of the majors that can be studied within a college of education for a bachelor's degree. One special education teacher explained that he heard about it as a major *"before I finished high school and heard that it had a future in terms of getting a job after graduating. Also, [I believed that] it would help me understand how to deal with all individuals with disabilities."* He further explained it as "*Ajer*," the religious concept for getting 'credit' or rewards from Allah, and also *"as a way to earn money."* Another special education teacher thought of his career choice as a coincidence, explaining that *"after graduating from high school... most of my high school classmate applied to the school of education... so, I applied with them."*

For another, it appeared as a growing field with many opportunities for employment:

> *At that time, special education as a major was trendy, and a lot of students at college wanted to specialize in this major because there was a good chance of getting a job immediately after graduating. To be honest, in the first year of college, my major was Islamic education, but then I transferred to special education because the opportunity to get a job is higher than in Islamic education. But the idea is same: both majors mean that you will be a teacher.*

This major held the potential to enter employment immediately after graduating from college, which contrasted with the opportunities available for students who study in other education majors, where it often takes a number of years to find a job. Moreover, the career was made attractive by the potential to earn: at the school in question, the special education teachers

earned 30% more than the other teachers at the school, a fact which became apparent during short informal conversations with the teachers.

However, not all of the teachers claimed that their choice of a special education major was due to the job opportunities; instead, some simply wished to be a teacher. For example, one special education teacher explained that he chose his major because he has a relative with autism, saying, *"I chose this major a long time ago. Also, I have a cousin who has autism; these people are nice and kind, but they need someone who understands them. So, my focus at university was on majoring in autism."* Meanwhile, another special education teacher explained that he chose his major because he came from a family with a teaching background: *"all my brothers are teachers, so it is common that we always, as a family, discuss teaching and exchange experiences."*

Choice of School. In Saudi context, the Ministry of Education is responsible for hiring teachers, most of whom usually commence their teaching career in small towns or in the countryside; they then request a transfer to the city or town that they prefer. For example, a newly qualified special education teaching graduate from a college in Riyadh would apply to the Ministry of Education for a teaching job, and depending on his grade point average (GPA), the Ministry might hire him at a school in one of the 10 cities on his wish list. If his first job was in Hail, which is 700km from Riyadh, he might then request a transfer to a school in Riyadh.

The interviews therefore included a question regarding whether or not the teachers chose to work in this specific inclusive classroom. The data showed that the special education teachers had no choice in the matter, although they did have a choice of whether they wanted to work at the school in question. For example, one special education teacher indicated, *"No, I did not choose it; it came to me."* He explained:

> *I found this school and came to it. I had the option to transfer to another school, but I did not. When I came, I rejected the idea of inclusive education, but after spending two months here, I become familiar with this approach, and was more accepting and happier. Now, if you asked me to go back to the private classroom model, I would say no, I will stay here, because I really like it, and I see the students are happy about it as well.*

Another special education teacher had a similar experience and explained that he did not choose to work in an inclusive classroom; rather, he *"found it at the school,"* adding, *"and*

you know that in Saudi Arabia, it is a new approach to education. But to be honest, my reasons for selecting this school were not because it has an inclusive education approach."

In fact, only one of the special education teachers chose to work at a school with an inclusive education approach, and most of them were unaware in advance that the school in question even had inclusive classrooms.

Indeed, when asked whether he had chosen the school in this case study, a special education replied, *"No, I wrote a list of 10 schools, and the Ministry of Education named this school for me."* Meanwhile, another special education teacher explained, "*I had no motivation… I came to this school just because of the location of the school. I wanted to be near my home".* When speaking of his early experience of the school, a special education teacher said:

> *To be honest, when I arrived at this school last year, I was shocked. It took me two months to accept the idea of fully inclusive education, because previously I was teaching students in a private institution outside Riyadh, so I just moved into Riyadh, to this school, and I found that it practices inclusive education, which I didn't expect, and it's different from the way I was teaching before*.

In fact, only one special education teacher, who had been the supervisor of the study school for a year and had since returned to being a teacher, was aware that the school had an inclusive approach. He had asked to be transferred to that school to join the programme for that reason. He said,

> *I knew this inclusive programme had just started, and it was in its early months. The Minister of Education believed that it didn't work well, so the head of the inclusive programme at the Ministry was looking for good teachers to join the programme. They choose me, and I was willing to accept the challenge. In my first year here, I was the supervisor of the inclusive programme for one year, and alhamdulillah* ('all praise is due to God alone'), *I achieved a lot of things that were not expected*.

Three out of the seven special education teachers were unaware that the school had an inclusive education approach before their arrival. However, as one of the special education teachers explained in a conversation with me, they had no choice about whether or not to join the school, and no ability to refuse to teach in the inclusive classrooms or to teach in private

classrooms that were designed purely for students with SEND. Their only option was to request a transfer to another school, which may take a year to implement.

As noted in Chapter 3, previously in the Saudi context, there were classrooms in public schools that were reserved only students with SEND; they shared school activities with the other students, but they did not occupy the same classroom. In contrast, fully inclusive education involves students with SEND studying alongside their peers without disabilities. As a new concept, five out of seven special education teachers expressed their interest to join this experience of teaching in inclusive education approach. For example, a special education teacher had been aware of the concept since his undergraduate degree and had *"heard a lot of positive perspectives about inclusive education and knew that it's been applied in many countries around the world."* Similarly, another special education teacher had also heard about the concept, and *"as a teacher [I] was excited to join this new experience, as I heard about the outcomes of this approach."* Some of the teachers were interested in this new approach, one teacher explained that he wished to join an inclusive classroom because *"I think it's an experience that I would like to try."* Further, the special education teacher who was also the supervisor for inclusive education in the school indicated that *"The idea of inclusive is interesting. I would see it and experience it. Yes, its application is difficult, but education needs to evolve."* Finally, another said that *"it's a new concept and it's good to have new challenges and experiences."*

The experience of the general education teachers differs from what is experienced by special education teachers. The school had just six inclusive classrooms, and the rest were non-inclusive. All of the general education teachers were asked if they wanted to join an inclusive classroom. When asked whether he had previously considered teaching in an inclusive classroom, one general education teacher replied, *"To be honest... I had not expected it, but the head of the school chose a number of good teachers at the school [to work in the inclusive classrooms], and I was one of them."* Meanwhile, a general education teacher who had initially wished to be employed at the school because it was near his home, explained that he learned about its inclusive classrooms after he arrived: the head of the school had asked him if he wanted to teach in these classrooms, and he accepted.

General Education Teacher's Motivation. The motivation of general education teachers differs from special education teachers when considering teaching in inclusive classrooms. Within the school, there were more than 20 classrooms, and just six were inclusive,

so general education teachers would have the chance to choose to be a teacher in these classrooms or not. Data presented in this section indicates some spaces of motivation for general education teachers' choice to join inclusive education classrooms.

Saudi Arabia is an Islamic country, in which religion is a motivation for many people, including teachers, whose lives are governed by Islamic values. One Islamic values that appeared in the interview for four out of the six general education teachers was the belief that their life lacks value if they do not help those with disabilities. As one teacher explained, *"if we don't help them, we will receive Allah's punishment on judgment day."* Meanwhile, another teacher indicated that *"I want to help these disabled people to get Ajar."* As mentioned in an earlier response from a special education teacher, *Ajer* is an Arabic word meaning reward or credit from Allah, which is awarded for performing a good deed, and is accounted for on the day of judgment. This belief was cited by a number of the teachers. As the other teacher said, *"You feel you are giving something to needy people and getting credit from Allah."* Still, even with this religious motivation, general education teachers noted the challenge inherent in teaching children with disabilities, as with one teacher who noted that *"it requires patience... helping human beings its good, and I can get a lot of Ajer* [as a result], *but although dealing with some of the students with ASD is easy, dealing with other students is difficult"*.

The data showed that another factor for general education teacher motivation was the additional salary that accompanied the job. All special education teachers in Saudi Arabia receive an additional 30% on top of their basic salary, regardless of whether they teach students with SEND in inclusive classrooms or in private classrooms that are reserved for students with disabilities. This extra salary demonstrates the challenge of special education work, as one special education teacher explained, *"inclusive doesn't mean just physically putting students with SEND in the classroom, otherwise, if this happened, there would be no need to have a special education teachers in the classroom; the general education teacher could teach and would get the extra money."* For general education teacher in inclusive classrooms, the increased challenge of their job is demonstrated in that general education teachers to receive an extra 20% on top of their basic salary if they teach in an inclusive classroom.

The school in this case study had six inclusive classrooms, and an additional 20% of the basic salary was available to the general education teachers at the school if they joined one of the inclusive classrooms. The selection of which teachers to join these classrooms was made by the head of the school, as noted earlier in Chapter Five, where one of the general education explained that the general education teachers involved changed every year:

This is the head of the school's idea to encourage the teachers to work hard to gain the opportunity, which involves extra money, and also to make all of the teachers aware of inclusive education, which is good, as it changes the teachers' perspectives.

Two of the general education teachers mentioned the extra money involved when discussing their motivation for teaching disabled students. For example, one teacher said, *"Regardless of the extra money I got, honestly, inclusive education is something new, and I would like to explore the students with disabilities, and to get to know the people who work in inclusive education."* Another general education teacher was more direct about his motivation for teaching in the inclusive classrooms, providing another of the sub-themes in his comment that *"first, there are financial incentives for teachers who join inclusive classrooms. Second, the number of student in these classrooms is lower than in other classrooms."*

As noted in the previous comment and seen across the data, the smaller class size available in the inclusive classrooms was one of the factors that motivated the general education teachers to join these classrooms. One of the general education teachers observed that, while the concept of inclusive education was new to him, after spending a year working in the inclusive classrooms, their value was clear, and he was *"happy with a smaller number of students, as well as the extra money I get."* Another teacher also commented on the class size: *"student numbers in general classrooms are between 50 and 55 but in inclusive classrooms the number is 32; it's really good to have this number of students."*

Motivation differed between the general and the special education teachers. The data showed that special education teachers were not asked whether they wished to join this inclusive school. They were transferred to the school, and, with the exception of one special education teacher, most were not aware that this school had adopted inclusive education. However, the data showed that most of the special education teachers showed an interest in participating in the inclusive education approach, as they had heard about it previously. On the other hand, the data showed that the general education teachers could choose to join these inclusive classrooms or keep teaching in non-inclusive classrooms. The data therefore demonstrated that four teachers were motived to teach and to help those with special needs as a result of their Islamic values, and two of the general education teachers mentioned the extra money involved when discussing their reasons for participating in inclusive education. Finally, three out of six general education teachers were motivated to join the inclusive education classrooms due to the lower number of students in the classroom, which is around 30 students, compared to non-inclusive classrooms, which have between 50 and 55 students.

6.3.3 Sub-Section Conclusion: *How do teachers in Saudi context understand inclusive education?*

This section presented the findings regarding the Research Question 2, Part 2A concerning the factors involved in understanding the concept of inclusive education. The data revealed that the special education teachers had a higher level of knowledge and understanding of inclusive education than the general education teachers. Under the motivation theme, it was found that the general education teachers tended to join the inclusive classrooms for reasons of religion, extra salary, and the smaller number of students in the classroom. This differed from the motivations of the special education teachers, who were generally already aware of the approach, and believed that it improved both the social and behavioural skills of students with ASD. However, none of the teachers cited the belief that inclusive education promotes these students' academic abilities. The next section will show the data related to the teacher's understanding regarding ASD.

6.4 Understanding Disability and ASD

This section considers the third research question, *How teachers' understanding of ASD and how does this relate to their practices?* This question is divided into two sections: 3A and 3B. Section 6.4 is concerned with teachers' understanding of ASD (3A), and Section 6.5 discusses teachers' practices (3B) will follow. This section concern with teacher's understanding regarding both disabilities and ASD, beginning with teachers' understading of disability, then moves on to teachers' knowledge of ASD and students with ASD.

When one general education teacher responded to the interview questions about students with disabilities, his response focused on two disabilities only: students with ASD and students with learning disabilities. Indeed, he defined only these two types of disabilities even though the school had other groups, such as students with intellectual disabilities and students with physical disabilities. He then described those students as *"students who cannot read or write, students who have problems in education."* Another general education teacher talked about the students with SEND in his classroom as follows: *"For a student who has difficulties in understanding, it takes time for them to understand the knowledge because of their intellectual and communications defects."*

Another general education teacher responded to my question about the kinds of disabilities his students had, saying, *"To be honest, I don't know their disability exactly; some of them may have autism or intellectual disability."*

Another general education teacher said:

> *I will be honest and not hide it from you: when I came here to this inclusive classroom, I didn't know what special education was and what was general education... and there are many majors in special education…. Autism and learning difficulties... but I called all of them special education students… Learning disability means a normal person, right*?

Furthermore, during classroom observations, I found that the general education teachers whose classrooms I visited did not know their students' disabilities; when asked about their students' conditions, they were not sure, and they asked the special education teacher in the classroom to confirm. Combined with the comments listed above, it was clear that these teachers did not recognise the disabilities of the students in their classrooms; despite it being an inclusive classroom, they did not know their students' abilities and needs. A special education teacher talked about the general education teachers' understanding of disability and ASD as follows:

> *General education teachers lack the basic knowledge about disabilities and the characteristics of ASD students they need in order to teach them. General education teachers must have this basic knowledge, such as what the student needs, what the student doesn't need, what the student avoids, what are the things that make the student angry, and what the student wants and doesn't want. From my observation, I have found that general education teachers, when they face a problem with the student, they immediately ask the special education teachers for solutions, or they ask what they should do. They always complain about the student's behaviours because they do not know the student's disability behaviours. For example, one of them came to me and commented that the student wouldn't stay in his seat because the teacher didn't know the student had ADHD and didn't know how ADHD students behave in general.*

The data from the interviews and observation notes revealed that all seven special education teachers' levels of understanding regarding disability was deeper than what was displayed by general education teachers. The special education teachers were aware of each of the disability behaviours due to their qualifications and experience. One special education teacher talked about three different disabilities: *"I found that teaching ADHD students is the hardest disability to deal with and to teach. Students with intellectual disabilities – their*

communication is good, and their social skills are good compared to the autistic students, who are usually unsocial."

The data showed that special education teachers associated the disability with the student's academic needs, which were specialised for their specific challenges. For example, one of special education teachers said, *"A student who has academic needs is different from the other general education students, so he needs an additional service, and we need to modify the environment for him."* According to another special education teacher,

> *For a student who has a need, it is difficult for him to derive any benefit from the educational and teaching material of the classroom compared to other students, that is, he is a special education student – which are any students that have needs that prevent them from learning in the classroom.*

Similarly, the supervisor of inclusive education, who held a bachelor's degree in special education, defined students with disabilities as showing *"symptoms and behaviours that happen more than one time. There are 19 different disabilities. Behavioural repetition and disability severe are the two main things that make me notice the difference between special education students and their peers."* Another a special education teacher defined students with SEND as *"those who need supporting services such as a specific path or special help from a teacher. So, anyone who needs help, he is a special education person."*

As with understandings of disability in general, teachers' understanding of ASD also differed between special education teachers and general education teachers. One of the general teachers offered this description of those with ASD: *"I had read about it, but I don't have a good enough answer. What I understand about the students with autism is that usually they will be good in one aspect, and the other aspects are weak."* Other general education teachers demonstrated their lack of understanding of the nature of ASD with comments such as, *"Autism is difficult; I know there is a hearing autism"* and *"I have students with ADHD; some of them have 40% of autism."* The latter comment especially demonstrates a clear lack of knowledge on the part of that teacher: an individual either has ASD or does not have; he cannot have "40%" of ASD.

One of the general education teachers had been working with students with ASD for three years. He responded to my questions about the characteristics of an ASD student by describing one such student: *"I can tell if this person has ASD if he is noisy, the one who always sits alone, or the one who does not participate with other students."*

Another general education teacher offered this assessment of ASD behaviours:

> *The students' behaviours are really aggressive, and the problem is how to control such students ... especially students with ASD; some of them don't like anyone to touch them, and the other students, they touch me a lot, and sometimes they put their hand in my pocket*.

He went on to give an example, saying that *"when I turn off the light in the classroom, students with ASD become calm (maybe Allah made them like that), but when I turn on the light, they become hyperactive."* His lack of understanding – or his simplified take on ASD – is evident in these comments. In stating that students with ASD did not like the light on, he was demonstrating that he was not familiar with the sensory behaviours of those with ASD. Indeed, throughout the examples presented here, this collection of comments demonstrates the limits of general education teachers' knowledge about ASD students' difficulties and behaviours.

In contrast, the special education teachers demonstrated an awareness and educated understanding of the behaviours associated with ASD, and the difficulties and abilities of those with ASD. The interview transcriptions showed that the special education teachers had a higher level of knowledge about students with ASD and were aware that ASD students are not all the same. According to one special education teacher, *"Autism cases are not alike; autism is not homogeneous. Yes, most of the ASD students are non-verbal, and they don't interact or respond to you due to their communications deficit."* Here, the response could be interpreted as showing that teacher understands the nature of people with ASD as the symptoms appear different with each individual. Another special education teacher also demonstrated this understanding of individual difference, and referenced *"childish behaviours such as hand flapping, facial movements, expressions. I cannot confirm which behaviours, but poor eye contact is one of the main behaviours of students with autism."*

All of the special education teachers talked about autism as a disorder affecting the areas of communication and interaction. They also noted that students with ASD demonstrate repetitive behaviours, such as hand flapping, as mentioned above. One of special education teacher explained ASD as evident in "*the student who has certain behaviours that happened repeatedly, repetitive behaviour may include hand-flapping or repeated words."* Also, special education teachers clearly described ASD as different from and more complex than other disabilities; overall, they showed greater awareness of the specific, evidence-based

characteristics of students with ASD than the general education teachers, who lacked basic knowledge about disabilities in general.

The data showed that the special education teachers were aware of the basic difficulties that students with ASD face, such as difficulties with social interaction and nonverbal communication. For example, one of the special education teachers, when asked about how to teach students with ASD, responded with *"communication – how to communicate with the student with autism, and how to get the student's attention."* Another special education teacher talked about his approach when teaching those with ASD as "*finding the way to communicate; for one of students, I used drawing with him. He would draw something for me, and I reply to him by drawing something."*

6.4.1 Sub-Section Conclusion: *How do teachers in Saudi context understand ASD?*

General education teachers expressed limited knowledge about students with SEND and students with ASD. The data from interviews showed that they did not recognize the disabilities of the students in their classrooms, and they were unfamiliar with their students' behaviours, abilities, and needs; one went so far as to say that students with ASD were students who could not read and write. These responses are in contrast with the special education teachers, who showed an awareness of the different disabilities and characteristics of students with ASD; they were aware of their behaviours and abilities, and the data demonstrated that those teachers viewed the disabilities from an educational perspective, taking into account the social or communicative aspects of students with ASD. They demonstrated awareness and respect when they talked about students with ASD, for example when they talked about their ways to communicate with students with ASD and their approaches to maintain their attention.

6.5 Inclusive Education Practices

This section, which shifts to focus on the practices observed in the inclusive education classrooms, emerged from the data analysis to answer the secondary aspects of Research Questions 2 and 3, that is, Parts *2B* and *3B* regarding how the teachers' understanding of inclusion and ASD is related to their practices. This section is based on interviews with the teachers and the observations that I conducted, along with my field notes; the Tatweer documents which were generic manuals for all-inclusive schools. Throughout, I focused on the practices of teachers both inside and outside of the inclusive classrooms.

As discussed in the methodology chapter, the purpose for observing teachers with ASD students in their classrooms in my study is as follows. First, it helps the research to identify how teachers apply their understanding of inclusive and ASD. Next, it allows the teachers to use specific strategies. Third, observations allowed me to see if the teachers were following the Tatweer manuals and to see, first-hand, how frequently such strategies were being employed. Finally, observations allowed me to explore aspects that might not arise if I were only carrying out interviews. From the available data, two themes arose: practices *inside* of the classroom and practices *outside* the classroom. ***Figure 6-3*** outlines the themes related to teaching practices for responding to Parts 2B and 3B for Research Questions 2 and 3.

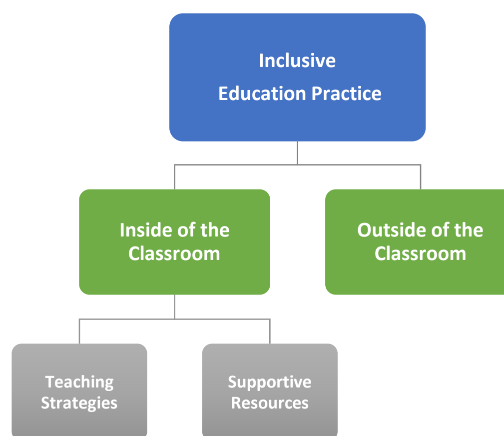

Figure 6-3 Themes related to Teaching Practice.

