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## Perceptions of Preservice Teachers of Students with Intellectual Disabilities About their Preparation for Inclusive Education

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Perceptions of Preservice Teachers of Students with Intellectual Disabilities About their  
Preparation for Inclusive Education

by

Abdullah Aljudaya

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy in Curriculum and Instruction  
with a concentration in Special Education  
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## **Dedication**

This dissertation is dedicated to my parents, Dakhel and Meznah, and my wife Mona who were a source of support and encouragement during the challenges of this work; I am thankful for having you in my life. This work is also dedicated to my advisor Dr. Ann M. Cranston-Gingras who was very patient and very supportive. Dr. Ann, thank you very much for everything you have done to assist me in this venture. Also, I would like to thank all of my committee members, Dr. Jennifer Jacobs, Dr. Sara Flory, and Dr. Karen Colucci, thank you so much for your feedback, advice and support. Finally, I would like to thank my friends who gave me a lot of meaningful advice during my work: Dr. Khalid Abu Alghayth, Dr. Salman Almugiry, Dr. Abdulkareem Alhossain, Dr. Sohil Algazlan, Dr. Saleh Abaalkhail and Dr. Riyadh Alhassan.

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## Abstract

Inclusive education improves social skills, cognitive abilities, and quality of life for students with special needs and has significant implications for governments, economies, and the workforce. Implementing inclusive education is a challenging process, however, that requires support from all sectors to provide the necessary skills and training to pre-service teachers. Empirical evaluations of teachers' first-hand perceptions of the content and quality of these training programs are necessary to advance inclusive education practices and pre-service training to ensure special education teachers are prepared for their roles. To address this issue, this dissertation presents an in-depth review of the literature, followed by a qualitative study designed to investigate pre-service teachers' perceptions of their preparation programs for inclusive education. Semi-structured interviews were conducted with five male pre-service special education teachers from Saudi Arabia who teach students with intellectual disabilities in inclusive settings. Thematic analysis revealed four primary themes: *i) a lack of instruction on inclusive education, ii) a dissociation between theory and practice, iii) exposure to inclusive education truly happens during internship, and iv) suggestions for improvement.* Overall, the pre-service special education teachers in this study felt relatively un-prepared for their in-class roles in inclusive classroom settings, resulting from an absence of instructional and pre-service observation training specific to inclusive education and best practices. This left pre-service teachers with a misunderstanding of what inclusive education was and how it was implemented. It was not until the internship period that pre-service teachers felt they were adequately exposed to the realities, challenges, and common practices for inclusive education. The implications of this research are discussed in relation to the

advancement of policies and programs in the Saudi Arabian education landscape, the Theory of Planned Behavior, as well as inclusive education training and practices in general.



## Chapter 1

### 1.1 Introduction

The concept of inclusive education is becoming increasingly popular in the modern world. In accordance with the Salamanca Declaration, governments should recognize “the necessity and urgency of providing education for all children, young people, and adults within the regular education system” (United Nations, 1994). The establishment of inclusive educational settings has been considered an effective mechanism of building an inclusive society and providing representatives of all demographics with access to education (Thomas, 2003). While many studies interpret the concept of inclusive education as a set of strategies that should be applied to integrate children with disabilities into the educational system (Alnahdi et al., 2019), the original definition of the term covers all the children who might experience challenges in general school settings due to certain differences or difficulties. Therefore, the idea of promoting and institutionalizing inclusive education is an important component of governments’ efforts towards the enrollment of the maximum number of children in ordinary schools.

The implementation of inclusive education initiatives occurs differently in various countries. Some countries demonstrate impressive success in building inclusive school environments (Aitken et al., 2012; Alnahdi et al., 2019). For example, around 95% of students with disabilities in the United States were enrolled in ordinary schools in 2017 (National Center for Education Statistics, 2018). Simultaneously, other countries experience substantial problems in this area. The task of establishing an inclusive education framework is especially challenging for Arab countries with strong patriarchal traditions and a high integration of cultural values into

their educational settings (Hadidi & Al Khateeb, 2015). In particular, the government of Saudi Arabia is often criticized by scholars for using segregation as a routine practice instead of creating an inclusive environment where students of all abilities are welcome to be educated together. Al-Omari (2009), for instance, clarifies that the country of Saudi Arabia encourages blind children to attend the Al-Noor Institute for the Blind, thus segregating them from the rest of children in general education and depriving them from access to high-quality education and from a chance to socialize with peers. This example illustrates that the Kingdom of Saudi Arabia has not managed to ensure the inclusiveness of its education yet.

Despite the challenges of inclusive education in Saudi Arabia, current literature provides a compelling reason to believe that the situation has recently changed. In 2015, the Ministry of Education established six inclusive schools in Riyadh that are in line with the University of Oregon Inclusive Education Project (Alharbi & Madhesh, 2017). At the same time, some stakeholders are concerned that this initiative hardly indicates any significant progress in ensuring inclusive education in Saudi Arabia as a whole. The scope of the project is minimal, as it covers only six schools and has an overall budget of only \$441,651 (University of Oregon, 2015). In this situation, it seems justified to argue that the implementation of inclusive education initiatives in the Kingdom is problematic at the moment, which encourages research on the preparedness of future teachers for facilitating these initiatives and participating in inclusive education programs.

## **1.2 Rationale and Purpose of the Study**

An understanding of pre-service intellectual disability tract special education teachers' perceptions of their preparation for inclusive education practices is an important factor that should be considered by policymakers and directors of schools when planning specific interventions aimed at establishing inclusive education frameworks. In 2001, the government of Saudi Arabia

introduced the first regulations for students with disabilities in the form of Regulations of Special Education Programs and Institutes (RSEPI; Alquraini, 2013). The main goal of RSEPI was to help students with disabilities “to meet their unique needs and support them in obtaining the necessary skills that assist them in living independently and integrating appropriately in the society” (Alquraini, 2013, p. 605). RSEPI indicates that students with disabilities should have an opportunity to study in the least restrictive environment (Murry & Alqahtani, 2015). Due to RSEPI, approximately 80% of students with disabilities were enrolled in regular schools in 2006; at the same time, it is important to emphasize that most of these students studied in separate classrooms, which is inconsistent with the principles of inclusive education (Alasim, 2019). Unfortunately, as stated above, the exclusive focus on students with disabilities and their classroom segregation limits the effectiveness of inclusive education initiatives.

The establishment of six inclusive schools in Riyadh became a logical continuation of early inclusive education strategies. Nonetheless, the limited scope of this project prevents it from launching a global education reform that is necessary for establishing inclusive education in the Kingdom of Saudi Arabia (University of Oregon, 2015). Shortcomings of the current inclusive education programs illustrate that the country should develop new strategies for achieving the goals stated in the Salamanca Declaration.

The introduction of effective teacher preparation programs to integrate inclusive practices into the existing education settings might be the first step in this field. Teachers’ perceptions of inclusive education are essential to understand since they influence students’ academic performance and affect the way in which specific practices contribute to the goals of inclusive education (Wimberly, 2015). An investigation of the perceptions of preparation programs in the field of inclusive education by pre-service teachers is becoming an important research area because

teachers' beliefs might be the most important factor in the development of inclusive schools (Specht and Metsala, 2018). These perceptions could provide valuable information on the characteristics and components of these programs and the ways to modify them, thus contributing to the establishment of inclusive education in the Kingdom of Saudi Arabia.

### **1.3 Research Questions**

The main research goal for this study was to explore the perceptions of pre-service special education teachers, specializing in intellectual disability, regarding their preparation to teach in inclusive settings in Saudi Arabia. The following research questions are explored in this study:

- 1) How do pre-service special education teachers in Saudi Arabia, specializing in intellectual disability, perceive their teacher preparation experiences related to inclusive education?
  - a) How do pre-service special education teachers in Saudi Arabia, specializing in intellectual disability describe the influence, if any, of their teacher preparation program on their understanding of the concept of inclusion?
  - b) What are the perceptions of pre-service special education teachers in Saudi Arabia, specializing in intellectual disability regarding their theoretical and practical training related to inclusive education?
  - c) How do pre-service special education teachers in Saudi Arabia, specializing in intellectual disability, perceive their experiences with inclusive education practices during the internship period of their teacher preparation programs?

### **1.4 Significance of the Study and Statement of the Problem**

The significance of this study is primarily connected with the fact that the establishment of an inclusive environment in a country can improve the quality of living and strengthen a state's economy by allowing it to use all its labor resources. Despite recent government initiatives, the

majority of people with disabilities cannot find a job in Saudi Arabia, which seems disturbing considering that almost 10% of Saudis have some form of disability (Hameed & Obaid, 2019). A failure to provide a substantial part of the population with access to adequate employment opportunities negatively affects the GDP of Saudi Arabia and constrains its potential for future economic growth (Boyle & Anderson, 2020). The establishment of an inclusive education environment could be one of the effective components of a strategy aimed at fully exploiting all the labor resources in the Kingdom. By integrating people with disabilities into the labor force through inclusive education and other necessary instruments, Saudi Arabia could increase its GDP by approximately 3-7% (International Labor Organization, 2010). Such benefits could become a strong driver of economic growth.

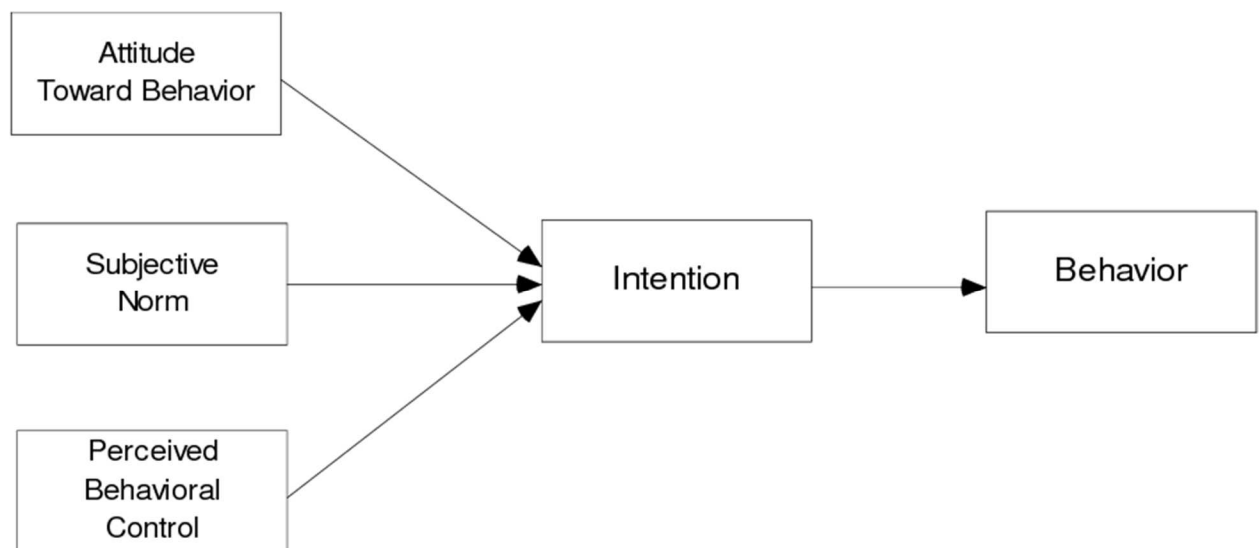
Unfortunately, it currently remains unclear how such a conservative country as Saudi Arabia could revolutionize its education system, embracing the principles of inclusive education that might be inconsistent with many of its cultural traditions. At the same time, an analysis of the current literature shows that even conservative education systems could be transformed through the gradual integration of inclusive practices (Alkhateeb et al., 2016). The role of teachers within the school system is crucial in this process because their support and vision are supposed to translate into pro-active measures to prepare schools for the adoption of inclusive education strategies (Mag et al., 2017). The existing literature does not offer insights into the ways in which pre-service teachers' perceptions of inclusive practices could affect the implementation of inclusive education strategies in Saudi Arabia; simultaneously, evidence from other countries who have adopted inclusive education strategies indicates that the magnitude of this influence is significant (Aitken et al., 2012; Alnahdi et al., 2019). Therefore, the proposed research problem may be considered as topical both from the theoretical and from the practical perspectives.

## **1.5 Theoretical Framework**

The current study is guided by the Theory of Planned Behavior: an extension of the Theory of Reasoned Action by Ajzen (1985, 1991). The theory gives rational explanations of constructs with a broad body of comparable evidence for support. The theory links an individual's behavior to his or her belief; the Theory of Planned Behavior asserts that behaviors are affected by behavioral intentions determined by the circumstances, individual norms, and professed behavioral power. The theory views a person's intention to behave in a particular way to be greatly determined by the attitude of the individual. The more positive attitude individual has towards a behavior, the more likely the intention to act on it. The availability of information for careful consideration is important in the way the test subject will react and behave. The model's capability of considering both internal and external control factors, such as knowledge and opportunity, is important in this area of study.

Various scholars and researchers have applied this theory in predicting intentions with basis on the academic traditions of conceptualizing inclusive education in line with the original definition provided in the Salamanca Declaration (United Nations, 1994). The Theory of Planned Behavior has been used in explaining teacher's intention and behavior in the classroom (Martin & Kullena, 2014). The proposed study relies on the Theory of Planned Behavior's theoretical framework with the authors' approach in this study deeply rooted in the inclusive school concept developed by such scholars as Alqurini (2012) and Buli-Holmberg and Jevaprathaban (2016). The current study is guided by the Theory of Planned Behavior, detailed below, which allows the author to identify the attitude of the intellectual disability tract special education teachers towards inclusivity, for example, their attitudes towards children living with disabilities or marginalized inclusivity in Saudi Arabia. Through the study, the intentions of pre-service intellectual disability

tract special education teachers were identified, and then predictions were made based on the reported strengths and weaknesses of the teacher's program. These intention variables were directed by three considerations: the pre-service teacher's attitude, environmental norms and behavioral control based on past and present perception on inclusivity.



**Figure 1.** A visual depiction of the Theory of Planned Behavior from Teo and Lee (2010).

## 1.6 Definition of Terms

**1.6.1 Inclusive Education** - A concept in the educational context, implies that “students with special needs including disabilities are educated in neighborhood schools in age-appropriate regular classroom settings with non-disabled peers and are provided with support and instructions that assure their participation with their peers, while also meeting their individual strengths and needs (Chauhan & Mantry, 2018).

**1.6.2 Special Education** - a system of education practices that is customized to the unique special needs and differences of students (Alqurini, 2012).

**1.6.3 Pre-service Teachers** - Student teachers, or those who are following a degree path to teaching and have undergone training and internships in teaching but have not obtained their degrees or sought employment in the classroom yet.

**1.6.4 Universal Design for Learning (UDL)** - a collection of principles for structuring curriculum that gives everyone equal chances to learn. It is created to serve all students, irrespective of their potentials, disability, gender/sex, age, or language or cultural background (Ciasullo, 2018).

**1.6.5 Least Restrictive Environment (LRE)** - LRE is one of principles of the Individual with Disabilities Education Act (IDEA) which requires to educate students with disabilities in the regular setting to the fullest extent possible (Etscheidt, 2006).

**1.6.6 Intellectual Disabilities** - “a disability characterized by significant limitations in both intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills. This disability originates before the age of 22.” (American Association on Intellectual and Developmental Disabilities, 2021).



## Chapter 2: Literature Review

### 2.1 The Concept of Inclusive Education

The term *inclusive education* is becoming an increasingly popular notion in the academic literature. As stated in the introduction, the idea of creating a new educational paradigm that would provide “education for all” was documented in the Salamanca Declaration. However, there is still no consensus among scholars concerning the exact definition of inclusive education. Chauhan and Mantry (2018, p. 24) define it as “a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities and of reducing exclusion within education”. Similarly, Scarlett (2015, p. 403) interprets it as “an approach to schooling in which students with many different kinds of disabilities and learning needs are educated in classes with non-disabled and typically developing students”. In line with these two definitions, Nind (2013) attempts to present inclusive education as a broad concept, emphasizing its focus on increasing the responsiveness and flexibility of the existing education system rather than initiating revolutionary changes. Considering the arguments of these leading “inclusive education” researchers, it seems justified to argue that the concept of inclusive education is a fundamental paradigm that refers to the ability of an education system to incorporate all the learners with varied demographic characteristics in an inclusive environment within ordinary settings.

The task of implementing inclusive schooling models and initiatives is among the most topical tasks faced by the contemporary education system of many countries. In theory, the establishment of an inclusive education paradigm would allow pupils representing all the demographic groups to participate in the school community regardless of their abilities or

circumstances (Buli-Holmberg & Jeyaprathaban, 2016; Teigland, 2009). The fact that inclusive education allows students with individual differences or disabilities to become productive members of educational communities has been documented for decades (Aitken et al., 2012; Farrell, 2000; Suleymanov, 2015). Students with intellectual disabilities, when included in general education settings rather than separate education develop “literacy skills, mathematic skills and adaptive behaviour displayed at school and at home” (Sermier et al., 2017). Furthermore, as stated above, the full-scale implementation of inclusive education could result in a substantial increase in the economic growth of governments that employ inclusivity in their educational systems (International Labor Organization, 2010). Considering the benefits of this concept for nations, teachers should take measures to contribute to its integration into the education system by enhancing their relationships with all of their students, regardless of their demographic characteristics and differences.

