

ATTITUDES TOWARDS COLLABORATION TO CREATE INCLUSIVE EDUCATION IN
SAUDI ELEMANTRY SCHOOLS: GENERAL EDUCATION TEACHERS' PERCEPTIONS.

by

Modhawi ALMedlij

Copyright ©Modhawi ALMedlij 2021

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF DISABILITY AND PSYCHOEDUCATIONAL STUDIES

In Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

WITH A MAJOR IN SPECIAL EDUCATION

In the Graduate College

THE UNIVERSITY OF ARIZONA

2021

DocuSign Envelope ID: D3617AC4-4088-4467-93AC-021F98104238

2

THE UNIVERSITY OF ARIZONA
GRADUATE COLLEGE

As members of the Dissertation Committee, we certify that we have read the dissertation prepared by Modhawi ALMedlij, titled Attitudes Towards Collaboration to Create Inclusive Education in Saudi Elementary Schools: General Education Teachers Perceptions and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

Carl J. Liaupsin

Carl J. Liaupsin, Ed.D.

Date: 5/5/21

Taucia González

Taucia González, Ph.D.

Date: 5/5/21

DocuSigned by:

Donald White

[Committee Member Name]

5-5-21

Date: _____

Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copies of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

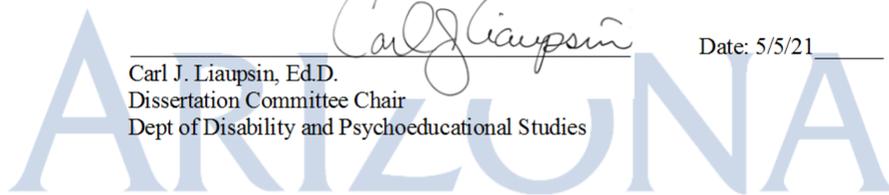
Carl J. Liaupsin

Carl J. Liaupsin, Ed.D.

Dissertation Committee Chair

Dept of Disability and Psychoeducational Studies

Date: 5/5/21



Acknowledgement

First and foremost, my gratitude goes to Allah for giving me the strength and patience to accomplish my PhD degree.

I would like to express my deepest appreciation to my committee chair Dr Carl Liaupsin, for his support, academic advice, and encouragement, which helped me a lot in the completion of my thesis. Also, I am extremely grateful to my committee members Dr Taucia Gonzalez, and Dr Jennifer White for their continuous support, guidance, and valuable feedback.

My deepest gratitude to my previous supervisor's Dr Todd Fletcher, Prof Eliane B Rubinstein-Avila, and Dr Nancy Mather for believing in me and pushing me to do my best in my PhD journey.

Also, I cannot begin to express my thank to Dr. Cecelia Amey for her immense knowledge and plentiful experience which have encouraged me in all the time of my academic research.

I would like to extend my thanks to Dr Nouf ALAnzi for her unwavering support and nurturing me during the hard times of my PhD journey.

Importantly, my greatest appreciation goes to my family. My father, Abdulrazak, who passed away before the completion of my PhD, I know you would be so proud of me. Thank you for believing in me. I am who I am because of you. I love you and miss you every day. My mother, Siham, who has been my constant source of support, thank you for your love and patience with me being always worlds away. I love you mother.

Last but not least, a special thanks to my brother Fahad. My sisters; AL Joharah, Haya, Sharifa, Sara, Shaha, and my niece Modhawi. You all were to me the hope, patience, inspiration, guidance, and the real supporters to accomplish this mission.

Dedication

To the beloved soul of my father, Abdulrazaq, who will always inspire me to succeed in life.

To my dear mother, Siham, the origin of my achievement and inspiration.

To my brother Fahad.

To my sisters AL Joharah, Haya, Sharifah, Sarah, and Shaha.

To my niece Modhawi.

TABLE OF CONTENTS

LIST OF TABLES	8
LIST OF FIGURES	9
ABSTRACT.....	10
CHAPTER 1 INTRODUCTION.....	11
Introduction.....	11
Public Education and Learning Disabilities in Saudi Arabia.....	14
Related Research in Saudi Arabia.....	15
General Related Research	15
Teacher Attitudes.....	15
Statement of the Problem.....	16
Purpose of the Study.....	17
DEFINITION OF TERMS.....	19
CHAPTER 2 LITERATURE REVIEW.....	21
Introduction.....	21
Theoretical Framework.....	21
General Literature Review.....	24
Selection Criteria	24
Attitudes Among General Education Teachers Around the World.....	25
Factors that Influence Teachers' Attitudes to Inclusion.....	29
Collaboration Among General and Special Education Teachers.....	35
Practices that Promote Collaboration.....	41
Characteristics that Lead to Successful Collaborations.....	43
The Effect of Collaboration on Students and Teachers	46
Saudi Arabian Context for the Study.....	48
Saudi Education System.....	48
History of Special Education in Saudi Arabia	49
Saudi Vision 2030.....	52
The Status of Inclusion in Saudi Arabia.....	52
Research on Attitudes Towards Inclusion Specific to Saudi Arabia	54
Factors that Shape Teachers' Attitudes in Saudi Arabia.....	57
Saudi Teachers' Attitudes Towards Including Students with LD in the GE Classroom	60
Barriers to the Inclusion of Students with LD in Saudi Arabia	63
Factors that Influence Attitudes Towards Inclusion in Saudi.....	66

Factors that Enhance Inclusion of Students with LD in Saudi Arabia.....	67
Summary.....	68
CHAPTER 3 METHODOLOGY	69
Introduction.....	69
Research Design	69
Participants.....	70
Settings.....	71
Sampling	71
Instrument	71
Modified Instrument.....	73
Demographic Information.....	74
Attitudes Towards Inclusion.....	74
Knowledge of Collaboration	75
Feelings Towards Collaboration.....	75
Survey Translation and Pilot Study	75
Research Questions to Survey Items	76
Data Collection	77
Data Analysis.....	77
Descriptive Statistics	78
One-way ANOVA.....	78
Thematic Analysis of Open-ended Questions.....	79
CHAPTER 4 RESULTS.....	80
Introduction.....	80
Sample Demographic.....	80
Research Question 1: Attitudes Towards Inclusive Education	82
Research Question 2: Attitudes Toward Collaboration	84
Knowledge of Collaboration	84
Feelings Towards Collaboration.....	87
Research Question 3: Difference in Attitudes Towards Inclusive Education	88
Research Question 4: Difference in Attitudes Towards Collaboration	89
Knowledge of Collaboration	89
Feelings Towards Collaboration.....	90
Open Ended Questions	91
Summary.....	92

CHAPTER 5 DISCUSSION.....	94
Introduction.....	94
Review of Findings.....	95
Attitudes Towards Inclusive Education.....	95
Attitudes Towards Collaboration.....	97
Comparison of Attitudes Towards Inclusion (SE VS no SE services).....	101
Comparison of Attitudes Towards Collaboration (SE VS no SE services).....	101
Open Ended Results.....	102
The Role of General Education Teachers in Inclusive Classroom.....	102
Successful Collaboration.....	103
Additional Comments.....	104
Limitations.....	106
Study Context.....	106
Research Design.....	106
Coronavirus Pandemic.....	107
Future Research and Practical Implications.....	107
Fazio Theory.....	107
The Inclusion of Students with LD in Saudi Arabia.....	108
Barriers to Collaboration.....	110
Conclusion.....	111
APPENDICES.....	114
Appendix A Letter of Intent of Ministry of Education.....	115
Appendix B IRB Approval Letter.....	116
Appendix C Modified Survey Questions.....	117
REFERENCES.....	124

LIST OF TABLES

TABLE 1	Research Questions to survey items	76
TABLE 2	Data Analysis Method to each Research Questions	79
TABLE 3	Demographic Information of the Participants.....	81
TABLE 4	Freq and Mean for Items: Attitudes Towards Inclusive Education	83
TABLE 5	Frequency and Mean for Items: Knowledge of Collaboration	85
TABLE 6	Frequency and Mean for Items: Feelings Towards Collaboration.....	87
TABLE 7	The Effect of SE Services Existence Towards Inclusive Education.....	89
TABLE 8	The Effect of SE Services Existence on Knowledge of Collaboration.....	90
TABLE 9	The Effect of SE Services Existence Towards Feelings of Collaboration.....	90

LIST OF FIGURES

Figure 1 Attitudes to Behavior Process23

ABSTRACT

This survey study investigated general education teachers' attitudes towards inclusion and collaboration to create inclusive classrooms for students with learning disabilities in Saudi elementary public schools. General education teachers in Saudi Arabia are central to the success of the inclusion of students with learning disabilities, and understanding their attitudes is fundamental to the success of inclusion and collaboration.

A sample of 188 Saudi general education teachers responded to an online Likert scale survey supplemented with open-ended questions. Descriptive statistics and One-way ANOVA were used in the analysis of the data, which revealed that the sample of general education teachers have neutral attitudes towards inclusion. However, these teachers have positive attitudes towards collaboration, including the two domains of knowledge of and feelings towards collaboration. There was a significant ($p < 0.05$) difference in the teachers' attitudes towards inclusion and their feelings towards collaboration when resource rooms exist in schools. However, there was no significant difference in teachers' attitudes regarding the knowledge of collaboration when resource rooms exist in schools. The open-ended questions revealed that teachers were aware of the importance of their role in the success of inclusion. In addition, the teachers stated that the availability of resources, including special education (SE) teachers is key to creating successful collaboration.

A number of barriers to achieving inclusion and collaboration were raised by the teachers, including lack of SE teachers, and the number of students in the classrooms. Concerns were also raised regarding students with learning disabilities, and their abilities to access the general curriculum. Issues external to teacher-to-teacher and teacher-to-students' relationships, such as administrative support and lack of knowledge regarding inclusion and collaboration practices were also identified.

This study lays the foundations for further research regarding in-service training programs, ways to develop and enhance collaboration between teachers and to investigate the perceptions of students with learning difficulties regarding having a collaborative team of teachers who can motivate and guide them in the general education classroom.