6.5.1 Inside the Classroom

This theme arose from data related to the Tatweer documents, teacher's interviews, and the six classroom observations. First, from the review of the Tatweer technical manual (as discussed in Chapter Five, Section 5.2 and Chapter Three, Section 3.5.2), there is a description of 13 disabilities based on the U.S.'s 2004 Individuals with Disabilities Education Act (IDEA, 2004). The section for each disability (including ASD) provides example strategies and assistive technology that can be used when working with students with that disability. Most of these strategies in the manual are sourced from the book *Co-teaching: Strategies to Improve Student Outcomes*, written by Friend (2014). In the manual, there are strategies listed to use in the classroom for effective teaching and working with students with ASD in general, and the manual also provides information on assistive technology to use in inclusive classrooms (Tatweer Company for Education Services, 2016c). The following tables (***Table 16*** and ***Table 17***) list the strategies that are suggested in Tatweer manual alongside an observation checklist for indicating whether or not the teachers had been applied these strategies in their classrooms.

Table 16 Tatweer: General Strategies

N	General Strategies with students with ASD (Friend, 2014)	*Classroom Observations*					
		1	2	3	4	5	6
1	Be sure that the student sits where he or she can best see, hear, and focus on the teacher, with minimal distractions.	✓	✓	✓	X	✓	✓
2	Maintain a clear routine and organized schedule.	X	X	X	X	X	X
3	Provide the student with a visual schedule of the day's activities so that he or she will know what to expect.	X	X	X	X	X	X
4	Provide consistent rewards for appropriate behaviour and consistent consequences for inappropriate behaviour.	X	X	X	✓	X	X
5	Provide social skills training and practice.	X	X	X	X	X	X
6	Provide instruction in keyboarding to help with handwriting difficulties.	X	X	X	X	X	X
7	Prepare the student to transition from one activity to the next by giving five-minute and three-minute warnings of when the next activity is coming.	X	X	X	X	X	X

Adapted from Tatweer technical manual (Tatweer Company for Education Services, 2016c).

In using the general strategies checklist from ***Table 15*** for classroom observations, I was evident that not all strategies were being practiced in the six observed classrooms. I noted the lengthy transition between classroom teachers, as it took five to ten minutes for both general education teachers and special education teachers leave the classroom once the class is finished. There were no visual schedules nor keyboarding equipment provided for students with ASD in those six classrooms. Each of the classrooms had a typical physical layout: the classroom itself

had five rows of tables, and each row had four or five tables. Across the observations, it was evident that in all of the six inclusive classrooms, all students with SEND (including those with ASD) were sitting in different areas in the classroom, but in all of the classrooms, students with ASD were sitting in the back, with the exception of one classroom where all children with ASD were in the middle of each row. One special teacher explained that placing students with ASD in the back helped him (as the special education teacher) to move between those students without disturbing other students in the classroom.

Table 17 Tatweer: Teaching Strategies

N	Teaching strategies for Higher-Functioning students (Friend, 2014):	1	2	3	4	5	6
1	Student will not typically require modifications to the curriculum, but support should be provided for reading comprehension when student is engaged with curriculum.	✓	✓	✓	✓	✓	✓
2	Student will need instruction and support in areas of executive function, e.g., organization, sequencing tasks, planning, and breaking tasks into smaller steps.	✓	✓	✓	✓	✓	✓
3	Student will need ongoing teacher support in building and maintaining appropriate relationships with peers.	X	X	X	X	X	X
4	Special effort should be made to utilize the student's area of strong interest as a motivation to complete activities and tasks, especially those that are non-preferred.	-	-	-	-	-	-
5	Student will need specific instruction in social skills, preferably in small groups with other students with and without autism.	✓	✓	X	X	X	X
	Tatweer manual Lower -Functioning strategies (Friend, 2014):	**1**	**2**	**3**	**4**	**5**	**6**
1	Student will typically require modifications to the curriculum	X	X	X	X	X	X
2	Student may require environmental modifications for comfort and safety (Simpson, de Boer-Ott, & Smith-Myles, as cited in Friend, 2014)	-	-	-	-	-	-
3	Student may require one-on-one support from an educational assistant	✓	X	✓	✓	✓	✓
4	Student who is non-verbal or low verbal will require a means of communication, e.g., Picture Exchange Communication System (PECS) or a communication board.	X	X	X	X	X	X

(Adapted from Tatweer manual (Tatweer Company for Education Services, 2016c)

As shown in ***Table 17***, the Tatweer manual suggested that, depending on the functionality of students (either high function or low function), modifications to the curriculum would be required. In general, teachers use a textbook that comes from the national curriculum which is centralised for all general education schools in Saudi Arabia (see Chapter Three). From my observations, it was evident that all of the general education teachers used the teaching strategy of "lecture with questions," with the special education teachers following the same format (the practice of lecture with questions is discussed later in the chapter). This approach meant that students with ASD were taught with the same curriculum, regardless of their individual differences. From the review the technical manual of Tatweer, one section describing inclusion emphasised that schools would need to provide specialised supports

necessary to ensure students with SEND could access the general education curriculum. (Tatweer Company for Education Services, 2016c, p. 78). Similarly, the professional development section, which focused on training, included characteristics of each specific area of disability and how to modify the curriculum to support that disability (Tatweer Company for Education Services, 2016c, p. 72). However, as one of the special education teachers argued, curriculum modifications represent good teaching practice and should not be exclusive to students with disabilities. He said, *"I believe we need to modify the curriculum for the school, not for all the students, only for those who study in inclusive classrooms."*

Teaching Strategies

Teachers utilised different teaching strategies in their classrooms with students with SEND. This section sheds light on both what was said in the interview and what actually occurred within the classrooms. In teaching students with SEND, the Ministry of Education require that teachers have an Individual educational plan (IEP) for each student with SEND, as discussed earlier in Chapter Five, Section 5.2.1 (Ministry of Education, 2002). Following on from that initial policy, a new form of IEP was developed by Tatweer to be used in teaching those with SEND in the inclusive classrooms (Tatweer Company for Education Services, 2016b).

The data confirmed that special education teachers are the ones who completed the IEP form for each student with SEND, even though the IEP is supposed to be written by a team that includes the general education teacher, the special education teacher, and the psychologist, as explained in Section 5.2.1. In one instance, I asked a special education teacher about his practices. With one task, he taught each student with ASD individually. When asked if this task was taken from the IEP, he responded "*yes, or sometimes I check the textbook* [the textbook for the general curriculum] *and ask the student to do one of the exercises so he could participate in writing with his peers in the classroom.*" All of special education teachers said that they used the IEP in teaching students with SEND. Data from observations showed that the IEP were not presented with either the special education or general education teachers during the time of data collection.

The data from the interviews showed that one of the special education teachers and three out of the six general education teachers reported that the strategy they used in their

classroom was a "visual strategy". One general education teacher, responsible for teaching Islamic lessons, said:

> *The strategy I found for students get the most benefit is the visual strategy, meaning that my verbal language is not helping at all. For example, in reading the Koran, when I read it to them, it doesn't help, so I bring a recorder and speakers, and that doesn't help either. However, once they see the paragraphs of Koran on the board or the Smart screen, the student begins to listen to and interact with me.*

Another general education teacher said, *"Usually, I try to find something such as a learning paper that can get his attention. Also, I encourage him all the time."* These strategies was also supported by a special education teacher, who said that he would often rely on:

> *using visual materials, such as pictures, because students with ASD prefer visual communications. For example, I provide a picture to the student and ask him to tell me a story about this picture. This strategy improves the language deficits in the students and makes them talk to me. Some of the students like this strategy, and some students like the strategy of giving them examples.*

The data from the interviews demonstrates that the strategies that the special education teachers used for teaching was to "follow the main teacher**,**" that is, to shadow what the general education teacher does but focus on making their students with SEND follow as well. One special education teacher commented on his role during the lesson:

> *First, make sure the student is sitting in his seat. If he has ADHD, I make sure he is opening his book, and try to ask him to look at and concentrate on the general education teacher for as much of the time as possible. If there is writing in the class, I try to be next him to direct him, or repeat the words he should write, and sometimes, I point for him if he has problem with writing. In general, I am a supporting teacher for the main teacher in the classroom, and my focus is students with disabilities.*

Another special education teacher said:

> *For example, I ask the student to open the maths book; if he struggles, I help him. I encourage and help the student to focus on the general education teacher as much as he could for several minutes. Then, when the students have started doing the exercise, I walk between each student that has disabilities. I try to help each student; I stay with each student for couple of minutes, and then I move to another student.*

The data from the interviews showed that two of the special education teachers talked about the “communication strategy” they used with their students. When asked about such strategies, one special education teacher commented as follows:

> *Communication - how to communicate with the student with autism, and how to get the student’s attention. Sometimes, I have been teaching the student “one to one” and the student has paid me no attention, or I have given the student an exercise about the lesson and I have gone, and then when I have returned to the student, I have found that he has not finished it. This is different to other special education students who when they get the exercise, they finish it. So, you need to find a way to communicate and get attention from the student by having a good relationship with the student and making the student like you, but it takes time.*

Another special education teacher responded about why he did not use different strategies with his students; he said:

> [There is] *no specific strategy of teaching. I believe using a specific strategy wouldn’t work with special education students, though it does work if I’m teaching them in a private classrooms because students in the general education classroom need to be following the general education teacher and their peers, so using a specific strategy will mean the students fall behind their peers.*

During the classroom observation, I attended different subject lessons, such as Arabic, mathematics, and Islamic lessons. For all of the lessons I attended, the observation data showed that all general education teachers used the “lecture with questions” teaching strategy with all students, including those with SEND. Basically, this strategy is a teacher-centred approach that uses the following format: a general education teacher starts the lesson by giving a lecture about the subject of the lesson and then asks the students questions. The students listen to the lesson and then answer the questions posed by the teacher. One of the general education teachers talked about lecture with questions, which wat he called a “traditional teaching” strategy. He said:

> *No, I use traditional strategy* [lecture with questions] *of education and the special education teacher uses other methods with them* [students with ASD]. *The number of students is high and it’s impossible to take a long time with each autism student. I am a teacher of the whole class and responsible for the evaluation of all students.*

The data showed three out of six general teachers explained their teaching strategies in those inclusive classroom as "simplifying the lesson**"**. One general education teacher said; *"Here, I must simplify the subject for those with disabilities, so they can understand the lesson,"* while another teacher said, *"I give students with ASD short and simple questions and exercises that meet their level of understanding."* Another referred to the approach as 'breaking down knowledge': *"In the non-inclusive classrooms, it is easier to deliver the knowledge to students than in the inclusive classrooms. In inclusive classrooms, I have to break down the knowledge and make it simpler for the students."*

Furthermore, the data from observation showed that all six lessons were taught through lectures coming from the general education teacher. I also noticed that in two out of the six lessons, the general education teachers stood in front of the class; they did not move between students in the classroom. Furthermore, five of the six teachers only used the whiteboard. For example, in the Arabic lesson, the teacher would write some words on the whiteboard and ask the student to read them and give him the meaning of the words. It was clear from these five lessons that general education teachers only used this teaching method for the students, including those with SEND in the classroom.

Supportive Resources

In the data from the interviews, three out of six general education teachers reported that they used supportive materials, such as a smart screen, and applied a visual strategy when teaching in their classrooms. According to teacher,

> *These strategies include using supporting materials such as a smart screen. I find it very helpful especially for those with ASD because in teaching them, I need to provide pictures for them. For example, in maths, it is hard for students with ASD to count numbers without pictures, so I use animals/trees/pictures for counting.*

This concept correlates with Tatweer's advice: in the manuals, Tatweer proposed the use of assistive technology in their manuals (see ***Table 18***) as a supportive resource to use with SEND students. However, in this instance, data from the classroom observations showed that the teachers used only the whiteboard for writing and did not draw pictures on the board. In one lesson, the special education teacher did not use any supportive material for any of the four students with ASD.

Table 18 Tatweer: Assistive technology to use in the classroom.

Tatweer manual; Assistive technology to use in inclusive classrooms	Classroom Observations					
	1	2	3	4	5	6
Pencil grips	X	X	X	X	X	X
Talking calculators	X	X	X	X	X	X
Recorder pens	X	X	X	X	X	X
Voice output devices	X	X	X	X	X	X
Audible word-scanning devices	X	X	X	X	X	X
Speech to text software	X	X	X	X	X	X
Text to speech software	X	X	X	X	X	X
Word prediction software	X	X	X	X	X	X
Video modelling to teach social skills	X	X	X	X	X	X
Tablets on which students may read books, use learning software games, social skills role modelling	X	X	X	X	✓ iPad	X
Adaptive sports and recreation equipment	X	X	X	X	X	X

Adapted from Tatweer manual (Tatweer Company for Education Services, 2016c).

Thus, there is a clear divide between what teachers report and what they are doing in the classrooms. The data showed that in all six inclusive classrooms, there were no supportive resources being used except for the whiteboard and the textbook, and there were no supportive resources, such as a smart screen or projector. The only exception was an instance where one special education teacher provided an iPad to allow one of the students with ASD to read. All six special education teachers in all six classroom observations were following the direction of the general education teachers with the lecture plus questions teaching strategy. For example, when the general education teacher was giving the lecture, the special education teacher was sitting the students in their seats and helping them open their books; when the teacher was asking questions, they were helping the students answer the questions by providing one-to-one teaching. The special education teachers did not offer support resources to those learners with ASD when teaching them. This practice is different from their explanation of inclusive education, as when one of the special education teachers noted their job of *"providing appropriate resources to those with ASD."* What I witnessed contradicted their responses: there was no assistive technology used, and there were no visual strategies provided by special education teachers to those with ASD in the classrooms.

During the observations in the classrooms, I noticed that all of the special education teachers seemed more confident when dealing with their students with SEND when compared to general education teachers. I interpret this due to their understanding of their students' disabilities, which has helped them explain their students' behaviours and provide appropriate

reactions to their students. However, amongst the general education teachers, I noticed that two out of six the general education teachers did not interact or talk with the students with ASD in the classroom; these teachers did not ask them questions, nor did they pass near to their table as they were working with other students without disabilities. It seems that they ignored the presence of the students with disabilities in their classroom. Indeed, three of the six general education teachers argued that students with ASD are not their responsibility but are instead the responsibility of the special education teachers (see Section 5.2.4 in Chapter 5 with the discussion of teacher interviews).

Additionally, in one classroom observation, I noted that one of the general education teachers (who had attended a training course) asked his students a question about the subject he was teaching, and a student with ASD was the only one to raise his hand. The teacher asked him to come to the whiteboard to answer, whereupon the student came up and tried to answer, but he missed one point. So, the general education teacher helped him while he was writing, whereupon he was able to answer correctly. The general education teacher was happy and looked at his students and me (as observer) and said to all the students, pointing to the students without disabilities, *"See! The special education needs student answered, and you did not answer.*"

Table 19 Interviews and Observations inside the Classroom

Teaching Strategy	Interviews	Observation
Tatweer strategies	*None of teachers*	*Not applied in the classroom*
Supportive resources	*3 general teachers*	*Whiteboard – Textbook*
Tatweer assistive technology	*1 special teacher- iPad*	*1 iPad provided from special teacher to a student with ASD*
Individual educational plan IEP	*7 special teachers*	*IEP was not provided in the classroom*
Modify curriculum		*Not applied in the classroom*
Individual teaching	*2 special teachers*	*6 special education teachers*
Visual strategy	*3 general teachers* *1 special teachers*	*Not applied in the classroom*
Follow the main teacher	*2 special teachers*	*6 special education teachers*
Communication strategy	*2 special teachers*	
Lecture with questions	*3 general teachers*	*6 general teachers*
Simplifying the lesson	*2 general teachers*	

To conclude this sub-section, as shown in ***Table 19***, teachers use the national curriculum with all students in the classroom, including students with ASD. Data from the interviews demonstrated that general education teachers used two strategies: simplified lessons and visual strategies, such as using smart screens and pictures. The data from the interviews also demonstrated that the special education teachers said they use strategies that they use the IEP as a guide to teach those students with SEND, they follow what the general education teachers are delivering but with more help for those with ASD, and they use the visual strategies and communication strategies. Nevertheless, these findings from the interviews contrast with the data from the classroom observations. The observation notes revealed that all of the general education teachers used the teaching strategy of "lecture with questions", with the special education teachers following the general education teacher with more individual help for tasks for those with ASD. Additionally, the Tatweer documents suggested strategies for teachers to use in these classrooms, but the data practices showed that these Tatweer manuals had not been valued within the school and teachers had not applied these suggested strategies in practice, and they were not using assistive technology in these classrooms, Instead, only textbooks and whiteboards were available in their classrooms.

6.5.2 Outside the Classroom

Tatweer provided three different supportive classrooms (play room, a resource room, and the sensory room) in these six inclusive schools for implementing inclusive education. The company explained that the sensory room rooms or spaces functioned as a relaxing solution for some students with SEND, especially those with ASD. The purpose of a sensory room is "to calm or stimulate an individual through each of the senses" (Tatweer Company for Education Services, 2016a, p. 54). Sensory rooms should be used for different purposes, include for when those with ASD experience sensory issues and need this room to become calm or, conversely, when they need stimulation; they are also available for those with SEND who need to use a sensory room at random points during the school day when their senses become overwhelmed and their emotions begin to heighten (Tatweer Company for Education Services, 2016a, p. 55). However, from the data presented in Chapter 5 (see Section 5.2.1), teachers did not use the supportive rooms like the sensory rooms; they also did not make use of the playroom or the resource room during the academic year 2018.

During my school visit, I noticed that the students with ASD were sitting alone together at breakfast time. This was noted on four different days. There was a teacher who was responsible for monitoring them, which was usually one of the special education teachers, who rotated through the duties, so the monitor changed each day. Those teachers tried to keep the students in one of the corners of the playground and asked them not to leave that corner. In addition, my field notes indicated that, in the morning queue, students with ASD stood at the back of each line. The students were not interacting with the other students in this line; they were at the back of the line so the teachers could be close to them and monitor their behaviour. Further, I noted that in the school, students with SEND were called 'special education students' by both their teachers and their peers.

In their interviews, special education teachers defined inclusive education as students with SEND being included in the general education classroom and in all the activities in the school. As one of the special education teachers noted, their task was to *"include special education students in the general education classroom* [where they can] *interact with the other students in all activities in the school, from the time they enter the school until they leave."* However, the data demonstrated that there was a gap between what the teachers said about inclusive education and their practice, and this was true of both types of teachers in the school. This gap was made clear in the data when some of the teachers did not properly encourage students with SEND – especially students with ASD – to interact actively with their peers in the general school activities.

6.6 Conclusion

The data analysis from the interviews provides a response to Research Questions 2 and 3 regarding teachers' understanding of inclusion and ASD. The findings of RQ2 are presenting among the themes that emerged from data analysis regarding the concept of inclusive education, and they associated with SEND, placement, school participation, and the factors involved in understanding the concept of inclusive education. Taken together, the two themes of beliefs and motivations emerged. The findings revealed that the special education teachers had a higher level of knowledge and understanding of inclusive education and ASD than the general education teachers. The data from the interview and observations demonstrated that general education teachers lacked recognition and understanding of the difficulties faced by students with ASD; this could provide an explanation for why they avoided dealing with them

in their classrooms. However, in the interviews, special education teachers showed an awareness of students with SEND, especially those with ASD, and identified their behaviours.

Teachers expressed positive beliefs about inclusive education, albeit while indicating that it is not appropriate for all students with disabilities. It was apparent that the general education teachers' motivation to embrace inclusive education was for reasons of religion and extra salary, while few voiced student-based motivations. Conversely, special education teachers believed that inclusive education applied to all students, whatever their disabilities, when considering its implementation, their focus was concerned with the level of the students' disability, thus evidencing a belief that, in practice, inclusive education is not appropriate for all students. In practice, the data from the interviews and observations showed the general education teachers using the 'lecture with questions' teaching strategy when teaching students in inclusive classrooms to order to deliver the national curriculum for all students, and the data demonstrated that neither the special nor the general education teachers were using any supportive resources for those with SEND. In implementing inclusive education in the school, all teachers showed a gap between theory and practice in terms of including those with disabilities in all school activities and using different teaching strategies when teaching them, such as the use of visual strategies when teaching those with ASD. In the next chapter, (Chapter Seven), I discuss the study findings across both finding chapters.