It is important to emphasize that the concept of inclusive education is often closely linked to the concept of urban schooling, globally. As it is known, urban schools have more diverse classes that comprise of students from various demographic groups; as a result, they are more likely to implement inclusive practices such as those described by Choi et al. (2017). Rural schools, in contrast, are forced to face substantial barriers to inclusive education that are connected with various cultural and infrastructural obstacles (Moreno et al., 2015). In India, more than 8 million children who live in rural areas do not have access to any schooling, thus illustrating that rural regions of some countries may lack infrastructure that is necessary not only for inclusive education but for any education at all (Singh, 2016). At the same time, urban schools also face substantial challenges pertaining to inclusive education, including theoretical, practice, racial, research and epistemological issues (Milner & Lomotely, 2014). The development of an inclusive education

program should consider the unique specifications of particular regions and schools in which they could and should be implemented.

## **2.2. Best Practices in Initial Teacher Preparation in Inclusive Practice**

In inclusive practice, learners are offered equal academic opportunities. It is a demonstration of flexibility, fairness, tolerance and inclusivity to learners by teachers. It is one of the competency-based frameworks for teachers in many countries worldwide (Tran & Nyland, 2013; Bannister-Tyrrell et al., 2018). Best practices in initial teacher preparation enumerate teacher-competency progress in various areas; one of the most important areas is the preparation level in order to build the competency required for newly graduated teachers to facilitate student learning and provide for the learning needs and styles of individual students. Consequently, preservice teachers must demonstrate the capability to give instructions, support and individualized programs as a best practice in preparation and inclusion.

Forlin & Chambers (2011) argue that it is challenging to achieve inclusivity without proper initial teacher preparation in managing diversity. For example, in Australia, the Department of Education, Science, and Training reported about 25-40% burnout among new graduate teachers in their initial years of practice, especially in Western countries (Arnup & Bowles, 2016). According to Forlin & Chambers (2011), initial teacher preparation faces many inadequacies regarding support level and quality of teaching offered to beginner teachers during their induction. Moreover, research on pre-service program effectiveness has demonstrated that initial teacher preparation in inclusive practice largely remains lowly rated, particularly among new teachers. Hence, programs in initial teacher education should be shifted toward preparing pre-service teachers to teach in inclusive schools. Goddard & Evans (2018) explain that inclusive education is a significant

concern not only to newly conferred teachers but also to teachers who have been in service for long, in terms of their capabilities to offer effective teaching to students.

Forlin et al. (2008) studied pre-service teachers' concerns about intellectually disabled students' inclusion among students in normal settings. The findings of the study demonstrated that pre-service teachers have concerns about their ability to apply inclusive practices with students with intellectual disabilities. The study recommended that teacher preparation programs address the pre-service teachers concerns as much as possible within their programs. Forlin and Chambers (2011) cited that they asked teachers whose students had intellectual disabilities in class to highlight whether they received adequate training in teacher professional competency, parental interaction, and behaviors in terms of intellectual disabilities of students. Nearly all the surveyed teachers (93%, representing 228 participants) indicated that they did not receive adequate training on managing students with intellectual disabilities, particularly in an inclusive classroom (p. 20).

On the other hand, Lancaster and Bain (2010) suggest the thorough undertaking of an investigative study to unearth the design and effects of the applied experiences on pre-service teacher preparation for inclusive practice. Furthermore, the initial teacher preparation concept's impact is often measured through teachers' pre-service attitude towards and sentiment on inclusion, including their present challenges.

### **2.3 Pre-Service Intellectual Disability Tract Special Education Teachers' Preparation for Inclusive Education**

The concept of inclusiveness plays a major role in the contemporary education system. As a result of inclusive practices, students are able to gain an access to high-quality education regardless of their households' level of income, gender, ethnicity, and disability (Buli-Holmberg & Jeyaprabhan, 2016). Unfortunately, many students in various countries are deprived of high-

quality education because of various reasons, such as poor education systems and the unpreparedness of pre-service teachers for working in diverse classrooms and incorporating inclusive practices into their teaching (Du Toit & Forlin, 2009). Furthermore, sometimes pre-service teachers might have negative attitudes towards the prospect of including students with severe disabilities into ordinary schooling environments, which undermines the goals of inclusive education (Alquraini, 2012). In this situation, it seems justified to argue that the preparedness of pre-service teachers is one of the key factors of any inclusive education initiatives.

At the moment, there is no consensus among scholars concerning the preparedness of Saudi pre-service teachers for inclusive education. Research conducted by Alquraini (2012) found that most male teachers in the capital region of Riyadh do not support the idea of including students with severe disabilities into the Saudi education system. Surprisingly, this study did not clarify the reasons behind such negative attitudes, which makes it difficult to analyze them. In a more recent study, Aldabas (2020) discovered that the majority of 382 teachers from Saudi Arabia who were part of the scientist's sample believe that they are fully prepared for teaching students with severe disabilities in inclusive classrooms. Contrary to these findings, Alnahdi et al. (2019) discovered that pre-service teachers' attitudes towards inclusive education in Saudi Arabia are below neutral, thus implying that the Kingdom has not achieved significant progress in popularizing the idea of implementing inclusive practices in educational settings. Still, the amount of literature on the problem of pre-service teacher preparation under investigation remains low.

The available evidence provides a premise to believe that teachers' awareness of inclusive education and their preparedness for implementing inclusive education practices was low in the beginning of the 2010's. In 2012, for instance, most male teachers did not accept the idea of teaching students with severe disabilities in regular classrooms enthusiastically (Alquraini, 2012).

In a study that was conducted by Murry and Algahtani (2015), it was demonstrated that in addition to negative attitudes, the preparedness of pre-service teachers for participating in inclusive education initiatives could be undermined by their lack of knowledge. Their research, which focused on 52 pre-service teachers at a large university in Saudi Arabia, discovered that most of these pre-service teachers were not aware of the specifics of special education laws that were in effect. Such lack of awareness illustrates a disturbing problem regarding the preparation of pre-service special education teachers for working in inclusive schools.

Over time, it is possible that the effectiveness of preparation programs for pre-service teachers could have changed. Recent research conducted by Alquraini and Rao (2017) found that teachers who took part in special education preparation programs display relatively high levels of knowledge and skills pertaining to inclusive education. The sample of this research comprised 179 faculty members from 30 educational institutions in the Kingdom of Saudi Arabia; therefore, its findings could be useful for discussing the country's ability to prepare special education teachers, specializing in intellectual disability, for implementing inclusive practices. Nonetheless, the fact that the research did not distinguish between pre-service and in-service teachers limits the applicability of its results. Moreover, it is also vital to note that the concept of inclusiveness was considered by Alquraini and Rao (2017) exclusively through the lens of students' disability status, while overlooking diversity in terms of race and gender. The existence of such significant limitations negatively affects the validity of the study from the perspective of the problem under investigation.

The fact that Saudi teachers' attitudes towards inclusive education of disabled students have improved may be challenged on the basis of recent findings. A study by Alhandi et al. (2019), which sought to compare Saudi and Finnish pre-service teachers' attitudes towards inclusive

education, found a substantial difference between teachers' perceptions of inclusive practices in these two countries. Simultaneously, it would be hardly justified to expect that this difference would be eliminated. The traditions of inclusive education in Finland are traditionally strong, while Saudi Arabia has only recently begun incorporating its principles into the country's education system. Thus, the findings of this study may not be valuable from the perspective of the problem under investigation, as they do not show whether pre-service teachers' attitudes towards inclusive education and inclusivity specifically of students with disability have recently improved in Saudi Arabia. The research by Aldabas (2020), in contrast, may be considered a valid source of data on this matter since it found that most of the pre-service teachers in the country feel prepared for teaching students with severe disabilities in inclusive school settings. At the same time, its results might indicate pre-service teachers' attitudes and perceptions of inclusive education rather than their actual knowledge of this concept and their preparedness for teaching in inclusive classrooms. Further research is needed to determine whether the existing preparation programs could indeed prepare pre-service teachers for implementing inclusive education practices.

#### **2.4 Inclusive Practices for Students with Special Needs**

In recent years, learning institutions have increasingly acknowledged the importance of inclusion, resulting in a significant increase in the number of students with special education needs (SEN) accessing mainstream education. Previously, enrolling students with disabilities for separate special education was the norm. Today, such students are ever more treated the same way as other learners. The origins of the inclusive education concept are rooted in The Universal Declaration of Human Rights (1948) which emphasized that every child has the right to education (Suleymanov, 2015). Cornelius and Balakrishnan defined the concept of "inclusive education," which encouraged the participation of all students, thereby rejecting all forms of exclusion

(Cornelius & Balakrishnan, 2012). Inclusivity in schools means having students of diverse abilities and cultures learning side by side. In such settings, all students, regardless of their class, race, gender, or special education needs (SEN) statuses, feel a sense of belonging (Avramidis et al., 2002; Topping & Maloney, 2005; Ainscow, 2020; Ainscow et al., 2006). According to Klang et al. (2020, p. 151), “the right of pupils with SEN to receive education in mainstream schools together with their peers is important, especially with regard to the right to equal opportunities to participate in society”. Besides, students with special education needs perform the same way, whether placed in special or mainstream educational settings (Dessementet et al., 2012). Thus, combining students with SEN with their general education counterparts is the best practice to maintain learner equality. This literature review explores the various inclusive practices for students with general disabilities and those with intellectual disabilities.

#### ***2.4.1 Embedded Instruction***

Although inviting students with SEN to general education classrooms is a progressive idea, it comes with the challenge of ensuring that these students do not fall behind the rest in their academic learning. “In embedded instruction, students are taught skills within the ongoing routines of the general education classroom, which does not disrupt the natural flow of the class” (Rogers & Johnson, 2018, p. 6). The educator controls the presentation of the lecture in such a way that instructional procedures support students with SEN and helps them acquire the intended knowledge. This practice is repeated systematically in every lesson to empower students with intellectual disabilities to learn target skills (Rogers & Johnson, 2018). Embedded instruction has been proven to be a practical and effective method of coaching students with SEN in general education classrooms (Johnson et al., 2004). Therefore, this approach can be used to supplement the learning of students with intellectual disabilities.



### ***2.4.2 Index for Inclusion***

Another inclusive practices that schools can adopt to integrate students with intellectual disabilities is the Index for Inclusion. This approach entails building a supportive environment to enable increased performance and achievement for all learners and staff members (Booth & Ainscow, 2016). According to Rouse (2006, p. 10), “the Index for Inclusion is more than a tool for developing inclusion since it supports a process that encourages the learning and participation of all learners”. In other words, this strategy does not exclusively focus on intellectually disabled students, even though it does from the broader perspective. This approach normalizes being disabled, thereby eliminating any stigma and discrimination that may arise due to the placement of intellectually disabled learners in general schools (Scourbys, 2019). Schools using this practice can review their culture, identify the barriers students, including the intellectually disabled, face and eliminate them.

Cultivating a culture of inclusion in schools is vital for both mainstream schools and students with intellectual disabilities. According to Sigstad (2017), students with SEN enrich schools since they introduce a different perspective of diversity, another opportunity for inclusion. Some experts believe that inclusion is the key to healthy social interactions amongst students and learners with educators. Without focusing on the intellectual differences separating them, all students can get along with each other. This method of organization is healthy for learning institutions compared to when disabled students are placed in special schools, potentially lowering their quality of life (Sigstad, 2017). “The most salient characteristic of current efforts to promote inclusion and access to the general education curriculum is that the focal point has shifted primarily from where a student receives his or her educational program, to what and how the student is taught” (Kurth et al., 2015, p. 262). Involving the normal and the disabled students enhances

learning since the learning expectations for both sets of students increase. Therefore, inclusive education should be promoted for its social and academic performance benefits.

### ***2.4.3 One on One Support Teaching Practice***

Although students with intellectual disabilities feel better when they are treated similarly to other students, they do still require special attention to be on par with the rest. According to Buli-Holmberg and Jeyaprabhan (2016), students with intellectual disabilities need special instruction, beyond the conventional coaching strategies. This claim is informed by the fact that this group of students may have physical and intellectual disabilities. Although existing literature proves that students with special education needs can successfully acquire knowledge, just like other students (Dessemontet et al., 2012), this milestone often occurs at a slower pace. Therefore, creating an inclusive environment requires that teachers offer one on one support to students with SEN. Ní Bhroin and King (2019) propose teacher education and collaboration of educators to enable more inclusion for all students. The key is to help tutors understand and respond to the needs of individual students to prevent all forms of marginalization.

### ***2.4.4 Facilitation***

Whether or not schools show inclusivity of students with intellectual disabilities is hinged on the facilitations. “For inclusive practices to be successful, several conditions must be fulfilled, some of which include a common vision, placement in age-appropriate classrooms, adapted curricula, adapted assessment, adapted teaching, acceptance of the underlying idea of inclusion, adequate access, and sufficient support and resources” (Sigstad, 2017, p. 773). Effective and supportive leadership is also instrumental since inclusive education is founded on finding adequate common avenues. Rogers and Johnson (2018) propose using augmented and alternative communication devices to facilitate smooth learning for students with SEN. These gadgets can

supplement writing and speech for students with such impairments. Overall, students with SEN feel more supported when they are provided with the facilities and instruments they need to engage in learning activities actively.

Inclusive education is a widely accepted concept that many schools have found difficult to implement, particularly with regards to students with special education needs. Nevertheless, incremental progress has been registered worldwide as more students with SEN enroll in general education schools. Some of the inclusive practices for students with intellectual disabilities include an index for inclusion, one on one support teacher practices, and facilitation. Valuing all students, as opposed to a small section of the student population, builds a culture where students with special education needs experience a sense of belonging. Additionally, training teachers to understand these students' learning needs increases inclusivity. Lastly, effective leadership and facilitation help students with disabilities receive the special attention they need to perform well academically. Overall, these practices can create learning atmospheres that are conducive for all students, including those with intellectual disabilities.

## **2.5 Inclusive Education Through Universal Design for Learning (UDL)**

Ciasullo (2018) defines UDL as a collection of principles for structuring curriculum that gives everyone equal chances to learn. It is created to serve all students, irrespective of their potentials, disability, gender/sex, age, or language or cultural background. The UDL can be applied in classrooms for inclusive general education instruction and special education learners, enabling general education learners to access numerous learning techniques and create a greater sense of belonging for learners with special needs. Additionally, UDL uses the inclusion and accessibility concepts past physical contexts, to structure learning and teaching opportunities in accessible, diverse and engaging methods for all learners, encompassing those with varying needs and

disabilities (Pearson & Boskovich, 2019). In this manner, attractive to the broadest continuum of diversity in student populations, the UDL model aims to eliminate discriminatory practices because most students' needs are considered when designing instructions (Hornby, 2011). This helps remove the urge to retrofit teaching methods with specialized inclusions. According to Hitchcock et al. (2002), the natural difference existing in all classrooms is appreciated and considered during the instructional design process and assessed at intervals using UDL principles to check for inclusive education design effectiveness. It has been demonstrated through various literature that students with intellectual disabilities are able to learn general education core curriculum content through the use of systematic instruction (McDonnell et al, 2020; Hudson et al., 2013; King et al., 2016; Spooner et al., 2012). In sum, the guidelines and ideologies for executing UDL offer practical instruments to enable experts in structuring universally accessible classrooms and online platforms wherever teachers aim to develop and adopt inclusive educational systems (Florian & Linklater, 2010). As a result, the relationship between UDL and inclusive education is seen when applying UDL principles to pave the way for a more inclusive and accessible learning environment for all students.

## **2.6. Theoretical and Practical Knowledge and Skills**

There has been increasing debate about various practical competencies and skills needed in inclusive practice (Biklen & Burke, 2006; Chambers & Forlin, 2011; Stough, 2013). Similarly, many studies have attempted to identify important aspects of practical knowledge and skills that contribute to positive attitudes in inclusive practice (Loreman et al., 2007; Shevlin et al., 2013; Goddard & Evans, 2018). Teacher preparation programs that focus on theoretical and practical knowledge, skills, and change in attitude in inclusive education are helpful tools for freshly conferred teachers. In turn, this has a positive impact on learners with special educational needs

(Goddard & Evans, 2018; Mngo & Mngo, 2018; Sharma, 2018; Symeonidou, 2017). Sharma (2018) argues that teacher preparation should involve enhanced contact during training through course experiences or site-based courses with intellectually disabled learners during training in order to enhance inclusion (Chambers & Forlin, 2011; Goddard & Evans, 2018).