CHAPTER 1 INTRODUCTION

Introduction

Creating an equal learning opportunity for all individuals, despite their needs, should be the common goal of educational institutions around the world. Consequently, inclusive models of education have been established to meet the range of needs of students with disabilities (Nishimura, 2014). Inclusion is defined as "...students with disabilities receiving some or all their instruction in the general education setting as appropriate to meet students' academic and social needs" (McCray & McHatton, 2011, p. 137). In inclusion settings, teachers are required to plan lessons to meet the needs of all the students in their classroom, regardless of their abilities. This includes teaching methods, aids, and the design of the classroom setting.

The introduction of laws and policies to promote more accessible and inclusive learning environments has affected education systems worldwide. In the context of the United States, the importance of providing equal learning opportunities for all students resulted in the 1975 Individuals with Disabilities Education Act (IDEA), which was most recently updated in 2004. The main purpose of the updated act was to ensure that all students with disabilities have access to public education. Under IDEA, special education and related services are provided to meet the different needs of students and provide access to further education, work opportunities, and life skills (IDEA, 2004). The category of special education in IDEA that includes the most identified children is the category of Learning Disabilities (LD). LD is defined within IDEA (2004) as:

a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in an imperfect ability to listen, think, speak, write, spell, or do mathematical calculations (Kavale, Spaulding, & Beam, 2009, p.40).

In developing the policy of special education for students with disabilities, Saudi Arabia reviewed the U.S.'s special education policies resulting in the introduction of the Regulations of Special Education Programs and Institutes (RSEPI) modeled on the U.S. policies and introduced in 2001 (Alquraini, 2011). A new amendment was added in 2005 ensuring the inclusion of students with LD in regular public classrooms (Ministry of Education, 2005). One of the main goals in the new amendment in Saudi Arabia was to ensure developing an educational system for students with special needs, including students with LD (Ministry of Education, 2005).

Despite amendments in the law encouraging inclusive education settings, students with LD still face obstacles that prevent them from being fully included in the general education (GE) classroom (McLeskey, Hoppey, Williamson, & Rentz, 2004). In the U.S. for instance, since the amendment established in the 1990s that encouraged less restrictive education for students with LD (McLeskey et al., 2004), only 15 states have moved to include students with LD in GE settings (McLeskey et al., 2004). A number of obstacles prevented the inclusion of students with LD in the GE classroom. One important obstacle that has been identified are the negative attitudes among teachers to the inclusion of students with LD in GE classrooms (Chhabra, Srivastava, & Srivastava, 2010). According to Cook (2002), effective mainstreaming strategies only work when teachers hold positive attitudes and teachers' attitudes have a significant role in a student's success, especially among students with special needs (Alharthi & Evans, 2017).

Another obstacle to inclusion of students with LD in GE classrooms involves teacher attitudes towards collaboration that supports inclusion. Researchers have demonstrated that collaboration between school professionals is an important factor in the success of inclusion efforts (Williams, 2010). When collaboration occurs between teachers, students with disabilities, including LD, improved academically by receiving better grades (Rea, McLaughlin, & Walther-

Thomas, 2002). Negative teachers' attitudes was one of the main barriers to establishing a successful collaboration between teachers (Al-Natour et al., 2015). In Saudi Arabia, Lack of collaboration was found to be one of the barriers to inclusion (Al-Zoubi & Rahman, 2016)

The phenomenon of teachers' attitudes towards including students with LD in the GE classrooms has been extensively researched (AL Ahmadi, 2009; Alharthi & Evans, 2017; Al-Zyoudi ,2006; Bin Mahfooz, 2019; Elhoweris & Alsheikh, 2004; Rakap & Kaczmarek, 2010). However, of the studies conducted in Saudi Arabia, only a few have investigated GE teachers' attitudes towards inclusive education for students with LD in Saudi elementary schools with and without special education (SE) services. Furthermore, there is also a lack of studies investigating GE teachers' attitudes in elementary schools towards collaboration to include students with LD in GE classroom. Therefore, a quantitative study is proposed to investigate the attitudes of GE teachers within elementary schools. This study will explore the attitudes of GE teachers in elementary schools in Saudi Arabia in terms of (1) their perceptions towards inclusive education, (2) their feelings and efforts towards collaboration to include students with LD in the GE classroom. This study will contribute to the literature regarding improving the learning environment for students with LD by uncovering GE teachers' attitudes towards collaboration and inclusion of students with LD in the GE classroom.

The following sections of this chapter are designed to provide an appreciation of the importance of the proposed study. The first of these sections will provide background information about the Saudi educational system and how LD is defined within that system. The next section will provide a brief introduction to the existing research on this topic that has been conducted in Saudi Arabia. The chapter will conclude with sections that more fully describe the problem statement and the research questions for this study.

Public Education and Learning Disabilities in Saudi Arabia

In Saudi Arabia, the current public education system spans 12 years in total with 6 years in elementary school, 3 years in middle school, and 3 years in high school (Saudi Arabia Cultural Mission, 2020). The Saudi government ensures that all citizens have access to free education from primary school through higher education (AL-Mousa, 2010) and it mandates that all children should be admitted to primary school by the age of six (Alquraini, 2011). Saudi public schools are segregated by gender in all education levels (Baki, 2004) with the genders being separately taught by same gender instructors in same gender schools. The only exception being preschool, where both genders are integrated (Smith & Abouammoh, 2013).

The Saudi Arabian Ministry of Education Regulation of Special Education Institutions and Programs (2002) defined LDs as:

Disorders in one or a multiple of fundamental mental processes that are involved in the comprehension and use of spoken and written languages whose manifestation is apparent in listening, reading, thinking, spelling, writing or arithmetic related disorders not related to family issues, mental retardation, educational or social background, or hearing or visual impairments (AIRasheed, 2010, as cited in Alawfi, 2017, p.3).

The Saudi Learning Disability program (SLDP) had been introduced into 2393 schools of both genders by 2015 (Ministry of Education, 2019). Since the establishment of the Department of Learning Disabilities (DLD) in 1995 (Alquraini, 2011), the number of students identified with LD had reached 250,000 by 2016 (Battal, 2016). In Saudi public schools, students with LD are recognized and referred to the resource rooms by the GE teachers to receive the support needed by the SE teachers (Hussain, 2009); therefore, encouraging collaboration among all teachers might be expected to help in the identification process.

Related Research in Saudi Arabia

General Related Research

There has been a variety of special education and LD related research conducted in Saudi Arabia. Many studies have delved into the parents' perspectives towards the resource classroom as an instructional setting for their children who have been identified with LD (Somaily, Al-Zoubi, & Bani Abdel Rahman, 2012). Some studies have aimed to assess the obstacles that limit the resource classroom services provided by SE teachers (Al-Zoubi & Bani Abdel, 2016). A study by Al-Zoubii and Rahmani (2012) describes the effect of resource classrooms in improving reading and arithmetic skills of students with LD. In addition to resource classroom investigations, studies have also looked at teacher preparation programs and teachers' knowledge surrounding SE laws in Saudi Arabia (Murry & Alqahtani, 2015; Hussain, 2010).

Teacher Attitudes

For more than 30 years, considerable effort has been directed to provide students with disabilities the support needed in GE settings (Hodgson, Lazarus, & Thurlow, 2011). Despite these efforts, barriers to meeting the needs of students with disabilities exist (Murawski & Swanson, 2001). One of the main barriers is that many teachers hold negative attitudes toward including students with LD in their classrooms (Al-Natour et al., 2015; Santoli et al., 2008). Many studies conducted in Saudi Arabia have explored SE teachers' attitudes towards teaching students with LD in the GE classroom in middle schools (Al-Ahmadi, 2009; Alharthi & Evans, 2017; Hussain, 2010). General education teachers in the Al-Natour et al. (2015) study saw the issue of negative attitudes as the second most important barrier to the collaboration process combined with lack of support, with the primary barrier being the amount of work assigned to

the GE teachers. One study found that 80% of teachers reported that students with LD lacked the skills needed to be equally included in the GE classroom (Santoli et al., 2008).

Other studies have investigated the factors that affected teacher's attitudes towards the inclusion of students who are deaf or hard of hearing in Saudi Arabia (Alasim & Paul, 2018; Alshahrani, 2014) and the inclusion of students with severe intellectual disabilities (Alquraini, 2012).

Statement of the Problem

The LD category, among all other categories of disability, recorded the highest number of students diagnosed with LD in Saudi schools (Al-Mousa, 2010). Since the establishment of the SLDP in elementary schools in Saudi Arabia, the number of students identified with LD has risen to 250,000 (Battal, 2016). The SLDP program was established in 1996 to identify and provide assistance for students with LD in the GE education settings. The ultimate purpose of this program was to create an inclusive learning environment for students with LD.

Unfortunately, students with LD are still excluded and spend most of their time in the resource room receiving individual instruction (Alnahdi ,2014). Recent research has shown that this, to a large extent, is due to the negative attitudes of GE teachers to include students with LD in the GE classroom (Al-Natour et al., 2015; Santoli et al., 2008) and lack of collaboration between teachers to achieve inclusion (Alharthi & Evans, 2017).

There is lack of research regarding the impact of SE services (SE teachers, resource room) existing within schools on GE teachers attitudes and collaboration to inclusion. The Saudi Learning Disability Program, by 2012, was launched in 2713 public schools (Ministry of Education. 2020). Most of the research conducted, in Saudi Arabia, investigated GE teachers attitudes towards inclusion in schools that includes SE services (Al-Assaf, 2017; AL Jaffal,

2019; AL Quaraini, 2012). However, there is a gap in the research regarding the attitudes of GE teachers towards inclusion and collaboration in schools that does not include SE services.

Research on this issue is important; if placement of SE services within a school is found to be linked to more positive GE teacher attitudes, then it could be reasonable to recommend that all schools provide on-site SE services including SE teachers and a resource room.

Given that research has demonstrated importance of teacher attitudes in the successful inclusion of students with special needs, this study seeks to identify the attitudes of GE teachers in elementary schools with or without SE services. Also, this study will investigate whether the existence of SE services within a school could affect teachers' attitudes towards inclusion as well as attitudes towards collaboration to include students with LD in the GE classroom. It is considered that this study will fill the gap by conducting a survey study with GE teachers to: (1) measure GE teachers' attitudes towards inclusive education for students with LD in Saudi elementary schools with and without SE services, (2) investigate GE teachers' attitudes towards collaboration to include students with LD in GE classrooms, and (3) compare the difference in GE teachers' attitudes towards inclusion and collaboration to include students with LD in schools with or without SE services.