Chapter 7 **Discussion**

7.1 Introduction

This chapter discusses the study findings in relation to the literature review presented in Chapter Two and engages with the five sections presented in the finding chapters (Chapters Five and Six), including the 11 themes under the five sections that emerged from the data to answer the three research questions for the study. The three research questions are included here for reference:

> Research Questions 1: *What are the main factors affecting the implementation of inclusive education in the study school?*
>
> Research Questions 2: *How do teachers understand inclusion? And how does this relate to their practice?*
>
> Research Questions 3: *How do teachers understand ASD? And how does this relate to their practice?*

In this discussion chapter, two sections present the key findings from Chapters Five and Six; Section 1 focusses on Research Questions 2 and 3, and Section 2 moves back to look at Research Question 1.

7.2 Section 1: Saudi Arabian Teachers' Knowledge, Beliefs, and Practices regarding Inclusive Education and ASD.

In this section, I turn to discuss the findings that are relevant to the second and third research questions of this study, which are both related to teachers' understanding of and practices in inclusive education. There are two distinct teacher positions in the Saudi educational system, as either general education teacher or special education teacher. One significant finding from this study is that participants' understandings and practices appear to differ according to their professional role. As explained previously (see Chapter Six), there are six general education teachers and seven special education teachers in the case study school. In Chapter Six it was also indicated that general education teachers have different understandings and practices of inclusive education when compared with special education teachers. These results reflect other studies in the Saudi context that have investigated teachers'

attitudes regarding inclusion with individuals who are deaf or have a hearing disability and those who have a learning disability (Alanazi, 2012; Alshahrani, 2014).

However, other contexts do not have this distinction between positions for teachers working with learners with SEND. In contexts such as the UK or Australia, there is no position called the 'special education teacher' in state schools (Emam & Farrell, 2009; Humphrey & Symes, 2013). As indicated in the beginning of this study, the educational system in Saudi Arabia parallels the US system, and thus both have special and general education teachers, as noted in studies conducted in the US (Fleury et al., 2014; Segall & Campbell, 2012; Simpson et al., 2003). Therefore, in discussing the findings of this current study, the teacher's position as either a general education teacher or a special education teacher is mentioned.

7.2.1 Teachers' Similarities in Understandings of Inclusive Education and ASD

In the study, the majority of educators (seven general education teachers, six general education teachers, an inclusive education supervisor, and a psychology specialist) showed that their definition of inclusive education was understood as education for a group of those with SEND; not one informant referred to students being excluded from the classroom or related 'inclusion' to being about groups such those with different race or gender (see Section 6.2.1), even though the Saudi context operates a gender segregation system (see Chapter Three). This understanding of inclusion from the study participants contrasts with understandings of inclusion as concerned with students beyond just those with SEND (Norwich, 2013a). Further, this finding is at odds with the Incheon Declaration in 2015, which defined 'inclusive' as ensuring access to inclusive, equitable, quality education and promoting lifelong learning opportunities for all, not only those with disabilities (UNESCO, 2015).

Tutt (2007) similarly argued that in only associating inclusion with SEND, others are left behind in schools, such as those who have missed assessment, or those who experience trauma, bullying, and/or mental health issues. From this study, participants' understanding of inclusive education, in being associated only with those with SEND, aligns with the research of Ainscow et al. (2006), who claimed that the understanding of inclusive education can vary, depending on the context. Indeed, the understanding of teachers in the Saudi context – wherein they take more narrow view of inclusion to include only those with SEND – could be explained in that the schools in Saudi that have had introduced 'inclusive education' have taken steps to include students with SEND in general education classrooms. Forms of inclusion were introduced in 1990s, when students with SEND began attending general schools; there, they

were not integrated into general classrooms, but they would have their own classrooms within the school. The term 'inclusion' (Damj in Arabic) had been heard and discussed in public schools, initially only concerning those classrooms that were reserved for those with SEND. As a result, in the context, inclusive education schools are understood as implementing education for a group of students with SEND (see Chapter Three). Teachers may have not heard the term 'inclusion' applied to their school as related to any group other than those with SEND.

Regarding teachers' beliefs around inclusive education, the teachers from the case study demonstrate similarities in that all of them showed a positive belief around having an inclusive classroom that included students with SEND (see Section 6.3.1). They stated their belief that an inclusive education approach is good for those with SEND, which is echoed in the US-based research of Segall and Campbell (2012), the UK-based research of Humphrey and Symes (2013), and within the Saudi context, from the work carried out by Alshahrani (2014) and Alanazi (2012), wherein most teachers had a positive association regarding inclusive education for those with SEND. However, this finding contrasts with the result of other studies in the Saudi context, such as Alhudaithi's (2015) study of female primary school educators' attitudes towards including students with ASD in mainstream settings. In Alhudaithi's study, all teachers believed that mainstream classrooms were not an appropriate setting for children with ASD and they felt that they and their colleagues were not qualified to teach that group of children.

Similarly, despite their stated belief in inclusion, a majority of the case study teachers – both special and general educators – believed that not all students with ASD should be included in inclusive classrooms, and classroom placement should be reserved for those who are considered mild on the spectrum (see Section 6.3.1). This perspective aligns with the findings by Scruggs et al. (2011), who conducted a review of forty reports of over 8,300 teachers in a number of countries, including South Korea, the US, and Italy. The study showed that 63% of teachers supported the concept of inclusive education, but an almost equal number (approximately 62%) expressed doubts about including all students, regardless of disability, in mainstream classrooms.

The case study data also pointed to the similarities between both general education and special education teachers in believing that inclusive education is purposed to improve the social skills of those with ASD and not only to provide help with academic aspects. These findings about benefits of inclusive education for ASD are similar to those of Humphrey and Symes (2013) in the UK where participants believed that those with ASD benefit by adopting

social skills. Moreover, such beliefs can be seen as important in relation to inclusion, as teachers' practices would be transformed by their belief in students with ASD's right to be educated, as the success of inclusive education for ASD learners is affected by the administration's and teachers' support for inclusive practices and training and their belief in the rights of those learners with SEND (Sharma, 2018; Symes & Humphrey, 2011). These findings regarding the teachers' beliefs about inclusion only improve the experience for those with ASD in term of their social skills, and they are significant as they seem affect the educational outcomes for students with ASD. Teachers' practices discussed further in the next section.

7.2.2 Teachers' Differences in Understandings, Beliefs, and Practices regarding Inclusive Education and ASD

General Education Teachers. The findings revealed that all six general education teachers conceptualise inclusion specifically as the process of placing students with SEND into general classrooms (see Section 6.2.2). Those teachers did not mention including students with SEND in whole school system nor engaging with those students in other school activities, which are main elements of inclusive education (Avramidis & Norwich, 2002; UNESCO, 2015). They defined inclusion as a movement to integrate students with ASD into the general education classroom but not into school life as a whole. This definition is at odds with O'Brien (2001), who argued that inclusion is not simply attending a mainstream school but, more crucially, learning together. The term 'engaging' means that the school welcomes and values each student; schools that apply inclusion promote the valuable practice of viewing all individuals in the school as beneficial (Ainscow, 2005). Therefore, it seems that those teachers' understandings tended to relate to *integration* rather than inclusion.

A definition of integration has been provided by Norwich (2008), who described it as placing those students with SEND within a general education setting without any form of structural adjustment. The teachers' perspective in this study links with what Glazzard (2018, p. 300) indicated when he explained integration as those with SEND "being present" in the inclusive classroom without paying attention to the quality of the education they receive. This finding from the general education teachers was similarly reported in the Saudi context by Alshahrani (2014), where teachers provided a definition of integration when they talked about inclusion. Also, in the Saudi context, Alanazi (2012) reported that half of the educators interviewed described integration when they explain inclusion.

This understanding of inclusion as integration may thus fail to meet the aim of including and valuing all individuals within a school (Ainscow, 2005). The findings of teachers' presentation of inclusion as integration is odds with the work of Avramidis and Norwich (2002), who argued that inclusion has a significant aspect that is not emphasized in integration, which is students engaging or learning together. Indeed, simply placing a student with ASD into a mainstream classroom can prove ineffective, particularly in the absence of additional support to enable participation in activities, both in the classroom and in the wider school environment. Those teachers' understanding of inclusion as integration indicates that they did not engage in removing existing barriers that face students with SEND in those settings.

Findings regarding teachers' knowledge of disability and ASD (see Section 6.4) also showed that general education teachers lacked sufficient knowledge of the nature and behaviours of students with disabilities; specifically, they lacked knowledge about ASD, including general information around symptoms and behaviours. They further failed to identify the disabilities of the students in their classrooms, even when working in an inclusive classroom. Failing to identify student disabilities results in failure to meet their students' needs and provide the appropriate teaching strategies for those with ASD. These shortcomings of general education teachers were apparent when teachers did not pay attention to or take responsibility for those with SEND in their classrooms, as was evident in the observations when teachers did not acknowledge the presence of students with ASD in their classrooms (see Section 6.5.1).

Throughout the data, it was noted that they did not interact with those students with ASD in their classrooms, did not provide educational tasks for them, and used teaching strategies such as "lecture with questions" without providing effective strategies and modifications to meet the needs of students with ASD. They did not employ Evidence-Based Practices as suggested by the National Autism Center (2009), which are defined as effective practices that focus on visual needs for those with ASD, such as Picture Exchange Communication System (PECS), video modelling or visual schedule strategies. Similarly, teachers did not provide different forms of instruction in their classrooms for students with ASD, as suggested by Winter and O'Raw (2010), failing to use strategies such as small group or co-operative teaching where student can work together, nor did they use peer tutoring strategies where other students help with teaching those students with ASD.

The approach of general education teachers contrasts with what Fleury et al. (2014) argued for addressing the academic needs of students with ASD: the researchers called for teachers to be inclusive of the needs of students with ASD, to be aware of the accompanying behaviours of students, and to work to provide the required supports needed to meet their needs and enable them to learn. Additionally, this finding from general education teachers contradicts the work of Simpson et al. (2003), who introduced the ASD model of teaching in inclusive education and argued that special education teachers must support those with ASD in the inclusive classroom; when special education teachers are not available, general education teachers are also responsible for teaching students with ASD in inclusive education classrooms. Therefore, general education teachers must acknowledge their responsibility for students with ASD when those students are in their general education classrooms and thus they are supposed to play a part in the decision-making processes related to their students with ASD (Simpson et al., 2003).

Further, in this case study, both special and general education teachers also appeared to differ in their understandings of students with disabilities and ASD in relation to models of disability. Different models were introduced in this study that defined disability (see Chapter Two), namely, medical, social, interactional, and organisational models. The medical model of disability argues that the difficulty is located within the child (Haegele & Hodge, 2016). On the other hand, the social model of disability recognises that the difficulties faced by students are located within the society (Shakespeare, 2017). Taking both models into consideration, the organisational model indicates that the difficulty is not seen in the individual nor in the society, but within the education system (Skidmore, 2004).

Regarding the terminology used by teachers in the case study, all teachers including six general education teachers described those with SEND in the school as 'special education' students. However, some of the general education teachers used language to compare students with disabilities to those without disabilities, and this attitude seems related with the medical model. For example, in one observation, a general education teacher was shocked that one of the students with ASD answered his question in the classroom, and he castigated the other students, saying that a student with SEND answered the question but they – the students without SEND – did not answer it (see Section 6.5.1). Such an action from that teacher seems to indicate that he had limited expectations for the student with ASD's ability for learning. His understanding appears in line with the medical model view wherein such individuals are considered disabled since they are unable to function as other, 'normal' individuals (Roush &

Sharby, 2011). This finding from a general education teacher is at odds with the work of Florian and Black-Hawkins (2011), who proposed that, for a truly inclusive classroom, inclusive schools require a rejection of deterministic beliefs about the ability of students with SEND. Florian and Black-Hawkins added that teachers are supposed to believe that all children have the potential for progressing, learning, and achieving goals.

Indeed, general education teachers seemed to view those with ASD as having a deficiency; they did not appear to consider the social barriers such students faced (which the social model addresses) and they did not consider the problems of the school system as the organisational model does. This was seen clearly with the two general education teachers who described those with ASD as "unable academic learners" and believed that learners with ASD joined the other students in the classroom only to improve their behaviours. In ignoring those students in their classrooms, they indicated that they may look at those with ASD as having individual impairments and not individual needs. By taking on a medical model, the general education teachers related the issues of such students to their disability and required the assistance of specialists: in this case, special education teachers. Further, the general education teachers did not recognise the need to change the education system, including their teaching methods and teaching strategies, to accommodate students with ASD.

This finding from general education teachers in the study is significant. It could be argued the general education teachers' knowledge and beliefs result in avoidance of those students with ASD and the use of fewer teaching methods which meet the needs of those with ASD. Additionally, the data concerning the motivation of general education teachers confirmed that they were attracted both by the higher salary offered for working in inclusive education classrooms (an 20% increase on top of their salary) and by the smaller class size for inclusive classrooms (see Section 6.3.2). These findings regarding general education teacher motivation showed that teachers may prefer teaching inclusive classrooms due to those advantages, rather than them being driven by a belief in the concept of inclusive education.

Another finding is that general education teachers' lack of understanding of inclusive education and ASD could be due to their lack of qualifications and training, as their degrees not included content about students with SEND or inclusive approaches to teaching. The data demonstrated that three out of the six general education teachers had not received training, and they entered the inclusive classrooms without having basic knowledge regarding those with SEND or how to teach in an inclusive classroom. This characteristic contrasts with the special education teachers, who all held a bachelor's degree in special education and had previous experience with the needs and behaviours of students with ASD. A similar situation was

reported by the Australian Education Union in 2016, which indicated that 63% of teachers (primary and secondary) lacked sufficient knowledge of disabilities and felt ill-equipped to teach such students due to lack of professional development (Education and Employment References Committee, 2016).

Additionally, in the current study, general education teachers demonstrated less confidence in their ability to handle behaviours or symptoms that students with ASD demonstrate, and that could be one of the explanations for their avoidance and reticence to work with students with ASD in their classrooms. The lack of understanding and limited practices that those general education teachers demonstrated indicates they were not ready to teach in these inclusive classrooms. The findings around the practices of general teachers in this case study are in stark contrast with the importance of self-efficacy for teaching students with SEND as proposed by Bandura et al. (1999). Self-efficacy is concerned with the teacher's ability to take action and handle all students, including those with ASD, even with all of the challenging behaviours that might appear (Bandura et al., 1999).

Special Education Teachers. There were distinct differences in the beliefs and practices of special education teachers compared with those of the general education teachers. In terms of inclusive education understanding, findings indicated that special education teachers viewed inclusive education as ensuring that students with SEND are provided with the necessary support and services to enable them to actively participate in all aspects of school life. They demonstrated an awareness of the principles of inclusive education, such as removing barriers and putting in place the resources needed (see Section 6.2.3). Their understanding of inclusive education mirrors that of Mitchell (2005), who defined the inclusive education as children not only becoming member of an inclusive classroom in an inclusive school, but that they receive all of the supports and resources required in order to meet their needs.

Special education teachers indicated that inclusive education involves whole-school participation (see Section 6.2.3). These findings reflect one of the key elements of inclusive education provided by Ainscow et al. (2006), in that inclusive education aims to increase student involvement in and decrease exclusion from the community, curriculum, and cultures of the school; a similar approach was presented in the Tatweer manuals (as discussed in Chapter Six). However, the understanding of inclusive education evident from those teachers does not include other aspects that were also covered in the Tatweer manuals, such as the right for all students (especially those with SEND) to attend, participate, and achieve in education; they

also did not argue that inclusion is a process to fight all kinds of discrimination and exclusion (Ainscow et al., 2006).

Regarding their knowledge of disability and ASD, unlike the general education teachers, the special education teachers demonstrated that those with ASD are not all alike; those teacher recognised that each is different in their verbal and nonverbal communicative abilities. They also specified that students with ASD often lack of eye contact and demonstrate restrictive and repetitive patterns of behaviour (see Section 6.4). The findings showed that they exhibited an awareness and knowledge that dealing with those with ASD would be different depending on the case, and they would need the ability to identify and differentiate learning according to the students' different needs. Their awareness of students' different approaches to learning align with the "Good Autism Practices" suggested by Guldberg et al. (2019), who provided a model of teaching those with ASD in schools that focused on encouraging students' strengths and interests.

Furthermore, the understandings of inclusion and ASD demonstrated by special education teachers is due to the nature of their qualifications, since the seven special education teachers all held bachelor's degrees in special education, and two also had master's degrees in special education; further, they all had extensive experience as they had exclusively taught those with SEND. In the Saudi context, teachers who teach students with disabilities in public schools are required to have a special education major as their minimum degree, which is a major available in higher education (see Chapter Three). This finding around their awareness and knowledge is related to the work of Van Reusen et al. (2000), Rakap et al. (2017), and Hind et al. (2019), who all argued that those teachers who have qualifications in special education (such as a bachelor's degree or master degree) can prove more supportive of inclusive education.

In relation to their practice in classroom, the findings showed that special education teachers said that they follow the individual education plan (IEP) for each student in teaching in these classrooms; the IEP is a written plan in teaching those with SEND, and it identifies all additional assistance that might be required to meet that student's learning goals (see Section 6.5.1). IEPs are required for teaching those with SEND in the Saudi context. This finding is in line with one of the inclusive education teaching strategies suggested by Winter and O'Raw (2010), wherein model teaching for those with ASD requires individualised planning for each student. However, as noted in the earlier chapters, there was a divide between

beliefs and practice. The observational findings from the inclusive education classrooms showed that general education teachers implemented the ‘lecture with questions’ teaching strategy in inclusive classrooms and the special education practice was to follow general education teachers’ methods with the same curriculum (see Section 6.5.1).

Furthermore, in the special education teachers’ practice, no specialised teaching methods were observed in the classrooms, no supportive materials were used, and those teachers did not modify the curriculum to meet the needs of those with ASD, nor did they follow the directions for operating outside of the classroom as suggested in the Tatweer manual for teaching those with ASD (see Section 6.5.1). These practices are in contrast with the findings of Lindsay (2014), where teachers utilised different teaching strategies in for ASD students and they used resources, including visual aids. Also, the teachers in the case study failed to implement effective “evidence based practices” from National Autism Centre (2009), which included modelling teaching or PECS; they also did not implement any of the collaborative learning strategies introduced in the Good Autism Practices by Guldberg et al. (2019).

In relation to the medical, social, and organisational models of disability, the special education teachers did not locate difficulty with the students themselves. They were clearly aware of the barriers that those with SEND face in the environment; at the same time, they appeared to consider those with ASD as equal to those without a disability and believed that those learners faced difficulty with learning due to the barriers in the school. It can be argued that the theoretical understanding of the special education teachers in this study concerning inclusive education and ASD reflects a social rather than medical model of disability.

Still, the observational data demonstrated a gap between theory (what they said) and their practice (how they acted). Special education teachers failed in practice to encourage their students with ASD to participate, both in the classroom and in more general school activities, even though they theoretically aligned with the social model of disability in the interviews, and despite the fact that all but one of the special education teachers had attended at least one training course. Such findings indicate that knowledge is not only the key in implementing inclusive education, but also teachers must also be willing and committed to implementing the needed changes, including modifying their teaching strategies. Otherwise, inclusive education approaches will not be implemented.

The data showed that training courses played a role in developing teachers' understanding (see Section 5.2.3). However, this finding around the lack of application in special education teacher practice raises the issue of whether current theoretical training provided from Tatweer was appropriate for the educational context of Saudi Arabia. A global survey by UNICEF (2012) further found that most of their study participants (members of school staff, including teachers) stated that the theories they had been taught during their training were not easily translated into inclusive education classrooms, nor were they appropriate for practice. In the current study, teachers similarly confirmed that training was not enough nor sufficient for their practical needs.

All teachers need to narrow the gap between theory and practice. Those special education who been trained and have experience of teaching those with SEND in classroom particularly need to apply their knowledge in practice. They often provide a teaching example to those general education teachers who did lack specialisation or have no previous experience teaching students ASD; special education teachers as models are especially important for the recent implementation of inclusive schools in the Saudi context. Furthermore, the school management seems not to be aware of this fundamental gap between theory and practice as they did not encourage both general and special education teachers to discusses their teaching issues. Therefore, it seems also it is a school responsibility to provide ongoing evaluation of the classroom practices to make sure that those teacher knowledges are implemented in the inclusive classroom. I discuss this issue further in the next section, where I focus on the findings related to school implementation of the inclusive education approach in the study context.

7.3 Section two: Inclusive Education Implementation in the School

In this section, I turn to discuss the findings that are relevant to the Research Question 1, namely, "*What are the main factors affected the implementation of inclusive education in the school study?*" As explained in Chapters Three and Six, schools in Saudi Arabia are run by the Ministry of Education, which provides services and resources, and, for public schools, pays teachers' salaries and organises training programs for all teachers (Alquraini, 2010). In 2016, Tatweer initiated the inclusive education project within six schools in collaboration with the Ministry of Education, and this study was conducted in one of these schools. For this research question, my interest lies in the implementation of inclusion within the inclusive school under study, which is supervised by both the Ministry of Education and Tatweer.