Theoretical approaches, such as the Infusion Approach, have been applied in various countries to promote inclusion and diversity (Loreman et al., 2007). The Infusion Approach suggests that pre-service teacher programs should provide inclusive practices, knowledge, and skills throughout the entire program's courses instead of being included in one single course (Loreman et al., 2007). Practical training during initial teacher preparation helps pre-service teachers acquire helpful theoretical and practical knowledge and skills. Moreover, this offers pre-service teachers opportunities to enhance preparedness for inclusion practice. Forlin (2003) presents positive results in connection to this; however, Lancaster and Bain (2007) conducted a study in Australia and demonstrated a different outcome. Hence, they proposed three different initial teacher preparation opportunities for teachers in inclusion practice. These opportunities include (1) using a one-on-one training approach, which involves mentorship of at-risk learners; (2) using an inclusive classroom experience; and (3) using a non-practice approach for inclusion. These opportunities can help assess the self-efficacy of initial teacher preparation towards interacting with different types of learners. According to Lancaster and Bain (2007), overall, self-efficacy scores increase with applied knowledge, skills, and experiences.

## **2.7 Cultural Barriers to Inclusive Education**

The previous sections of the research proposal demonstrate that inclusive education is an important yet elusive set of principles that are vital for the progressive development of a nation in the globalized world. At the same time, this concept, to a large extent, contradicts the existing

dogmas that are deeply embedded in the education systems and social institutions of many countries. In particular, Jelagat and Ondigi (2017) argue that the idea of “education for all” is not consistent with the existing systems of beliefs in most African countries because African traditions imply considering disability as a continuous tragedy, encouraging parents to be ashamed of their children with disabilities and to hide them. Similarly, Du Toit and Forlin (2009) found that substantial cultural barriers inhibit the implementation of inclusive education practices in South Africa. These two studies illustrate that the success of inclusive education initiatives might be limited in cases of the dominant cultural values and beliefs of certain areas not supporting inclusivity.

The existence of evident contradictions between the key pillars of inclusive education and cultural traditions and societal beliefs might threaten the future of inclusive education in particular countries. As a result, some studies recommend that countries engage in global cultural transformations in order to magnify the performance of inclusive practices (Du Toit & Forlin, 2009; Jelagat & Ondigi, 2017); however, such scenarios seem unrealistic given the wide scope and centuries-long habits that will no doubt last for generations. A more plausible recommendation is to customize the paradigm of inclusive education to the unique specifics of a nation’s historical and cultural background. For instance, a study by Walton (2018), which critically examines the prospects of launching inclusive education reforms in Africa, indicates that even though the classic expression of the principles of this paradigm might be alien to Africans, stakeholders could harness inclusive education in a way that promotes the distinctiveness of the African culture and knowledge and, thus, turn it into a valuable addition to the Afro-centric education model. In other words, the paradigm of inclusive education is flexible and, thus, could be customized to eradicate

evident contradictions between its principles and the dominant systems of values and beliefs in a country.

Another important argument related to possible ways to overcome cultural barriers to inclusive education is that while changing a national culture is hardly possible, stakeholders could succeed in transforming the culture of particular schools to make them suitable for the accommodation of inclusive education practices. The idea that inclusive education would require changes in a school culture were expressed in the 1990's (Carrington, 1999). The scholar recommends that schools change their shared systems of meaning in order to promote the positive attitudes of teachers towards inclusive education. Carrington and Elkins (2005) reveal essential differences between traditional and inclusive models of a school culture. In particular, as they explain, an inclusive model is characterized by the increased role of a special educator, the existence of a support model to strengthen inclusive practices, the focus on students rather than content, the acknowledgement of teachers' responsibilities to satisfy diverse learning needs, and their positive attitudes towards inclusivity (Carrington & Elkins, 2005). In this way, schools can maintain an inclusive culture even if the idea of inclusivity is not aligned with values and beliefs in the dominant national culture. Sanjeev and Kumar (2007) and Singh (2016), for example, show that some schools in India have achieved significant progress in the area of inclusive education, even though the Indian social system is still influenced by the caste system. The arguments laid out above illustrate the importance of measures taken on the local and school level to facilitate the implementation of inclusive education.

## **2.8 Saudi Arabia's Vision 2030**

Saudi Arabia's Vision 2030 provides a high premium and clear accountability on education and a secure delivery plan through the Ministry of Education (MoE; Ministry of Education, 2019;

Saudi Arabia Vision, 2021). According to Saudi's Vision 2030, education remains one of the basic pillars in its entirety, whose progress requires regular and careful scrutiny (Badran et al., 2019). Hence, high-quality education is highly regarded as the government's top priority (Ministry of Education, 2019). The Saudi government is dedicated to reforming their educational system and thus developing various policy plans for every level of teacher preparation programs including special education, elementary education, and early childhood education (Alharbi & Madhesh, 2018). The government's motive to reform the education system as enshrined in Vision 2030 is to develop a national strategy that elevates teaching profession fraternity, improves the quality of teaching services and the learning environment, and makes teachers all-around professionals at all levels (Alharbi & Madhesh, 2018; Saudi Arabia Vision, 2021).

Due to various issues raised concerning initial teacher preparation courses, the Saudi government created International Education Experts and Representative Committee (IEERC) to craft a framework that has helped improve initial teacher preparation in inclusion practices (Ministry of Education, 2019). The IEERC's role was to design a framework that can help the Saudi Arabian government realize its spending on education to achieve quality outcomes, such as increased teaching service delivery and improved performance both within the country and at the international level (Ministry of Education, 2019). In 2015 alone, IEERC reported that the government of Saudi Arabia spent more than \$2 billion on education (Almughyiri, 2021). According to Almughyiri (2021), despite such massive spending by the government, Saudi Arabia's education system reportedly remained weak and undervalued. Partly, this can be attributed to inadequate initial teacher preparation, inadequate training, and inadequate inclusion practices, especially by freshly conferred teachers. Therefore, insufficient initial teacher preparation is one of the KPIs when a competency assessment is conducted among Saudi Arabian



teachers. According to the Ministry of Education (2019), 37% of teachers demonstrated competency in the subject area, while 43% demonstrated competency in education in Saudi Arabia. Saudi Arabia's Vision 2030 aims to improve initial teacher preparation training to promote effective inclusion practices in their education system by 2030. To achieve this objective, the Ministry of Education and other relevant stakeholders need to design effective initial teacher preparation courses/curriculum that use theoretical and practical approaches to cater to or support effective inclusion and pre-service teacher education practices (Almughyiri, 2021).

## **2.9 Attempts to Reframe Current Systems of Preparation**

The need to develop effective preparation systems for pre-service teachers to facilitate the implementation of inclusive education seems evident, as explicitly articulated in previous research (Carrington, 1999; Carrington & Elkins, 2005; Kozleski & Siuty, 2016; Kugelmass, 2006; McMaster, 2013). At the same time, it is important to emphasize that this preparation is supposed to focus on developing attitudes and changing values and beliefs in addition to obtaining new skills and knowledge. According to McMaster (2013, p. 2), changes related to the implementation of inclusive education are “more sustained when teachers, with the support of school leaders, are given time to explore ideas and integrate them into their practice”. In other words, the main goal of preparation programs is to ensure that pre-service teachers embrace values embedded in the concept of inclusive education for students with disabilities and integrate them into practice.

Attempts to implement such preparation programs could be observed in many developed countries. In the United States, in particular, general education pre-service teachers from many schools benefit from new preparation programs aimed at promoting inclusivity (Bocala et al., 2010). However, a single training session or even a series of sessions included in a preparation program are unlikely to induce a radical change in pre-service teachers' attitudes. Therefore, some

schools began transforming their curriculums in a way that is aligned with the principles of inclusive education to enhance pre-service teachers' attitudes towards inclusivity in a gradual manner (Tournaki & Samuels, 2016). According to Kozleski and Siuty (2016), such curriculum is supposed to comprise of contextual, critical and technical knowledge about inclusive education as well as practical instructions concerning its application in practice. These changes in a curriculum could improve pre-service teachers' attitudes towards inclusive education even before preparation programs.

If pre-service teachers' awareness of inclusive education remains low after graduating, they will be forced to obtain necessary information from teacher preparation programs. As a result, such programs might become focused exclusively on legislation and policy-related issues, thus overlooking many other relevant issues, such as pre-service teachers' stress about including students with disabilities in their classes (Forlin & Chambers, 2009). At the same time, it is important to emphasize that the management of stress and pre-service teachers' attitudes towards inclusivity constitute only a small part of content that should be covered in preparation programs. A guide developed by The Children and Young People with Disability Australia (CYDA) shows that pre-service teachers must understand the exact meaning of various terms and concepts related to inclusive education in addition to having positive attitudes towards this phenomenon (Cologon, 2019). In particular, there are popular misconceptions and confusion related to the assimilation muddle, a difference between integration and inclusion, the specifics of micro- and macro-exclusion, and a relationship between inclusivity and the quality of education (Cologon, 2019). An understanding of all these issues is crucial for effectively implementing inclusive education programs.

The existing literature does not offer substantial insight into the effectiveness of recent attempts to reframe educational practices towards the embracement of inclusive education. In the late 2000's, even developed countries were not able to construct effective programs to prepare pre-service teachers for the use of inclusive education practices (Rosenzweig, 2009). Apparently, the situation was improved in the next decade. A study by Ozel et al. (2018) discovered that preparation programs positively influence pre-service teachers' attitudes towards inclusive education and the idea of including students with disabilities into general education. At the same time, many studies show that even though preparation programs improve pre-service teachers' attitudes towards inclusive education, they still lack necessary knowledge and skills that are required for teaching students with disabilities in ordinary classroom settings (Cretu & Morandau, 2020; Mader, 2017). There is still no consistency in regard to the specifics of preparation programs that could be suitable to in-service and pre-service teachers. In light of the arguments laid out above, it seems justified to conclude that the current academic literature displays an evident gap related to the effect of educational reforms and initiatives in various countries on the effectiveness of preparation programs for empowering pre-service teachers to use inclusive education practices.

## **Chapter 3: Methodology**

### **3.1 Research Philosophy and Approach**

The study sought to examine pre-service intellectual disability tract special education teachers' experiences during the teacher preparation period using qualitative analysis of semi-structured interviews. In accordance with Marshall and Rossman (2006), qualitative research displays impressive effectiveness in retrieving information about individuals' lived experiences and perceptions as well as society, culture, and language. Scientists may conduct an interview study to pursue research problems related to all these areas (Brinkmann, 2013). Moreover, the proposed study employed a qualitative research interview design to collect in-depth information regarding interviewees' experiences (Kvale, 2007). In-depth interviewing was chosen for this investigation because it is highly effective in exploring unknown places and cultures (Weiss, 1994). The choice of in-depth interviews was based on the author's intention to explore not only simple perceptions of training experiences but also their implications based on unique meanings that pre-service teachers assign to them, which is a natural research area for in-depth interviewing (Seidman, 2006). The author expected that the chosen research design will maximize the amount of information collected in this study.

Moreover, it is important to emphasize that interviews were semi-structured. Interviews of this type allow interaction with participants' stories to increase the amount of data collected by them (Rabionet, 2009). It is possible that the author may not have been aware of all the aspects of pre-service teachers' experiences during teacher preparation programs and their implications. In this situation, the conduct of semi-structured interviews allowed respondents to identify and

discuss such unexpected issues even in cases where they were not included in the list of interview question (see Appendix E).

### **3.2 Participants**

The population from which the study sample was drawn consisted of pre-service teachers in Saudi Arabia, defined as those who have already earned their bachelor's degree in Special Education but have not yet begun their first teaching job. Typically, the interval between graduation and first job appointment for special education teachers in Saudi Arabia is 1-2 years, so most members of this population will have graduated between 2019 and 2021 from one of the approximately two dozen Saudi universities offering degrees in Special Education. This population is well suited to examine the relationship of educational training to teaching practice, in that pre-service teachers have recent experience with both - with training as recent graduates of education training programs, and with service as student teachers in their final semester of training.

From this population, the author recruited a sample of pre-service teachers who specialized in Intellectual Disabilities within their degree program using a snowball technique, where the author sought to identify participants through referrals from individuals known personally to the researcher, and then requested referrals from the first respondent to subsequent respondents. This sampling method is frequently used when a researcher is unable to find participants (Noy, 2008). Further, a qualitative study of this size does not aim to be empirically generalizable, and therefore does not necessitate the use of a random sampling technique. The use of the snowball technique is expected to simplify and accelerate the process of interviewees' recruitment.

The researcher carried out interviews with approximately five male pre-service teachers with a bachelor's degree in special education and specializing in intellectual disability; actual sample size was determined by the point at which saturation was achieved, meaning the point at

which additional interviews appeared unlikely to yield additional themes (Fusch & Ness, 2015). The selection of participants for qualitative studies is usually made based on their unique characteristics rather than the principles of sociological representativeness (Hurt & McLaughlin, 2012). Any pre-service teacher who graduated from a Saudi Arabian university was eligible for inclusion, but pre-service teachers who did not specialize in Intellectual Disabilities were excluded from the study due to the study's intended substantive focus on the perception of teachers who seek to work with intellectually disabled individuals. Further, because the research was designed to measure perceptions of preparedness to teach at the specific point in time when teachers have their first experience in the classroom, only pre-service teachers who had had at least one internship experience in an inclusive setting were sampled. To screen for education, potential participants were asked to affirm that they specialized in Intellectual Disabilities and completed an internship in an inclusive setting prior to enrollment in the study and were asked to describe these experiences during interviews. Women were excluded from the study for practical reasons – Saudi culture encourages segregation between males and females, so the (male) researcher anticipates facing extra difficulty in both recruiting female respondents and developing proper interview rapport with them, which may have compromised interview data quality. Due to the relatively narrow scope of the sampling criteria and research questions, it was expected that approximately five to seven unique respondents will be sufficient to reach data saturation, or the point at which little further information may be obtained by increasing the sample (Saunders et al, 2018; Nelson, 2017).

### **3.3 Data Collection**

The author carried out three interviews with each respondent that included open-ended questions pertaining to pre-service teachers' behavioral, normative, control beliefs and perceptions of preparation programs (see Appendix E). Interviews lasted between 63 to 89 minutes a piece,

with the average being 78 minutes. Seidman (2006) argues that conducting several interviews is highly desirable to increase the validity and reliability of findings, in that a single short interview is not sufficient to gain in-depth information, but a single long interview may not yield consistently high-quality data. Therefore, the author conducted three interviews with each interviewee to ensure that no single interview session exceeded more than approximately 90 minutes in length.

All interviews were carried out via online video conference (Zoom) to minimize health risks to respondents and the author that derive from the COVID-19 pandemic. Prior to the interview, the researcher-initiated consent procedures by sending the consent form (via email) to the respondent and then reviewing the form with him via phone or videoconference. Additionally, due to the researcher's expectation that respondents may be more forthcoming in the interview if they had an opportunity to consider their response section in advance, the researcher provided the full list of interview questions in advance of the interview. Once the respondent had an opportunity to ask questions about the research and returned the signed consent form, the researcher proceeded to the interview, which was conducted through Zoom. Each interview was recorded with audio but without video using the "audio only" recording option within Zoom and stored locally on the researcher's password-protected device. All consent procedures and interviews were conducted in Arabic, as needed, and responses were translated from Arabic to English by the researcher, who is fluent in both languages.

During the interview, each subject was asked identical questions in regard to inclusive educations, the wording of the questions was structured to allow participants to fully and openly air their views and opinions while allowing the author to ask probing questions as needed to elaborate on themes that emerged during the course of interviews. The small number of participants gave room for follow-up questions later in the research in accordance with the

interview structure given by Seidman (2016, p.15) and “allowed the participant to reconstruct his or her experience within the topic under study”. To enhance the validity and reliability of the interview data, each respondent received a copy of their interview transcript after each interview, and were given an opportunity to edit, clarify, or expand upon their remarks.

### **3.4 Interview Scheduling**

As previously indicated, each interview consisted of three discrete sections that pertained to each of the research questions, plus an additional set of questions that collected selected background and demographic data for each respondent (which were asked at the beginning of the first interview). As indicated previously, each interview was split into three sessions. The interview process is described below; please see Appendix E for full interview guide and research question mapping. Prior to initiating data collection, the researcher piloted the interview guide with two Saudi teachers who resembled the study population in most respects, but who were ineligible to participate due to either their employment status (i.e., recently hired and therefore no longer “pre-service”) or area of expertise (specializing in a field other than Intellectual Disabilities, such as Autism, Behavioral Disorders, and similar). These pre-tests ensured that the interview questions were intelligible to respondents and were likely to yield data that addressed the research questions.

Following the pilot interviews, the interview questions were evaluated in two ways. First, transcripts of and notes from pilot interviews were examined to determine whether questions effectively solicited responses that corresponded to the intent of the interview question and were relevant to the goals of the study. Second, at the end of the pilot interview, participants were reminded of the intent of the study and asked if they felt that the interview questions were easy to understand and provided adequate prompting for them to reflect on the most important parts of



their own experience. Based on the data and feedback of pilot participants, the interview guide was modified to add, delete, or revise questions that were found to be less successful.