Purpose of the Study

To achieve a broader understanding of GE attitudes towards inclusion and collaboration to create an inclusive environment for students with LD in Saudi elementary schools, four main research questions will guide this study:

1. What are GE teachers' attitudes towards inclusive education for students with LD in a GE classroom?

2. What are GE teachers' attitudes towards collaboration to include students with LD in a GE classroom?
3. Is there a difference between GE teachers' attitudes towards inclusion in schools with SE services and schools with no SE services?
4. Is there a difference between GE teachers' attitudes towards collaboration in schools with SE services and schools with no SE services?

DEFINITION OF TERMS

Attitudes. “A disposition to respond favorably or unfavorably to an object, person, institution, or event” (Ajzen, 2005, p. 3).

Collaboration. Collaboration is a broad term interpreted in various ways in different fields. A broad definition of collaboration provided by the Intelligence Community Collaboration study (1999) is multiple people exchanging information, communicating to solve a problem, and interacting. For this study, the focus will be on the form of collaboration between general and special education teachers within a school, and will be defined as when educators within a school are involved in cooperative activities that includes (a) interacting to solve a problem, (b) planning lessons to address all students’ needs, and (c) making decisions together (Friend & Cook, 1992).

Inclusive setting. “[I]nclusive” school setting is defined by the UNESCO (2009) as a school that will include services that covers the needs of all students within that school despite their individual needs which might include having a disability or learning disorder.

Learning disability. According to the National Center for Learning Disabilities (NCLD, n.d.), [A] learning disability (LD) is a neurological disorder that affects the brain's ability to receive, process, store and respond to information. The term learning disability is used to describe the seeming unexplained difficulty a person of at least average intelligence has in acquiring basic academic skills. These skills are essential for success at school and work, and for coping with life in general. “LD” is not a single disorder. It is a term that refers to a group of disorders.

General Education: “a set of education experiences which a child would receive in a school district were that child to enter school at the kindergarten or first-grade level, and proceed through school without being labeled as a ‘student with special needs’” (Lilly, 1971, p.67)

CHAPTER 2 LITERATURE REVIEW

Introduction

The purpose of this literature review is to provide a context for the research questions driving this study. To that end, this literature review will (a) explore the current attitudes of general education (GE) teachers towards inclusive education for students with learning disabilities (LD) in the GE classroom and (b) highlight GE teachers' attitudes towards collaboration to include students with LD in GE classrooms.

The chapter will start with a description of the theoretical framework that provides a conceptual model of how teachers' attitudes influence their behavior. The chapter then enters into the formal literature review, which includes the selection of literature, exclusion and inclusion criteria, and a general review of international research on teachers' attitudes towards inclusion and collaboration to include students with LD in the GE classroom. This chapter continues by providing the Saudi context for this study by presenting information about the history of the Saudi education system, special education in Saudi Arabia, and the country's efforts to promote inclusive education. The chapter concludes with a review of previous research about teachers' attitudes towards inclusion and collaboration that has been conducted within the Saudi system of schooling.

Theoretical Framework

The current research study that aims to understand GE teachers' attitudes towards inclusion is derived from the theoretical framework proposed by Fazio (1986). Fazio described an "attitude" as a connection between an object and evaluation. This perspective provides the framework for understanding Saudi GE teachers' attitudes towards inclusion and to explain their attitudes towards collaboration to include students with LD into GE classrooms. Fazio (1986)

hypothesized that behavior change is preceded by changes in attitudes. Consequently, this study's ultimate aim of exploring Saudi GE teachers' attitudes is to add to the body of knowledge that can be applied to increasing their collaboration efforts and shift their attitudes into more positivity towards inclusion of students with disabilities into GE classrooms.

Fazio (1986) considered that attitudes can be measured. Also, he claimed that any attitudes towards a certain object will ultimately be reflected in an expressed behavior. Expectations, individual knowledge, values, are all factors that influence an individual's expressed behavior. Fazio (1986) elucidated the relationship between attitude and behavior in his theoretical model, which describes a series of five attitudinal steps that must occur before observing any behavioral response.

First, "attitude activation" occurs once the attitude is accessed from an individual's memory. Fazio claimed that unless this step occurs the attitude will not lead to the behavior. Once the attitude is accessed in this initial step, it will work as a filter through which attitudes will be perceived. For instance, if a teacher holds a positive attitude towards inclusion and was asked about thoughts concerning inclusion, then their response will show positive attitudes towards the concept of inclusion.

The second step is "selective perception". This occurs after the activation of the attitude when the individual gets to select a perception from the activated ones. For example, if a teacher has positive attitudes towards inclusion, in this step, they will notice and select the positive characteristics of inclusion. However, one who hold negative attitudes towards inclusion will select the negative characteristics of inclusion.

Fazio's third step is "immediate perception of the attitude object", which is affected by the selective perception step and includes the definition of attitudes that an individual held

previously. In other words, immediate perception, or attitudes, is developed by all previous thoughts towards a specific object. Actually, previously held attitudes towards a specific object significantly affect the individual's process of developing their attitudes in this step.

Fazio's fourth step is "definition of the event". The direction of the behavior is affected by the definition that the person holds for an object. Fazio (1986) stated that an approach behavior is urged by a definition of an event that includes positive attitudes, whereas avoidance behavior is driven by negative attitudes that a person holds.

The fifth and final elemental step is "behavior". This is the step where an actual behavior is selected and expressed.

Applying this theory elucidates that once GE teachers in Saudi activate their attitudes towards inclusion, an immediate and selective attitude towards inclusion will be exposed and shown in their behavior because according to Fazio's theory, attitudes do impact behavior.

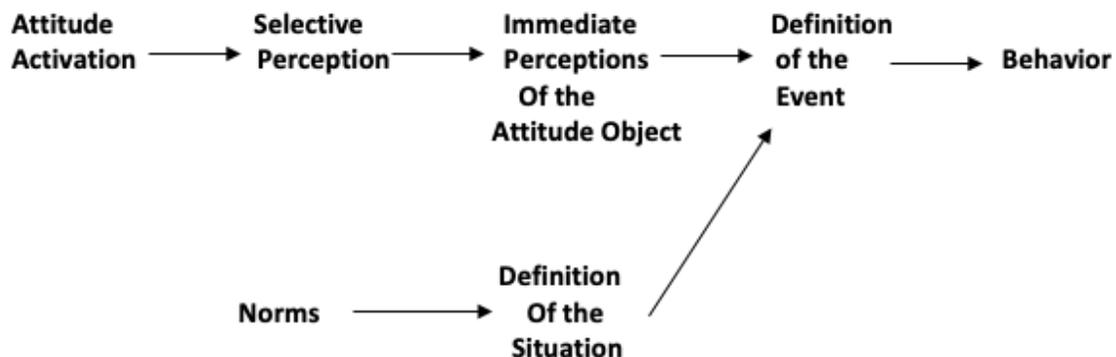


Figure 1. Attitudes to behavior process (Fazio 1986, p. 212)

In accordance with Fazio's model (1986), Saudi GE teachers who define inclusion negatively will have negative attitudes towards the concept of inclusion, whereas teachers who define inclusion positively will be supportive of the inclusion concept and express positive

attitudes. Applying the theory suggests that the attitudes of GE teachers in Saudi towards inclusion have an impact on their expressed behavior towards teaching and including students with special needs, including LD, in GE classrooms.

Teachers' attitudes are one of the most important factors that contribute to the success of inclusion practice (Avramidis, & Norwich, 2002). If teachers hold positive attitudes towards inclusion it will facilitate providing accommodation and collaboration with the SE teachers to meet the different needs of students in order to be included in the GE classrooms. On the other hand, if teachers hold negative attitudes towards inclusion, it will result in not collaborating with the SE teachers to meet the diverse needs of students with LD. As confirmed in a study by Al-Natour et al. (2015) the issue of negative attitudes is the second strongest barrier to the collaboration process. In this current study, Fazio's fifth step (i.e., 'behavior') represents collaboration between GE and SE teachers in GE classrooms in elementary education in Saudi Arabia.

General Literature Review

Selection Criteria

Due to the importance of teachers' attitudes on learning success (Desombre, Lamotte, & Jur, 2019), numerous studies have been conducted worldwide focusing on teachers' attitudes. In order to conduct the literature review for this study, a number of criteria were identified and followed to determine the relevant literature to be considered in this review. Research articles that focused on GE teachers' attitudes towards inclusion and collaboration to include students with special needs into GE classrooms were identified through a comprehensive search of existing peer-reviewed articles. The following key search terms and phrases were used in the process: "inclusion", "inclusion in Saudi Arabia", "teachers' attitudes and learning disability",

“*special education and general education collaboration*”, “*teachers’ collaboration*”. The literature search was conducted using the following databases: ERIC, Academic Search Complete, Education Full Text, Psych Articles, Google Scholar, and PsychInfo. A set of inclusion and exclusion criteria were identified in order to define the relevance of the literature and provide a focus for this study.

The criteria are identified below:

Inclusion criteria

- Publications in the year 2000 or after.
- Publications focusing on attitudes of GE teachers towards inclusion and/or collaboration to include students with disabilities including LD.

Exclusion criteria

- Publications prior to 2000.
- Publications focusing on SE teachers’ attitudes towards inclusion/collaboration to include students with disabilities including LD.

Attitudes Among General Education Teachers Around the World

Identifying and reviewing international studies conducted on GE teachers’ attitudes towards including students with disability, including LD, showed that attitudes varied from positive (e.g. Avramidis, Bayliss, & Burden, 2000; Christopher Boyle, Keith Topping & Divya Jindal-Snape 2013; Dukmak, 2013; Elias Avramidis & Efrosini Kalyva, 2007; Odongo, & Davidson, 2016), to negative (Alghazo, & Gaad, 2004; Al-Natour, Amr, Al-Zboon, & Alkhamra, 2015; Parasuram, 2006; Sakari Moberg, Etsuko Muta, Kanako Korenaga, Matti Kuorelahti & Hannu Savolainen, 2020; Santoli, Sachs, Romey, & McClurg, 2008; Salih Rakap & Louise Kaczmarek ,2010).