The data showed that Tatweer is accountable for the development of the inclusive education classrooms in this school; they constructed the inclusive school resource rooms for those with disabilities, such as sensory room for those with ASD. They also produced inclusive education manuals, provided the relevant training for the teachers who would be teaching in these inclusive classrooms, and were meant to provide teaching assistants in these six classrooms. In this section, the most important factors that bear upon these issues and emerged the from data analysis will be discussed: these factors include (a) the Tatweer manuals; (b) the lack of teacher assistants; (c) the lack of training; (d) classroom overcrowding; (e) collaboration; and (f) leadership.

7.3.1 Tatweer Manuals

The review of the Tatweer-published manuals regarding inclusive education reveal that the manuals covered issues related to technical elements and the implementation of inclusive education. The implementation manual (Tatweer Company for Education Services, 2016a) focuses on information on how to carry out programmes and procedures relevant to inclusive educational practises and tools for providing services directly to students with SEND in the inclusive setting, including developing school and classroom culture, planning for inclusion in the general education setting, designing instruction, improving classroom management, and engaging student motivation. Importantly, the manual discusses inclusive practices that should be implemented in the school, such as developing a schedule for all students, including children with SEND (Tatweer Company for Education Services, 2016a).

These manuals demonstrated that they provide key elements for implementing inclusive education and support the assertions of the Salamanca Framework for Action, which explain that schools should accommodate all children regardless of their physical, intellectual, emotional, social, linguistic or other conditions (UNESCO, 1994). The content of the Tatweer manuals aligns with the features of inclusive education proposed in the literature (see Chapter Two), especially in that a school should accommodate the diversity of students in schools by meeting the students' unique needs. This is align with view of Kibria (2005), who specified including children with SEND into general education settings to learn with support that addresses their needs.

Further, a key element of the Tatweer manual is in encouraging all students' participation and engagement within the classroom, which is similar to Barton (1998), who saw inclusion as participation by all students; this inclusion requires the removal of all manners of

exclusion. The factors of meeting the student needs, and enabling student engagement also align with the UNESCO definition of inclusive education, which views inclusion as a process of meeting the diverse needs of all students by increasing students' participation in learning and reducing exclusion for them in education (UNESCO, 2005). Lastly, schools must ensure that all students feel a sense of belonging and are being welcomed and valued. Similarly, Winter and O'Raw, (2010) described an inclusive school as one that accommodates the needs for all individual students and values diversity within its approach to developing learning practices.

Additionally, the manuals align elements of each of the three different models of disabilities discussed in the literature review (see Chapter Two); the manuals cover aspects of the medical and social models, but they have more reliance on the organisational model as a road map for schools. The organisational understanding of disability presented in the manuals instructs school to restructure to accommodate all students, considering both individual characteristics and external factors (Skidmore, 2004). The manual recognises student individuality in that it provided description of the 13 different disabilities (including ASD) based on IDEA (2004). Each disability section offers suggestions, strategies, and assistive technologies that can be used when working with students with each disability in inclusive settings (Tatweer Company for Education Services, 2016c).

In a move also reflective of the organisational model, the manual introduced a school structure section which includes information about developing a schedule for all students, including children with SEND (see Section 3.5.2). This section demonstrates how to monitor student progress, but it also notes that school facilities and environment factors affect students' growth and development; thus, those aspects need to be addressed in schools, with focus on improving the teachers' practice through providing training and engagement with a collaborative approach in the schools (Tatweer Company for Education Services, 2016c, 2016a). This reflects the organisational model of disability as explained by Skidmore (2004), which locates the construction of disability within the school system, and the solution is to remove these difficulties by restructuring schools to meet all students' needs.

Arguably, in this case study, teachers' perspective and implementation in the school seems connected within the medical model as some teachers have a negative view of working with children with SEND that engenders a negative assumption about such students with ASD in their classrooms. The general education teachers practice for example consequently perceive

an individual's impairment and not the students with ASD needs and they argued those students required a specialist. Moreover, general education teacher's understading in this case only concerned within placement those with ASD and where inclsuvie education with lens of social model is much more than simply integrating students with SEND in the classroom, it is the basis of accommodating students' social, emotional, learning needs and principally removing all the barriers within their school/classroom. whether or not special education teachers seems known the needs of the students with ASD, inclusive education seemed to be complex in practice with only following what general education teachers but could not meet students engagement in the classrooms.

The study school that supposed to implement the Tattweer manuals seems incompatibility from what the current teachers doing in their classrooms, and it appears not translated their manuals that based on the principle of the social and organizational model introduced into the practices. Indeed, the school which supposed to implement inclusive education environment that looking for and recognizing the problems within the educational settings and providing appropriate and suitable teaching and learning resources that meet all students' needs, still not to be implemented with the lack of understading, lack prioritisation, and lack of organisation provided by teachers and school in this case study.

On the other hand, each context is different, and these manuals were written by members of the University of Oregon, and schools in the US clearly have a culture, language, religion, and norms that differ from the Saudi context. The data showed that two of the teachers refused reading these manuals because they came from a western country (see Section 5.2.1); both of them stated that they knew that these manuals had been written by American experts and thus they expressed their strong rejection of reading such manuals. This is similar to the view of Kasari and Smith (2013), who argued that knowledge and beliefs in one context mean that the transfer of practices may not be relevant for other contexts. Thus, with the manuals being written and developed by those University of Oregon experts outside of Saudi Arabia (see Chapter Three), the manuals may represent a form of poor policy example transfer because of context differences and the language differences encountered in translation. Those two teachers expressed their concern about both matters: the fact that the manuals were translated, and they did not consider Saudi culture.

However, it was noted that the manuals were not available in the schools and the teachers had not read them. The two teachers who rejected the relevance of the manuals

confirmed that they had not read these manuals; across the interviews, I further confirmed that only one out of the 15 had read the manuals. This finding related to reading the manuals is important because those manuals could improve teachers' understanding. The manuals, regardless of language and cultural context, provide steps for applying inclusive education, offer clear overviews of the abilities and needs for different disabilities, and give clear directions for promoting inclusive practices with all students, including those with SEND, and particularly those with ASD. It was remarkable that in the interviews, the teachers confirmed that those manuals were not mandatory for them and some of them were not aware of their existence. One possible explanation is that teachers rejected any form of education that came from different contexts; another is that Tatweer has not supplied the manuals to the teachers. A further explanation is related to the management of school, wherein the administration inside the school, such as the supervisor of inclusive education and the leader of the school, did not encourage teachers to read them.

7.3.2 Lack of Teaching Assistants

The findings related to school implementation also demonstrated that there were no teaching assistants in the inclusive classrooms (see Section 5.2.1). Starting in 2016 and for the first two years of the Tatweer project for inclusive education, Tatweer offered teaching assistants for each inclusive classroom, but in the 2018 academic year when data was collected for this study, neither the Ministry of Education nor Tatweer had not provided teaching assistants. Participants emphasised the important role these teaching assistants could play in helping those with SEND in the inclusive settings. Indeed, the findings showed that teachers considered the lack of assistants as one of the negative aspects for teaching in inclusive classrooms as it affected their ability to manage the classroom and impacted their preparation of lesson tools, and teachers further struggled to implement individual teaching and to manage the students' behaviours.

Teaching assistants play a significant role in inclusive education (Butt, 2016). Both outside and inside of the classrooms, students with SEND can demonstrate some hyperactive behaviours that require the assistance and support of multiple teachers (Butt, 2016). In the Tatweer technical manual, the importance of the teaching assistant role is clearly stated (Tatweer Company for Education Services, 2016c). Thus, it is significant that both the school and Tatweer had not offered those teaching assistants in the school. Such a finding is also in line with the findings of Alshahrani (2014), who revealed that with overcrowding in inclusive

classrooms, it is important to have a teaching assistant to reduce the main teacher's workload. Similarly, Alquraini (2011) emphasised the importance of having a teaching assistant for successful implementation of inclusive education in Saudi context.

7.3.3 Lack of Training

The findings also demonstrated that another factor affecting the implementation of inclusive education was the lack of ongoing training courses for teachers as well as the lack of further support for improving the teaching skills that were offered in the existing trainings (see Section 5.2.3). In the current study, the data showed that not all teachers received training either inside or outside of the school. Teachers' interviews demonstrated that three out of six of the general education teachers had not attended training regarding both inclusive education and ASD. This finding is contradicts the view of S. Lindsay et al (2014) that teachers need to be trained and should have an awareness of the nature of students with ASD and their behaviours, as well be familiar with the strategies they could use to teach learners with ASD. As also demonstrated within the Saudi context, Alshahrani (2014) indicated that teachers' negative attitudes towards those with ASD were related to the lack of training in sign language and training for working with children with disabilities in general.

Similarly, Alhudaithi's (2015) findings pointed out the lack of training courses focused on inclusive education for those teachers, which was seen as negatively affecting teachers' attitudes. In Alhudaithu's study, interviewees also expressed concern in dealing with those with ASD due to their limited knowledge about the condition itself and the nature of those students. The general education teachers felt they were not ready to teach students with SEND in inclusive classrooms because of their limited training. In the current study, three out of six general education teachers and two of the seven special education teachers had not receive relevant training for inclusive education; those three general education teachers who did not have training and did not have a degree in special education, were teaching those with SEND in these classrooms for first time (see Chapter Five). Their lack of training was previously seen as not a problem, because both the Ministry of Education and Tatweer used to offered specific training for those inclusive schools; however, as indicated, that training was not offered in the academic year when this research was carried out.

General education teachers have indicated their concerns in their own ability to teach students with SEND, as noted amongst general education teachers in Malta by Cefai et al.

(2007). Additionally, Emam and Farrell (2009) in the UK and Soto-Chodiman et al. (2012) in Australia also argued that a lack of training would mean that teachers have limited knowledge and thus face difficulties in addressing students' abilities and needs, which was both a challenge and a concern for teachers. It can be assumed that those teachers who ignored learners with ASD in their classrooms might have done so because of their limited knowledge of the behaviours and abilities of those students with ASD, which may have also impacted their confidence in working with them.

Additionally, the findings in the current study showed that teachers' beliefs in supporting inclusive education depended on the severity of a student's disability (see Section 6.3.1) and that inclusive education served mainly to improve the social skills of those with ASD. Such beliefs could be driven by lack of experience in dealing with students with ASD or a lack of training, as discussed above. The work of Avramidis and Norwich (2002) reached similar conclusions from conducting a systematic review for a period of twenty years to review studies in different countries, researching why teachers failed to support fully inclusive education; they found one of the different variables to be the nature of the disability. However, Avramidis and Norwich concluded that if teachers receive training in mastering the level of skills required to implement inclusive education, they will become more dedicated to and more effective at implementing an inclusive approach. This is also supported by the findings of Morley et al. (2005), whose study of secondary teachers from a large city in England learned that teachers claimed that a better understanding of the abilities of students with SEND could be achieved if they were given intensive training about those with SEND.

It has been argued that teachers must consider that all students belong in the classroom, but those teachers also need to have the ability to educate all students in those classrooms, as well as have all the necessary knowledge and skills to work with those with SEND *in inclusive settings* (Florian & Black-Hawkins, 2011; Specht et al., 2016). Literature has shown that teachers develop a greater degree of confidence when they have years of training and specific coursework directed towards teaching in inclusive settings (Harding, 2009; Hayat et al., 2019). Likewise, in the current study, the teachers who attended training spoke to the benefits of these trainings. For example, one of the teachers stated that a particular training event, even though it was for a short time during the breakfast break, enabled him to have a basic level of understanding of inclusive education, which changed his beliefs about applying the inclusive approach in the school. This conclusion reflects Harding's (2009) argument that the more training teachers have, the more comfortable and positive they are about teaching those learners

in inclusive settings, as they are able to gain first-hand experience and change their values and beliefs to be consistent with an inclusive education philosophy.

In this study, general education teachers were teaching in inclusive classrooms without elementary knowledge about inclusive education pedagogy, and so they applied traditional teaching methods such as "lectures with questions", which does not accommodate all the students in the classroom or meet all students' needs. The majority of students with SEND in the school were students with ASD, and teachers were not providing methods that would meet the needs of those students with ASD; they did not provide techniques such as visual or modelling strategies which are known to be effective (Guldberg et al., 2019; National Autism Center, 2009; Winter & O'Raw, 2010). These findings emphasise the importance of providing training courses for teachers who are implementing inclusive education in the Saudi context. The findings demonstrate the importance of providing training for all teachers, especially general education teachers, before they enter inclusive classrooms. These training courses need to include all necessary knowledge for a critical understanding of the inclusive education approach, as well as all essential knowledge not only related to those with ASD but also including the different range of SEND needs to increase those teachers' understanding and practices in the inclusive education approach (Florian & Black-Hawkins, 2011; Simpson et al., 2003).

The findings of the current study also show that even those teachers who received professional training before teaching students with ASD still exhibited a lack of understanding of inclusive education and failed to employ inclusive practices to meet the needs of all students in the classroom. These findings raise concerns about the quality of training courses that they attended, as the focus was only on traditional teaching methods and those methods were not relevant to accommodate the characteristics, behaviours, abilities, and difficulties faced by students with ASD, nor did they receive strategies to use within the classroom. For those teachers in Saudi Arabia who *did* receive professional training in the school before teaching those with ASD, most of the trainings were based on lectures during the breakfast breaks and were not focused on inclusive education for those with ASD, even though most of the students with SEND in the school fall into that category. With lecture sessions, there was little opportunity for teachers to practice. Therefore, the findings indicate that training courses should provide examples of how to teach such students in inclusive classrooms and how to engage with those with ASD.

7.3.4 Overcrowding Number of Students

All participants from this study agreed that the number of students in this school was relatively high: the student population was more than 1,250 students, even though the school capacity was limited to no more than 700 students (see Section 5.2.2). From both interviews and observations, it was clear that inclusive classrooms had between 28 and 38 students and non-inclusive classrooms had around 55 students. Alhudaithi (2015) also noted overcrowding in the Saudi context and commented that an excessive number of students can affect classroom management provided for students with ASD. This finding also reflects Short and Martin's (2005) views, related to work in the US, where the number of students in an inclusive classroom should be less than 20. In the ASD Inclusion Collaboration Model proposed by Simpson et al. (2003, p.8) for teaching those with ASD in inclusive settings, it is of "paramount importance" for schools to have smaller numbers of students in their inclusive classrooms: schools ought to consider reducing the number of students because students with ASD often require one-to-one teaching, and within a small classroom, it is easy to manage the behaviour of all students, including those with ASD.

Findings in the current study showed that most teachers felt that it was difficult to implement inclusive education with the large number of students in this school, where the population of 1250 is nearly double the capacity of 700; they felt that overcrowding had a negative effect on students. Teachers also confirmed that the administration and the school staff have less of a focus on inclusive classrooms because of the large number of students within school. In observation, I confirmed that inclusive classrooms had 28 to 38 students: this overcrowding seemed to affect teachers' ability to use different teaching methods that met each student's needs within the classroom. Consequently, the findings of this case study show that Ministry of Education and Tatweer should have chosen smaller schools to apply such the new approach to inclusive education: these inclusive schools are the first inclusive schools in the context, and so the matter of student population numbers should have been considered carefully by both the Ministry of Education and Tatweer.

7.3.5 Lack of Collaboration

Another factor which affected implementation of inclusive education in the current study was the lack of collaboration. Findings indicated that there was limited collaboration between the two types of classroom teachers (general and special education teachers) both inside and outside of the classroom. Participants confirmed that there were no regular meetings

between them, and the general education teachers were not involved in writing the IEP document for students with SEND (see Section 1.5.1). In addition, I observed that the special education teachers had their own staff room in the school, one which was separate from the staff room for the other teachers. This segregation between teachers seemed to limit the opportunities for them to talk to each other and share experiences about students in their classrooms. This aligns with the findings of Alanzi (2012) and Alshrani (2014) in relation to primary schools in Saudi Arabia; both concluded that limited collaboration in the Saudi context was a problem, since there was only limited collaboration between school staff in their schools and there were no official meetings. This contrasts with the best practices outlined in Simpson et al.'s (2003) ASD Inclusion Collaboration Model, which provides strategies for general educators to support parents, other professionals, students, and other teachers; the strength of this model is its emphasis on sharing responsibility for decision making by holding regular meetings in the school.

This finding from the current study contrasts with the findings of S. Lindsay et al. (2014), where one of the strategies used in teaching those with ASD involved teachers working together and communicating with all other school staff members. This study recognised collaboration as a critical element for including students with ASD as it helped everyone in the school to be aware of the needs of those students. The lack of collaboration in the current case school also contradicts the practices advocated in the Tatweer manual (Tatweer Company for Education Services, 2016a). Under the section "Working together to meet the needs of all students", the authors explained that each member of the team in the inclusive classroom should be keen to share their experiences and be aware of the students' characteristics; they should also be willing to share responsibilities.

Indeed, the findings show the teachers' lack of definition around their distinct roles within the school. The findings showed that both general education teachers and special education teachers could not explain their expected and differing roles in the classroom, because they were either not aware or had not been told about their roles in this school, even though the Tatweer manual highlighted the significance of defining the roles of all team members (Tatweer Company for Education Services, 2016c). Additionally, the findings show that there are no regularly-scheduled official or unofficial meetings amongst school staff members; without distinct roles or spaces to communicate, they cannot share their experience and knowledge for helping to meet the needs of their students with ASD, nor can they discuss student progress. These findings raise questions regarding why roles have not been clarified

for the teachers, and why regular meetings between general and education teachers have not been scheduled by the school. It could be argued that it is the responsibility of school to define these roles for such teachers and it is the responsibility of the school to set up regular meetings.

7.3.6 Leadership

Besides the lack of teamwork between general and special education teachers, another important finding is focussed on the lack of teamwork between the school leader and the teachers. The participants confirmed that there were no regular meetings with the school leader unless there was a specific incident or issue in the school. Furthermore, while the participants all were aware of the large amount of work required of the school leader, they also expressed concern that leader of school was not involved in discussing inclusive education and the progress of students with ASD, and he passed all decisions about supervision of inclusive classrooms (both the students and the teachers) on to the inclusive education supervisor, who was also one of the special education teachers. They were also concerned about school leader's limited knowledge about students with disabilities.

This finding also aligns with F. Armstrong (2006), who argued in relation to schools in the UK that teachers were concerned about the limited support provided by their school leader. Similar reports can also be found in Saudi Arabian studies, where school leaders had limited knowledge of students with SEND (Alshahrani, 2014). Moreover, this approach from the leader of the school differs from the roles indicated in the Tatweer manuals regarding the role of principals in inclusive education schools. Their role, according to the manual is presented here, and the principal must

6) *Identify student and program needs, develop goals and objectives, implement and evaluate programs, including inclusive education.*
7) *Understand and promote sound principles of instruction.*
8) *Plan and implement professional development consistent with school improvement goals.*
9) *Monitor and supervise teachers' ability to provide differentiated instruction.*
10) *Ensure equitable outcomes for all students.* (Tatweer Company for Education Services, 2016c, p. 78)

Indeed, the enforced change to bring inclusive education into the school might have affected the practice of the leader of the school. The capacity of the school was doubled, and

also the collaboration with Tatweer in introducing a new approach to inclusive education for first time in the context, required a great amount of work and a large time commitment for leaders of the six inclusive schools. However, the lack of knowledge regarding those with SEND is a clear negative aspect within the school that may result in a lack of focus on the quality of education. Indeed, if the school leader is not aware of the issues related to students with disabilities, he may not provide appropriate facilities or collaborate with teachers to implement inclusive education in the context of his school. In general, leadership is crucial for the implementation of inclusive education, and successful implementation depends on the school having a leader with vision, a belief in inclusive education, motivation, and trust in the teachers and staff in the school (Shogren et al., 2015).

Furthermore, the approach taken by the school leader in the current study fails to demonstrate the five elements must be considered by inclusive education school leadership, as suggested by Webster (2018) in Australia. According to Webster, school leaders should share decision making with staff and students' parents, ask educators in the school to review the teaching practices for measuring student outcomes, review the school practices and look to remove the barriers that limit student participation and learning engagement, identify staff learning needs which can be addressed through professional training, and finally, value parents' knowledge and ideas in solving problems and in all processes.

Presumably, the leader of this case school should have regular meetings with teachers to discuss the progress of students with SEND and their teaching practices, choose capable general education teachers who are trained in providing learning in inclusive classrooms for students with ASD, and ensure the operator (here, Tatweer) has all of the necessary requirements in place for the school, such as offering training for all teachers and providing their manuals, teaching assistants, and sensory room equipment. Therefore, this finding has important implications for the future development of inclusive education training courses not only for teachers but also for school leaders; the training itself should be based on the social and organisational model of disability to restructure schools and improve school leaders' knowledge regarding the nature and characteristics of those with SEND and ASD while providing training environmental factors that are needed to support inclusive education and teaching for those with ASD.