#### ***3.4.1 First Interview***

The goal of the first interview section was to answer the first research question which was about the interviewees' understanding of inclusive education and practices. The interview list of questions aimed to collect in-depth information about what the interviewees know about the concept of inclusive education. The interview questions reflected the pre-service teachers' progress in their teacher preparation programs and how their concept of inclusivity had been shaped during their years of study in the special education program.

#### ***3.4.2 Second Interview***

The goal of the second interview was to collect in-depth information about the interviewees' preparation for teaching in inclusive schools. The participants were asked open-ended questions regarding their preparations and their courses. The interviewer's list of questions included questions regarding their preparation of subjects that were related to inclusive practices such as Universal Design for Learning (UDL).

#### ***3.4.3 Third Interview***

The third interview aimed to answer the third research question which related to the internship period of the interviewee. Each interviewee was asked a list of questions about his internship period in terms of inclusive practices. The interviewees had completed one semester of internship which allowed them to answer the questions that were related to the schools' practices during that semester.

### **3.5 Data Analysis**

This study has a design aimed at generating new knowledge about an under-researched phenomenon. In this situation, the choice of a thematic analysis as the key data analysis method was justified due to its ability “to identify, analyze, and report data patterns” (Braun & Clarke, 2006, p. 79). A thematic analysis implies examining a particular dataset, identifying specific quotes, and then dividing these quotes into a set of themes and subthemes (Guest et al., 2012).

To conduct the data analysis, the researcher followed the procedure outlined by Braun and Clarke (2006). First, having gained broad familiarity with the data in conducting the interviews, the researcher further immersed himself in the data by transcribing each audio recording into editable documents and carefully reading the transcripts. During this process, the researcher also provided each respondent with a copy of their interview transcript(s) and made revisions and additions as requested by the respondent.

The researcher then created initial codes by manually highlighting each section of the transcript and choosing words or phrases that provided a descriptive summary of each interview response. This initial coding phase allowed the researcher to identify categories of responses across transcripts.

After reviewing the various categories revealed in the initial coding stage, the researcher identified themes that addressed each research question, assigned a set of codes to identify sub-themes, and conducted a second round of coding that applies the new codes. This process was facilitated by constructing a mind map. At this stage, the researcher relied upon a spreadsheet program (such as Excel) to organize and analyze data following the procedure described by Bree and Gallagher (2016). Throughout the coding process, the researcher refined codes by reviewing and cross-checking them both at the theme and the sub-theme levels, which entailed altering both

codes and themes to ensure that they were informative and meaningful. In addition, the researcher wrote research memos during the coding process that captured important details about emerging themes, patterns and variations in the data, and relationships between themes.

In the final stages of analysis, the researcher finalized the choice of codes by naming all of them and describing each in several sentences that ultimately served to inform readers of each code's essence. At this point, the researcher compiled a report that integrated the key findings from the research memos, accounted for the core themes and their relationship to each other, and illustrated core themes with vivid examples and quotes from the transcripts. During this stage, selected data were translated by the researcher from Arabic (the language used during data collection and analysis) to English.

### **3.6 Validity and Reliability**

The validity of this research rests upon the rigor of its methodology, including aspects such as data collection procedures, interview guide design, and coding process, as described above. Each aspect of the study design was undertaken in consultation with existing literature on best practices in qualitative research design, and this chapter aims to provide maximum transparency regarding the rigor and appropriateness of the overall study design and its constituent parts. Further, the author did not aim to analyze pre-service teachers' perceptions of preparation programs to retrieve objective data on the effectiveness of these programs; therefore, the task of identifying and accounting for interviewees' biases, which is known for reducing validity (Panucci & Wilkins, 2011), was not crucial for the current research.

The reliability of the current study rests upon its trustworthiness as an accurate portrayal of the perceptions of its target population. The sampling and coding procedure sought to maximize the reliability of the data by defining the target population narrowly and sampling within this

population until saturation was reached, meaning the point at which there is conceptual richness to the data and no new themes can be developed (Saunders et al, 2018; Nelson 2017). As stated previously, the researcher estimated that a sample of approximately 5-7 respondents would be sufficient to reach saturation. The researcher enhanced the reliability of the study's findings by ensuring high trustworthiness of data through both member-checking and peer-debriefing. In line with Seidman's (2006) recommendations, member checking entails providing each respondent with transcripts of their interviews, so that they may check them and confirm that transcripts contain accurate data that adequately conveys the respondent's intent. For peer debriefing, the author engaged the assistance of two doctoral students to analyze themes constructed by the author and provide their feedback to ensure the optimal choice of themes and sub-themes.

### **3.7 Limitations**

Sampling procedures in this study would not allow for generalization, but to provide in-depth portrayals of the participants with regard to inclusive practices. With that said, there were several essential limitations that should be considered in this research. First, the focus of this study is placed exclusively on pre-service intellectual disability tract special education teachers' perceptions of preparation programs. Its results, therefore, cannot be used as a valid source of objective data on the effectiveness of preparation programs. Second, it is likely that the study's findings were substantially influenced by the unique cultural traditions of Saudi Arabia; thus, they could hardly be applied to any other countries. Third, as the study was limited to male pre-service teachers for cultural reasons, there may be substantial differences in the preparations and/or perceptions of female pre-service teachers that will not be captured here. Finally, it is also important to emphasize that due to the outbreak of the COVID-19 pandemic, the author conducted online interviews instead of meeting personally with each respondent. There is no evidence in the

academic literature that validity of online interviews is lower than the validity of face-to-face ones (Salmons, 2014). Nonetheless, although the researcher did not believe that respondents found any questions to be of a sensitive nature, it is possible that some respondents might have been less forthcoming in an online videoconference relative to an in-person interview.

### **3.8 Ethical Issues**

The author of the study complied with all the required ethical considerations. Due to the international nature of the research, study procedures were designed to comply with the regulatory requirements governing human subjects research of both the United States and Saudi Arabia. Moreover, before commencing the study, approval was gained from the university Institutional Review Board (IRB). Since respondent confidentiality is among crucial ethical considerations in qualitative studies (Hammersley & Traianou, 2012), participants were informed that their names and contact information would not be revealed in the text of the research. Moreover, the author provided both verbal and written descriptions the study's goals and objectives and addressing possible concerns of interviewees. Respondents signaled their consent to participate by signing the consent form after being provided with an opportunity to have all their questions about the research answered. As part of the consent process, the researcher obtained interviewees' permission to record interviews, which is a common practice in qualitative studies (Miller et al., 2012).

## Chapter Four: Findings

### 4.1 Overview

This study aimed to explore the perceptions of preservice teachers of students with intellectual disabilities about their preparation for inclusive education. The teachers were asked to describe their experiences in the special education program in terms of their preparation for inclusive education. Thematic analysis of participant perceptions resulted in the identification of 12 sub-themes which are best described across four major themes: *lack of instruction on inclusive education, dissociation between theory and practice, exposure to inclusive education truly happens during internship, and suggestions for improvement* (Table 4.1).

**Table 4.1:** The four primary themes and associated sub-themes stemming from pre-service special education teachers' experiences and beliefs about professional training for inclusive education.

<b>Theme 1</b>	<b>Theme 2</b>	<b>Theme 3</b>	<b>Theme 4</b>
Lack of Instruction on Inclusive Education	Dissociation Between Theory and Practice	Exposure to Inclusive Education Truly Happens During Internship	Suggestions for Improvement
⇓	⇓	⇓	⇓
<b>Subthemes:</b>  Absence of Inclusive Education Course(s)  Content Redundancy	<b>Subthemes:</b>  Understanding the Importance of Inclusive Education Despite a Lack of Practical Training and Theory	<b>Subthemes:</b>  Full Immersion of Students with disabilities in the Classroom	<b>Subthemes:</b>  Course Content  Coursework and Internship Balance

Cultural Sensitivity Not Specific to Inclusive Education	Absence of UDL From Training Curriculum	First-hand Roles Inside and Outside the Classroom  Implementing Similar Strategies Regardless of Disability Type  Lack of Co- operation Between School Personnel and Families	
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This chapter presents the findings from a thematic analysis of the semi-structured interviews and a discussion of these findings follows in Chapter Five. Representative (translated) quotations are provided throughout to support code development and illustration of the findings; pseudonyms are used to protect participants’ anonymity.

**4.2 Program Descriptions**

At the outset of the interview process, participants provided general information about their university-based special education training programs. Overall, respondents described a two-year (8 semester) program which included three components: general and special education training, intellectual disability training, and an internship placement in an inclusive special education classroom.

“The first four semesters had general courses about education and special education. After that, focus was on specializing in teaching students with intellectual disabilities. The eighth semester was an internship semester in an inclusive school.” (Ameer)

“The courses that related to special education included general information about all disabilities, such as autism, learning disability, hearing disability, and physical disabilities. The courses that related to intellectual disabilities focused on teaching students with intellectual disabilities.” (Ramy)

“The courses to be studied at the university included social studies, linguistics, and religion. Those that are a critical requirement at the college level of education aim at educational studies, educational research and psychology”.  
(Maher)

Upon discussing specific course content, participants described a broad range of specialized courses they found pertinent to inclusive education, tapping into aspects of disability assessment and diagnosis, development of individualized education plans (IEPs), assistive technology, and strategies for working together with families of students with disabilities. For instance, Hatem describes the usefulness of a Methods of Assessment and Diagnosis in Special Education course:

“In the fifth semester, [...] the lesson aimed to present the concepts of measurement, evaluation, and diagnosis. It also aimed to identify the most important standards that are used in the diagnosis of intellectual disability. It was also directed at introducing the importance of integrative approaches in the Measurement of Mental Disability Diagnosis (medical, psychological, social, educational).”

In addition to the Assistive and Modified Technologies for Students with Intellectual Disabilities course focused on “presenting assistive technologies and their classifications and how to use assistive technologies (devices, materials, programs, applications) in developing knowledge,



academic skills, independence, and daily life skills for students with intellectual disabilities”, Maher further detailed instruction on Strategies for Working with the Families of the Students with Disabilities saying that, “The course aimed to provide basic concepts related to working with families and the process by determining the needs of children with disabilities and their families and trying to support the family.”

Some participants also described practical training prior to the internship period, although this was primarily limited to observing students with disabilities in segregated special education schools (rather than inclusive classrooms).

“All the courses in the program were in the university classroom except the internship period. A few professors asked me to visit an institution for students with intellectual disabilities and write a report about what I saw as homework. The report that I presented did not have anything to do with inclusive education and how to practically apply it as a whole.” (Ameer)

“I did not go to any inclusive school before the internship period, and all practical preparation before the last semester was to observe special education classrooms in special education schools. I believe that an inclusive school would have been better as a part of my preparation journey since I could have been able to practically engage with both general and special education students as a part of my learning.” (Maher)

“I have visited institutions for students with intellectual disabilities, and that institution was a segregated institution. I have visited it for a few hours during

my courses. It was like a prison. I do not like the idea of segregation because I think it includes some discrimination.” (Salem)

All five participants completed their internship practicum in inclusive schools in Riyadh, Saudi Arabia in 2019. The internship period always took place during the last semester before graduation. Participants explained they had been placed in their placement schools without any consultation as to their desires or interests (e.g., type of school, school size or location), which all participants were unhappy about.

“The [internship] experience was not easy for me since I did not expect certain things including a huge classroom full of students. I had thought that the program instructors could have consulted us before making placements for our internship. However, this did not happen at all.” (Maher)

“Everyone should be allowed to make a choice about where they would wish to be placed for their internship in the preparation process. However, the program did not grant us this opportunity as we all were sent to institutions without a choice.” (Hatem)

### **4.3 Theme 1: Lack of Instruction on Inclusive Education**

#### ***4.3.1 Absence of Inclusive Education Courses***

All five participants agreed there was a significant lack of content specifically tailored to the general principles of inclusive education and best practices for implementation in the classroom.

“I realize that there was a lack of content regarding inclusive education.”

(Ramy)

“The lack of content was in both theoretical and practical areas.” (Salem)

“The program provided me with general information about integration that did not give me a clear idea about what I would see in an inclusive school and how I should deal with it.” (Hatem)

“I did not have any course in my program about inclusive education, there were lack of preparation in terms of this subject.” (Maher)

“The program did not focus on inclusive education. I did not hear a lot about it in the program. Even though some professors talked about in an informal way, it was not a requirement or a course in the program.” (Ameer)

This lack of content even led some pre-service teachers to develop misconceptions of what inclusive education truly entails and how it is implemented at the school- and classroom-levels. For example, Salem describes how he interpreted inclusive practices in terms of occasional integration of students with disabilities during lunch breaks or prayer time, rather than full integration in the classroom.

“The concept that I understood from the program is integration, which is the least restrictive environment. What I thought is that the least restrictive environment appears when we have a class for students with disabilities inside the regular school and the integration of the students should appear in the break times.” (Salem)

Rather than focusing on inclusive education content, the pre-service teachers’ training appears to have been centralized around least restrictive environments and indirect pedagogies that can be

extrapolated to inclusive practices but did not receive direct theoretical instruction on inclusive education.

“Even though the program provided us with some information about least restrictive environments, which might be related somehow to inclusive education, the program did not have courses that were designed specifically to cover this subject.” (Salem)

“The program focused on the importance of integration. However, there was a lack of information in terms of how we could implement it.” (Ameer)

As Ramy points out, this gap in the program’s instruction regarding inclusive education may be a factor of the relatively recent implementation of inclusive education practices in Saudi Arabia: “I think the program did not focus on the concept of inclusive education because we just recently had inclusive schools in Saudi Arabia.” With changing policies and education practices, the criteria for pre-service training must also be updated.

“The absence of inclusive education content might have been reasonable in the past because there were no inclusive schools in the country. But now we have at least six inclusive schools so the new teachers must be well prepared for the inclusive education.”

#### ***4.3.2 Content Redundancy***

In addition to the explicit absence of inclusive education content, many participants also highlighted the unnecessary redundancy and repetition across other general/special education courses.

“I noticed that we had taken certain courses that appeared similar to what we had undertaken in the past semesters. (Hatem)

“...we took many courses and learned content that was similar to the other courses that we had pursued before.” (Maher)

“We had many sessions and courses that were associated with diverse definitions of intellectual disability. I believe that one course could have been enough to define the content. The other courses’ content should address other matters on preparation and not repeat the same things.” (Ameer)

#### ***4.3.3 Cultural Sensitivity is Not Specific to Inclusive Education***

It is also noteworthy that all participants reported that the inclusive education program did not include additional instruction focusing on the importance of respecting cultural differences among the students. They seemed to agree that this need not be a specific element of special education training but rather a broader philosophy embedded in all educational design and personal beliefs.

“The program did not provide any courses about culture at all. However, I believe this is not related to special education and that it is a value that all citizens are supposed to have. Therefore, it was not a wrongful omission on the part of the program developers.” (Ramy)

“I do not think that there is a need to have a content about the cultural differences. I think respecting other cultures should come from the home not from the university. I think we all learn that from our parents.” (Ameer)

“I do not think the program should provide me with courses about the importance of respecting other cultures, and it did not. I think we have this already as a value in our society. Therefore, although it would not be wrong

to do so in the program, I believe that it is not a mandatory requirement. However, we should all understand each other's' backgrounds and cultures to live in harmony.” (Maher)

#### **4.4 Theme 2: Dissociation Between Theory and Practice**

A second main theme which emerged from the interviews, was the blatant disconnect between theoretical instruction and pre-service teachers' conceptualizations of inclusive education and what it would entail.

##### ***4.4.1 Understanding the Importance of Inclusive Education Despite a Lack of Practical Training and Theory***

Specifically, four of the five participants agreed that the program did not provide them with enough information about the concept, practices, or manners of implementing inclusive education. Participants reported having an understanding of the importance of inclusive education, particularly in relation to the social, cognitive, and economic goals and benefits of inclusive education. However, they had weak conceptualizations of what inclusive education involves, how it is implemented at the school- and classroom-levels, and how special education teachers can best support students with intellectual disabilities in these inclusive settings.

“The importance of the integration is very evident for me. However, how to apply the inclusive education was new for me. I did not get to learn how to practically apply inclusive education to benefit not only the general education students but also those in the special education category. I believe that I learned this subject better during my internship period.” (Salem)

“The professors explained the goals of the integration between students with disabilities and regular students, including how it is beneficial for students with disabilities. Nevertheless, I did not get to understand that this was what inclusive education encompassed until I got to my internship.” (Ramy)

“The social benefits of integrating the students who have disabilities with the students who do not have disabilities were clear and could be marked by the language development for students with disabilities. However, despite this understanding, the concept and its practical application did not come out clearly for me until I was able to get my internship at the school.” (Ameer)

“I recognized that the integration between the regular students and the students with disabilities in the school is important for many reasons. For example, there are economic benefits, and this idea was appearing in more than one course in the program. Unfortunately, I did not understand the concept of inclusive education until I started my internship in an inclusive school.” (Hatem)

#### ***4.4.2 Absence of Universal Design for Learning (UDL) from the Training Curriculum***

When asked about the concept of UDL, all participants reported this concept was not introduced in their training programs. Instead, pre-service teachers mentioned this concept was either new to them or they had learned about it during their internship or post-graduate years.