The influence of certain variables, including type of disability (Al-Zyoudi, M. 2006; Čagran, & Schmidt, M. 2011; Dukmak, 2013; Gaad & Khan, 2007), years of experience (Alghazo & Gaad, 2004; Dukmak, 2013), and gender (Alghazo, & Gaad, 2004; Al-Zyoudi, 2006; Dukmak, 2013) are consistent through most of the studies and do influence shaping teachers' attitudes towards including students with disabilities in GE classrooms.

Positive Attitudes. Teachers show positive attitudes towards including students with disabilities conditional on receiving adequate support. A study of 391 teachers in Scotland, reported positive attitudes towards including students with disabilities if they received adequate support (Christopher Boyle et al., 2013). In other words, teachers would be encouraging inclusion if they receive adequate support from the school administration. A similar study by Al-Zyoudi (2006), conducted in Jordan with 90 teachers, including GE and SE teachers, identified that 49 of the sample group supported the idea of inclusion with specific conditions which included students attending the resource room to receive support. Of the 49 teachers, 27 were in favor of inclusion that includes some classes in the GE room and some in the resource room, however only 7 out of the 49 thought that students should be fully included in the GE classrooms (Al-Zyoudi, 2006). Similar to the attitudes of the teachers in Scotland and Jordan, 81 mainstream teachers in England held positive attitudes towards inclusion (Avramidis et al., 2000). Although the teachers in this study showed positive attitudes towards inclusion, they indicated a lack of confidence in their abilities to meet the Individual Education Plans (IEPs) of students with special needs in the GE classroom (Avramidis et al., 2000). A mixed method study by Odongo and Davidson (2016) used surveys and focus group interviews, with a sample of 142 primary school teachers including 100 GE teachers and 42 SE teachers in primary schools in Kenya. The study sample was collected from 10 schools that were actively implementing inclusion programs

and reported positive attitudes towards inclusion. This finding indicates that an active implementation program has a positive effect on teachers' attitudes

Teachers' positive attitudes to inclusion are influenced by certain factors including receiving administrative support, resource rooms services, and active implementation of an inclusion program. Teachers were pro inclusion conditional upon receiving support from the school administrators. Also, teachers showed positive attitudes with the condition that students attend the resource room to receive extra support from the SE teachers. Although teachers showed positive attitudes towards inclusion of students with special needs, a lack of confidence in meeting the IEP's was one of the concerns raised.

Negative Attitudes. Teachers holding negative attitudes towards including students with disabilities into GE classrooms is an important reported finding in most of the studies in the literature reviewed for this current study (e. g. Santoli et al., 2008; Al-Natour et al., 2015; Sakari Moberg et al., 2020; Salih Rakap & Louise Kaczmarek, 2010). Based on a survey of 56 GE teachers in the US Santoli et al. (2008) reported 76.8 % holding negative attitudes toward including students with LD in the GE classroom. This attitude was due to the level of belief about the ability of students with LD to understand the GE classroom content. In fact, 80% of the teachers reported that students with LD lacked the skills needed to be equally included in the GE classroom (Santoli et al., 2008). Interestingly, 78% of the teachers reported their confidence in their knowledge regarding the teaching strategies that would help students with disabilities to be fully included in the GE classroom, However, their beliefs and perceptions about students with disabilities placement prevented them from showing willingness to achieve an inclusive classroom (Santoli et al., 2008). Time constraints were one of the key factors reported by more

than half of the teachers that affected their attitudes towards including students with disabilities in the GE classroom (Santoli et al., 2008).

A later study by Al-Natour et al. (2015) similarly reported GE teachers holding negative attitudes about including students with LD in their classroom. The study sample consisted of 250 GE and SE teachers from Jordan who were surveyed and interviewed about their efforts in collaboration to achieve inclusive practice. Around three quarter of the teachers rated GE teachers' negative attitude as being a constraint to achieving any collaborative efforts to include students with disabilities in the GE classroom (Al-Natour et al., 2015).

Based on a survey study that included 362 Finnish teachers and 1518 Japanese teachers, Finnish teachers were less positive compared to the Japanese teachers about the effect of inclusion on students with and without disability (Sakari Moberg et al., 2020). When comparing Finnish teachers to Japanese teachers in terms of their attitudes towards inclusion, both showed negative attitudes towards inclusion. However, Finnish teachers were more worried about their efficiency in implementing inclusion (Sakari Moberg et al., 2020). A similar finding, to the study conducted with Finnish and Japanese teachers, was made by Salih Rakap and Louise Kaczmarek (2010) when they studied GE teachers in Turkey. One hundred and ninety-four GE teachers working in public elementary schools in Turkey showed negative attitudes towards including students with disabilities, including those with severe learning disabilities. Only 35% of the GE teachers were willing to include students with LD into the GE classrooms (Salih Rakap & Louise Kaczmarek, 2010).

Another study conducted with GE teachers in India revealed that teachers held slightly negative attitudes towards inclusion (Parasuram, 2006). The survey study of 300 GE teachers showed a mean of 3.3 which fell between response 3 "disagree somewhat" and response 4 "agree

somewhat” with closer to response 3 namely “disagree somewhat”. Among all variables examined in this research including; gender, age, income level, education levels, years of teaching experience, having a family member with a disability that had an effect on teachers attitudes towards disabilities. The variable where teachers had contact with a person with a disability was the only variable that affected teachers’ attitudes towards inclusion (Parasuram, 2006).

Teachers’ negative attitudes to inclusion are influenced by certain factors including teachers’ perceptions regarding students with disabilities abilities to understand the GE classroom content. Also, teachers’ negative attitudes were found to be a barrier to establish any collaborative efforts between GE and SE teachers to create inclusive classrooms. Another factor that influenced the attitudes of teachers negatively was that teachers showed concerns in their efficiency in creating an inclusive environment. Lastly, teachers previous contact with a person with a disability influenced their attitudes towards inclusion.

Factors that Influence Teachers’ Attitudes to Inclusion

From the literature, factors were identified that influence teachers’ attitudes towards inclusion, including type of disability, years of experience, and gender.

Type of Disability. The type of disability is a factor affecting teachers’ attitudes towards including students with special needs in GE classrooms (Avramidis et al., 2000; Alghazo & Gaad, 2004; Al-Zyoudi, 2006; Elias Avramidis & Efrosini Kalyva, 2007; Gaad & Khan, 2007; Salih Rakap & Louise Kaczmarek, 2010; Ćagran & Schmidt, M. 2011; Dukmak, 2013; Odongo, & Davidson, 2016).

Based on the survey results of 1360 GE teachers in Slovenian schools, the teachers showed most concern towards including students with physical impairments and the lowest

concern towards students with behavioral disorders (Çagran, & Schmidt, M. 2011). On the contrary, teachers in England and Jordan rated students with behavioral and emotional difficulties as the most concerning regarding inclusion (Al-Zyoudi, 2006; Avramidis et al., 2000). In a study conducted in Jordan, 7 out of a sample of 90 GE and SE teachers mentioned specifically that students with behavioral problems and intellectual disabilities should not be included in the GE classrooms (Al-Zyoudi, 2006). Similarly, a study conducted with 800 primary GE teachers in the United Arab Emirates revealed that the type of disability affected teachers' attitudes towards inclusion (Dukmak, 2013). General education teachers in Dubai had a negative attitude towards including students with special education needs, especially hearing impairments and communication disorders (Goad & Khan, 2007), however, they showed more positive attitudes towards including students with learning disabilities (Gaad & Khan, 2007).

Physical disabilities received the highest rate of recognition regarding the acceptance disability to be included in the GE classroom (Alghazo & Gaad, 2004). For example, in Turkey, GE teachers reported that they would feel most comfortable to include students with physical disabilities, with 44.9% of the teachers who participated in the study willing to include these students (Salih Rakap & Louise Kaczmarek, 2010). In this study, teachers reported students with LD as the second most comfortable category to be included in the GE classroom.

Learning disability was rated as one of the easiest disabilities to be accommodated in the GE classroom (Alghazo, & Gaad, 2004; Elias Avramidis & Efrosini Kalyva, 2007). This was reported, via a survey of the attitudes of 155 GE teachers in Greece. The teachers considered that students with LD were the easiest to include in the GE setting, whereas students with visual and hearing impairments were the hardest to include in the GE classroom (Elias Avramidis & Efrosini Kalyva, 2007). Teachers in a Turkish study rated students with LD as the second most

acceptable disability, after physical disability, to be included in the GE classroom (Alghazo & Gaad, 2004). Students with specific disabilities, including learning disabilities, were rated as the most accepted in Jordanian classrooms (Al-Zyouidi, 2006). Based on a study conducted with 90 teachers including GE and SE teachers, the qualitative analysis reported that 23 of the teachers thought that students with specific disabilities should be included in the GE classrooms (Al-Zyouidi, 2006).

Students with LD are identified as one of the disabilities that could be included in the GE classrooms (Odongo & Davidson, 2016). A focus group that included 10 GE and SE teachers, following a survey with 142 primary school teachers in Kenya, suggested that students with LD can be included in the GE classrooms. However, students with autism and intellectual disabilities were considered to be unsuitable for inclusion in the GE classroom (Odongo & Davidson, 2016).

Similar results, regarding the inclusion of students with LD, were reported in a comparative study of two culturally different samples of teachers - Finnish and Japanese (Sakari Moberg et al., 2020). When Finnish and Japanese teachers' attitudes were compared in terms of their readiness to include students with special education needs, Finnish teachers were concerned about the effectiveness of teachers with particular regard to students with emotional and behavioral problems, whereas Japanese teachers considered that students with physical or hearing and visual disabilities were the most challenging (Sakari Moberg et al., 2020). It was found that the sample of Finnish teachers were more positive and ready to include students with LD compared to the Japanese teachers (Sakari Moberg et al., 2020). In Finland the emphasis on inclusion influences teachers' attitudes, however, in Japan talking about inclusive education supports its existence. The findings from the Sakari Moberg et al. study (2020) consider that in order to 'improve the universal understanding of inclusive education, more research should be

done to analyze how inclusive education developments are realized in different cultural and historical contexts' (Sakari Moberg et al., 2020) This current study is a response to this need in the context of Saudi Arabia.