7.4 Conclusion

This chapter discussed the study findings in relation to the five sections presented in Chapter Five and Chapter Six. The first section started with discussion of the teachers' understanding and practices of inclusive education, with coverage of both general and special education teachers and consideration of the model of disability that they appear to implement. The main argument in the section was that general education teacher's insufficient knowledge about inclusive education as well as their lack of knowledge of students with SEND underpinned their negative practice in the inclusive classroom. Further, while special education teachers showed more theoretical awareness of inclusive education from their experience of teaching those with SEND, their understanding was not employed in the practice of inclusive education in the classroom. The next section presented a discussion of the findings around how the school implemented the inclusive approach in the school in the Saudi context. The main argument in this section was that training, collaboration, leadership, resources such as the Tatweer manuals, and human resources such as teaching assistants are essential for implementation of inclusive education. This finding has important implications for inclusive education practices in Saudi Arabia, which will be discussed in the following and final chapter. (Chapter Eight) gives the thesis conclusion; there, I provide summaries of the study, the main findings, implications and recommendations, and the contribution to knowledge made by this study. Limitations and further research directions are indicated.

Chapter 8 **Conclusion**

8.1 Introduction

This is the final chapter of this thesis, where I aim to bring together the chapters of the study and the study outcome in relation to the stated objectives and research questions. This conclusion chapter is laid out in several sections: the first section provides a review of the study and the key findings identified, including the teachers' understanding regarding inclusive education, and the main factors that affect the implementation of inclusive education in Saudi schools. The chapter then moves to implications for theory and for policymakers and stakeholders, in order to make some recommendations for practice. Then, the limitations of the study are identified, and suggestions are proposed for future research. The last section in this chapter reflects on my personal learning during the process of conducting this study.

8.2 Summary of the Current Study

In the 1990s, Saudi Arabian educational provision started paying attention to the inclusion of those with special educational needs and disabilities (SEND) in public schools as a response to the global movements for inclusion resulting from UNESCO's 1994 Salamanca statement; since then, there has been a major shift from educating those with SEND (including those with ASD) in traditional special schools to integrating them into public schools, albeit initially into special classrooms exclusively for SEND students. More recently, education has again undergone reform, especially for those with SEND. King Abdullah's development project to reform public education (known as the Tatweer project) was introduced in 2007, and it aimed to reform public education and improve the overall quality of education, including special education. As a result of this project, in 2016, for the first time, the Saudi Ministry of Education, with collaboration with the Tatweer project, established six schools that implement an inclusive education approach in Saudi Arabia. This direction of education aligns strongly with the Education 2030 Framework for Action that adopted Incheon Declaration in ensuring that all students should have access to high-quality education and can continue learning throughout their lives (UNESCO, 2015; United Nations, 2015).

Examination of the literature regarding inclusive education indicates that the concept of inclusive education remains both complex and controversial; it is hard to define, with much

resulting confusion between the terms *integration* and *inclusion*, as discussed in Chapter Two. Studies conducted across different countries have indicated that interpretations of inclusive education are heavily dependent on teachers' understandings and beliefs about it: studies have highlighted that there are variations in how teachers perceive inclusive education and how this influences their practise. And, since teachers play the most important role in inclusive education, studies argue that inclusive education cannot be effective if teachers are not supported and believing inclusive approach. In this observes, Florian (2019, p. 10) not long ago claimed that "where things are going well, schools not only have pro-inclusion policies, but they are staffed by teachers whose pedagogical practices are based on beliefs that all children can learn and they accept the responsibility for educating all children in the classes they teach".

In the Saudi context, few studies have been conducted within an educational context or have utilised quantitative methods to investigate the reality of the education settings inside and outside of the classroom. From my review, only one study regarding inclusive education of those with ASD in the Saudi context was available (Alhudaithi, 2015), and that researcher focused on the attitudes of teachers in inclusive education with ASD without investigating their practices or the factors that affected the implementation of inclusive education in the Saudi context, given that the study was conducted before the 2016 reforms. Elements such as teacher beliefs and knowledge of inclusive education, and factors for implementation such the approach to students with ASD have thus not been previously explored in the Saudi context.

Therefore, this study aimed to fill this gap by exploring the real, implemented practices of the first enactment of an inclusive education approach in the Saudi context and investigating teachers' understanding of and beliefs around both inclusion and ASD, as well as the practices which occur within the broader school context. This study provides more in-depth knowledge of teachers' understandings of inclusive education with specific consideration given to the inclusive education of students with ASD, and how that understanding is related to teachers' practice in teaching in inclusive classrooms. More broadly, I sought to explore the school factors that have influenced the implementation of inclusive education within the Saudi context. Consequently, the thesis was guided by three research questions:

- Research Question 1*: What are the main factors affecting implementation of inclusive education in the study school?*
- Research Question 2*: How do teachers in Saudi context understand inclusion? How does this relate to their practice?*
- Research Question 3*: How do teachers in Saudi context understand ASD? How does this relate to their practice?*

In achieving the aim of the study and answering the three research questions above, a descriptive, explanatory case study was conducted in one of the six primary inclusive education schools that has a large number of students with ASD in Riyadh, Saudi Arabia. The study was conducted over three months in 2018 and used qualitative methods, including documentary review, direct and indirect observations in the school and classrooms, and semi-structured interviews with a purposive sample of general and special educators. A total of fifteen participants were involved in the study, including six general education teachers, seven special education teachers, the head of inclusive education program, and a psychologist working in the school. The review of documentary data was focused on the manuals provided from Tatweer, which offer guidance for inclusive education for those with ASD; these manuals were used to triangulate data gained from the interviews and observations.

Data was analysed following the six phases of thematic analysis approach proposed by Braun and Clarke (2006). NVivo software facilitated the organisation of coding and pattern coding to create overarching areas explained as "section" in Chapter Five and Six, which were derived with consideration of the conceptual framework and research questions. Initially, there were seventy varied, descriptive codes found in the data from the fifteen interview participants, the notes from six classroom observations, three months' worth of field notes, and the two Tatweer manuals with consideration given to the literature of this study. The seventy codes were collapsed into five overarching areas "sections" and a resulting eleven themes and ten subthemes were derived to respond to the research questions and provide a clear connection between the research questions and the findings. The findings of this research were explored, looking back on the literature from the area of inclusive education of students with ASD, the Saudi context practices, and the understandings of social and organisational models of disability (as discussed in Chapter Seven), which framed the interpretation of the teacher data and the review of the documents.

8.3 Main Findings of the Study

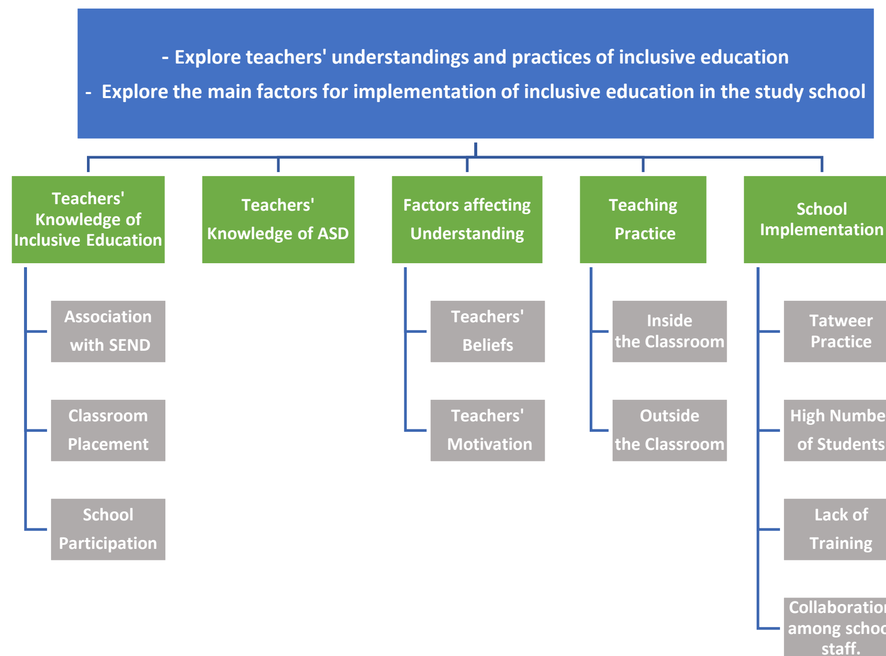

Figure 8-1 Summary of the Study's Finding

As the study objectives demonstrated, study findings were formed into five areas (shown in ***Figure 8-1***). In the first area, the study explored - teachers' understanding and views of inclusive education - for students with ASD in a primary-level Saudi inclusive school. The study found that teachers' understanding of inclusive education depended differently on their position as special education or general education teachers. The general education teachers viewed inclusion as simply adding the students with SEND in the general education classroom without making changes for meaningful inclusion and engagement, and thus their interpretation was more related to *integration* than *inclusion*: Avramidis and Bayliss (2002) explained the difference in that inclusion involves belonging where integration is the process of *achieving* belonging. Conversely, the definition given by the special education teachers presented inclusion as the increased participation of pupils with SEND in the school, which showed a better understanding of the elements of inclusive education proposed in the literature; they spoke of student belonging and the need to provide appropriate services and include them in all school activities (Ainscow et al., 2006; Mitchell, 2005; UNESCO, 2005). An important finding in this area that is similar to different contexts (Hassanein, 2009; Subban & Sharma, 2006) is that not all teachers, especially general education teachers, were able to define the concept of inclusive education.

Findings from the area - explored teachers' understanding regarding those with disabilities and those with ASD - specifically; education professionals have noted that an understanding of the nature of those with disabilities is a key factor affecting teacher practices in inclusive classrooms (Fleury et al., 2014; Hay & Winn, 2005; Humphrey & Symes, 2013; S. Lindsay et al., 2014). The findings regarding understanding disability and ASD demonstrated that general education teachers lacked sufficient knowledge regarding disability. They failed to identify the disabilities of the students in their classrooms. They also lacked knowledge of the behavioural characteristics of those with ASD. This differs from the special education teachers, who demonstrated awareness of the students with disabilities' characteristics and behaviours. The failure to identify student disabilities from general education teachers is an important finding as it may result in failure to meet the students' needs and provide suitable teaching strategies. Lack of knowledge of the principles of inclusive education and the nature and behaviours of students with ASD will surely have an impact on the nature of support and services that pupils with ASD receive.

In the third area, the study explored - the factors related to teachers' understandings and practices - two themes arose: teacher beliefs and teacher motivation. Findings revealed that both groups of teachers acknowledge that inclusive education benefits students with ASD; however, both types of teacher did not believe in inclusion for all students, but rather only for those with a mild disability. Furthermore, both types of teacher believed that inclusive education improved only the social and behavioural skills of students with ASD, but it did not enhance these students' academic performance. Teacher motivation was another factor affecting teachers' understanding, and the case study found that the general education teachers tended to join the inclusive classrooms for reasons of religion, extra salary, and the smaller number of students present in these classrooms. This differed from the motivations of the special education teachers, who were generally already aware of the approach and showed interested in teaching in an inclusive classroom.

In the fourth area - teacher practices - two themes arose: pedagogy inside the classroom, and pedagogy outside the classroom. The study provided more evidence on teachers' practice in the inclusive classrooms. The findings from observations showed that those general education teachers did not acknowledge the presence of students with ASD in their classrooms, and they did not interact with them and or provide educational tasks for them. Traditional teaching methods in the context were used, with teacher-centred approaches such as "lecture with questions," which needed to be changed by providing specific strategies to meet the needs

of those with ASD. Special education teacher data showed that they followed the general education teachers' strategies of teaching without providing the supportive teaching strategies that were suggested in the Tatweer manual; further, they did not apply different, effective approaches that have been suggested for teaching ASD, such as using visual teaching aids. Additionally, from the findings drawn from researcher observation outside of the classroom, both the special and general education teachers did not encourage those students to be included with other students in school-wide activities.

Indeed, the findings of this study demonstrated that the general education teachers' lack of understanding of inclusive education and disability affected their practices. They lacked application of inclusive teaching methods in their classrooms and were unable to meet the students with ASD. However, for some special education teachers, there were challenges: even when they had a qualification in special education and showed more awareness of inclusive education from their experience in teaching those with SEND, nevertheless, their knowledge did not always translate into practice.

In the area - school implementation - the findings regarding the implementation of inclusive education within the broader school also identified key factors with relevance for implementation outside of the Saudi context. The data indicated a lack of training, as three of the six general education teachers, and two of the seven special education teachers had not received training about inclusive education. Despite recognising the importance of teamwork in creating a positive educational experience of students with SEND (Florian et al., 2010), a low level of collaboration was noted between teachers in the school. This lack of collaboration was apparent in many areas: teachers indicated that the general education teachers were not involved in writing the goal document known as the individual educational plan (IEP) for each student with ASD and there were no regular meetings between general and special teachers in the school. Furthermore, the classrooms lacked teaching assistants. The assistants were provided in the first two years after inclusive education was introduced, but none were present or working for the school during the data collection period in 2018. Moreover, the case school has 1250 students, which is double the planned capacity of 700 students, and all teachers raised concerns about the overcrowding, both in the school and in their classrooms.

The findings regarding the implementation of inclusive education within the school also showed that since Tatweer introduced the approach in 2016, there was confusion in having two authorities within the school: that is, both the Ministry of Education and Tatweer. The whole school was meant to follow Ministry of Education policies, but the inclusive program (with the

six inclusive classrooms) was run by the Tatweer operation. The findings indicated that Tatweer had less power in the school even though they had provided the buildings, guidelines manuals, trainings, and they were responsible for the teaching assistants. The findings showed that teachers followed the Ministry of Education roles and policies, which was a barrier to inclusive education, since the two manuals offered by Tatweer were the only ones that provided guidelines for implementing inclusive education in the school.

The findings also showed that the Tatweer guidelines, which delineate the policy to be implemented in inclusive schools in Saudi Arabia, provide a road map for technical implementation and include a description of each disability's challenges, needs and strategies for education, and different sections include suggestions for collaboration, student evaluation, and leadership. However, the manuals which provided these needed implementation principles were not available within the school, and Tatweer had not provided the needed teaching assistants to help support inclusive education implementation. Data from the observations and interviews indicated that teachers were not obliged to use or follow the Tatweer manuals, and some of them were not aware that these manuals even existed. Only one of the fifteen participants I interviewed had looked at the guidelines provided by Tatweer.

Indeed, the lack of consensus between Tatweer, the Ministry of Education and school leadership was a weakness which potentially is present in all of the inclusive schools in the Saudi system. Training, collaboration, leadership, and resources such as the Tatweer manuals, along with the human resources such as teaching assistants, can be seen as essential for implementation of inclusive education, and both Ministry of Education and Tatweer needed to be more collaborative and proactive in supporting inclusive schools with these resources in the context. Moreover, despite the rollout of education reforms such as the construction of the Tatweer schools, leadership inside the school seems to have less autonomy and power, as it did not perform the important role in ensuring that schools are ready for implementing inclusive education, such through as providing resources to inclusive classrooms.

These findings differ from those in the case study conducted by Alyami (2016), who claimed that other Tatweer (non-inclusive) schools have more power in terms of making internal decisions without waiting for approval from the Ministry of Education or Tatweer. However, leaders in the Tatweer inclusive schools (such as one in the current study) do not have the authority to recruit human resources such as teaching assistants; that role instead falls to Tatweer and the Ministry of Education. Though, leadership in the current study did not play a prominent role in offering the necessary supports for inclusive education required inside of the school within the study, such as asking teachers to follow the Tatweer manuals, assigning

only those teachers who had attended the training as teachers within the inclusive classrooms, applying policies which kept student numbers manageable, or emphasising the importance of collaborative work between teachers by defining the roles for each teacher.

Finally, this case study evaluated different models of disability; those with SEND can be understood according to the three different models of disabilities proposed in the literature, which include medical, social, and organisational models (see Chapter Two). In the literature, the medical model looked at the difficulty within the child, where the social model located the difficulty within the society. However, the organisational model suggested by Skidmore (2004) focuses more on the institutional level, seeking out the difficulties within the education system.

Having explained the models, it is worth reflecting on the findings of this study, where the two types of teachers' understandings seem to differ. General education teachers appeared to view those with ASD according to a medical model in considering them not able to learn due to their impairment, whereas the special education teachers' understanding was more in line with a social model of disability as they noticed the environmental factors which impacted those with ASD. However, the individual teacher themselves may not have much or any power to change the whole school. The findings from this inclusive school seems to be in line with the organisational model, where schools are required to restructure as a whole approach to meet all student's needs. As Symes and Humphry (2011) argued, inclusive education does not depend on the interest and enthusiasm one or two educators alone but requires a whole organisation approach. Otherwise, teachers would fail to restructure in order to meet the students' needs.

Indeed, the difficulty teachers face appear from failings from school organisation; this data showed that there were different shortcomings from the school, including confusion between two authorities, the lack of training, the lack of collaboration, the lack of teaching assistants, and the lack of leadership that was needed for further progress with inclusive education and must be undertaken for effective inclusive implementation in Saudi Arabia. My findings suggest that in order to strengthen inclusive education in Saudi context, it would be beneficial to provide all resources that support teachers and leaders within inclusive schools; accordingly, teachers would then be able to provide inclusive education that ensures including those children with SEND and meeting their needs. The findings of this study indicate that inclusive education approaches have implications for theory, policymakers, and teachers' practice. In the next section, implications and recommendations are made for improving the efficiency of the inclusive education practice in the Saudi context and beyond.

8.4 Implications and Recommendations from the Study

This study provides several theoretical and practical implications for inclusive education development, focusing on students with ASD. These implications would be beneficial for policymakers and other stakeholders, including teachers and leaders of schools, and those researchers conducting studies on the progress of inclusive education for those with SEND. The recommendations presented in this study are more directed toward the progress of inclusive education in the Saudi context; however, they are broadly useful in other contexts where inclusive education is also employed.

8.4.1 Implications for the Field and Theory

This study provides in-depth information constructed from participants' experiences and viewpoints on the issue of the inclusive education of students with ASD in one inclusive, male, single-sex primary school. The study delivers rich and detailed illustrations of their knowledge and understanding, including the practical inclusion of those with SEND (specifically ASD); it further identified obstacles at the level of both theory and practice that had not been investigated before in the context.

This study contributes to the literature in field of inclusive education, regardless of context, which calls for an approach to inclusive education which supports those students with SEND and allows them to be equal with their peers. Such a concept is still critical and depends greatly on the response and work of teachers. With teachers *believing* inclusive education is a best practice, this study contributed to existing literature by showing that they are not necessarily implementing that belief in their practice, and in the broader school context, they were not made to ensure that the inclusion practice worked. Therefore, there is a need for finding a strategy that works for implementing both knowledge and practices around inclusive education in primary schools in Saudi Arabia.

There are also implications for theory from this research, supporting that how an individual teacher sees their students with SEND reflects different models of disability, which can in turn impact the education that those with SEND received. The practise and implementation of the social model increased the opportunities for participation offered to those with SEND and helped them to learn better in the inclusive environment; this social model is opposed to segregation. My work demonstrated the practical application of theory in

showing how general educators tacitly implemented a medical model which did involve segregation and exclusion: they avoided working with students with SEND and saw them as deficient and requiring ‘fixing’ or specialised services before they could access inclusive classrooms. Therefore, there is a need to support general education teachers in developing a greater awareness who work in those settings as they need to be further sensitised to inclusive education through increased professional competency or ongoing professional training.

8.4.2 Implications and Recommendations for Policymakers

The findings of this study convey the issues and experiences of practice in an inclusive education school, which deserve consideration by the policymakers who are working to implement educational reform objectives in Saudi Arabia. Finding indicated that some teachers viewed the students had lower expectations of their learning in the inclusive setting, which resulting in exclusionary practices. The study also demonstrates that current practices show a lack of provision of inclusive teaching as all teachers using traditional teaching methods with teacher-centred approaches such as “lecture with questions”. All students including those with ASD listen to the lesson and then answer the questions posed by the teacher without modifying the national curriculum to meet students with ASD and without providing the suggested evidence-based practices and the supportive materials including visual materials such (PECS) that has been valuable with students with ASD. Such attitudes and practices provided by teachers that not applying a student-centre approach affected learners with ASD academic achievement and social participation and are consequential in exclusionary practices in the classrooms and school in the Saudi context.