“UDL came out as a new concept to me during my internship. I came to understand that it is established to serve all learners, regardless of their capabilities or backgrounds. I believe that the concept should have been

included as a part of the theoretical knowledge provided by the program at the very beginning.” (Ramy)

“The first time that I heard about Universal Design for Learning was after I graduated from college. I got to understand that it is an important concept that can help a teacher approach students in a more profound manner by providing concise instructions and engaging students appropriately. However, I did not get an opportunity to learn this through the program.” (Hatem)

“The concept of UDL is new for me, I do not know anything about it. I know that it might be a concept under the inclusive education. But I do not have a clear idea about it.” (Maher)

“Until now I have not had a clear idea about what UDL is. I have never heard about it in my program and when I came to the inclusive school for the internship I heard about it in an informal way from one teacher. I think it related to inclusive education in somehow.” (Salem)

These responses indicate that, consistent with that reported above in Section 4.3, pre-service special education teachers did receive formal training and knowledge that is applicable to inclusive education practices for students with intellectual disabilities.

#### **4.5 Theme 3: Exposure to Inclusive Education Truly Happens During the Internship**

Despite the ongoing reports of a lack of direct instruction regarding inclusive education during the theoretical and practical course training components of the special education program, all participants agreed that the internship period was especially valuable for them developing



accurate conceptualizations and training regarding inclusive practices for students with intellectual disabilities. For many, this was the first time they truly experienced inclusive education in the classroom.

“The first time that I heard the concept of inclusive education was on the first day of my internship in an inclusive school.” (Ramy)

“I did not realize that the implementation of inclusive education was not easy and that I should be well prepared for it until I went through my internship period, although I still trust that some of the courses that we had undertaken assisted me significantly in gaining knowledge.” (Maher)

And for some, this cemented a passion for supporting students with intellectual disabilities in inclusive settings.

“I would like to teach in an inclusive school in the future. I saw some advantages in the inclusive school that made me like the school. For example, some students with intellectual disabilities were interacting with the non-disabled students in positive ways which allow them to improve their language and social skills. Also, I like the idea of equality in the inclusive schools which appears when the school accepts the students regardless of their disabilities. I think it is one of the students’ rights to be accepted in the nearest school to their house. They should not be segregated in institutions anymore. Also, they should not be segregated in different classrooms. However, we should improve the inclusive schools to welcome every student and give them the education that meets their needs.”  
(Ameer)

“I did not realize that students with disabilities could be in the same classroom with regular students until I went through my internship period. The idea of having an inclusive school that accepts all students regardless of their disabilities is great in my opinion. I wish to teach in one of the inclusive schools in the future.” (Maher)

All participants explained that the number of the students in the school and the classrooms were larger than they anticipated. This issue seemed to demoralize some of the pre-service teachers since they had to immediately manage a heavy workload, though others saw it as a valuable experience.

“The size of the classrooms was good but the number of students were a lot.”  
(Hatem)

“The school was elementary and had more than 1000 students. The students with disabilities were in six classrooms and each grade had one classroom that included students with disabilities. The number of students in each classroom was more than 30 students; four of them had disabilities. Also, the classrooms often contained more than one disability type. For example, some classrooms had students with intellectual disabilities, students with autism, and others with physical disabilities.” (Maher)

“I could not believe that a school could be so large with more than a thousand students. Some of them had more than one disability. Handling them could have been better if they had been subdivided into several categories.

However, I believe that this was a moment to assess one's capacity to manage such huge workloads in the inclusive education segment." (Ramy)

"There was a lot of paperwork that I had to do. For example, I had to complete all the IEP alone. It was hard for me." (Ameer)

#### ***4.5.1 First-Hand Roles Inside and Outside the Classroom***

During the first week of the internship a special education teacher guided the pre-service teachers and then they were placed in the classrooms solo.

"I was observing a special education teacher during the first week of the internship who introduced me to everything in the school, such as where the classroom was and how I could get in contact with the general teacher in the classroom and what my roles inside the classroom were." (Hatem)

"I think I received great assistance from the special education teacher since he could take me around the classroom and respond to my questions in detail. I would not complain about the orientation that I received at the institution." (Salem)

"In the internship period I had two things that were stressful. First, my role in the school and second the final project that I have to submit to my professor to pass the internship period. That made it harder because I was not able to handle the school requirements and the final project." (Ramy)

When describing their in-class responsibilities, participants focused primarily on the one-on-one nature of their position to provide supplementary support to all students with disabilities in the classroom.

“The classroom in the inclusive school had two teachers, special education teacher and a general education teacher. After the first week, the school placed me in a classroom with a general education teacher, and my role was to be close to the students with disabilities and watch them. In this case, if anyone did not understand the general education teacher, I should work with him one on one.” (Ramy)

“My role in the classroom was to be close to students with disabilities during the regular class in reading, writing, and math and try to repeat the information to them. From my experience repetition works with students with disabilities.” (Maher)

“I stayed in the classroom as a helper for students with disabilities, if any student needed anything or did not understand anything they could ask me. I also worked with them one-on-one. Also, when I think one of the student who needed more work, I would take him during religion class to a separate classroom and work with him separately.” (Hatem)

The provision of assistive technology was also discussed, though participants seemed to have different opinions about what should be provided and how it should be used.

“There was an iPad and a projector in every classroom that included students with disabilities. Indeed, I believe that this is very good and helpful in comparison with other special education institutions.” (Ameer)

The special education teachers in the school were demanding for more technology, such as that provided in a multi-sensory environment. However, the school only had iPads and projectors in the classrooms. The projector was for general education use and the iPads were for the students with disabilities. We were able to give them the iPad for specific time periods, and the devices contained applications that allowed them to play and learn. (Maher)

When describing their responsibilities outside of the classroom, participants focused mainly on the (solo) development of individualized education plans, although course preparation and student supervision were also discussed.

“My role outside the classroom was to build individual education plans for the students with disabilities in my classroom. I was supposed to write the plan with the general education teacher, parent, psychologist, and other members of the team. However, I was the only one who worked on the plans.” (Maher)

“My role outside the classroom was to write the IEP and prepare myself for the class “math, reading, writing”. I was also supposed to read the goals of each lesson before the class to be aware of what students would be learning from the lesson.” (Maher)

“Outside the classroom I had to watch the students in the break time. That was not always but sometimes. Also, I had to write the IEP for each one of the students with disabilities in my classroom, I had also to read the lesson before the class time.” (Ameer)

#### ***4.5.2 Implementing Similar Strategies Regardless of Disability Type***

Of note, participants mentioned feeling unprepared for the diversity of student disabilities within each classroom because they had not studied different teaching strategies for an inclusive setting. Pre-service teachers were prepared to teach students with intellectual disabilities but in the inclusive school there were different disabilities in the same classroom (e.g., autism, learning disabilities, intellectual disability). Therefore, respondents reported often defaulting to using similar strategies with all students, regardless of disability type.

“The strategies that I did for the students with disabilities were to break the task down into small pieces so the students could understand it easily. Also, repeating the information, bringing in some visuals that could help to make it easier for the students, and also working with the student one-on-one to make him focus more. These strategies I used for all students with disabilities regardless of the kind of the disabilities.” (Hatem)

“I did not study about students with autism a lot. My focus in the program was about intellectual disabilities. However, in the classroom that I was in, there were two students with autism and two students with intellectual disabilities. I used the same strategies with them. My strategies were to work

with the students one-on-one if they needed a lot of help, to break down the task, or repeating the lesson.” (Salem)

#### ***4.5.3 Lack of Co-operation Between School Personnel and Families***

One aspect of inclusive education practices that all participants agreed on, but appeared to come as a shock, was the apparent lack of communication and co-operation between general education teachers and special education teachers in inclusive classrooms. Respondents agreed that the special education teachers were solely responsible for individualized education plan development in inclusive classrooms, despite the team-based nature that student planning is supposed to take and that general education teachers took a hands-off approach to their students with disabilities (leaving all responsibilities to the special education teacher).

“The general education teacher asked me to write everything in the plans since he had a lot of students. I realized that this was the norm in the school in that the special education teachers must write the plans even though there is a part in the plan for other team members’ signatures.” (Hatem)

“The general education teacher asked me to write all of IEPs. . . .that behavior from the general teacher was a normal behavior. The general teachers in the school do not know anything about the students with disabilities. They ask the special education teachers to do everything related to students with disabilities.” (Ramy)

“The general education teachers only provided me with the lessons and the goals of the lessons that they designed for regular students. I asked them to provide me with their lesson plans so I could depend on it when preparing the

IEPs but the general teachers did not include anything in their lessons plans for students with disabilities in the classroom. They think that students with disabilities are under special education teachers' responsibility." (Maher)

"I did not note any cooperation from the general education teacher. What I noted is that the general education teacher was focusing on the regular students. He might have thought that, since my field is special education, I should take care of all students with special needs without any supporting". (Ameer)

"The general education teacher did not work with me on the students with special needs plans. He asked me to complete it myself and what I understood was that this is was not a personal action, but it was like a norm in the school." (Ramy)

This lack of cooperation between school personnel was very notable and caused problems in the workflow.

"I supposed to work with the general teachers on the IEP, however, the general education teacher was not cooperating. In fact, he asked me to do all the paperwork and then send it to him to just sign it since his signature was a requirement". (Maher)

Several participants also mentioned a disconnect and lack of co-operation between the inclusive schools and the families of students with disabilities.



“There is also lack of communication between the school and the families of students with disabilities. Many families were unconcerned about answering the schools’ questions regarding the plans or the students’ situation, which made the majority of students with disabilities unable to benefit from the inclusion.” (Salem)

“I tried to contact some fathers because their sons were not following up with the homework that I gave them. Some of the fathers did not answer my call at all and some of them answered and told me that they will follow up with their sons. However, in many cases the students did not change that behavior.” (Maher)

“I tried to contact some families, but I could not reach them. Most of the families did not care about what is going on with their sons in the schools. However, there were a few parents who were coming to the school to ask about their son’s situation, answering our inquiries, and perfectly cooperating with the school. For example, I remembered a father who was coming to the school to ask about his son without even calling them, which was amazing. But in fact the majority of the families were not like him.” (Hatem)

Maher even noted the drawn-out process special education teachers had to go through to contact students’ families.

“The process of contacting the families was that I should talk to the principal and let him know that I need to contact the family. After that the principal

give me the father of the student number which allow me to call him.”

(Maher)

“The problem is that some parents think that the school should do everything and there is no need for their cooperation. Also, many parents are very busy and does not have the time to come to the school or follow up with their children at home”. (Ramy)

#### **4.6 Theme 4: Suggestions for Improvement**

Throughout the interviews, participants made several recommendations for researchers and educators to consider when moving forward with the development and training of special education programs in Saudi Arabia.

##### ***4.6.1 Course Content***

Participants recommended that content continuously be updated in accordance with changes in education policies and inclusive practices.

“It is still my suggestion that the plan of the programs ought to be updated alongside the content.” (Hatem)

“I believe that this should be a wakeup call for all the stakeholders involved in developing such programs to make sure that moving forward we have better policies that enhance inclusive education as a part of the curricula.” (Ramy)

In particular, respondents stated a need for inclusion of courses focusing specifically on inclusive practices for students with intellectual disabilities.

“I did not recognize any course [in my program] that covered inclusive practices for students with intellectual disabilities. The courses revolved around definitions and general concepts rather than being focused on how to assist students with intellectual disabilities.” (Ameer)

“The inclusive practices were not covered in the program even though they should be. I believe that the program lacks concise practical approaches that can enhance inclusive education. It is time for adjustments to be made to make sure that preservice teachers are well-prepared to undertake this task.” (Hatem)

#### ***4.6.2 Coursework and Internship Balance***

Unfortunately, several participants expressed difficulties balancing their internship responsibilities with final course requirements, with some reporting feeling overwhelmed in their final semester of the program. Respondents provided some suggestions on how this coursework and evaluation could be better balanced (e.g., increased advisor supervision during internship).

“Also, I had to submit the final assignment for my professor in the university which was a requirement to pass the internship experience. All that work made it tough.” (Ameer)

“The final project was more than 30 pages which was very hard. If I can, I would suggest that the professor should come to the school and watch the pre-service teacher work to evaluate him. Now most of the evaluation is from the paper that you submit at the end of the semester.” (Ramy)

“One of the hard elements of the internship period is the lack of communication with my advisor in the university. I think the advisor must visit the school at least every week and have a meeting with me to discuss what is going on with the internship. In fact, my professor visited me for two time during the whole internship which was for a one semester (about four months). I think if we had a weekly meeting that will make my experience better.” (Ameer)

#### **4.7 Summary of Findings**

Throughout these interviews, five special education teachers provided their experiences and perceptions regarding their pre-service training and internship programs regarding students with intellectual disabilities in inclusive education settings in Saudi Arabia. Overall, respondents highlighted an explicit *lack of instruction on inclusive education*, a distinct *dissociation between theory and practice*, and that *exposure to inclusive education truly happens during the internship period*. Participants also provided several constructive *suggestions for improvement* for future development and implementation of inclusive special education training programs.

With respect to this study’s first research question (the interviewees’ understanding of inclusive education and practices), participants emphasized the importance of the internship period on their true conceptualization of inclusive education and best practices. Prior to this, their course-based and practical observation courses provided little direct guidance and introduction to inclusive education, instead relying heavily on more broad and indirect pedagogies (e.g., least restrictive environments). The pre-service training programs appear to have different foci at different stages, with the course instruction and classroom observation elements focusing on

special education environments and not inclusive education. This led most, if not all, participants feeling relatively unprepared for their internship placements in inclusive classroom settings.

Further illuminating this study's second research question (pre-service special education teachers' perceptions regarding their theoretical and practical training related to inclusive education), it is evident participants perceived the structure of their pre-service training program to be severely lacking in its ability to provide strong conceptual bases regarding what inclusive education is and how it is implemented prior to internship placements, as well as being under-prepared for implementation of hands-on inclusive practices in the classroom. Given the internship in an inclusive classroom setting was not completed until the last semester, this left many pre-service teachers with limited training until the final stage of their program.

Finally, in association with the study's third research question (pre-service special education teachers' perceptions regarding their experiences with inclusive education practices during the internship period of their teacher preparation programs), interviewees viewed the internship favorably, mentioning they learned a lot about inclusive practices and students with disabilities during this time. Most participants expressed strong indications that most of their practical knowledge was acquired during the internship semester, highlighting its central importance to the success and preparedness of pre-service teachers for implementing inclusive education strategies for students with intellectual and developmental disabilities.

## **Chapter 5: Discussion**

### **5.1 Overview**

This study focused on exploring the perceptions of preservice teachers of learners with intellectual disabilities regarding their preparation for inclusive education. A total of five participants were asked to describe their experiences in the special education program with a specific focus on their preparation for inclusive education. The perceptions were outlined through interviews, qualitatively coded and categorized into various themes and subthemes. The focus of this chapter is on the interpretation of the results obtained and the implications of the findings. This is discussed alongside a rundown of the extant literature. The discussion follows the organization of the findings presented in Chapter Four. The findings are then discussed from the perspective of the Theory of Planned Behavior that asserts that behaviors are impacted by intentions identified by situations, personal norms, as well as professed behavioral power (Teo & Lee, 2010). The theory views an individual's intention to behave in a specific way to be hugely reliant on their attitude. In other words, participants' intentions with regard to inclusive education are influenced by their feelings towards it (attitudes towards the behavior – inclusive education being 'the behavior'), their knowledge of inclusive education (perceived behavioral control), and what they believe the wider educational institutional expectations of them are (the subjective norm).

### **5.2 Program Content**

All five participants in this study offered general information covering the special education program they undertook. The semesters that the participants attended contained general courses about education and special education, after which they specialized in teaching

intellectually disabled students. From the data analysis, it became clear that there was an insufficient amount of content covering inclusive education in the preparation programs of all of the students. Chauhan and Mantry (2018) define inclusive education as a process that caters and responds to the diversity of students' needs by raising participation in learning, cultures, as well as communities and a reduction of exclusion. Scarlett (2015) defines it as a model of schooling whereby learners with many diverse disabilities and learning needs receive their education in classes with non-disabled and typically developing learners. Given these definitions of inclusive education, it seems that the participants felt that the program and its content did not deeply explain or engage them fully with inclusive education. For instance, one participant went so far as to say they did not recall any courses surveying the participation of students with intellectual disabilities in full-day inclusive settings or inclusive education practices. The participants felt that their studies had a greater focus on related but different approaches, such as least restrictive environments. All participants were in clear agreement about this pointing directly to training for inclusive education not being a priority, nor viewed by the educational designers of the program as a central learning outcome.