In summary, the type of disability influenced teachers' attitudes towards including students with disabilities into the GE classroom. Students with behavioral disabilities were rated as the most difficult to include, where other teachers thought students with physical impairments as the most difficult to be included in the GE classroom. Students with LD were rated the easiest to accommodate and include in the GE classroom.

Years of Experience. Years of experience is another factor that that has been identified as affecting teachers' attitudes towards including students with disabilities in GE classrooms (Alghazo & Gaad, 2004; Christopher Boyle et al., 2013; Dukmak, 2013; Sakari Moberg et al., 2020; Saloviita, 2020; Salih Rakap & Louise Kaczmarek, 2010). Most of the studies included in this review show that teachers with more years of experience in the teaching field tend to have more negative attitudes towards inclusion. For instance, a study conducted in the United Arab Emirates of 455 primary school teachers (214 male and 241 female) responding to a survey showed a significant correlation between more years of experience affecting teachers' attitudes negatively towards inclusion (Dukmak, 2013). Comparably, teachers in Scotland with 1 to 5 years of teaching experience are considered "newly qualified" and were found to have significantly more positive attitudes than other categories, including those with 6-10 years of experience (Christopher Boyle et al., 2013). Similarly, a recent survey study conducted in Finland with 1764 teachers showed that teachers with fewer years of experience were more positive towards inclusion (Saloviita, 2020). Similar results to the studies conducted in Scotland and Finland were found in GE teachers in India with less years of teaching experience (1-5

years). These teachers showed significantly more positive attitudes than teachers who had 5-10 years of experience (Parasuram, 2006).

Although many of the studies showed that more years of experience resulted in negative attitudes (Dukmak, 2013; Parasuram, 2006), GE teachers in Turkey with more years of experience reported more positive attitudes towards inclusion (Salih Rakap & Louise Kaczmarek, 2010). For instance, teachers with 1-4 years of experience and 14 and more years had more positive attitudes than teachers with 5-9 and 10-14 years of experience. Similarly, teachers in the United Arab Emirates who had 12 years of experience showed more positive attitudes towards inclusion than teachers who had 1 to 5 years (Alghazo & Gaad, 2004).

The number of years' experience did not have an effect on teachers' attitude, rather the quality of experience (Sakari Moberg et al., 2020). In other words, teachers who had successful experiences with inclusion showed more positive attitudes towards inclusion than teachers who had unsuccessful experiences (Sakari Moberg et al., 2020).

Similarly, in Nigeria a study by Fakolade et al. (2009) found no significant difference between teachers' years of experience and their attitudes towards inclusion. In this study the authors categorized years of experience as 1-9 years and 10 and more years. Teacher with 1-9 years of experience reported a mean of 42.76 and teachers with 10 and more years reported a mean of 43.3. In other words, there was no significant difference between teachers' attitudes with regard to their years of experience.

Based on the studies included in this review, years of experience has an influence on teachers' attitudes towards inclusion. Most teachers with more years of experience in the teaching field showed negative attitudes towards inclusion with the exception of teachers in the United Arab Emirates and Turkey where more years of teaching resulted in positive attitudes.

Also, the quality of experience concerning inclusion has influenced teachers attitudes more than the number of years.

Gender. Gender is one of the factors that plays a role in shaping teachers' attitudes towards including students with disabilities into GE classroom (Alghazo, & Gaad, 2004; Al-Zyouidi, 2006; Christopher Boyle et al., 2013; Dukmak, 2013; Fakolade et al., 2009). Most of the studies showed that female teachers held more positive attitudes (Al-Zyouidi, 2006; Fakolade et al., 2009; Saloviita, 2020), while other studies showed that male teachers had more positive attitudes towards inclusion (Salih Rakap & Louise Kaczmarek, 2010). A number of studies found no difference between male and females teachers' attitudes towards inclusion (Avramidis, Bayliss, & Burden, 2000; Parasuram, 2006)

A study conducted by Dukmak (2013) included 214 male GE teachers and 241 female GE teachers from primary government schools from all the Emirates. It found that male teachers showed more statistically significant positive attitudes towards inclusion than female teachers (Dukmak, 2013). Similar results were found in a study conducted in Turkey with GE teachers. It revealed that male teachers showed more positive attitudes towards inclusion than female teachers (Salih Rakap & Louise Kaczmarek, 2010).

However, female teachers in Jordan showed more positive attitudes towards including students with disabilities than male teachers (Al-Zyouidi, 2006). Another study by Alghazo and Gaad, (2004) revealed that females had more positive attitudes than males towards including students with disability into GE classrooms. Similarly, female teachers in Nigeria showed more positive attitudes towards inclusion than their male peers (Fakolade et al., 2009). Similarly, based on a survey study conducted in Scotland with GE teachers in high schools, female teachers

scored significantly more positive attitudes than male teachers towards inclusion (Christopher Boyle et al., 2013).

The above studies show that although the gender variable is a significant factor and plays a role in shaping teachers' attitudes, some studies found no difference between gender in terms of attitudes towards inclusion (Avramidis, et al., 2000; Parasuram, 2006). A study that included 81 teachers (18 male and 61 female) showed no differences in gender regarding attitudes (Avramidis et al., 2000). Furthermore, according to a survey study conducted with 300 GE teachers in India, there was no significance difference between male and female in terms of their attitudes towards inclusion (Parasuram, 2006).

In summary, this section identifies that gender is not a significant predictor of teachers' attitudes towards inclusion, indicating that other factors may be more significant.

Collaboration Among General and Special Education Teachers

Collaboration among GE and SE teachers is a topic that has been thoroughly studied (Brownell, Adams, Sindelar, Waldron, & Vanhover, 2006; Wallace, Anderson, & Bartholomay, 2002). Studies conducted have encouraged collaboration between GE and SE teachers (Goddard, Goddard, & Tschannen-Moran, 2007; Hamilton-Jones & Vail, 2013; Thornton, McKissick, Spooner, Lo, & Anderson, 2015), however, there is limited research regarding GE and SE teachers' perspectives of which type of collaboration is viewed as the most effective to help students with LD access the GE curriculum. Although studies reported benefits of collaboration, they also called attention to barriers that challenged it (Al-Natour et al., 2015).

Collaboration is a broad term interpreted in various ways in different fields. A broad definition of collaboration provided by the Intelligence Community Collaboration study (1999) is multiple people exchanging information, communicating to solve a problem, and interacting.

For this study, the focus will be on the form of collaboration between general and special education teachers within a school, and will be defined as when educators within a school are involved in cooperative activities that includes (a) interacting to solve a problem, (b) planning lessons to address all students' needs, and (c) making decisions together (Friend & Cook, 1992).

Students with LD are one of the populations that benefit from being placed in an inclusive school setting (Rea, McLaughlin, & Walther-Thomas, 2002), especially academically (ALQahtani, 2017). A study that included 196 teacher participants in Saudi Arabia revealed that students with LD will improve academically in the GE classroom than in SE classroom or a resource room (ALQahtani, 2017). To address the needs of all students in the GE classroom, including students with LD, schools need to promote collaboration among teachers.

Collaboration is an important successful inclusive practice that can contribute to the success of both teachers and students (Williams, 2010). When collaboration occurs between GE and SE teachers, students with LD receive higher grades, show fewer behavior problems, and a higher attendance rate (Rea et al., 2002).

Level of Collaboration. Measuring the level of collaboration between GE and SE teachers can determine the effectiveness of their collaboration to support students with LD, and studies have been conducted to research this. A study by Al-Natour et al. (2015) surveyed 368 GE and SE teachers, A number of the teachers reported that the extent of collaboration that existed was considered low. To gain in-depth information about how teachers collaborate, GE and SE teachers were asked about the practices that occurred among them that lead to collaborative work (Al-Natour et al., 2015). Semi-structured interviews were conducted with 24 of the GE teachers and 22 of the SE teachers which confirmed the survey results that there was limited collaboration between both groups of teachers (Al-Natour et al., 2015).

Another survey study conducted in Malaysia by Khairuddin et al. (2016) investigated the extent of collaboration between GE and SE teachers. In addition to the survey, eight SE teachers were interviewed to investigate in-depth the process of collaboration. Results from both survey and interviews confirmed that teachers collaborated at a low level. Although all participants reported low levels of collaboration in both studies, semi-structured interviews identified more specific information about the collaboration perception and level between both groups of teachers through the different stages of the SE program in a GE classroom (Al-Natour et al., 2015). These stages included assessments, lesson planning, and referrals. Teachers who were interviewed through the different stages about their views on collaboration stated that collaboration occurred at a low level due to overwork and lack of time (Al-Natour et al., 2015). Lack of time was also reported by Santoli et al., (2008) as one of the barriers that prevented educators' collaboration process. When both GE and SE teachers, para-professionals, and administrators were surveyed about the frequency of their collaboration, they reported that it was low, due to lack of time to collaborate with other professionals (Santoli et al., 2008).

In addition to lack of time as a barrier to the collaboration process, SE teachers' perceptions about initiating a collaborative relationship with GE teachers was reported as a barrier (Khairuddin et al., 2016). Special education teachers stated the collaboration level was low due to a perception that the requirement to collaborate with GE teachers was one-sided (Khairuddin et al., 2016). That is, SE teachers are always expected to initiate and aid in the GE setting, whereas GE teachers are not expected to be in that position. This has influenced SE teachers to avoid building a collaborative relationship.

In summary, the amount of collaboration that exists between GE and SE teachers is considered low (Al-Natour et al., 2015; Khairuddin, Dally, & Foggett, 2016; Santoli, Sachs, Romey, & McClurg, 2008).

Barriers to Collaboration. Negative teacher attitude, lack of training, and not feeling responsible for all students are considered as the barriers to preventing GE teachers and SE teachers from collaborating (Khairuddin et al., 2015; Kroeger & Laine, 2009; Santoli et al., 2008). Each of these barriers will be discussed below.