This study emphasised that the practice of inclusive education is currently facing a number of obstacles and challenges in inclusive settings, including the gap between the new policy introduced by the Tatweer project and what is actually going on in real school life. Moreover, in November 2019, the Ministry of Education in Saudi Arabia announced that they had formalised policies for generalised inclusive education across all schools in the country (Saudi Press Agency, 2019) yet, at the time writing this thesis, there are no policies from Ministry of Education that would require all schools in Saudi Arabia to apply inclusive education, although it appears this will happen in the upcoming years. Consequently, such current practices would continue to do so unless this is addressed by policymakers that need to priority inclusive education practices and increase awareness of inclusive teaching practices

that meet all students, otherwise, inclusive education approach in Saudi context would not be beneficial students with SEND in the future.

Therefore, the findings of this study have presented the reality of inclusive education in Saudi context include the challenges and obstacles that need to be addressed before generalised inclusive education is rolled out in all schools. These implications might be related to the Saudi policymakers in particular, but they are also relevant to similar contexts where inclusive education represents a new formalised policy to be generalised across all schools. This study also provides major implications for the Ministry of Education and Tatweer in supporting inclusive education schools. It is recommended that both Tatweer and the Ministry of Education work together to support all of the needs of inclusive education schools, in the following ways:

- ***Ensure schools utilise existing inclusive education guides.*** Given that the Ministry of Education in Saudi lacks specific guidance around inclusive education, and inclusive education itself is in the earliest stages of implementation in the country, the findings showed the need for schools to follow the inclusive guides (manual) for the school structure, and classroom practices. Those manuals, provided by Tatweer, indicate a road map for practically implementing inclusive education. The Tatweer manuals could improve teachers' understanding as those guides provide steps for applying inclusive education, offer clear overviews of the different disabilities' abilities and needs, and give clear directions for promoting inclusive practices with all students with SEND, including those with ASD.
- ***Provide the required equipment and tools.*** The findings suggested the importance of specialist space and equipment to enable general education classrooms to accommodate students with ASD. This includes ensuring the good working order of all supportive rooms, such as the sensory room recommended for those with ASD, and other educational equipment, such as visual and audio devices, or other supportive technologies which are suitable for meeting the needs of students with ASD.
- ***Consider the number of students in inclusive classrooms and schools.*** The findings of this case study indicated the need for the Ministry of Education and Tatweer, initially, to introduce the inclusive education approach in smaller

schools. The importance of having a smaller number of students in inclusive schools would provide more attention to the inclusive classrooms. These fundamental features of inclusive education seem not to be provided in a school with an overloaded number of students.

- ***Provide mandatory pre- and in-service training.*** The findings showed that across all teachers within inclusive education schools, there was a need for professional training in the Saudi context. Making inclusive education practices and approaches for working with students with SEND a requirement in initial teacher education courses would see all teachers right from the start of their careers, having some knowledge of appropriate pedagogical practices for supporting students with SEND. It would also be very helpful if current practising teachers were able to attend continuing professional development training that provides awareness of inclusion and practices. Training should be based on the principles of inclusive education and cover issues such as the academic ability of students with SEND and those with ASD and how they should be supported, providing practical examples of theory in practice, as well as providing teaching strategies that can be used for teaching those with ASD in inclusive settings. This training could improve the teachers' practice and help them to explore different approaches to teaching, which could make them feel better supported and more committed to apply inclusive education and engage in ongoing, individual efforts to improve their teaching skills. These trainings should be applied by professionals and experts, employing the latest research-informed practices for inclusive education for all teachers who teach in these inclusive classrooms; a specific schedule should be drafted before the academic year starts and should continue throughout the academic year.
- ***Develop the professional competency of general education teachers***. The findings showed that general education teachers had limited understanding regarding inclusion and disabilities. Therefore, those teachers require training related to the nature of those with disabilities, which could be achieved by requiring them to have either a degree or specific courses in special education. In Saudi Arabia, a short but focused diploma programme could improve their understanding of both the nature of students with SEND and inclusive education process and practices. If teachers have clear knowledge and understanding of

those with SEND, with understandings of the behaviours of ASD, understandings of how inclusive education approach can be implemented, and a grasp on what they are expected to do in their classroom, their practice will more likely address the needs of those with SEND in a more professional manner.

- ***Provide teaching assistants.*** The findings showed the necessity of having teaching assistants in the inclusive classrooms, they can meet students' individual needs when required, which a teacher with more than thirty students in the classroom might not be able to do alone. According to the school in this case study, teaching assistants used to be provided by Tatweer rather than Ministry of Education. If there are plans for generalised inclusive education across the country, it would be very beneficial that the Ministry of Education hire teaching assistants in all schools; those assistants provide support to teachers for implementing individual teaching and also allow them to better support the students who have needs related to managing their behaviour.
- ***Develop specific monitoring procedures*** As this new approach in inclusive schools. Schools, leaders of schools, and teachers should be monitored by the Ministry of Education to evaluate their practices and impact with students with SEND in these settings. Monitoring should also have assessment for the teaching approach, use of resources, and overall practices.
- ***Consider hiring practices.*** The Ministry of Education, as the party responsible for hiring teachers needs to take into consideration professional capabilities when employing teachers (specifically special education teachers), teaching assistants, and leaders for inclusive schools. All of these roles should be filled by individuals who have sufficient knowledge of those with SEND, are qualified and have previously worked with SEND students, and have qualifications in special education or have had full training courses about those with SEND and inclusive education. These steps are essential with inclusive education at an early stage in the Saudi context: such training and practices would build the knowledge of other teachers within the schools as they would share it on with other teachers.

8.4.3 Implications and Recommendations for School

This study also draws out significant implications for school and leadership. Teachers find it difficult to enable inclusive education if there is no strong leadership with an inclusive orientation that supports them (F. Armstrong, 2006; Webster, 2018). With the inclusive education approach being implemented in schools in Saudi Arabia, it is essential that the leader of the school has a strong leadership position that enhances the new vision for implementing inclusive education. The role of leadership is critically important to improve school-wide awareness about inclusive education and the characteristics of those with SEND, including ASD.

In order to ensure that those with SEND benefit from inclusive practices, leaders need to be familiar with their role in terms of supporting teachers for working with students with SEND; leaders can help to motivate teachers, understand their responsibilities, and offer the resources they need. This could be achieved if leaders are able to:

- ***Select capable general education teachers***. The findings showed that the Ministry of Education is the one who hires special education teachers; however, school leaders have the option to select capable general education teachers from the pool within the school to teach in inclusive classrooms. Leaders of the school need to choose the most capable teachers who are trained and knowledgeable and have interest and enthusiasm for providing learning in inclusive classrooms for students with SEND, including those with ASD.
- ***Define roles for each teacher.*** The findings showed the need for teachers to understand their expected and differing roles in the classroom. This need to be addressed by the school management: school leaders should clearly define the roles of each team member in the school and take into consideration different working styles. They need to define roles for both special and general education teachers so those teachers can recognise their responsibilities in the classroom and the school.
- ***Have regular meetings with all teachers.*** The findings indicated the need for collaboration within school in order to discuss classroom issues. Leaders of the school need to involve teachers in decision-making and discuss the challenges faced and the progress attained by students with SEND and work collaboratively with the inclusive education supervisor in order to obtain all the resources needed for these inclusive classrooms. Providing space for discussion amongst all school staff can

commence from the beginning of the year, which would help to improve the understanding of integration for those with SEND and encourage all staff to welcome and value all students so that they can fully participate in all school activities.

- ***Encourage teachers following the inclusive education guide*.** Even if schools are not required to follow guides such as the Tatweer manual, school leaders need to provide teachers with a road map and guide for the direction of the school reforms. However, the Tatweer manuals are a valuable guide and starting point for all school staff to have an understanding of inclusive education in the school. Therefore, school leaders need to encourage teachers to follow the inclusive education processes laid out in the guide provided by Tatweer.
- ***Encourage peer observation.*** In relation to the need for collaboration between all teachers, including general education teachers to take steps and play a part in the decision-making processes for their students and involved in establishing the objectives and goals of students with SEND. Leaders of school should encourage peer observation between teachers: teachers can observe each other's classrooms, which would improve their own skills in a practical way and help them to exchange feedback with each other.
- ***Ensure the operator (such as Tatweer) has all the necessary requirements in place.*** There is a need for the leader in the school to make sure that all required aspects of inclusive education are in place for the school, such as offering training for all teachers and providing manuals, teaching assistants, and sensory room equipment.
- ***Provide monitoring schemes.*** The schemes will review the teachers' teaching practice by measuring the student outcomes as well as their progress; this monitoring can ensure implementation of valued teaching approaches in these inclusive classrooms.

8.5 Contribution of the Study

The King Abdullah Project for Public General Education Development reform, also known as the "Tatweer" project, sought to reform education for those with SEND by including them in general education classrooms; this reform is a relatively recent phenomenon which has

not been researched and documented. Thus, this research has intended to fill this knowledge gap by investigating understandings of inclusive education, from theory to practice, including the factors that impact inclusive education with students with ASD in Saudi Arabia. The primary contribution of this research is in documenting of the progress of the current educational reform around inclusive education in the context of Saudi Arabia in general, and the Tatweer project reform more specifically.

As far as I am aware, to date there are no other studies investigating the relevant inclusive education practices introduced by Tatweer in Saudi context. There are very limited documents and resources around the Tatweer projects in general and about the Tatweer inclusive schools in particular. Therefore, this study contributes to knowledge, including the development of a better understanding and analysis of the inclusive education reform in the Saudi context, and its underlying theory and practices. This research provides knowledge that might potentially have an impact on Saudi policymakers as they contemplate further development of inclusive practices across Saudi Arabia, paying attention to the education of students with SEND that has been long ignored. There is a potential also for impact on the content of teacher professional training in the Saudi Arabia.

This research has also a methodological contribution: most studies of special education research, and around ASD specifically, that have been carried out in Saudi Arabia rely on quantitative data collection methods, such as through surveys (Al-Salehi et al., 2009; Aljarallah et al., 2007; Almasoud, 2011; Alnemary et al., 2017; Zeina et al., 2014). Consequently, there remains a noticeable shortage of studies that use qualitative methods in the context: I could locate only one mixed methods study that focused on inclusive education with those with ASD, and it relied upon interviews for the qualitative aspect (Alhudaithi, 2015). Instead, my research employed a case study approach which included use of different methods within an interpretive approach (documents analysis, observations, and interviews); by focusing on the real life of schools and looking within the bigger picture of the inclusive education system in the Saudi context, I observed one school as a whole. I was able to explore teachers' perspectives and then see how these translated into their actual practice. As such, I examined a multitude of factors that currently exist around implementation of inclusive education in Saudi Arabia.

Therefore, this study has the potential to provide a foundation for future educational research in Saudi Arabia in relation to methodological concerns. The findings produced in this research are proof of the value of qualitative data: qualitative approaches are useful specifically in this situation for investigating a complex educational approach such as inclusive education.

They provide a basis of identifying the reality of inclusive education and identify the challenges faced by such an approach from different angles. Consequently, this research has the potential to form the basis on which development can be made in investigating inclusive education schools and specifically establishes a starting point for further studies to be carried out using a qualitative process in male primary-level inclusive schools in Saudi Arabia.

8.6 Limitations and Potential Future Research

While this research has produced valuable findings relating to the understanding, practices, and factors faced in inclusive education in the Saudi context, it is important to point out the study's limitations. The study sample involved six general and seven special education teachers, the head of the inclusive program, and the psychologist, all of whom were present at the chosen school. However, I did not have the voice of the leader of school, which would have enabled triangulation for the study. Likewise, this small pool of interviewees is emblematic of the limitation of nearly all qualitative case studies, which is the lack of generalisability of the findings due to small sample size. However, this case does not intend to generalise its findings to other schools or contexts but rather to provide an in-depth picture of the research phenomenon.

Since the Tatweer project was implemented only recently in Saudi Arabia, another limitation of the study was that there were no relevant documents from this project available online at the start of my research. The Tatweer guidelines, the main document used in this study, were not available to me in the UK before I collected them from the school in Saudi Arabia during the data collection period in October 2018. As explained in Chapter Four, I initially planned for a pilot study to be carried out in March 2018 to check the suitability of interviewee questions and to collect the relevant documents. However, data collection approval from School of Education in University of Bristol was not available until July 2018, at which time the school summer holiday started in Saudi Arabia. This delay was challenging since I had hoped to have read the Tatweer documents fully and closely before I began my data collection, which might have further informed the interview questions and my informal discussions with school staff in school.

Another limitation is that the study is missing the voices of students with ASD. Hearing their experiences about inclusive schools and regarding what teaching strategies they think are more or less helpful for them, then comparing these with those of the teachers would have been

valuable, as they would share their experience and their views on improving the teaching practices in this case-study school. However, there are difficulties surrounding research with primary students with ASD in schools due to the challenges they face with social interaction and communication, as well as there are many individuals with ASD are nonverbal. From my experience of teaching students with ASD, I have also found that many children with ASD have difficulties accepting a new person or teacher; they prefer to talk to those teachers who already know them.

Lastly, another limitation is related to the absence of the female point of view, as all of the participants in this study were male, and so this gender dimension is one shortcoming of the study. As explained in Chapter Three, as a male researcher in the Saudi context, I would not be allowed to have access to girls' schools to conduct interviews or observations with female teachers. That said, it is important to indicate that the findings of this study articulate the views of male teachers and explain practices within an all-male environment. This absence of women's point of view may result in a lack of generalisability of the findings due to it not representing all viewpoints regarding the inclusive school practices in the Saudi context. However, this study used a method that did not try to make broad generalisations over a larger population but rather aimed to gain a better understanding of the particular topic under investigation. The primary goal of this study is to learn about what happens in inclusive schools for those students with SEND in Riyadh city's primary male school. However, despite the reality that generalisation is not an aim for qualitative research, the findings from the current study may be transferred to the female context. Readers also may consider whether or not the study is applicable to their school or context. Yet, future research is still needed to include the voice of all staff, students with ASD themselves, and parents both male and female regarding inclusive education, as all these voices need to be heard in such a complex phenomenon.

The findings presented in this study suggest a number of areas for future investigation and research in the field of inclusive education for students with ASD. Directions for future research include the following:

1) Investigate other inclusive schools with wider sample sizes, including the leader of the school, teaching assistants, supervisors, other school staff, and parents. Investigating across a range of schools would enable comparison of structures and practices. This could be by investigating all six inclusive schools introduced by Tatweer model in the context

2) Investigate female teachers' understanding and practice in the inclusive schools, as I recognise that female educators may perhaps have varied perspectives, and their concerns may be different from the opinions expressed by male teachers. This could be addressed by a female researcher or it could be addressed within alternative method such as the protocol for online interviews that allowed a male researcher conducting interviews with female participants in the context.
3) Investigate the voice of students with ASD about their experience and the differences they have found with other educational settings. This could be addressed by adopting a qualitative approach to explore student with ASD views such as using photographs, and it could also be addressed by conducting semi-structured interviews with both students and their teachers or parents depending on whom the students feel comfortable to share their experience with.

8.7 Final Reflection.

Different learning has been gained through my PhD journey. My studies at the University of Bristol have enabled me to work with other academics and attend conferences, courses, workshops, seminars, and other activities. I completed four different modules relating to my research and other fields, understanding the different models for conducting research and the different strategies for analysing data, as well as enjoying the wealth of resources that I could access: from databases of publications as relevant literature for my research and studies in diverse educational systems to the different talks and discussions with teachers and lecturers on a variety of topics related to education and characteristics of those with SEND and ASD.

I spent much of the first years of my PhD trying figure out who I am and what I believe as a researcher, how this would impact my research and participants, how I would realise the different viewpoints of individuals in my study, and how this would be related to their understanding, actions, and interpretation. All of these questions have provided me with a lens and continue with me as I seek to understand an individual teacher's viewpoints about these concepts, with the purpose of not categorising one perspective as 'truth'. Moreover, this study journey surely will have an impact on my practice and research in the future. I now have a growing awareness of different skills such as critical thinking, including acknowledging that there is no single truth. I have come to truly realise the importance of defining each concept and idea and valuing a variety of opinions, perceptions, and understandings. Additionally,

studying in three different educational systems – Saudi (2010), American (2014), and British – has hugely impacted my way of thinking and practices around the matter of context, and what is applied and understood in one context country cannot be so easily understood and applied in another country context. I have built a critical viewpoint about ASD education in different context and learned more about the realities of ASD education in inclusive schools.

Going on this study journey has made me understand that there are no direct or simple answers for such a complicated concept as inclusive education. Extensive reading in the literature has widened my perspective and assisted my thinking with different understandings and interpretations for this complex concept presented thought the different perspectives of different people; I have come to appreciate the influence of political, economic, and educational aspects in understanding inclusivity and see it now as a much wider concept not only focusing on one group of individuals. Rather, each understanding and interpretation of inclusion has different interpretations for its implementation. Moreover, more engagement with theoretical models has enhanced my understanding about disability, and I have also begun to question how we see disability, where disability is located, and what the consequences are if we, as individuals, understand disability in one way, but other individuals' beliefs and perception have other influences on the classroom education of those with ASD. All of this has further influenced my beliefs about inclusive education for those with ASD, which has progressed to an increasingly positive understanding of that form of education.

Finally, I feel that the Saudi government is progressing in a positive way by prioritizing the education of those with SEND. To date, it has invested in education, reframing the Saudi educational system via the Tatweer project, building inclusive policy and guidelines, and also commencing the implementation of inclusive education for those with SEND in a number of schools. I recognize that I am also an example of a Saudi government investment, as in recent years, it has sent various specialists in the field of special education to countries with more experience of disabilities and inclusive education to gain experience, before returning to Saudi Arabia. This study was the first step on my path to supporting changes in the education of those with SEND focusing on the with ASD in Saudi Arabia and I hope the findings of my study and its recommendations provide insights into the reality of inclusive education. When I return to the country, I intend to continue supporting the changes that have already been made, now equipped with the knowledge and skills I have gained on my PhD journey.

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Appendices

Appendix 1: University of Bristol Ethical Approval Form.

School of Education RESEARCH ETHICS FORM

It is important for members of the Graduate School of Education, as a community of researchers, to consider the ethical issues that arise, or may arise, in any research they propose to conduct. Increasingly, we are also accountable to external bodies to demonstrate that research proposals have had a degree of scrutiny. *This form must therefore be completed for each piece of research carried out by members of the School, both staff and students*

The GoE's process is designed to be supportive and educative. If you are preparing to submit a research proposal, you need to do the following:

1. **Arrange a meeting with a fellow researcher**
   The purpose of the meeting is to discuss ethical aspects of your proposed research, so you need to meet with someone with relevant research experience. A list of prompts for your discussion is given below. Not all these headings will be relevant for any particular proposal.
2. **Complete the form on the back of this sheet**
   The form is designed to act as a record of your discussion and any decisions you make.
3. **Upload a copy of this form and any other documents (e.g. information sheets, consent forms) to the online ethics tool at:** https://dbms.ilrt.bris.ac.uk/red/ethics-online-tool/applications**.**

   Please note: Following the upload you will need to answer ALL the questions on the ethics online survey and submit for approval by your supervisor (see the flowchart and user guides on the GSoE Ethics Homepage).

If you have any questions or queries, please contact the ethics co-ordinators at: gsoe-ethics@bristol.ac.uk

Please ensure that you allow time before any submission deadlines to complete this process.

Prompts for discussion

You are invited to consider the issues highlighted below and note any decisions made. You may wish to refer to relevant published ethical guidelines to prepare for your meeting. See http://www.bris.ac.uk/education/research/networks/ethicscommittee/links/

Name(s): **Abdulmalik Mohammed Alkhunini**

Proposed research project:

Exploring teachers' practices and strategies with students with Autism Spectrum disorder (ASD) in a mainstream primary school in the Kingdom of Saudi Arabia. A Case Study.