All the participants agreed that they were not well-prepared to cater to students with diverse needs in an inclusive setting. Forlin and Chambers (2011) argue that it is quite challenging to attain inclusivity without initial preparation of preservice teachers to manage diversity. In other words, if Saudi Arabia has inclusive education as a goal, preservice training needs to reflect and embody that, which, according to this data set, it does not. Not training new teachers for the tasks expected of them is detrimental to the goals of the system but also leads to teacher burnout. Arnup and Bowles (2016) give the example of 25-40% cases of burnout among novice graduate teachers in their first years of practice in Australian primary and secondary schools. Participants in this study

felt that they were not well prepared to teach students with diverse needs. Content was insufficient for both the theoretical and practical aspects of inclusive education.

The participants also agreed that although the programs in the institution seem to have considered the importance of integration, there was a lack of information on the implementation strategies. The concept of the least restrictive environment was widespread in the program; however, strategies for applying the least restrictive environment in the schools were not concretely outlined. Forlin and Chambers (2011) demonstrate that initial teacher preparation programs have several inadequacies in regard to the support levels and quality of teaching. The results also indicate that preservice program appropriateness for inclusive practice hugely remains lowly rated by new teachers (Forlin & Chambers, 2011).

In this study, the participants agreed that there is a need for a reform of the courses to make sure that they cover inclusive education conceptually, strategically and from an implementation perspective – putting the concept and teaching strategies into practice. In their study of pre-service teachers' concerns regarding intellectual disabilities students' inclusion among learners in normal settings, Florian and Linklater (2010) showed that pre-service teachers have major concerns about the application of inclusive practices among students with intellectual disabilities. 93% of the participants in their study stated that they did not have enough training in handling learners with intellectual disabilities, especially in inclusive classrooms (Forlin & Chambers, 2011, p. 20). A similar opinion is held by the five participants in this study who believed that the training program needs reform.

### **5.3 Inclusive Education Preparation in Saudi Arabia**

While the participants were clear that the program content needs reforming, they also expounded that the present program assisted them in major ways, indicating that some change,



rather than a complete overhaul, is required. However, currently, there appears to be no consensus among scholars regarding the preparedness of preservice teachers in Saudi for inclusive education. A study done by Alquraini (2012) revealed that most male teachers in Riyadh do not support the notion of including learners with severe learning disabilities into the education system. However, this research failed to clarify the reasons why there are negative attitudes, thus making it hard to analyze the causes or make suggestions for how to change this mindset, if inclusive education is a national goal. In more recent research involving a sample of 382 Saudi Arabian teachers (Aldabas,2020), a majority felt that they were completely prepared for teaching learners with severe disabilities in inclusive classrooms. However, Alnahdi et al. (2019) found that preservice teachers' attitudes in regard to inclusive education in Saudi Arabia were negative in the majority of teachers. Such findings suggest that the nation has not yet attained significant progress in popularizing the notion of inclusive practices, or in clarifying the pedagogic realities of working within an inclusive school.

Saudi Arabian teachers' awareness of inclusive education and their preparation for the actualization of this kind of practice was low at the start. Per results obtained by Alquraini (2012), most male teachers were unaccepting of the idea of teaching students with severe disabilities in regular classrooms in 2012. Research by Murry and Algahtani (2015) shows that, in addition to these adverse attitudes, the preparedness of preservice teachers for taking part in inclusive education programs could be undermined by their lack of sufficient knowledge. Their study of 52 preservice teachers at a large institution in Saudi Arabia demonstrates that most preservice teachers were not aware of the pedagogic ideas or special education laws that had been enacted at the time.

### ***5.3.1 Understanding the Concepts and Practices of Inclusive Education***

According to Buli-Homberg and Jeyaprabhan (2016), inclusive educational practices help students to gain access to high-quality education regardless of their family income levels, gender, ethnicity or disability. One of the participants explained that the professors handling the program were able to conceptually explain how the integration between learners with disabilities and general education students could be advantageous to those with disabilities. Following the Theory of Planned Behavior, this could create a positive environment by fueling preservice teachers' desire to learn more about integrative practice from the program. If the educators are demonstrating 'integration' as a subjective norm (Teo & Lee, 2010), it can move the participant trainee intentions in a similar direction – pro-integration or towards integration. However, the participants also agreed that inclusive education did not come up in the program in a direct manner – other approaches to integration received priority for the majority of the program, meaning that inclusive education specifically was not the subjective norm.

The existing body of literature is not all in agreement. A recent study by Alquraini and Rao (2017) discovered that teachers that participated in special education preparedness programs showcase high degrees of knowledge and skills in regard to inclusive education. Their research consisted of a sample of 179 teachers from 30 institutions in Saudi Arabia. The presence (and the training) of such teachers is critical in the nation's capacity to provide inclusive education practices. This notion is affirmed by Du Toit and Forlin (2009) who indicate that many learners in different nations are deprived of high-quality education due to a variety of reasons including poor education models and unpreparedness of pre-service teachers for working in diverse classrooms and integrating inclusive activities into their teaching practices. Therefore, there is a great need for proper preparedness of preservice teachers to take up their roles in special education, especially

regarding inclusive education practices. In Saudi Arabia, the research findings seem to suggest that there is a lack of consistency across such programs.

Explicit course focus on inclusive education would seem necessary. Goddard and Evans (2018) acknowledge that inclusive education is a critical concern not only to newly recruited teachers but also those that have been in the service for a long time, especially in regard to their capacities to provide appropriate teaching to students. Rouse (2006) advocates for an index of inclusion as a crucial tool to enhance inclusivity since it backs up a process that pushes for learning and participation of learners. Ideally, such a strategy should not be exclusively aimed at intellectually disabled students, although it does from a wider view (Rouse, 2006). For one of the participants in this, it was not easy to distinguish any course that covered inclusive practices for students with intellectual disabilities. Inclusion encompasses several changes to the curriculum, pedagogy and evaluation techniques (Buli-Holmberg & Jeyaprathaban, 2016), and relies on appropriate collaboration between teachers, schools and other entities. One of the most significant factors within these stakeholders is the educators' knowledge, skills and attitudes toward inclusivity.

### ***5.3.2 Implementing Inclusive Education***

One of the participants mentioned that although the program was focused on the integration process in general, it still did not provide sufficient explanation or practice on how to implement integrative processes. Sharma (2018) states that teacher preparation involves enhanced contact during training through course encounters or site-oriented courses, especially with intellectually disabled students during training in an attempt to enhance inclusion. The issues raised by the participants in the study imply that the Kingdom has not made sufficient progress in training for this implementation. Participants felt the implementation process ought to have been included as

a larger part of the program. Per the Theory of Planned Behavior, experiences and situations tend to frame attitudes (Teo & Lee, 2010). If teacher knowledge of implementation is low, then both their attitudes towards a behavior (inclusive education being the behavior) and their perceived behavioral control (how to control inclusive education) create an intention and subsequent future behavior that are not strongly pro-inclusive education.

Ni Bhroin and King (2019) advocate for teacher education and partnerships of educators in order to enhance inclusion for all students. Lancaster and Bain (2007) show that self-efficacy scores of pre-service teachers tend to increase with applicability of knowledge and skills, as well as experiences. Greater partnership between teachers and teacher trainers, explicit and expansive inclusive education instruction, and guided opportunities for implementation have clear potential to increase the success of inclusive education.

The practical preparations that the program under study provided before the internship occurred at a special education school. One of the respondents indicated that the practical preparation that he had during the program was restricted to visits to special education institutions that only accommodated students with disabilities. As such, none of the participants had attended an inclusive school environment prior to their internship. According to Symeonidou (2017), teacher preparation programs that aim at both theoretical and practical knowledge and skills acquisition in inclusive education are useful tools for preservice teachers. The program in this study limited practical experience to the end of the program, meaning that opportunities to reflect on and ask for help with practical concerns were very limited. The negative participant feedback on this structural issue warrant reconsideration of the ‘order’ of courses and practice during pre-service training.

Lancaster and Bain (2007) propose different initial teacher preparation approaches to enhance inclusive education. These include the application of an individualized training model, the use of inclusive classroom experiences, and a non-practice model for inclusion (Lancaster & Bain, 2007). While the preservice teachers took courses that discussed evidence-based practices, they were provided with few opportunities to apply this or understand their practical applications. Loreman et al. (2007) put forward the infusion approach as appropriate in preservice teachers' preparedness as it provides inclusive practices, knowledge and skills across the whole program rather than being included in a single course. The participants did not experience such preparation except during their internship period. One of them mentioned that all the courses within the program were in university classrooms apart from the internship experience. However, internships should not be the only time that preservice teachers have practice in handling students with intellectual disabilities.

The participants explained that their program organized their internship without considering their interests. One of them indicated that the placement of the preservice teachers in the program does not consider what they want or desire since the program prescribes what they should do. All the participants also mentioned that the number of students at the school was very large as there were more than 1000 learners at the elementary school, which some found daunting and felt unprepared for. The classrooms were also comprised of students with more than one category of disability (e.g., intellectual disabilities, autism spectrum disorders, physical disabilities). According to Sigstad (2017), for inclusive practices to be effective and successful, certain conditions have to be fulfilled, including:

- having a common vision
- adapted teaching

- sufficient support and resources

Hence, one needs to consider the best interests of preservice teachers during their training activities, in order to help them learn how to manage students with intellectual disabilities appropriately. Rogers and Johnson (2018) propose the application of augmented and alternative means of communication in order to enhance learning for students with special education needs. Preservice teachers should be offered the opportunity to reflect on pedagogical and andragogical practices throughout the period of preparation. Moreover, they ought to be assisted in determining how to make deliberate and diversified educational choices concerning personalized supports for students with learning disabilities. Buli-Holmberg and Jeyaprabhan (2016) argue that students with intellectual disabilities require special instruction above the conventional coaching models. Such strategies are lacking in the programs across Saudi Arabia, as illustrated by the participants consulted for this study. According to Kurth et al. (2015), the most salient feature of present initiatives to enhance inclusion is that the focus has been transferred from where a learner receives their education program to what and how he or she is taught. The data collected in this study indicates that preservice teachers have a strong desire for consultation throughout the internship placement decision-making process.

### ***5.3.3 Cooperation in Inclusive Education***

Another concept that appeared in the data collection was cooperation between the general educators and the special education teachers. One of the participants indicated that the general education teacher asked him (as the special education teacher) to write everything in the plans since he had many students. The participant deduced from such actions that this practice was normal in the school in that a special education teacher is responsible for writing individual education plans despite there being a designated part in the plan for other members' signatures.

The workload was too heavy for this participant, which led to dissatisfaction. Cooperation, a high degree of commitment, motivation and social coping are very useful in helping to cope with burnout (Buli-Holmberg & Jeyaprathaban, 2016). Therefore, a proper or transparent allocation of tasks during the preparation period and enhancement of cooperation among the educators would be beneficial.

Communication between the school and the families of learners with disabilities was very poor according to some participants. Many of the families in the study did not care much about responding to questions from the school regarding their student's learning plans or the student circumstances. Such actions hindered many students with disabilities from fully enjoying the benefits of inclusion as proper policies could not be formulated and implemented to assist them in their learning process. According to Carrington (1999), schools ought to change their shared systems of meaning in an attempt to improve the attitudes of teachers towards the notion of inclusive education. Collaboration between schools and other institutions and stakeholders (such as parents) could play a significant role in assisting preservice teachers in accessing the support that they require for training. There should also be a proper understanding of stakeholder demographics during the preparation process.

#### ***5.3.4 Environmental Modification***

Concerning environmental modification within the Saudi Arabian inclusive school that was the site of the internships, all of the participants indicated that the school had been modified to incorporate all learners regardless of their disabilities. One stated that the school was well-designed, and all learners were able to easily move around during break time. Those in wheelchairs were comfortable with the design of the school. One of the requirements of inclusive education is

that the environmental modification and ecosystem should be conducive for all students with disabilities, and this did seem to be the case with the internship school.

Assistive technology plays a crucial role in helping learners with disabilities. One of the participants indicated that there were iPads and a projector in each classroom to help students with disabilities, stating that such technology was not always available in special schools. Another participant indicated that the special education teachers in the school were demanding for there to be more technology, including a multi-sensory environment. The projector was meant for general education student applications and the iPads were intended for use by students with disabilities.

One of the educators' major roles is to offer students successful learning encounters. Assistive technology helps teachers attain this objective of providing learners an opportunity for a bright future despite their disabilities. Rogers and Johnson (2018) argue that technology can supplement writing as well as speech for learners with learning disabilities. A participant in this study mentioned that students with disabilities were allowed to use iPads for some activities. The devices had applications allowing for learning through play. The administration in the school seemed to recognize the necessity of assistive technology. According to Teo and Lee (2010), technological innovation within the classroom environment is one of the most critical accommodations that educational agencies have to offer.

Teachers ought to be aware of their learners' needs. From the responses in this study, the preservice teachers still felt that although some new tools were provided in the learning environment to help students grasp concepts or engage in practical learning, the efforts were not sufficient, and more technology should have been included. Software and assistive technology should be managed appropriately to ensure that learners with disabilities benefit from the application of the tools (Teo & Lee, 2010). Some of the devices are not designed with this purpose



in mind and may need significant adaptation to enable all students to access and properly utilize them. Certain barriers that the schools in Saudi Arabia may be encountering are limited funding, training and insufficient evaluations. Such deterrents ought to be resolved to enable appropriate preparation of preservice teachers even as they embark on their internships; it would be most useful if, during the internship period, the pre-service teachers have opportunities to interact with the students while using a wide range of assistive technologies.

### ***5.3.5 Culture and Inclusive Education***

All five participants in this study stated that their training program did not explicitly target the significance of respecting the differences between students in terms of culture. Some participants stated that this was not an explicit aspect of any of the courses. However, one participant explained that they did not see this as an issue by stating that this is not related to special education, but rather a value that all people should have. It ought to be an integral part of the curriculum, indeed any education curriculum, and not a separately taught topic. Jelagat and Ondigi (2017) argue that the notion of “education for all” is not in any way consistent with the present systems of beliefs in most nations, especially those that have citizens who are ashamed of children with disabilities. It is hoped that as educators open a doorway towards enhancing multicultural thinking, preservice teachers learn to inhabit the role of cultural facilitator in the classroom. There seems to be a dearth of knowledge in relation to preservice teachers’ views towards multicultural education in the training of culturally as well as linguistically diverse students.

Du Toit and Forlin (2009) take the position that countries should engage in global cultural transformations in an attempt to improve the performance of inclusive practices. Multicultural education has several critical dimensions. One of them is content incorporation, which involves infusing the curriculum with materials from different groups. The other concept is knowledge

construction, encompassing an awareness of and focus on the manner in which cultural frames mold the identification and understanding of educational content. One can also find prejudice reduction to highlight the level to which teachers and administrators in a school profoundly work to lower prejudice along with stereotyping by students in school. Equity pedagogy refers to the pedagogies formulated specifically to raise the academic attainment of lower-performing learners and the creation of a greater level of equity between learners (Du Toit & Forlin, 2009). Equity pedagogy in a multicultural sense allows us to see different groups of learners as multiple cultural groups, who may need and benefit from an education that is infused with a multicultural ideology. This conceptualization of multiculturalism is not the typical layperson understanding, which may be a factor in why ‘cultural differences’ and multiculturalism was not seen by participants as specifically relevant to their special education and inclusive education training. It may be appropriate to have sections of study where preservice teachers can learn about cultures in their preparation process since this would be beneficial and enhance effective preparedness to manage students with different disabilities even in an inclusive setting.

### ***5.3.6 Universal Design for Learning (UDL)***

The participants were also required to respond in the interviews about Universal Design for Learning (UDL) as an appropriate approach to teaching and learning for working with students with intellectual disabilities. All the participants said that the concept of UDL was new to them, and they did not encounter it during their training program, with one participant stating that the first time that he heard about UDL was after he graduated from college. Ciasullo (2018) describes UDL as an integration of principles meant for structuring curriculum that provides each person equal opportunities to learn. UDL can play a significant role in assisting preservice teachers in formulating instruction that fits the needs of their diverse students. It espouses “the possibility of

teaching aimed at creating occasions, situations—real and virtual places that can involve each subject in their diversity” (Ciasullo, 2018, p.42). As all participants in this current study agreed that their training program did not include any reference to UDL, this potentially very positive development tool did not become part of their ‘toolbox’.

Teachers need to utilize different ways to motivate students to learn. Hitchcock et al. (2002) show how UDL acknowledges the natural diversities existing in all classroom settings during the instructional design process, and how these are evaluated at intervals utilizing UDL standards to look for inclusive education design appropriateness. UDL could enable preservice teachers to become better prepared to present content in different ways and allow students to illustrate what they know in diverse ways. Such approaches are already supported by neuroscience and studies on the cognitive learning approach. Most importantly, cognitive accessibility associates with the approaches taking place in affective networks meant for motivation and establishing priorities, acknowledgment networks meant to collect and analyze data, and strategic ones meant for planning and undertaking actions (Pearson & Boskovich, 2019). The inclusion of such perspectives in Saudi preservice training programs could be valuable.