Negative Attitudes. General education teachers' negative attitudes about including students with LD in their classroom, are an obstacle to the collaboration process (Al-Natour et al., 2015; Santoli et al., 2008). Santoli et al.'s (2008) research survey study, that included 56 GE teachers, identified 76.8 % of their sample reporting negative attitudes toward including students with LD in the GE classroom, most teachers believed that students with LD would not understand the GE classroom content. Furthermore, 80% reported that students with LD lacked the skill needed to be equally included in the GE classroom (Santoli et al., 2008). In addition, GE teachers in the Al-Natour et al. (2015) study saw the issue of negative attitudes as the second strongest barrier to the collaboration process combined with lack of support, and the primary barrier as the amount of work assigned to them. Furthermore, Al-Natour et al. (2015) found that GE teachers reported negative attitudes about including students with LD in their classrooms.

Lack of Training. Lack of in-service training is another barrier that prevents GE and SE teachers from conducting successful collaboration (Khairuddin et al., 2016; Kroeger & Laine, 2009; Santoli et al., 2008). Professional training programs that include resources for both GE and SE teachers are crucial in the collaboration process (Khairuddin et al., 2016). In the Khairuddin et al. (2016) study, training programs only targeted SP teachers to enhance their

knowledge without the inclusion of GE teachers. Since GE teachers were not included in training programs, this resulted in a low level of knowledge about supporting students with LDs in the classroom. To confirm the importance of teachers' knowledge to the collaboration process, a lack of preparation programs that address the skills of collaboration and co-teaching create a gap in teachers' knowledge about the skills and knowledge needed by teachers to create successful collaboration (Kroeger & Laine, 2009).

Lack of Responsibility. Lack of responsibility is reported as one of the barriers to teachers' collaboration (Al-Natour et al., 2015; Wallace et al., 2002). Both GE and SE teachers should have a sense of responsibility for all children, despite their needs. A study by Wallace et al. (2002) describes successful collaboration practices at four schools. One of the practices identified in the study was that all teachers should feel responsible for the level of performance of all students. Al-Natour et al. (2015) found the inverse of this attitude in a study of GE teachers who reported that they do not collaborate with SE teachers in the planning of students' IEPs because they see it as one of the SE teachers' responsibilities, rather than as a shared responsibility for both GE and SE teachers.

Teacher's Personality. A teacher's personality, which can include communication skills and the flexibility level of the teacher (Morgan, 2016), can play a role in creating a barrier to successful collaboration (Al-Natour et al., 2015; Kamens, 2007; Morgan, 2016). A high level of communication skills includes the ability to communicate and discuss ideas in harmony and coherence. To address teachers' communication skills, teachers should plan for regular face-to-face meetings to discuss students' progress while working on their communication skills (Evans & Weiss, 2014). Also, teachers need to maintain a high level of communication skills to have successful collaboration (Morgan, 2016).

Besides communication skills, lack of flexibility is viewed as a potential barrier to the collaboration process (Al-Natour et al., 2015; Morgan, 2016). In Morgan's (2016) study, principals and teachers were interviewed about the impact of the personality of SE teachers and how this affected collaboration. Both groups indicated that SE teachers should be flexible. From the principals' point of view, flexibility was one of the skills that SE teachers should demonstrate through: (a) integrating activities involving GE teachers, (b) sharing responsibility for all students, (c) decreasing the amount of paperwork, and (d) being more flexible and responsive to all children's needs.

Similarly, GE teachers' personality was raised as a barrier in the Al-Natour et al. (2015) study. General education teachers in this study were not willing to participate in any cooperative tasks with SE teachers due to the slow progress of improvement expected from the students with LDs. This unwillingness to collaborate showed how GE teachers are not flexible when working with different type of learners (Al-Natour et al. 2015). Regarding flexibility, GE teachers indicated that flexibility is one characteristic of SE teachers that would encourage GE teachers to collaborate (Kamens, 2007; Morgan, 2016). Indeed, GE teachers may be more willing to participate with SE teachers if they are more flexible in sharing tasks and show willingness to negotiate students' related issues openly.

Although not within the strict inclusion criteria for publications used within this literature review, the findings from Kamens' study (2007) confirms the significant role of personality in creating effective collaboration in the classroom context. Kamen's case study was conducted to explore the experiences of two pre-service SE teachers and two pre-service GE teachers. The two pairs of pre-service teachers were assigned to co-teach in classes with another pair of GE and SE teachers who already demonstrated cooperative teaching. This semester-long collaboration with

teachers resulted in the pre-service teachers emphasizing the critical role of teachers' personality in affecting the collaboration process. All four pre-service teachers had to explore the other teachers' personalities and teaching styles to cooperate in the teaching process.

Lack of Time. Lack of time, due to overloaded schedules, is another barrier that prevents teachers from collaborating (Al-Natour et al., 2015; Al-Zoubi & Rahman, 2016; Evans & Weiss, 2014; Santoli et al., 2008). Both GE and SE teachers have duties to be accomplished daily that include teaching, planning, attending meetings, and assessing students' performance. Since the collaboration process requires time, failing to find that time is considered one of the biggest challenges to the collaboration process (Al-Zoubi & Rahma, 2016; Evans & Weiss, 2014). A survey of 42 SE teachers in Saudi Arabia pointed out the effect of large workloads on SE teachers' daily schedules, which prevents them from finding time to undertake any cooperative work, including conducting meetings with the GE teachers (Al-Natour et al., 2015). Similarly, more than half of the teachers participating in the Santoli et al. (2008) study indicated that lack of time was a main barrier to collaboration. More specifically, both GE and SE teachers mentioned that the lack of time prevented them from (a) negotiating the performance of students with LDs in their classroom with SE teachers, (b) conducting meetings with other specialists to gain knowledge about methods to apply in the classroom, and (c) undertaking the responsibility of providing students with LDs the support they need in regular classrooms.

Practices that Promote Collaboration

Three practices encourage collaboration between GE and SE teachers: (a) using instructional modifications (Hamilton-Jones & Vail, 2013; Wallace et al., 2002), (b) planning time (Kamens, 2007; Wallace et al., 2002), and (c) implementing new strategies (Brownell et al., 2006; Wallace et al., 2002). Instructional modifications are one of the practices that occur after

collaboration between GE and SE teachers (Hamilton-Jones & Vail, 2013). A study by Hamilton-Jones and Vail (2013) was conducted with 12 pre-service SE teachers to examine their perceptions and views about the practices and the importance of collaboration between both groups of teachers. Although the 12 pre-service teachers mentioned the important outcomes of teachers' collaboration for students' achievement, they also mentioned few cooperative efforts, such as instructional modifications and co-teaching. Interestingly, these teachers acknowledged the importance of their collaboration on the teaching process, yet they did not adopt any practices involving collaboration. This could be due to the complexity of the collaboration process. In other words, collaboration requires a lot of planning and knowledge sharing.

Planning time is identified as one of the important aspects of the collaboration process (Caron & McLaughlin, 2002; Kamens, 2007; Wallace et al., 2002). Planning time is a joint activity that involves planning lessons, discussing issues, and exchanging information. Both GE and SE teachers highlight the importance of planning time and how this practice contributes most to their collaboration success (Wallace et al., 2002). Planning time ranges from being easy to difficult as an activity to conduct depending on the teachers' and the school's schedule system. For example, schools with a schedule that includes meeting times for GE and SE teachers facilitates the opportunity of planning time during these scheduled meetings (Wallace et al., 2002). When GE and SE teachers were interviewed about their views of the practices that enhanced their collaboration, they stated that the time spent planning for the activities was valuable in terms of contributing to a successful collaborative process (Kamens, 2007). Planning time was raised as a factor that leads to ease the co-teaching of GE and SE teachers (Caron & McLaughlin, 2002). Based on document reviews, school visits, interviews, and class observations, 12 SE teachers and 17 GE teachers highlighted that their planning time facilitated

their co-teaching practice (Caron & McLaughlin, 2002). Overall, planning time has been identified as a crucial element in the collaborative process (Caron & McLaughlin, 2002; Kamens, 2007; Wallace et al., 2002), therefore, the lack of time for planning or interacting is a definite barrier to the collaborative process (Evans & Weiss, 2014; Morgan, 2016).

Adopting new strategies to teach students with LD is a practice that has occurred in the GE classroom as a result of collaboration between GE and SE teachers (Brownell et al., 2006). A study by Brownell et al. (2006) was part of a larger study that adopted the Teacher Learning Cohorts (TLC) as a professional development course for the GE teachers. The aim of this course was to provide the teachers with the knowledge they needed to include students with LD in the GE classroom through collaborative activities between GE and SE teachers. In addition, the TLC program included: (a) constant interactions between teachers, (b) facilitated collaboration, and (c) provided access to research-based practices. All eight GE teachers in the Brownell et al. (2006) study adopted new strategies to teach students with LD after completing the TLC program. For instance, one of the GE teachers adopted a new scoring system to correct spelling assignments of students with LD. This system focused on providing the student credits based on the right letter sequence rather than the whole correct word.

Characteristics that Lead to Successful Collaborations

Successful collaboration has certain characteristics, such as support provided by school administrations (Al-Natour et al., 2015; Schwab, Holzinger, Krammer, Gebhardt & Hessels, 2015; Wallace et al., 2002), teachers' knowledge (Morgan, 2016; Pellegrino, Weiss, & Regan, 2015), and shared responsibility for all students (Caron & McLaughlin, 2002; Morgan, 2016; Pellegrino et al., 2015). Just placing GE and SE teachers in the same room does not necessarily lead to effective collaboration (Kroeger & Laine, 2009). The support provided to teachers is one

of the fundamental aspects of successful collaborations between GE and SE teachers (Wallace et al., 2002).

Studies by Al-Natour et al. (2015) and Khairuddin et al. (2016) only interviewed GE and SE teachers to investigate the effect of school support on the success of the collaboration. Wallace et al. (2002) in an extensive study, on the other hand, conducted interviews with GE and SE teachers, principals, superintendents, and coordinators of SE programs. In addition, data was gathered from focus group interviews of school advisory groups; student advisory groups; and groups of SE teachers, GE teachers, and community members. What is thus considered a strength in the Wallace et al. (2002) study is that researchers investigated the perception of all professionals in the school to identify the factors that influence these schools' successful collaborative experiences. All participants emphasized the importance of school support in contributing to the success of the collaboration process. This support involved creating an environment where teachers could openly share their views and knowledge without the pressure of being judged. School support was also seen as providing teachers with professional development programs to enhance their knowledge about the new methodologies adopted to teach students with LD. These professional development programs were designed so that both GE and SE teachers attended and benefited. Due to the importance of school support in contributing to the collaboration success, lack of such support was reported as one of the barriers to the collaboration process (Al-Natour et al., 2015).