Proposed funder(s): No

Discussant for the ethics meeting: **Pritz Hutabarat. PhD student.**

Name of supervisor: **Professor. Melissa Allen**

Has your supervisor seen this submitted draft of your ethics application? Yes

Please include an outline of the project or append a short (1 page) summary:

The number of individuals identified as having Autism Spectrum Disorder (ASD) has increased in recent decades (Frieden et al., 2014). For example, the Autism and Developmental Disabilities (2014) identified about 1 in 68 children as having ASD in the United States (US). ASD is defined as a lifelong neurodevelopmental disorder characterized by impairments in social interaction, verbal, and non-verbal communication, and a restricted repertoire of activities and interests (American Psychiatric Association, 2000). Furthermore, in the last two decades, as the number of people diagnosed with ASD has risen globally, the matter of how to educate students with ASD has been critical (Lindsay et al., 2014). Moreover, many researchers examined the effect of including students with ASD in mainstream classrooms. One study showed that students with ASD in mainstream classrooms received higher scores in standard achievement tests than students with ASD who were not in mainstream classrooms (Rea and Walther-Thomas, 2002). Other study reports that inclusive education demands the design and implementation of effective strategies for use with these students. The aim of this case study is to investigate the understanding the teachers both of ASD and inclusive education and also the strategies currently used by both general and special education teachers in a male mainstream public primary school in the Kingdom of Saudi Arabia. This case study employs ethnographic techniques, including document review, direct observation, and semi-structured interviews with general and special education teachers, the head of school, and the head of inclusive program. The analysing of this qualitative data will be using thematic analysis. The findings can be used to identify strategies that used in inclusion settings, benefitting education professionals, including teachers, teaching assistants, and education policymakers

Ethical issues discussed, and decisions taken (see list of prompts overleaf):

Researcher access/ exit

In order to obtain permission to access data from the mainstream school, as well as carry out the observations and interviews, I have contacted the Ministry of Education (MoE), which is responsible for and the gatekeeper for all public schools in Saudi Arabia, and I have been informed that they are happy to give me an access to the school, but there is a formality in the process of accessing schools to observe from MoE. First, a letter from my supervisor at the University of Bristol and the researcher's sponsor (Culture mission of Saudi Arabia in London) will be provided to the MoE in Riyadh, Saudi Arabia. The letter will introduce the researcher giving a clear explanation of the purpose of the research and the intended duration of the research and the methods will be used. The ministry is responsible for all public schools in KSA and can thus give approval for the researcher to access the school. Also, I will contain all my contact details (i.e. phone number and email address), as well as those of my supervisors in the UK

Information given to participants

The participants of the study are teachers; school staff, including the head of the school; and the head of the inclusive education program. They will be provided with an information sheet to each participant containing the purpose and methods of the research, along with specific details of the duration of observations and interviews and kind of questions to be asked. Then, if they agree to participate in this study, they will be asked to sign a consent form before the interview, and some of them will be asked to sign in the same consent form for the observation in their classrooms. However, when I am conducting observations in the classrooms, there will be students with ASD; they will not be directly providing data as participants, but they will be present in the classroom. I will not look at the children information from their documents. I will just observe the teacher's practices without recording voices nor videos in the classroom.

However, I will have an opt-in consent from students' parents/guardians of students with ASD. A consent form and information sheet will be distributed to the parents or legal guardians. These documents will differ in content according to the child and their parent/guardian; the documents will provide a detailed overview of the project, its purpose, and the process that will be taken. Additionally, the information sheet will explain that the purpose of the study is only to focus on the teachers and that no interview, intervention, or recording will be taken with the child. After approval has been obtained from the parent/guardian, it will be made clear that participation in this project will be voluntary. In addition, there will be clear information that the children can decide verbally or in a written format whether to take part in the research project or not. The students will be familiar with me as a researcher after introducing myself to them in the activities outside of the classroom in the first month in the school.

Informed consent, researchers, anonymity/ confidentiality, right to withdraw and complaints procedure

Informed consent will be gained from all participants (teachers, the head of school, the head of inclusive program, and the parents/guardian of children) in the study. Prior to this, participants + (parents/guardian of children) will be provided with an information sheet which includes information about the purpose of my research, the interview process, the classroom observation processes, the fact that their participation is voluntarily, their rights to withdraw anytime without explanations, their rights to refuse any questions in the interview, the fact that the information they provide will be confidential and the school name and their names will not anonymized in the research. When they are agreed and asked all the questions; they will be asked to sign the informed consent. There will be three informed consents;

1- Informed consent from teachers to conduct the interview + observation
2- Informed consent from the head of school/ head of the inclusive program to conduct the interview
3- Informed consent from parent/guardian of children for conducting the classroom observation.

Also, there are some ethical issues, and decisions taken;

- To ensure the participants are feeling comfortable participating, and respond positively to the research process, I will ensure they are aware that a high level of confidentiality will be maintained when I am writing up. When I am reporting the findings all the participants' privacy and anonymity will be carefully protected. The school's and the participants' names will be also replaced with pseudonyms and no personal information reported.
- To ensure that the students in the classroom not distressing from having a stranger observing in the classroom. My research will be for three months (September – December 2018) and the classroom observations will be taken in the second month in the school.
- Participants will be asked kindly if they want to participate or not, and I will inform them that their participations are voluntary. Then, they will be requested to sign an informed consent form once they

have agreed to participate prior to the observations and interviews taking places. Participants will retain the right to withdraw from the study at any time prior to it being completed without giving me reasons as the consent form noted. The participants will be free to contact me directly by phone, email or through my UK WhatsApp social media account. Those requesting to be removed from the study without using digital technology will be able to inform the principal of the school, or the Ministry of Education directly, thus allowing their data to be deleted and their participation removed. In addition, all files of the transcriptions and recording will use pseudonyms to protect the identity of participants

- For the complaints procedure, I will clearly state in the consent form and the information sheet all my information including my two phone numbers (Saudi number + UK number), email and also the email of my supervisor in the UK.

Safety and well-being of participants

- Regarding to how I am going to present the outcomes of the study and how the gatekeepers and participants will receive information regarding the findings. The aim of this case study is to explore the understanding of the teachers about the inclusion of students with ASD and to investigate their teaching strategies in the inclusive classroom. Thus, I will clarify to all participants that I am not examining or evaluating the school, as this research will focus only on seeing what occurs in the school, but there is no comparison with other schools, and no judgmental or evolutional views will be considered while writing up my findings and discussion. I will ensure that all the participants understand the nature of the research and the process they will go through, from the start of the research until the end, including how the data will be used, and how the data will be reported
- Regarding the participants who will be worried about revealing their views and perceptions of the school and the educational authority, I will ensure that the result of this study does not cause harm to the participants. I will guarantee that all the data will be kept confidential and will be used only for the purpose of this study. I will also guarantee them that their names and the school's name will be replaced with pseudonyms, and that no personal information will be reported when writing my thesis.
- Regarding organizing the interview meeting, I will ask each participant for their preferred times for the interviews. All meetings with participants will be in public places such as a meeting room in the school during school hours. This is for both my safety and that of my participants.
- Regarding to make the participants feel comfortable in the interview. I will ask if they understand everything about the interview before starting the recording. At the start of the interview, I will always ask if they are ready and I will provide the questions in advance and they can indicate any questions that they are not comfortable to answer.
- During the interviews, I will routinely ask participants how they are feeling and if a question is appropriate or not. I will frequently ask if they are comfortable. If they do not feel comfortable, I will stop the interview, and check with the participant regarding their wishes for continuing or rescheduling or move to another question.

Data collection, analysis, and storage

- All data collected, including the notes, voice recordings, transcripts of interviews and the written responses by participants will be available only to me and my research supervisors. during the project the collected data (in electronic form) will be kept securely on University of Bristol servers and will remain password- protected. The access can be obtained using my personal laptop or University of Bristol computers via the external access system. My supervisors will also have access to data gathered during this study. Data collected in a written form such as reports, paper files or interview/interview transcripts will be stored in a locked filing cabinet (at the university's office) for the purpose of this project.
- Once interviews are completed using a (voice memo) which is an application on my iPhone, they will be transferred to the external hard drive and removed from the recording device (my phone). A backup of all my data will be stored on the University of Bristol's secure OneDrive account

- All files will be named using these pseudonyms to protect their identity, however, I will have a list of those pseudonyms which will allow me to identify the names in case a participant requests that their data be removed.
- I will share the transcripts with each participant. I will do that while I am in Saudi Arabia to make sure they are conformed that their answers / the data accurately represents their thoughts.

Data Protection Act/ Responsibilities to colleagues/ academic community and reporting of research

I am aware that I must fulfil the legal requirements of data protection and usage as set out in The Data Protection Act. This Act clearly gives participants rights over their personal data and protects them from the erroneous use of their personal data. In doing so, I am going to follow all the principles of this act including informing all participants or parents/guardian of the students about their data will only be used as per this regulation. Also, the data I collect will only be used for my thesis, academic publications and academic conferences, and will not be used for other than my research subject or marketing. Following the Data Protection Act, I am the only one who will collect the personal data and keep them confidential and secure. In addition, during the project the collected data (in electronic form) will be kept securely on University of Bristol servers and will remain password- protected. The access can be obtained using my personal laptop or University of Bristol computers via the external access system. My supervisors will also have access to data gathered during this study. Data collected in a written form such as reports, paper files or interview/interview transcripts will be stored in a locked filing cabinet (at the university's office) for the purpose of this project. Once the project is complete, the data will be discarded by either deleting the electronic files or destroying the written/printed materials. Finally, this research is for my PhD at the University of Bristol, so it will be presented as a complete and original work to the university. Also, All the findings will present to the school and to the Ministry of education. I will ensure that it will not impact negatively on any individual staff

If you feel you need to discuss any issue further, or to highlight difficulties, please contact the

SoE's ethics co-ordinators who will suggest possible ways forward.

Signed:Abdulmalik Alkhunini (Researcher)

Signed: Pritz Hutabarat (Discussant)

Date: 14/03/2018

Appendix 2: Ministry of Education Permission Letter to Observe the School.

المملكة العربية السعودية
وزارة التعليم
٢٨٠
الإدارة العامة للتعليم بمنطقة الرياض
إدارة التخطيط و المعلومات

الرقم : ١١٩٧٤
التاريخ : ١٤٤٠/١/٢٩
المرفقات :

تسهيل مهمة باحث

الاسم	السجل المدني
عبدالملك بن محمد صالح الخنيني	

العام الدراسي	الدرجة العلمية	الجامعة
١٤٤٠/١٤٣٩ هـ	الدكتوراه	بريستول / بريطانيا

عنوان الدراسة: (إكتشاف طرق وإستراتيجيات التدريس لمعلمي الطلاب ذوي التوحد في مدارس التعليم الشامل في المملكة العربية السعودية – درسة حالة) .

عينة الدراسة : معلم (برنامج التعليم الشامل) .

المكرم قائد المدرسة **وفقه الله**

السلام عليكم ورحمة الله وبركاته ، وبعد:

إشارة إلى قرار معالي وزير التعليم رقم ٣٨٧١٧٠٨٠ وتاريخ ١٤٣٨/٥/١٢هـ بشأن تفويض الصلاحيات لمديري التعليم ، وبناءً على قرارسعادة مدير عام التعليم بمنطقة الرياض رقم ٣٨٩٢٠٧٩٣ وتاريخ ١٤٣٨/٦/٢٣هـ بشأن تفويض الصلاحية لإدارة التخطيط والمعلومات لتسهيل مهمة الباحثين والباحثات ، وحيث تقدم إلينا الباحث (الموضحة بياناته أعلاه) بطلب إجراء دراسته، ونظراً لاكتمال الأوراق المطلوبة ، نأمل تسهيل مهمته .

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. **وللمعلومية فإن طلب (إنهاء المهمه) يتطلب الرفع لنا من الجهات المعنية بتطبيق البحث بأن الباحث قد باشر تنفيذ أدوات بحثه حضورياً.**

شاكرين لكم وتقبلوا تحياتي..

سعود بن راشد ال عبداللطيف

Appendix 3: Data Collection: Reseracher's Superviser Support Lettre.

School of Education
35 Berkeley Square
Bristol BS8 1JA
Telephone +44 (0)117 928 9000
http://www.bris.ac.uk/Education

July 4, 2018

Dear Ministry of Education Saudi Arabia:

RE: Abdulmalik Alkhunini

I am writing in support of my PhD student Abdulmalik Alkhunini who is in the second year of his PhD in Education programme at the University of Bristol. Abdulmalik has completed the taught part of the course and is now preparing for his dissertation study entitled "Exploring teachers' practices and strategies with students with Autism Spectrum disorder (ASD) in a mainstream primary school in the Kingdom of Saudi Arabia. A Case Study".

Abdulmalik would like to investigate inclusion practices and perceptions of primary teachers at one of the inclusive schools for children with Autism Spectrum Disorder in Riyadh and he would like permission to conduct this research over a 3 month period sometime between September – December 2018.

His project involves interviews and observations with teachers and school staff, and complies with all British Educational Research Association 2011 (BERA) guidelines. I fully support this project and hope you will grant Abdulmalik access to conduct his study.

Sincerely yours,

Melissa L. Allen, PhD
Professor in the Psychology of Education Director of BSc Psychology in Education

Appendix 4: Teacher's Information Sheet: English Version.

Teacher's Information sheet

Exploring teachers' practices and strategies with students with Autism Spectrum disorder (ASD) in a mainstream primary school in the Kingdom of Saudi Arabia. A Case Study.

Hello,

My name is Abdulmalik Alkhunini and I am a student at University of Bristol in United Kingdom, pursuing a PhD in Education. My study aims to explore the teacher's understanding regarding inclusive education and the teaching strategies using by both general and special education teachers in inclusive education school in Saudi Arabia. I would like to invite you to participate in this project; however, before you decide if you want to take part or not, I want to tell you why the research is being done, and what you can expect if you do take part. The finding of this project aiming to help the teaching profession to understand better good practice in teaching students with ASD in mainstream classrooms.

What is the purpose of the study?

The aim of this research is to explore the teachers understanding regarding inclusion, also the strategies currently used by both general and special education teachers to promote inclusion in all male mainstream public primary school in the Kingdom of Saudi Arabia. In my study I am collecting information using interviews and direct observation with general and special education teachers and other staff who have experience teaching students with autism spectrum disorder in mainstream classrooms. This research is for completing my PhD in University of Bristol and it is not a government project.

Why have I been asked to take part?

You have been contacted because I want to observe teachers in their classrooms and conduct an interview with teachers who have experience of teaching students with autism. I will be interviewing a range of staff in the school including teachers, head of school, and head of the inclusive program

Do I have to take part?

No. It is up to you to decide whether or not you want to take part. If you decide to take part, you will also be asked to sign a 'consent form'. If you decide to take part, you are still free to stop at any time without giving a reason. No questions will be asked if you stop. Your Participation in this research is voluntary.

What will happen if I take part?

I will contact you to ask you for observe your teaching in the classrooms and take notes; there is no video recording.

Also, I will contact you to arrange an interview at a safe time and in your free time during the school day.

Before the observation and /or interview you will be given the consent form. You only sign this form if you agree to take part in the observations and/ or the interview.

(You may select to take part in only one of these although I would really appreciate if you could be involved in both).

In the interview I will ask you to talk about your experiences of teaching students with ASD and I will ask questions such as what teaching strategies you used with ASD in your class? What are the barriers you think of in relation to including students with ASD in inclusive classrooms? What are the strategies you think they are effective?

How long will the observation take?

A class period

How long will the interview take?

30 – 45 minutes.

Will my taking part in this project be kept confidential?

If you agree to take part, your name along with the class name will be made anonymous so that the information you provide cannot be traced back to you. I will use pseudonyms to ensure anonymity and store your data in a secured password protected computer.

Who can I contact if I have any concerns about the research process?

If you have any concerns that I cannot resolve, or any complaints, you may contact my supervisor.

Researcher: **Abdulmalik Alkhunini**

PhD student at School of Education – University of Bristol

Contact number:

Email:

Supervisor: **Melissa Allen** Ph.D.

Professor in School of Education – University of Bristol

Email:

Appendix 5: Parents/Guardian's Information Sheet: English Version.

Parents/ Guardian Information sheet

Dear…………….

My name is Abdulmalik Alkhunini and I am a student at University of Bristol in United Kingdom, pursuing a PhD in Education. My study aims to explore the teaching strategies using by both general and special education teachers in inclusive education school in Saudi Arabia. I would like your permission to observe your son in the classroom. There is no voice or video recording. If you agree to your son's participation, you have the right to withdraw him at any time from the observation without given any reason and all data obtained will be delated. All data obtained will be confidential. In addition, no real name will be used and your name and those of your son and his school will be anonymised**.**

If you have any questions, you can contact the researcher or his supervisor by the information below

Researcher: **Abdulmalik Alkhunini**

PhD student at School of Education – University of Bristol

Contact number:

Email:

Supervisor: **Melissa Allen** Ph.D.

Professor in School of Education – University of Bristol

Email:

Appendix 6: Teachers Consent Form: English Version.

Title of Project:

Exploring teachers' practices and strategies with students with Autism Spectrum disorder (ASD) in a mainstream primary school in the Kingdom of Saudi Arabia. A Case Study.

The purpose of this form is to provide you with information, so you can decide whether to participate in this research regarding to my doctoral program at University of Bristol. The purpose of the study is to explore the strategies used by general and special education teachers for primary students with autism spectrum disorder who are included in general education classrooms. Once you are familiar with the information on the information sheet and this form, and have asked any questions you may have, you can decide whether or not to participate. If you agree, all data will be recorded with the strictest of confidentiality and all participants real name will replaced with pseudonyms in order to protect identities. Please note your participation is voluntary and you may decide to leave the study at any time. You may also refuse to answer specific questions you are uncomfortable with. Also, after finishing this research, the summary of study will be available to all participants.

Confirmation and Consent

☐ I confirm that I freely agree to participate in this research. I have been briefed on what this involves. I give permission for the interview to be recorded. The recording will be used only to ensure the correct transcription of the interview.

☐ I confirm that I freely agree to participate in this research. I have been briefed on what this involves, I give permission for observations in my classrooms in which data will be collected in note form by the researcher; I am clear that there will be no video or audio recordings.

Participant signature:

Name: …………………………………………………

Date: …………………………………………………

Researcher contact: **Abdulmalik Alkhunini**
Phone Number: (UK) + (KSA) +
Email address:

Supervisor contact: **Professor Melissa Allen** School of Education - University of Bristol
Email address:

Appendix7: Teacher’s Consent Form: Arabic Version.

University of BRISTOL

إفادة بالموافقة على المشاركة في البحث

عنوان البحث: إكتشاف طرق واستراتيجيات معلمي طلاب ذوي إضطرابات طيف التوحد في مدارس التعليم الشامل في المملكة العربية السعودية: دراسة حالة

الهدف من هذه ا الإفادة عرض جميع المعلومات الخاصة بالبحث من أجل إتخاذ القرار بشأن الموافقة بالمشاركة في البحث الخاص بالباحث عبدالملك بن محمد الخنيني وهو إحدى متطلبات مرحلة الدكتوراة في جامعة بريستول البريطانية.

يهدف هذا البحث لإكتشاف الطرق والاستراتيجيات الخاصة بمعلمي ذوي إضطرابات طيف التوحد في مدارس التعليم الشامل في المملكة العربية السعودية.

إذا كنت قد تعرفت على جميع مستلزمات هذا البحث وعلى ماهية الدور الخاص بك في المشاركة في هذا البحث، وتمت الإجابة على جميع الأسئلة التي تود معرفتها بخصوص البحث، أرجو منك إتخاذ القرار بالموافقة بإجراء المقابلة والملاحظة في أسفل هذا النموذج.

في حال الموافقة، تأكد أن جميع البيانات و والإجابات الخاصة بك ستكون محفوظة بشكل آمن لدى الباحث والمشرف الدراسي، وأن أسمك وأسم المدرسة سيتم إستبدالهما بأسم مستعار حفاظاً على خصوصيتك. وأنه من حقك الإنسحاب من المشاركة في هذا البحث في أي وقت ومن دون البوح بالسبب، بالإضافة إلى أن مشاركتك في هذا البحث تطوعية ويحق لك رفض الإجابة عن أي سؤال إذا رأيت أنه غير مناسب.

أخيراً، عند الإنتهاء من كتابة البحث، البحث سوف يكون متوفر لدى الباحث وبإمكانك الإطلاع عليه. وفي حال الإستفسار أو الإنسحاب من البحث يمكنك التواصل مع الرقم الخاص أول الأيميل الخاص بالباحث أو ايميل المشرف الدراسي المتواجد في أسفل الإفادة

الموافقة والتوقيع

☑ **أوافق على المشاركة في هذه المقابلة، ولقد تم تزويدي بهدف البحث و ماهية مشاركتي، و أوافق بتسجيل المقابلة صوتياً وهذا التسجيل الصوتي يختص فقط بالتأكد من أجابات المقابلة ولا يستخدم لأغراضاً أخرى.**

☑ **أوافق على دخول الباحث للفصل من أجل الملاحظة، ولقد تم تزويدي بهدف البحث و ماهية مشاركتي، مع التأكيد أنه ليس هناك تسجيل فيديو أو تسجيل صوت داخل الفصل.**

الأسم والتوقيع:

.الأسم: ....

التوقيع.. ....

للتواصل مع الباحث:
عبدالملك بن محمد الخنيني

للتواصل مع المشرف الدراسي:

Appendix 8: Parents' Consent Form: Arabic Version.