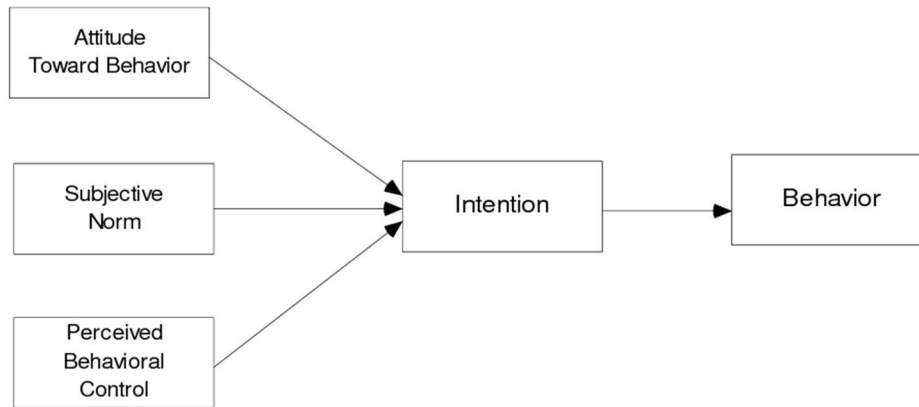
UDL can have a significant impact on how instruction is delivered by lowering the need for individual accommodation. McDonnell et al. (2020) state that students with intellectual disabilities are capable of learning general education core curriculum content through the application of systematic instructions. Teachers are advised to analyze student variability to proactively and intentionally create flexible decisions and scaffolds to forecast and support instruction instead of making accommodations as an afterthought. UDL, when incorporated into an education program, can allow for the development of strategies that are inclusive and beneficial for all learners, and not just those with intellectual disabilities. Hornby (2011) indicates that the

UDL model eliminates discriminatory practices since most of the learners' needs are catered to through the design of instruction. Hornby (2011) sees this factor as something especially desirable when considering the broadest continuum of diversity among learner populations.

While it may be seen as possible to implement UDL even in the absence of advanced technologies, different assistive and instructional technologies can make it easier and more efficient to attain the benefits it affords. Florian and Linklater (2010) outline how practical tools can enable experts to structure universally accessible platforms where teachers can focus on the development and adoption of inclusive education systems. Appropriately integrated technology renders the learning settings more accessible for different students. Hence, there is a need for preparation programs for preservice teachers to undergo lessons about how to concretely apply UDL to provide enhanced and ideally cost-effective learning environments for students with intellectual disabilities.

#### **5.4 Understanding Preservice Teachers' Intentions about Inclusive Education through the Theory of Planned Behavior**

As outlined in the earlier chapters of this thesis, the Theory of Planned Behavior has been used to effectively analyze the intentions and behaviors of teachers. The theory claims that "behaviour can be predicted by behavioural intention and perceived behavioural control, while behavioural intention is a function of attitude towards the behaviour, subjective norm, and perceived behavioural control" (Yan & Sin, 2014).



**Figure 5.1** The Theory of Planned Behavior (Teo & Lee, 2010)

In the context of this study about preparation for inclusive education, the elements can be understood as follows:

Table 5.1 Theory of Planned Behavior and Inclusive Education

<b>Theory Element</b>	<b>Inclusive Education Context</b>
Attitude Toward Behavior	Feelings and attitudes about inclusive education
Subjective Norm	The ‘place’ of inclusive education in the wider educational system; attitudes towards inclusive educators of other stakeholders, senior members of the educational community
Perceived Behavioral Control	Level of knowledge (and applicable knowledge) of inclusive education
Intention	Level of willingness /motivation to work in inclusive education settings, promote and use inclusive education practices
Behavior	Actual teaching practice

In this study, the absence of course content about inclusive education alongside the prioritization of other approaches to the teaching of learners with disabilities would seem to create a subjective norm that is not overtly supportive of inclusive education, and a low level of perceived behavioral control – the participant responses confirmed both of these points. It would seem likely that this could lead to low levels of positive intention toward inclusive education, and future behaviors that would not necessarily be inclusive education focused. However, the final stage of the participants' preparation program was a required internship at an inclusive school, which was seen as very significant by the teacher trainees and had a strong positive impact on their intentions.

The participants in this study said that they do have the intention to teach in inclusive schools in the future, explaining that their intentions came from their experiences in the inclusive school during the internship period in their last semester in the program. The participants explained that even though the inclusive school had some issues, they agreed that students with intellectual disabilities experienced learning improvements which might not occur in institutions for students with intellectual disabilities.

Using the Theory of Planned Behavior to understand the preservice training experiences in this study reveals somewhat of a mixed message regarding the place of inclusive education, with the intentions changing over the duration of the training. Initially, preservice teachers were unaware of inclusive education, and the early stages of the program made no reference to this approach, but rather presented alternative approaches for the education of learners with disabilities (learning in special schools, least restrictive environments). Therefore, the intentions of the trainees with regard to inclusive education could only be either non-existent or neutral, while their general intentions for the future planned behavior would have to involve one of the other learning and teaching approaches.

However, the internship aspect of the training was at an inclusive school and was required at the end of the program. This final stage strongly impacted the participants' attitudes toward inclusive education. This is at odds with the message, or subjective norm, trainees received throughout the taught courses – they perceived its absence from discussion as placing other educational modes as the norm. Placement in an inclusive school created a situation where, for this period of their training, inclusive education as the best mode of education became the subjective norm. However, participant responses did reveal that their perceived behavioral control toward inclusive education remained low as they did not feel fully equipped to effectively and proactively work in this environment. This study shows participant intention and planned behavior to be ultimately positive towards inclusive education.

## **5.5 Implications**

The findings of this study have notable implications for policies, practices, and future research that will focus on special education teachers' preparations across Saudi Arabia and around the world. Most countries desire to provide their populations with quality education. However, this would be impossible in the absence of effective teacher preparation programs. The Saudi Arabian government and its citizens should strive to improve the educational system across the kingdom. One of the ways to achieve this goal is to have improved teacher preparation policies, initiatives and practices. The findings of this study show that for teachers who wish to work in inclusive education settings, the current curriculum is not optimal and requires some reconsideration. Such initiatives should prioritize the specifics to ensure that the courses included in the programs to the preservice teachers contain appropriate content that would not undermine the teachers' competence in managing inclusive education. Special education teachers ought to gain knowledge and skills that are aligned with the unique challenges linked to their expertise. Rather than the use

of repetitive or redundant content to prepare the preservice teachers for their profession during the training programs, the courses should be geared towards providing them with the expertise they would need to manage students with intellectual disabilities in an inclusive environment. Moreover, special education teacher preparation ought to ensure that communications within the classroom are profound and interactive. Programs that are steered to achieve this help boost the education level across Saudi Arabia.

The results obtained in this study stress the need for reforms that ensure that preservice teachers are well-prepared to perform concrete tasks in inclusive educational settings. Practices that leverage the available resources would play a significant role in making sure that such reforms are attained. When used appropriately, the available resources would help preservice teachers to attain the most out of the programs. A good example would be the evidence-based practices that are considered to be effective in enhancing proper formulation of policies and implementation of the same. The evidence-based practices along with proper practicum sessions would help improve the programs at the schools. Based on the results of this study, the fact is that teachers did not have an opportunity to learn how to practically apply the knowledge and skills they gained in the program. The findings illustrate that most preservice teachers attempting to manage students with intellectual disabilities cannot practically apply their knowledge, including the evidence-based practices in an attempt to teach. Therefore, policymakers and other relevant stakeholders in Saudi Arabia should assess the available curriculum that is utilized to educate special education teachers in an attempt to permit the preservice teachers to fully utilize the available resources during training.

Practical training should also be properly integrated into the preservice teachers' preparation sessions since this would help them acquire theoretical and practical knowledge and



skills. Furthermore, this would offer the teachers the opportunity to enhance their preparedness for inclusive educational practice. Therefore, apart from the need to provide them with access to evidence-based resources, the players in the Saudi Arabian educational context ought to ensure that practicum sessions are widely incorporated into the training processes involving practical practices. Practicum sessions enable the teachers to use their theoretical knowledge within practical settings. In effect, the preservice teachers would be able to acquire additional skills that would enable them to prepare for their future roles as educators. The results of this study are a clear depiction that preservice teachers striving to teach children with intellectual disabilities have only limited opportunities to take part in practical exercises. Moreover, they seem to have insufficient support from the trainers and instructors. In this case, policymakers and relevant stakeholders should embark on reforms to make sure that every preservice teacher has an opportunity to conduct a practicum session with sufficient assistance.

The program should also consider incorporating important models that would enhance inclusive education, such as the UDL. The results depict that the preservice teachers are not well-equipped with such models that are deemed important in their preparation journey. Policymakers and the government should consider UDL as a model that can be applied in classrooms for inclusive general education instruction along with special education learners. It enables general education learners to access various learning techniques and establish a greater sense of belonging for those with intellectual disabilities. Preservice teachers should understand UDL from the first days of their enrollment in university. The model utilizes inclusion and accessible concepts of past contexts in an attempt to structure and teach in more diverse and engaging approaches. UDL would be beneficial in preparing preservice teachers in the sense that it offers the practicum tools that enable them to structure universally accessible classroom settings and online platforms. This

would help the teachers develop and adopt inclusive educational systems whenever necessary. Therefore, the policymakers should understand the positive relationship between UDL and inclusive education practices in order to pave the way for improvement of the preparation exercises for preservice teachers striving to work with students living with intellectual disabilities.

Finally, an examination of the organization of elements within a program should be undertaken. Having the inclusive education internship at the end of the program limited opportunities for teachers to reflect on the process and discuss it with their trainers and fellow trainees. Moving the internship to an earlier stage of the training program could somewhat address this issue, as could more time explicitly focusing on inclusive education in the taught stages of the program.

## **5.6 Limitations of the Study**

The study and the findings presented have some limitations. The small sample size means that the findings cannot be widely generalized. The sample is also limited in that only males were engaged as participants, as the cultural background of Saudi Arabia could have hindered the generation of sufficient data from females. The cultural setting of Saudi Arabia may also have meant that participants, even though their anonymity and confidentiality was assured, may have had some fear of telling the truth, specifically in terms of detailing negatives of their educational experience. Indeed, for the preservice teachers, they could have been afraid that the information they provided could have been in some way leaked to their employers. However, the researcher worked diligently to assuage any such fears, and the answers provided by the participants would suggest that any reticence to withhold any negative opinions was minimal, if present at all. Finally, the data collection process did not follow the participants into their teaching careers meaning that it was not possible to see their actual teaching behaviors post preservice training.

## **5.7 Recommendations for Further Research**

This study was meant to determine the perceptions of preservice teachers managing students with intellectual disabilities regarding their preparation programs. The experiences and recommendations outlined by this study's preservice teachers provide structure and guidance for future investigations into appropriate and modern theories of inclusive education, such as future investigations into the perceptions of students about the environmental models, courses and programs. Ramy, Hatem and Ameer all discuss the lack of inclusive education training within their preservice courses and recommend that future preservice education include modern and appropriate theories of inclusive education and how it can be applied in practical settings. This will also serve well for evidence-based recommendations and informed decision making regarding preservice training content to optimize trainees' experiences and preparedness. This could include levels of support given to trainees in the form of meetings during their internship (Ameer) or the addition of observations of preservice teachers during internships in lieu of written reports (Ramy).

The generalization and comparison of effective and less-effective training programs for special education teachers in inclusive settings across a collection of countries and cultures will also go a long way for informing the global state of inclusive education policies and service, as well as illuminating insights into social-cultural factors relevant to inclusive practices. The present study delved into preservice special education teachers' perceptions in Riyadh, Saudi Arabia; however, future studies should expand to other regions or countries to make conclusive comparisons. Such findings would play a significant role in provision of more data for analysis on the matter of teacher preparation programs, as would studies that involve a large sample population, and all female teachers. Research with working teachers would also shed more light on the impact of the training programs on their daily behaviors as fully-fledged members of school

committees. Study participants discuss the lack of cooperation between themselves, parents and other teachers during their internship period (Hatem, Ramy, Maher, Salem & Ameer); additional research could determine if this trend continues for special education teachers once they are fully employed and how this affects their daily roles and responsibilities within the schools. Future studies can also investigate the perceptions of trainers regarding the preparation programs for preservice teachers – their input into the current and future design of preservice training would be invaluable. Finally, the present results also highlight the need to determine the efficacy and impact of homogenous versus heterogenous support strategies across disability types. For example, some of the study participants (Salem & Hatem) mention defaulting to using the same methods of instruction for all disability types, and they were concerned about the efficacy of doing so. Therefore, future investigations might seek to determine whether or not the implementation of the same strategies for all students (regardless of intellectual and/or developmental disability) is the most effective practice in inclusive settings with one special education teacher, or do disability- or student-specific strategies lead to better outcomes in inclusive settings?

## **5.8 Conclusion**

The study sought to determine the perceptions of preservice teachers on the preparedness programs that are designed to help them manage students with intellectual disabilities. It specifically investigated how the participants felt they were prepared for a future working in inclusive education environments. The geographic focus was on Riyadh, Saudi Arabia. All the participants in the study were preservice teachers yet to join the professional practice of teaching. Perceptions were sought about the courses, theoretical and practical applications, internship, and the environmental and technological aspects offered among other preparations.

The literature review in this study discovered that the concept of inclusive education has emerged as increasingly significant in the globalized world - educating students with disabilities within ordinary school structures. By adopting inclusive education, policymakers could help raise the quality of living among individuals with disabilities. The approach has been associated with various economic benefits. However, in this study preservice teachers felt that they were not well prepared to utilize the knowledge and skills that they obtained from the preparation program within an inclusive environment, or to sufficiently understand inclusive education itself. Many cited the lack of sufficient content and practical application during the preparation period, rendering them incapable of applying knowledge. Inside the inclusive education school, the effectiveness of general and special education teachers collaboration was questioned. Therefore, to improve and expand the provision of inclusive education in Saudi Arabia, the findings of this study suggest that there is a pressing need for reform of the programs meant to prepare preservice teachers to work with intellectually disabled students.

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## **Appendix A– Recruitment Script**

You have been invited to participate in this research project because you have been identified as someone who has recently trained to become a special education teacher and who has a great deal to share about his experience. This research project focuses on your preparation for teaching in inclusive schools; I'm particularly interested in understanding how pre-service special education teachers who specialize in intellectual disability may perceive the concept of inclusive education. This study does not aim to evaluate you. Rather, it is trying to learn more about how the concept of inclusive education and its practices are being perceived by educators and hopefully learn about practices that help improve the inclusive education approach.

## **Appendix B – Consent Script**

*[This script was read to the prospective respondent during the consent procedure, which occurred either on the phone or via Zoom. The respondents were sent the consent form (forthcoming) prior to this conversation.]*

I have planned a three-part interview, which I expect to last about 45 to 90 minutes each interview. During this time, I will be listening to your answers to the questions that I've sent to you and ask follow-up questions as needed. If at any point you wish to stop the interview, please let me know.

To facilitate notetaking, I would like to make an audio recording of our online conversation today. For your information, only I, as a researcher, will have access to the content matter of the interview records. All information is confidential; when I report the results of this research (for instance, in a research publication), I may quote you from your interview, but will use a pseudonym (fake name) to protect your identity and may change other details about you as needed to ensure that you cannot be identified.

Your participation is completely voluntary, and you may stop the interview at any time for any reason without penalty or harm. Please read the consent form that I've sent to you and ask me any questions that you may have about my research. If you agree to participate in the research, please sign the form and return it to me; I will give you a signed copy of your form for your records.

## Appendix C – Consent Forms

### Informed Consent to Participate in Research Involving Minimal Risk

#### Information

Information to Consider Before Taking Part in this Research Study

**Title:** *Perceptions of Preservice Teachers of Students with Intellectual Disabilities About their Preparation for Inclusive Education*

Study #                     2798                    

Version #1  
07/23/2021

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**Overview:** You are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask him to explain any words or information you do not clearly understand. The nature of the study, risks, inconveniences, discomforts, and other important information about the study are listed below. The information in this document should help you to decide if you would like to participate. The sections in this Overview provide

the basic information about the study. More detailed information is provided in the remainder of the document.

We are asking you to take part in a research study called

### **Perceptions of Preservice Teachers About their Preparation for Inclusive Education**

This study is being led by *Abdullah* who is a *doctoral student* at/ USF . This person is called the Principal Investigator. He is being guided in this research by Dr. Ann, USF, professor.

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#### **Why are you being asked to take part?**

We are asking you to be a part of the study because you are a preservice special education of students with intellectual disabilities

#### **Study Procedures:**

If you take a part of the study. Interviews are expected to last approximately 2-3 hours in total, which may be split up into up to three different sessions depending on the availability and disposition of the respondent.

Interview will be online

The interview will be audio recorded and you will be notified, and your approval will be taken before the interview

Recordings will remain in electronic format and be deleted after the final report is presented to

the IRB or 5 years later. After 5 years, images, recordings and transcripts will be deleted.