Teachers' knowledge about the importance of collaboration was another factor that contribute to successful collaboration (Morgan, 2016; Pellegrino et al., 2015). For example, based on journal entries and classroom materials, 25 pre-service teachers stated that their understanding of collaboration increased their motivation. More specifically, teachers'

understanding of collaboration benefited students' outcomes as teachers put in extra effort to create a successful collaboration (Pellegrino et al., 2015). Indeed, since collaboration requires a lot of time and effort, teachers should be aware of the important contribution of their collaboration on student success to stay committed to that collaboration.

In addition to teachers' levels of knowledge and how this impacts the collaboration process, having a clearly known purpose for collaboration leads to success in this area (Morgan, 2016). In other words, a collaboration process should be planned and have shared goals at the beginning, middle, and the end of the year. Having a clear purpose about the collaboration process guides teachers throughout the year and helps them accomplish mutual goals. Morgan (2016) identified that having a clear purpose was derived by the teachers having set meeting times with agenda for meetings. Regular meetings and planning created a clear purpose for the collaboration and teachers' commitment to it. Indeed, commitment from each individual to accomplish shared goals through planned interactions is a key to a successful collaboration (Friend, 2000).

Finally, shared responsibility of both GE and SE teachers is crucial in creating effective collaboration (Caron & McLaughlin, 2002; Morgan, 2016; Pellegrino et al., 2015; Wallace et al., 2002). Based on journal reflections, GE and SE teachers pointed out that the feeling of responsibility for all students in the classroom, including those with LDs, is one of the characteristics that teachers should have in order to create successful collaboration (Morgan, 2016). Similarly, SE teachers reported that the shared responsibility factor was a major contribution to their successful collaboration experience (Wallace et al., 2002), and that the sense of shared responsibility between teachers is a key in a successful collaboration (Pellegrino et al., 2015). As a group, SE teachers are accustomed to being viewed by GE teachers as responsible

for students with LDs, and responsible for helping GE teachers improve their learning. This can create resentment from SE teachers, who feel undervalued and that they have to put in more effort for students that are not only in their classrooms. Alternatively, when GE teachers show that they also feel responsibility for students with LDs and put in effort, SE teachers see students' gains and feel that the GE teachers value the time and effort of SE professionals too, which can lead to increased cooperation (Pellegrino et al., 2015; Wallace et al., 2002).

The Effect of Collaboration on Students and Teachers

There is a direct link between teachers' collaborations and positive outcomes, including students' achievement (Goddard et al., 2007; Hamilton-Jones & Vail, 2013; Thornton et al., 2015) and the quality of instruction by teachers (Kamens, 2007; Morgan, 2016). Pre-teaching collaborative work by GE and SE teachers can influence students' achievement (Thornton et al., 2015). This was reported by Thornton et al. (2015) on the performance of two 10th-grade students with LD in science whose performance was measured using their ability to provide correct answers on their tests. Collaborative work was conducted in the GE classroom by dividing the tasks between the GE and SE teachers. For example, in the discussion part of the class, when the GE teacher was delivering important information about the content, the SE teacher was monitoring the students with LD and ensuring that they were on task. This collaborative work affected the performance of both students through improvement in the number of correct answers each student made in a biology test. Similarly, in a study by Hamilton-Jones and Vail (2013) GE and SE teachers reported the success of their co-teaching on students' positive achievement. Teachers reported their co-teaching practice on a reading lesson, when the GE teachers were writing the vocabulary on the board, the SE teachers were ensuring that the students with LD were writing and pronouncing the words correctly. Both GE and SE

teachers recognize the important contribution that co-teaching practice has on students with LD success in the GE classroom (Hamilton-Jones and Vail, 2013; Thornton et al., 2015).

These two studies examined the effects of collaboration on students' achievement (Hamilton-Jones & Vail, 2013; Thornton et al., 2015). Furthermore, a study by Goddard et al. (2007) examined the impact of teachers' collaboration to improve school facilities and how this collaboration could contribute to students' achievement. As claimed, this was the first study to examine the effect of teachers' collaboration towards school improvement and how it affects students' achievement. Researchers in the Goddard et al. (2007) study collected surveys from teachers in 47 elementary schools and data of 2,536 fourth grade students were obtained from the central administrative office of the school district. Goddard et al. reported an increase by one standard deviation in students' achievements in math and reading, indicating that teacher collaboration can have positive effects on students' performance.

Improved quality of instruction is another one of the outcomes in an effective collaboration process (Kamens, 2007; Morgan, 2016). When teachers collaborate and negotiate students' performance, more individualized instruction can be planned for (Kamens, 2007). When teachers were asked about how their collaboration contributed to students' success, all teachers reported that modified instructions, that matched the needs of students with LD, would be provided (Kamens, 2007). In addition to improving the quality of instruction, teachers' collaboration positively enhances the learning environment by addressing the needs of all students in the GE classroom (Morgan, 2016).

Saudi Arabian Context for the Study

This section of Chapter 2 provides the Saudi Arabian context for this study. This section includes a description of the Saudi education system, the history of special education in Saudi Arabia, Saudi Vision 2030, new laws that impact special education, and the general status of the practice of inclusive education in Saudi Arabia. The chapter then provides a review of the research literature on teacher attitudes toward inclusion and collaboration that is specific to Saudi Arabia.

Saudi Education System

Saudi Arabia places a great emphasis on education which can be seen by the funding that is assigned to education, which exceeds 25 % of the Kingdom's annual budget (AL-Mousa, 2010). The Saudi public-school sector has a ratio of 12.5 pupils to 1 teacher, which is considered the lowest in the world (Royal Embassy of Saudi Arabia, 2020). The Saudi government provides access to free education from primary level until higher education (AL-Mousa, 2010). Currently, public education extends to 12 years with 6 years in elementary level, 3 years in middle level, and 3 years in high school level. All public schools are segregated by gender (Baki, 2004), with the exception of the preschool level.

The staff in general primary schools comprises head teacher, GE teachers, SE teachers, school activity arranger, counselor, administrative assistance, service workers, and gate keeper. General education teachers can be teachers who teach different modules including reading, math, geography, art. etc. However, SE teachers are teachers who have specialized to identify and teach students who show difficulties in reading, writing, or math skills.

Special education teachers usually teach the students in the resource rooms. It is crucial to acknowledge that the availability of resource rooms and SE teachers is not in all schools.

However, the goal is to provide each school with this support system to be able to create an inclusive environment for all students, despite their needs (Battal, 2016).

In 2007, the “Tatweer” project was launched by King Abdullah with the aim to reform the Saudi educational system and provide high quality education for all students and teachers (Tayan, 2017). “Tatweer”, in Arabic literally means ‘to develop’, and projects a plan to improve the quality of teaching and learning through launching four main standards: (1) building global standards for the various aspects of the educational process, (2) developing an integrated system to evaluate and measure the quality of education, (3) developing of the education curricula in response to the technical development, and (4) establishing of new teacher professional development initiatives (UNP, 2020).

History of Special Education in Saudi Arabia

Unlike other countries, in Saudi Arabia the education of students with disabilities started in general public schools then it was moved to separated schools (AL Mousa, 2010). The Kingdom of Saudi Arabia did not offer any official special education services until the late 1950s (Aldabas, 2015), when in 1958 the MOE sponsored the “scientific institution” (Salloom, 1995, p. 21); the first private school that provided education for individuals with visual impairment. It was not until 1960, when the MOE opened the first official school for students with visual impairments namely the “ALNOOR” institute (Aldabas, 2015). Two years later, in 1962, when the MOE established the Department of Special Education to plan and provide special education services in the Kingdom led by Sheikh ALGhanem, one of the first Saudis to use and teach the Braille system (ALMosa,1999). In the same year, three distinct types of disabilities were identified: intellectual disability, blindness, and deafness (Afeafa, 2000).

More expansion occurred in 1964 with establishments designed to provide educational services for the students with visual impairment opened in three cities: Macca, Aneza, Alhafouf (Al-Mousa, 2010). More disability categories were provided services in 1972. Specifically, the MOE established another two institutions that served students with hard of hearing and intellectual disabilities (AlAssaf, 2017). This expansion of services aligned with the upgrade of the Department of Special Education to a General Directorate that includes three departments: Educational Administration for the Blind, for the Deaf, and for the Mentally Retarded (Al Saloom, 1995). It should be noted that the term “mentally retarded” has been replaced in the Saudi system with the term “Intellectual disability” (Rights of people with Disability, n.d.).

In 1980, The Basic Regulations for the Rehabilitation Programs for the Disabled was introduced with 30 articles that cover: (1) rehabilitation programs for students with disabilities, (2) social rehabilitation centers for students with severe disabilities, (3) vocational rehabilitation centers for students with disabilities. Also, these 30 articles include the regulations, explain the categories of disabilities that would be accepted in these centers with the condition of admission and termination of services for all individuals with disabilities (UNP, 2020).

One of the important events that reformed SE in Saudi Arabia occurred in 1985. The College of Education in King Saud University created the Special Education Department. The aim of this department was to: (1) train special education teachers in a four-year program to be qualified to teach students with disabilities, (2) hire professionals specializing in special education, (3) support a reform in special education services in Saudi Arabia (Al-hano, 2006).

In 1987, the Legislation of Disability was passed as the first law for individuals with disabilities in Saudi Arabia (Alquraini, 2010). The law was passed to ensure that people with disabilities would have rights equal to people without disabilities. This law includes many

articles that define different categories of disabilities and illustrates prevention and interventions programs (Alquraini, 2010).