إفادة بموافقة أولياء أمور طلاب ذوي التوحد في المشاركة الخاصة بإبنائهم في البحث

<u>عنوان البحث:</u> إكتشاف طرق واستراتيجيات معلمي طلاب ذوي إضطرابات طيف التوحد في مدارس التعليم الشامل في المملكة العربية السعودية: دراسة حالة

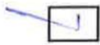
الهدف من هذه ا الإفادة عرض جميع المعلومات الخاصة بالبحث من أجل إتخاذ القرار بشأن الموافقة على مشاركة إبنكم في البحث الخاص بالباحث عبدالملك بن محمد الخنيني وهو إحدى متطلبات مرحلة الدكتوراة في جامعة بريستول البريطانية. يهدف هذا البحث لإكتشاف الطرق والاستراتيجيات الخاصة بمعلمي ذوي إضطرابات طيف التوحد في مدارس التعليم الشامل في المملكة العربية السعودية.

إذا كنت قد تعرفت على جميع مستلزمات هذا البحث وعلى ماهية مشاركة الإبن في هذا البحث، وتمت الإجابة على جميع الأسئلة التي تود معرفتها بخصوص البحث، أرجو منك إتخاذ القرار بالموافقة بإجراء الملاحظة في أسفل هذا النموذج.

في حال الموافقة، تأكد أن جميع البيانات و والإجابات الخاصة بإبنكم ستكون محفوظة بشكل آمن لدى الباحث والمشرف الدراسي، وأن أسم إبنكم وأسم المدرسة سيتم إستبدالهما بأسم مستعار حفاظاً على خصوصيتكم، بالإضافة إلى أن مشاركتك في هذا البحث تطوعيةز

أخيراً، عند الإنتهاء من كتابة البحث، البحث سوف يكون متوفر لدى الباحث وبإمكانكم الإطلاع عليه. وفي حال الإستفسار يمكنك التواصل مع الرقم الخاص أول الأيميل الخاص بالباحث أو ايميل المشرف الدراسي المتواجد في أسفل الإفادة.

<u>الموافقة والتوقيع</u>



أوافق على دخول الباحث للفصل من أجل الملاحظة، ولقد تم تزويدي بهدف البحث و ماهية مشاركة الإبن، مع التأكيد أنه ليس هناك تسجيل فيديو أو تسجيل صوت داخل الفصل.

الأسم والتوقيع:

.الأسم: ..

التوقيع...

<u>للتواصل مع الباحث:</u>

عبدالملك بن محمد الخنيني

<u>للتواصل مع المشرف الدراسي:</u>

Appendix 9: Ministry of Education Letter: Data Collection Completion.

المملكة العربية السعودية
وزارة التعليم
٢٨٠
الإدارة العامة للتعليم بمنطقة الرياض
إدارة التخطيط والتطوير

وزارة التعليم
Ministry of Education

الرقم : ....
التاريخ : ١/٥/١٤٤٠هـ
المرفقات

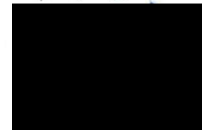
(إفـــادة)

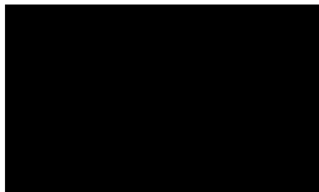
الموضوع: انتهاء مهمة باحث (رحلة علمية)

اسم الباحث	عبدالملك بن محمد صالح الخنيني
كلية /الجامعة	جامعة بريستول / بريطانيا
رقم وتاريخ خطاب تسهيل مهمة البحث	١١٩٧٤ وتاريخ ١٤٤٠/١/٢٩هـ
عنوان الدراسة	اكتشاف طرق وإستراتيجيات التدريس لمعلمي الطلاب ذوي التوحد في مدارس التعليم الشامل في المملكة العربية السعودية – دراسة حالة .

إشارة إلى قرار معالي وزير التعليم رقم ٣٨٧١٧٠٨٠ وتاريخ ١٤٣٨/٥/١٢هـ بشأن تفويض الصلاحيات لمديري التعليم ، وبناءً على قرار سعادة مدير عام التعليم بمنطقة الرياض رقم ٣٨٩٢٠٧٩٣ وتاريخ ١٤٣٨/٦/٢٣هـ بشأن تفويض الصلاحية لإدارة التخطيط والتطوير لتسهيل مهمة الباحثين والباحثات .

وحيث تقدم إلينا الباحث (الموضحة بياناته أعلاه) بطلب إجراء دراسته والتي بدأت من تاريخ رفع خطاب تسهيل المهمة وحتى تاريخ ١٤٤٠/٤/٣٠ هـ ، حسب إفادة قائد مدرسة ████ وبناءً على طلبه تم منحه الإفادة.





ص/ قسم الدراسات والبحوث

Appendix 10: Interviewee Questions (Section A and B)

Section A: Exploring teacher's preparation, training, attuites, and understating

Teacher's qualifications:

- What kind of study degree do you have?
- Have you studied modules on special education or inclsuvie education in the university or college? If yes, can tell what are these about?
- Do you think you are prepared as a teacher to teach students with ASD in your mainstream classroom? Why?
- What knowledge and skills do you think a teacher need to teach students with ASD in inclusive classroom?

Training:

- What training did you have about including students with SEN?
- How was your training? What do you think about the training?
- What about training regarding teaching students with ASD?
- Did you get additional training or guidance when you started teaching?
- Have you worked in other schools before this one?

Number of students in classroom:

- How many children with SEN and ASD have had in you taught?
- How many students with ASD are there in your classroom now?
- In your opinion, what do you think about the number of students with ASD in your classroom?

Teachers' attitude regarding inclusive education

- In your opinion, what is your view about including students with ASD in your classroom? why?
- Do you support the inclusive education for students with ASD?
- Do you think students with ASD should be included in inclusive education classroom?

Teachers' understading inclusion:

- What is "inclusive education" in your view?
- How do you see/understand inclusive education?
- In your opinion, what is the ideal model of inclusive education?
- What do you think the benefits of inclusive education?
- How do you make sure the student wit SEN/ASD is being included in the classroom?

Teachers' understading of SEN and ASD:

- How you see student with SEN?
- How about students with ASD?
- What are the needs that students with ASD have?

Section B: Exploring teacher's practices, factors of implementation inclusive education

Teaching strategies:

- Could you tell me how do you teach your students with ASD in the classroom?
- Can you give me an example of teaching a student with ASD in your classroom?
- What are the teaching strategies you are using with ASD students in the inclusive education classrooms?
- Why did you choose these strategies?
- Do you use the teaching strategies from the Tatweer guidance? Why?
- What do toy think about the teaching strategies from Tattweer?
- In your opinion, do you think these strategies are suitable for students with ASD or not?

Inclusive education Implementation:

- In your opinion, how do you see to inclusive classroom in the school?
- In your opinion, what are the barriers you see to teaching students with ASD in an inclusive classroom?
- What kind of teaching resources for teaching students with ASD do you have in your classroom? What do you not have?
- What are the benefits of using teaching resources in your classroom?
- In your opinion, what do think about teacher's assistant in supporting teachers in mainstream classrooms?
- how you see the collaboration between teachers in teaching your students? How?
- In your opinion what are the benefits of collaboration with other teachers?
- how you see the administration and supervision in this inclusive schools?

Appendix 11: English Version Teacher's Interview with Sample Coding

Section	Theme	Code	Verbatim transcripts
			Malik: Thank you for accepting to participate in this study. I would like to start with some information related to your study background. May I know what kind of qualifications do you have?
		Background	I have a bachelor's degree in special education focusing on autism and emotional behavioural disorder.
			Malik: how many years you have been teaching students with disabilities?
			five years
			Malik: are all these 4 years with inclusive education?
			Two years here in inclusive education.
			Malik: Have you studied in universities or college any modules on special education or modules on inclusion? If yes, what kind of models were these?
			No, in the university, most of the courses are focusing on integration, which means teaching students in private classrooms in a general school which were not a full inclusive education.
School implementation	***High Number of students***	**Classroom Size**	Malik: how many students in your classroom?
			Thirty-five
			Malik: How many students with disabilities you are teaching now?
			seven students, five of them have autism, and two have intellectual disability.
			Malik: in your opinion, what do you think about the number of students and students with SEN in your classroom?
			The student's number is bigger than the room size.
			Malik: May I know why you became a special education teacher?
Factors affect teacher understading.	***Teacher's motivation***	**Disability Relative**	I love this major a long time ago, also, I have a cousin who has autism, these people are nice and kind, but they need someone to understand them. Since I went to university my focus was in specialised on autism major
			Malik: after choosing this major, do you think you are willing to teach students with autism in inclusive classrooms?
			Yes, and I could say that after my second year at university.
Factors affect teacher understading.	***Teacher's belief***	**Support Inclusion**	Regarding teaching in inclusive education, this model of teaching is good for both students and their families said positive impacts about their children.
			Malik: in your opinion, what are the skills and knowledge's that teacher should have to teach students with autism?
School implementation	***Collaboration among school staff***	**General Education Teachers' Role**	First, SPED teacher needs to be aware of student's ability differences and knows how to handle relationship with general education teachers. However, the school should be very careful about choosing general education teachers. They should choose good teachers who are flexible with collaboration with other teachers. He must not be a strike or harsh. And not most important not stubborn about his decisions. Also, all these goes to SPED teachers as well. They should be outstanding teachers to teach those with special needs.
			Malik: what are the trainings you get to include students with disabilities into the inclusive classrooms?

School implementation	***Lack of training***	**Three Days Training**	I had a training course last year at Tatweer for three days. To be honest, they talked about something is invisible, and not related to reality. It was about the idea of inclusive education, and how inclusive implemented. And what are the beneficiates of inclusive education. Malik: what about students with autism?
	Lack of training	**Tatweer Training**	there is no focusing on autism in this course. They said this course works for all disabilities. They were advising us to take the students sometimes to the rescues room to teach them. Malik: where and for how long these courses? it was for three days and it was in the school. Malik: so, it was here inside the school? yes, inside the school. Malik: was this from Tatweer or the Ministry of Education? Tatweer. Malik: Have you get additional training in a non-mandatory sense by yourself? Yes, but it was about deaf students. Malik- what do think about teaching those with disabilities in inclusive classrooms?
Factors affect teacher understading.	***Teacher's belief***	**Support inclusion**	after experienced this model of teaching, I found it as the best way to teach those with disabilities. Malik: have you choose to teach in an inclusive education school? No, I did not choose it, it came to me. Malik: how? I came to this school and I found it. I had the option to refuse it and transfer to another school, but I did not.
	Teacher's belief	**After Teaching opinion**	When I came, I was rejecting the idea of inclusive, but after I spend two months here, I become familiar with this way and more accepted and happier. Now if you asked me to go back to private classroom model, I will say no, I will stay here because I really like it. And I see the students happy about it as well. Malik: Ok, when you arrived, and you know that this school has inclusive education program, how was your feeling?
	Teacher's belief	**Before Teaching opinion**	To be honest, I was scared to do it. And I were almost rejected it because I have not heard about it and I did not know what inclusive education and I is had not taught about it before. Malik: What do you know about the inclusive education policy in school? In other words, what are the policie have changed in your opinion within inclusive education? The Policy still the same, I do not know anything about Tatweer policy. The changes I see are more about the lesson schedules, and our role's as special education teachers are changed. For example, I became more a teacher's assistant more than special education teacher;
Inclusive Education Practices	***Inside the classroom***	**Supporting General Education Teacher**	I mean I am more with helping the general education teacher now. Malik: have you negationist these issues with the head of school or other supervisors?
	Inside the classroom	**General Education Teachers' Role**	Some of the General teachers' role's right now I am not satisfied with. He is the one who supposes responsible for an entire classroom, but in reality, he is not commits about the classroom, he doesn't care. For example, he is late in the lessons, he did not care about special education students. But I have not negotiated these problems with him. Malik: do you think these policies make an issue between you as teachers?

School implementation	***Collaboration among school staff***	**Collaboration**	Yes, if there is no collaboration between teachers.
Teacher's Knowledge of Disability and ASD		**Level of Student's Disability**	Malik: What is your view of including students with disabilities into the classroom? I have seven students with disabilities, I believe three of them are not suitable for inclusive education because they don't like any higher noise, when there is a noise in the classroom, they covered their ears by hand, and leave the classroom
Factors affect teacher Understading.	***Teacher's belief***	**Support Inclusion**	Malik: What is your view of including children who have autism in the inclusive classroom? It Is good for them; Now I see students with ASD trying to copy good behaviours from their peers. For example, they now do mooring exercises like the peers, they line up like their peers as well. Now, I see them paying stuff from the cafeteria in the school. They trying to imitation their peers in social skills. All these good for them in social skills.
Inclusive Education Practices	***Inside the classroom***	**One to One Teaching**	However, if we talked about academic skills, I still believe private classrooms are more beneficial for those with ASD to learn. In the private classroom, there are no distractions and quieter for them. Also, I have more time as a teacher to teach them individually. Even though, I see three different students with ASD become more like their peers, and I believe they could be transferred to be students without disabilities in one or two years from now. Malik: so, you don't think inclusive education is effective for students with autism? Yes, it is effective and very effective, and I want to be generalized across all schools in Saudi Arabia, but
Teacher's knowledge of Disability and ASD		**High Function Student**	they should re-consider the criteria of accepting students with ASD in the classrooms focusing on the high function students. Malik: If I ask you who are the individual with special education? Those who need supporting services such as a specific path or special help from a teacher. So, anyone who needs help, he is a special education person. Malik: how do you know if this student has autism or not? what are needs that students with autism have?
		Cases are Not Alike. **Non- Verbal**	Autism cases are not alike; autism is not homogeneous. Yes, most of the ASD students are non-verbal, and they don't interact or respond to you due to their communications deficit and they always on their own, almost alone. He opened his book and read with himself; he eats with himself.
		Lack of Eye Contact	And when you look at him, he doesn't look at you, and he does not play with his peers. No relations with his peers in the classroom. Malik: how you make sure the student with ASD is learning and including in your classroom? When he imitation his peers' behaviours such as nuking the class door before he entered the classroom. When he put his packsack in the right place like his peers. When he lined up like his peers in the morning line. When he cleaned up after he eat. Malik: how you understand the inclusive education?
Teacher's knowledge of Inclusive Education	***Associated with SEND.***	**Link with SEND Students**	include students with disabilities into the general education classroom.

School implementation	***School participation***	**Participation**	and interacting with other students in all activities in the school since he entered the school, until he left the school.
			Malik: what is the ideal model of inclusive education?
	Lack of training	**Training**	First, choosing outstanding teachers who are on time in their career, then providing them a training course about autism for at least five days, then I will give them a training course about inclusive education for three days. These courses should be taught by people who were/are teaching in inclusive classrooms.
			Malik: For your experience, may I know, what are the most things that made you accept or not inclusive education?
Factors affect teacher understading.	***Teacher's belief***	**Positive about inclusive**	When I see the students with ASD positive improvement result, that's made me happy. But when I see the negative impact, the made me sad and with time goes makes me frustrating. But right now, I see a positive impact, even the student's family are more satisfied.
			Malik: how you teach a student with ASD in your classroom? can you give an example?
Inclusive Education Practices	***Inside the classroom***	**Support the General Education Teacher**	An example, I ask the student to open the math book, if he struggles, I helped him, I encourage and help the student to focus on the general education teacher as much as he could. Then, we the students started doing the exercise, I walked between each student with disabilities. I tried to help each student, I stayed with each student couple of minutes, then I moved to another student.
			Malik: ok, what are the strategies you use while you are sitting next to the students with disabilities?
	Inside the classroom	**IEP**	Some of the lessons I use from the general curricle, and some lessons required me to prepare works paper from the IEP of student, and take the student to a resource room.
			Malik: what about Tatweer strategies, what do you think about it?
School implementation	***Tatweer manels***	**Huge Guide**	They did not give something clear, they give us a huge guide, They gave us a huge guide, but it was not clear, and I also believe it's translated.
			Malik: about the teacher's assistant. Do you have a teaching assistant in your classroom? What do you think about the teacher's assistant?
	Lack of teacher's assistants	**Teacher's Assistant Role**	Last year yes, this year no, I found him really important, I have seven students with disabilities in my classroom, some of the students need a shadow teacher because they moved a lot
			Malik: how you see the collaboration between you and other teachers?
Inclusive Education Practices	***Inside the classroom***	**General Education Teacher's Role**	Last year I suffered from the general education teachers, they did not come to the classrooms, I was teaching all students by myself. But this year, I worked with good teachers and they are collaborated.
			Malik: how you see the administration and supervision in this school?
School implementation	***Collaboration among school staff***	**Lack of Supervision**	Honestly, his main concern [Supervisor] is to write papers and published something in the media and does not give the teachers any supports and benefits.
	Collaboration among school staff	**Administration**	The leader of school gives time for inclusive education, but I believe his lack of experience in the field of special education has made him making wrong decisions and also, he did not choose good general education teachers who to teach in inclusive education classrooms, which is the most important thing in the success of inclusive education.

Appendix 12: Teacher's Classroom Observation with Sample Coding

Classroom information

Date: 30/11/2018	
Grade: 4th	Lesson: 4
SEND teacher: ---------------	General education teacher: -------
Number of students: *28*	Number of students with SEND: 3 students with ASD
Lesson subject: ------------	Duration of Leeson: 45 mints

Teaching Note:

Section	Theme	Initial code	Observation notes
			- Class started at 9:45 am, I arrived at the classroom on time, students and General education teacher arrived on time. Students were at the break. Special education teacher did not show up when the class started. - Teacher is rising his voice, asking all students to sit in their chairs. There are two students with ASD in the classroom at this time. Two students with ASD sits in the last left row.
Inclusive Education Practices	***Inside the classroom***	**Whiteboard**	- 9:50 students were talking to each other with less loud voice than the beginning of the class. Teacher start writing in the whiteboard (he spends almost 5 mints writing in the whiteboard).
	Inside the classroom	**Student's Location**	- **9:55:** Special education teacher enters the classroom with one of ASD student. SPED teacher makes sure that student with ASD sit in the middle row, then special education teacher went back to the classroom and standing. Special education stands all the time and no chair for him. - Around 10:00: lesson stated when general teacher raised his voice and said no talking to all students. All the classroom silent and no one talking. (General education teacher has keep rising his voice every time).
School implementation	***Collaboration among school staff***	**Lack of collaboration**	- At this time, and since the special education teacher enter the classroom, both of special education teacher and general teacher do not talk to each other.
Inclusive Education Practices	***Inside the classroom***	**Lecture with Questions**	Teacher wrote a mathematic exercise in the whiteboard, then started his lesson asking the student about it. No one raised his hand from the student. Teacher asked again, no one raised hand. - Special education teacher went to one of ASD student because he was trying to leave his chair. He tried to keep him siting not leaving the chair, helping him open the book. - General Teacher became angry because no one raised his hand, then he complains all the students "how you will pass and no one study?" he said, "this is beginning of year and you don't know this mathematic exercise"? around four mints these silent moments across the classroom.

Inclusive Education Practices	***inside the classroom***	**Assistive technology**	- General education teacher then started answering the exercise by himself, saying with loud voice this is so simple. - Around 10:07: general education teacher started a new mathematic lesson of the day, he doesn't use any supportive teaching methods, he only uses the whiteboard. he draws some pictures in the whiteboard. He draws pens as helping the students for counting. - SPED teacher and the private assistant were talking to each other in the back of classroom. - General education points one student and asked him to come the board to answer one of the exercises in the board. Student did not know the answer, teacher become angrier, he looked at me and said "Mr. Abdulmalik, do you see the student performances, we are almost in the mid of the semester and students did not know these basics knowledge". - Teacher re-explain the lesson again, and then asked the students to answer, few students raised their hands, then one student answered while he was sitting in his table. - Special education teacher went to the student with ASD in the left row, talked to the student for 1 mint.
Inclusive Education Practices	***inside the classroom***	**Labelling** **Reword**	- 10:20 General education teacher asked another question, a student with ASD raised his hand, teacher asked him to come to the whiteboard to answer, he came and try to answer, and he missed one point, the general teacher helped him while he is writing, then he did answer the task correctly, general education teacher was happy and looked at me, also, he said to all student "See! The special education student answered, and you did not answer." - Teacher asked all student to clapped for the student with ASD. Then asked the student to return to his seat, special education teacher helped the student to sits in his seat, - while the general education teacher left the classroom suddenly. - students loud voice back, classroom become noisy, special education teacher came to me saying that, "*it's not usual this teacher give opportunity for ASD student, but he did that because you are here*". - General education took around two mints after he came back with a joy (small joy) and give it to the ASD student who just participated and told him you do deserve it. And then he raised his voice saying that, tomorrow I will ask you about this lesson again and you must answer (no more time and the semester will be end soon) - By 10:30 the school bell was ringing. Teachers leave the classroom without waiting for another teacher came.