### **Total Number of Subjects**

*Five to Seven* individuals will take part in this study at all sites.

### **Alternatives / Voluntary Participation / Withdrawal**

You have the rights to not take a part of this study and to withdraw from the study at any time.

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study.

### **Benefits**

You will receive no benefit(s) by participating in this research study.

### **Risks or Discomfort**

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

## **Compensation**

There is no payment for the Participants.

## **Costs**

It will not cost anything to be in this study.

## **Privacy and Confidentiality**

We will do our best to keep your records private and confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Certain people may need to see your study records. These individuals include:

- The research team, including the Principal Investigator, study coordinator, research nurses, and all other research staff.
- Certain government and university people who need to know more about the study. For example, individuals who provide oversight on this study may need to look at your records. This is done to make sure that we are doing the study in the right way. They also need to make sure that we are protecting your rights and your safety.
- Any agency of the federal, state, or local government that regulates this research. This includes: the Department of Health and Human Services (DHHS) and the Office for Human Research Protection (OHRP).]
- The USF Institutional Review Board (IRB) and its related staff who have oversight responsibilities for this study, and staff in USF Research Integrity and Compliance.

Your information or samples collected as part of the research, even if identifiers are removed, will NOT be used or distributed for future research studies.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

## **You can get the answers to your questions, concerns, or complaints.**

If you have any questions, concerns or complaints about this study, call Abdullah Aljudaya, +966552230660]. If you have questions about your rights, complaints, or issues as a person taking part in this study, call the USF IRB at (813) 974-5638 or contact by email at [RSCH-IRB@usf.edu](mailto:RSCH-IRB@usf.edu).

## Consent to Take Part in Research

I freely give my consent to take part in this study [ : and authorize that my health information as agreed above, be collected/disclosed in this study]. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

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Signature of Person Taking Part in Study

---

Date

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Printed Name of Person Taking Part in Study

### Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in their primary language. This research subject has provided legally effective informed consent.

---

Signature of Person Obtaining Informed Consent

---

Date

الموافقة المستنيرة للمشاركة في البحوث التي تنطوي على الحد الأدنى من المخاطر

معلومات

طلب منك المشاركة في تصورات المعلمين ما قبل الخدمة للطلاب من ذوي الإعاقة الفكرية عن برامجهم لإعداد المعلمين

للتدريس في المدارس الشاملة في المملكة العربية السعودية

07/23/2021

نظرة عامة: يُطلب منك المشاركة في دراسة بحثية. تشمل الدراسات البحثية فقط الأشخاص الذين يختارون المشاركة. تسمى هذه الوثيقة نموذج الموافقة المسبقة. يرجى قراءة هذه المعلومات بعناية وخذ وقتك في اتخاذ قرارك. اطلب من الباحث أو طاقم الدراسة مناقشة نموذج الموافقة هذا معك، يرجى مطالبتهم بشرح أي كلمات أو معلومات لا تفهمها بوضوح. يتم سرد طبيعة الدراسة والمخاطر والمضايقات وغيرها من المعلومات الهامة حول الدراسة أدناه. يجب أن تساعدك المعلومات الواردة في هذا المستند على تحديد ما إذا كنت ترغب في المشاركة. توفر الأقسام الموجودة في هذه النظرة العامة المعلومات الأساسية حول الدراسة. يتم توفير معلومات أكثر تفصيلاً في الجزء المتبقي من المستند.

نطلب منك المشاركة في تصورات المعلمين ما قبل الخدمة للطلاب من ذوي الإعاقة الفكرية عن برامجهم لإعداد المعلمين للتدريس في المدارس الشاملة في المملكة العربية السعودية

الجزء المتبقي من الوثيقة

تسمى الدراسة نطلب منك المشاركة في دراسة

تصورات معلمي التربية الخاصة قبل الخدمة لبرامج إعداد معلم التربية الخاصة للتدريس في المدارس الشاملة ، المملكة العربية السعودية

يسمى هذا الشخص باحث رئيسي. يتم توجيهه في جامعة جنوب فلوريدا / يقود هذه الدراسة عبدالله ، وهو طالب دكتوراه في ، الأستاذ هذا البحث من قبل الدكتورة آن، في جامعة جنوب فلوريدا

معلومات يجب مراعاتها قبل المشاركة في دراسة البحث هذه



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لماذا يطلب منك المشاركة؟

نطلب منك أن تكون جزءًا من الدراسة لأنك مدرس تعليم خاص قبل الخدمة

إجراءات الدراسة

إذا أخذت جزءًا من الدراسة. سيتم مقابلتك ثلاث مرات ، وقد تستغرق كل مرة 90 دقيقة

المقابلة ستكون عبر الإنترنت

سيتم تسجيل المقابلة صوتيًا وسيتم إعلامك وسيتم اتخاذ الإجراءات اللازمة قبل فترة التدخل

إجمالي عدد المواضيع

ستبقى التسجيلات في شكل إلكتروني وسيتم حذفها بعد تقديم التقرير النهائي إليها

أو بعد 5 سنوات. بعد 5 سنوات ، سيتم حذف الصور والتسجيلات والنصوص. **IRB**

سيشارك ما مجموعه خمسة أفراد إلى سبعة في الدراسة [ USF سيشارك حوالي خمسة إلى سبعة أفراد في هذه الدراسة في

[في جميع المواقع

البدايل / المشاركة الطوعية / الانسحاب

تتضمن بدائل المشاركة في الدراسة ما يلي: إذا لم يرغب المشارك في المشاركة. لديك الحق الكامل بالرفض ان تكون جزء من

هذه الدراسة. أيضا لديك الحق الكامل بالانسحاب من الدراسة قبل او اثناء او بعد الدراسة

يجب أن تشارك في هذه الدراسة فقط إذا كنت ترغب في التطوع. لا يجب أن تشعر بوجود أي ضغط للمشاركة في الدراسة. لك مطلق الحرية في المشاركة في هذا البحث أو الانسحاب في أي وقت. لن تكون هناك عقوبة أو خسارة للمزايا التي يحق لك الحصول عليها إذا توقفت عن المشاركة في هذه الدراسة.

فوائد

لن تحصل على أي مزايا من خلال المشاركة في هذه الدراسة البحثية

المخاطر أو الانزعاج

يعتبر هذا البحث الحد الأدنى من المخاطر. وهذا يعني أن المخاطر المرتبطة بهذه الدراسة هي نفسها التي تواجهها كل يوم. لا توجد مخاطر إضافية معروفة لأولئك الذين يشاركون في هذه الدراسة

تعويضات

لا يوجد مدفوعات للمشاركين نطلب منك المشاركة في دراسة

تصورات معلمي التربية الخاصة قبل الخدمة لبرامج إعداد معلم التربية الخاصة للتدريس بالمدارس الشاملة ، المملكة العربية السعودية

يسمى هذا الشخص باحث رئيسي. يتم توجيهه في هذا البحث من **USF** / يقود هذه الدراسة عبدالله ، وهو طالب دكتوراه في ، الأستاذ **USF** قبل الدكتوراة آن ،

معلومات يجب مراعاتها قبل المشاركة في دراسة البحث هذه

## التكاليف

لن يكلف أي شيء

الخصوصية والسرية

سنبذل قصارى جهدنا للحفاظ على سرية وسرية سجلاتك. لا يمكننا ضمان السرية المطلقة. قد يتم الكشف عن معلوماتك الشخصية إذا كان ذلك مطلوبًا بموجب القانون. قد يحتاج بعض الأشخاص إلى الاطلاع على سجلات الدراسة الخاصة بك. يشمل هؤلاء الأفراد:

- فريق البحث ، بما في ذلك الباحث الرئيسي ومنسق الدراسة والمرضات البحثية وجميع موظفي البحث الآخرين
- بعض أفراد الحكومة والجامعات الذين يحتاجون إلى معرفة المزيد عن الدراسة. على سبيل المثال ، قد يحتاج الأفراد الذين يقدمون الإشراف على هذه الدراسة إلى النظر في سجلاتك. يتم ذلك للتأكد من أننا نقوم بالدراسة بالطريقة الصحيحة. كما أنهم بحاجة للتأكد من أننا نحمي حقوقك وسلامتك
- أي وكالة تابعة للحكومة الفدرالية أو الولاية أو المحلية تنظم هذا البحث. وهذا يشمل: وزارة الصحة والخدمات [OHRP] ومكتب حماية البحوث البشرية (DHHS) الإنسانية
- والموظفين المرتبطين بها الذين لديهم مسؤوليات الإشراف على هذه USF (IRB) مجلس المراجعة المؤسسية. النزاهة والامتثال البحوث USF الدراسة ، والموظفين في

قد تتم إزالة معرفاتك من سجلاتك الخاصة أو عيناتك. يمكن استخدام و / أو توزيع معلوماتك أو عيناتك على محقق آخر لإجراء دراسات بحثية مستقبلية دون موافقة إضافية منك أو من ممثلك القانوني أو

لن يتم استخدام أو توزيع معلوماتك أو عيناتك التي تم جمعها كجزء من البحث ، حتى إذا تمت إزالة المعرفات ، للدراسات البحثية المستقبلية

قد ننشر ما نتعلمه من هذه الدراسة. إذا فعلنا ذلك ، فلن نقوم بتضمين اسمك. لن ننشر أي شيء يسمح للناس بمعرفة هويتك.

يمكنك الحصول على إجابات لأسئلتك أو مخاوفك أو شكاواك

إذا كانت لديك أية أسئلة أو مخاوف أو شكاوى حول هذه الدراسة ، فاتصل على عبدالله الجديع ، ٥٥٢٢٣٠٦٦٠. إذا كانت لديك أسئلة حول حقوقك أو شكاويك أو مشكلاتك كشخص يشارك في هذه الدراسة ، RSCH- على الرقم (813) 5638-974 أو اتصل عبر البريد الإلكتروني على جامعة جنوب فلوريدا فاتصل بـ [IRB@usf.edu].

الموافقة على المشاركة في البحث

والنفيوض بجمع المعلومات الصحية واستخدامها والكشف عنها

أمنح موافقتي بحرية للمشاركة في هذه الدراسة :] وأصرح بجمع / الكشف عن معلوماتي الصحية كما هو متفق عليه أعلاه في هذه الدراسة]. أنا أفهم أنه من خلال التوقيع على هذا النموذج ، أوافق على ذلك

التوقيع

التاريخ

---

الاسم

بيان بالحصول على الموافقة المستنيرة وتفويض البحث

لقد شرحت بعناية للشخص المشارك في الدراسة ما يمكن أن يتوقعه من مشاركته. أؤكد أن موضوع البحث هذا يتحدث اللغة المستخدمة لتفسير هذا البحث ويتلقى نموذج الموافقة المستنيرة في لغتهم الأساسية. قدم موضوع البحث هذا موافقة مستنيرة فعالة من الناحية القانونية.

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التقويم

التاريخ

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الاسم

**Appendix D – Interview Notes Template**

*Pre-service Educator Interview Protocol*

Institution: \_\_\_\_\_

Interviewee (Name): \_\_\_\_\_

Date of interview: \_\_\_\_\_

Interview Rounds:

\_\_\_\_\_ I: Understanding of Inclusive Education

\_\_\_\_\_ II: Teacher Preparation Perception

\_\_\_\_\_ III: Teacher Preparation Perception During Internship

Other Related Topics Discussed: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Post Interview Comments:

\_\_\_\_\_  
\_\_\_\_\_

## Appendix E – Interview Guide

<b><i>Research Questions</i></b>	<b><i>Interview Questions</i></b>
<i>Respondent Background</i>	<ul style="list-style-type: none"> <li>- When did you enter your teaching program? When did you graduate?</li> <li>- Could you tell me a bit about your background, and how you decided to become a teacher?</li> </ul>
<i>RQ 1: How do pre-service special education teachers in Saudi Arabia, specializing in intellectual disability describe the influence, if any, of their teacher preparation program on their understanding of the concept of inclusion?</i>	<ul style="list-style-type: none"> <li>- What do you understand the term “inclusive education” to mean?</li> <li>- In what semester did the program start providing you with the necessary knowledge about inclusive education? and How? Can you give me an example of how you learned about inclusive education?</li> <li>- To what extent do you think the concept of inclusive education was a major focus of attention and discussion in the program?</li> <li>- How do you think that the SPED program has influenced your understanding of inclusive education and its practices?</li> <li>- To what extent do you think pre-service teachers need additional knowledge/supplementary training if he plans to be an educator in an inclusive school? What specific types of additional knowledge or training are needed?</li> <li>- To what extent do you think that the SPED program has prepared you to use inclusive practices with students with intellectual disabilities?</li> <li>- Is there anything else that you think it’s important for me to know about how your program handles inclusive education?</li> </ul>
<i>RQ 2. What are the perceptions of pre-service special education teachers</i>	<ul style="list-style-type: none"> <li>- What are the most prominent aspects of inclusive education that the program is preparing for?</li> </ul>

<p><i>in Saudi Arabia, specializing in intellectual disability regarding their theoretical and <b>practical training</b> related to inclusive education?</i></p>	<ul style="list-style-type: none"> <li>- What types of inclusive education practices do you think you have been prepared to implement in inclusive schools? Can you give me some examples?</li> <li>- For the different practices that you mention, where did you learn them – from your coursework, from your internship(s), or both?</li> <li>- DO you feel that your training has been more theoretical or practical?</li>   <li>- In what ways do you think the SPED program has enhanced your theoretical knowledge on inclusive education and its practices? Can you provide examples?</li> <li>-</li> <li>- In what ways do you think the SPED program has enhanced your practical knowledge on inclusive education and its practices? Can you provide examples?</li>   <li>- How well do you think the SPED program has enhanced your understanding of the concept of Least Restrictive Environment?</li>   <li>- How confident are you that your program gave you enough theoretical knowledge about inclusive education? (probe for specific theoretical areas where R is more or less confident)</li>   <li>- How confident are you that your program gave you enough practical training about inclusive education? (probe for specific practical areas where R is more or less confident)</li>   <li>- Is there anything else that you think it’s important for me to know about your training, specifically the balance of theoretical and practical training?</li> </ul>
<p><i>RQ 3. How do pre-service special education teachers in Saudi Arabia, specializing in intellectual disability, perceive their experiences with inclusive education practices during the</i></p>	<ul style="list-style-type: none"> <li>- How would you describe your internship period in terms of implementing inclusive education practices?</li>   <li>- How would you describe the interaction between the students with disabilities with their peers who do not have disabilities?</li>   <li>- Was the curriculum applied to the students with disabilities any different than the curriculum applied to the students who do not have disabilities?</li> </ul>

<p><i>internship period of their teacher preparation programs?</i></p>	<ul style="list-style-type: none"> <li>- Was the physical environment accommodated to the special needs of the students with disabilities?</li> <li>- What type of support did the school provide you as pre-service teachers in terms of implementing inclusive education practices?</li> <li>- Can you to give an example of a good inclusive education practice during your internship?</li> <li>- Considering your internship experience, did you observe any gaps between the theory and practice of inclusive education?</li> <li>- Did you have any particularly important (positive or negative) experiences with inclusive education during your training?</li> <li>- Is there anything else that you think it's important for me to know about your internship experience?</li> </ul>
<p><i>Follow up questions (to be asked as needed throughout interview)</i></p>	<ul style="list-style-type: none"> <li>- Could you explain this please?</li> <li>- What do you mean by this?</li> <li>- Do you have examples?</li> <li>- Can you talk more about this point?</li> <li>- Is there anything else that you think it's important for me to know about this point?</li> </ul>



## **Appendix G- Feedback**

### *Participants' Feedback*

The transcription of each interview was sent to the interviewees, and I asked them to provide me with their feedback. Some of the participants asked me to add, change, or delete something. For example, Ameer asked me to add to his first interview “However, there was a lack of information in terms of how we can implement it.” Maher said that “My answer should be more understandable after adding this sentence.” Furthermore, some of the participants asked me to delete some of their answers that not come across well or seemed inappropriate. After the changes were applied, I emailed the participants who requested changes with a final draft of the transcription and their approvals were obtained.

### *Doctoral Student Feedback*

The transcription in Arabic and the translated quotations were sent to two doctoral students in special education program in the United States. The two doctoral students are fluent in Arabic and English, and I asked them to review my translations. They agreed that the translation of the quotations was accurate, and they would not change anything.

### *Peer Review Feedback*

Research questions, methodology, data analysis and discussion were sent to two qualitative researchers who specialize in Special Education for review. I asked the researchers to provide me with their feedback about the work. The researchers preferred to provide their feedback through online meetings via Zoom. I met with each researcher and wrote down their feedback during the meeting. The researchers' feedback was helpful in terms of naming the

themes and the sub-themes. Furthermore, one of the researchers said that “You did a great job in terms of analyzing the data, however, try to add quotations as much as possible.” Furthermore, the table of the themes and sub-themes was added after one of the researchers suggested that.