In 2000, the government passed the Law of Disability that focuses on the right of individuals with disabilities living in Saudi Arabia (The Law of Disability in Saudi Arabia, 2000). In this law the first article of 16 articles, outlines a definition of individuals with disabilities as: “an individual who has complete or partial deficiency in a stable manner in his physical, sensory, mental, communicative, educational or psychological abilities, to the extent that it reduces the possibility of living a normal life” (The Law of Disability in Saudi Arabia, 2000, pp.1-9).

2001 saw the release of the first regulation for students with disabilities in Saudi Arabia, the Regulations of Special Education Programs and Institutes (RSEPI) (Alquraini, 2010). Professionals from both the MoE and the Department of Special Education in King Saud University reviewed U.S. special education policies including the Education for all Handicapped Children Act (EHA) in 1975 and Individual with Disabilities Education Act (IDEA) in 1990 (Alquraini, 2010). This review resulted in establishing the RSEPI modeled on U.S. special education policies. The RSEPI includes a definition of the main categories of disabilities including learning disability, mental disability, multiple disabilities, individuals with hearing impairments, and individuals with vision disabilities. It also includes a description of Individual Education Plans (IEPs) and who should be involved in the creation of an IEP (Alquraini, 2010). The RSEPI ensures that all individuals with disabilities should have access to free appropriate education that matches their specific needs.

The evolvement of laws in Saudi Arabia has ensured that all individuals with disabilities have the right to access free appropriate education, however, there is a gap in appropriately

implementing these laws (Alquraini, 2010). The gap in law implementation has affected services provision, especially inclusion services (Alnahdi, 2020) and the significant gap, in the Saudi context, has limited research conducted regarding inclusion (AlSalem, 2015).

Saudi Vision 2030

Saudi “Vision 2030” introduced by Mohammad Bin Salman, the King’s son and Crown Prince, is built on three pillars: a vibrant society, thriving economy, and an ambitious nation. The 2030 vision is a strategic plan that aims to reduce the country’s dependence on oil as a source of income and diversify the economy. Also, the vision focusses on developing public service sectors including health, education, infrastructure, recreation and tourism. The Implementation of the National Transformation Plan (NTP), from Saudi Vision 2030, affects all ministries in Saudi Arabia, especially the MoE which is working on improving the educational outcomes to match the objectives of the Saudi NTP (Saudi Vision ,2030). The Saudi NTP consists of 12 goals, the ninth goal focuses on facilitating students with disabilities to be equally included in the society by receiving an appropriate education (Al-Assaf, 2017).

The Status of Inclusion in Saudi Arabia

Saudi Arabia is one of the leading Arab countries in the movement towards inclusion and one of the first Arab countries that has tried to establish inclusive environments in public schools scientifically (Al-Mousa, 2010). Practically, the phenomenon of creating an inclusive environment that includes students with disabilities in public school is fairly new (Aldabas, 2015). Previously, students with disabilities received their education and services in a separate segregated center. However, a dramatic change occurred in the services provided between 1990 and 2000; the MoE passed a law that allowed public schools to establish full-time classes that include students with special needs including autism, hard of hearing, and intellectual disabilities

(Aldabas, 2015). The early 2000s saw the beginning of the movement to include students with mild or moderate intellectual disabilities in GE classrooms (Aldabas, 2015). This rapid move towards mainstreaming aligns with the establishment of the Disability Law in the Kingdom in the beginning of 2000. The Disability Law code ensures that all individuals with disabilities should have access to free and adequate medical, rehabilitation, social, and educational services in the public sector (Alquraini, 2011).

In 2002, The Document of Rules and Regulation for SE institutes and programs was issued by the MoE. Article 18 of this document reassured that natural placements for students with disabilities would be in the GE classroom in regular schools (The Document of Rules and Regulations for Special Education Institutes and Programs, 2002).

In 2008, Saudi Arabia signed and endorsed the Convention on the Rights of Persons with Disabilities (CRPD). The convention, or CRPD, which has been signed by 151 countries, is a mutual agreement that addresses the rights of people with disabilities. Article 24 of the Convention specifically identifies the importance of creating an inclusive education system for all students despite their needs (The Convention on the Rights of Persons with Disabilities, 2006).

In November 2015, the Saudi MoE launched the “The National Project for the Implementation of Inclusive Education in General Education Schools”. The project started in six elementary schools in Riyadh and was supervised by an expert team from the University of Oregon who provided the teachers in the six schools with intensive training about inclusive education (Ministry of Education, 2020). Article 21 of the Saudi Education system for students with special needs emphasizes that the education of students with special needs is part and parcel of the general education and higher education (Ministry of Education, 2020). Since the MoE

established an educational strategy that highlights the role of public schools in the education of students with disabilities along with their peers (Al-Mousa, Al-Saratawi, Al-Abduljabbar, Al-Batal, & Al-Husain, 2008), the number of resource rooms designed to provide students with disabilities support in the general public schools increased dramatically (ALMousa, 2010).

Although services were provided to create an inclusive environment for students with LD, teachers pointed that what is currently happening with regard to students with LD in Saudi schools is not inclusion, but rather a pullout program that provides extra support to students who need it (Al-Ahmadi, 2009). Moreover, a recent study in Riyadh, concluded that full inclusion of students with disabilities has not yet been fully achieved (Alshenaifi, 2018). Teachers in this study thought that the availability of resource rooms in schools is an indispensable element of inclusion. In other words, the importance of resource rooms and the existence of SE teachers is essential for the success of the inclusion process (Alshenaif, 2018).

Lack of knowledge regarding inclusive settings' practices and teachers' attitudes have been reported as strong barriers to achieving an inclusive environment (Al-Ahmadi, 2009; Alrubaian, 2014; Alqahtani, 2019). Due to the importance of teachers' attitudes on creating inclusive environments it is crucial to investigate Saudi's teachers' attitudes towards including students with disabilities in order to inform and achieve the desired inclusion results (Abed & Alrawajfh, 2017).

Research on Attitudes Towards Inclusion Specific to Saudi Arabia

The attitudes of Saudi teachers towards the inclusion of students with special needs have been investigated since the 1980s (Al-Marsouqi, 1980; Al-Muslat, 1987). Most of the studies conducted in Saudi Arabia to learn about the attitudes of teachers regarding the inclusion of students with special needs (Abed, & Alrawajfh, 2017), include severe intellectual disabilities

(ALQuaraini, 2012), deaf and hard of hearing (Alothman, 2014, Aseery, 2016), autism (ALamri, 2017; Al Jaffal, 2019; Alzaidi, 2017), visual impairments (Albulayhi, 2018; Al-Hoshan, 2009) and severe disabilities (Aldabas, 2020).

There has been a limited number of studies conducted in Saudi concerning teachers' attitudes towards inclusion of students with special needs, especially learning disabilities at the elementary level (Al-Assaf, 2017). The following section will include all previous studies that have been conducted in Saudi Arabia focusing on teachers' attitudes towards the concept of inclusion and their attitudes towards collaborating with the SE teachers to create an inclusive classroom for all students with special needs, despite their disability.

Attitudes of Saudi teachers towards including students with special needs vary from showing positive attitudes (Abed, & Alrawajfh, 2017; Asiri, 2019, ALAmri, 2019; ALHarthi & Evans, 2017; AL Jaffal, 2019; Alzaidi, 2017) and negative attitudes (Alqahtani, 2019; ALQuaraini, 2012). Several factors have played a role in shaping teachers' attitudes, including gender, years of experience, and type of disability (Abed, & Alrawajfh, 2017; Asiri, 2019; ALQuaraini, 2012; AL Jaffal, 2019).

Positive Attitudes. A number of studies identified that Saudi teachers showed positive attitudes towards the inclusion of students with special needs in the GE classroom (ALAmri, 2017; ALHarthi & Evans, 2017; AL Jaffal, 2019; ALQuaraini, 2012; Asiri, 2019, Alzaidi, 2017). General education teachers expressed more positive attitudes than SE teachers in including students with intellectual disabilities (ALQuaraini, 2012). When comparing the attitudes of GE and SE teachers towards the inclusion of students with intellectual disabilities, GE teachers had more positive attitudes than SE teachers. According to ALQuraini, (2012), this could be due to the fact that the SE teachers, included in the study, were teachers who worked in inclusive

settings and had negative previous experience with the concept of inclusion. Also, GE teachers who were included in the study were teachers who worked in public schools that have SE programs. Teachers in secondary schools in Riyadh showed slight positive attitudes towards including students with autism into GE classrooms (AL Jaffal, 2019). Similarly, based on interviews and observations of twenty GE and SE teachers in Riyadh, teachers showed positive attitudes towards including students with autism into the GE classroom (Alzaidi, 2017).

Another recent study, conducted with GE and SE teachers in Riyadh, showed that teachers held positive attitudes towards the inclusion of students with special needs (Asiri, 2019). This survey research of 332 teachers in elementary schools showed that teachers held positive attitudes towards the inclusion concept. It is crucial to declare that all teachers in this study were working in schools that had SE programs.

Negative Attitudes. GE teachers showed negative attitudes regarding the inclusion of students with disabilities in GE classrooms in Saudi (Alamri, 2019; Alqahtani, 2019; ALQuaraini, 2012). Based on the results of a survey study applied in Riyadh with 303 teachers, (161 males and 139 females and 3 not specified) the teachers showed slightly negative attitudes towards the inclusion of students with severe intellectual disabilities (ALQuaraini, 2012).

Another study showed that teachers in Saudi held negative attitudes regarding the inclusion of students with autism (Alamri, 2017). The study was conducted to explore educators' attitudes towards including students with autism in the GE classroom. The survey study compared the attitudes of US and Saudi educators. The U.S. sample consisted of 42 educators (24 GE teachers, 5 SE teachers, 13 not specified) and the Saudi sample included 142 educators (65 GE teachers, 43 SE teachers, 6 principals, 7 school psychologists, and 21 reported as other). When comparing the Saudi sample to the U.S. sample, it was found that Saudi teachers held

more negative attitudes towards the inclusion of students with autism (Alamri ,2017). The difference in attitudes could be linked to the historical dates of when the governments' established services for students with autism which, in the case of Saudi Arabia was 1998 when the first established service for students with autism was established (Al-Faiz, 2006). This being much later than the U.S.

Teachers showed negative attitudes toward including students with intellectual disabilities in Saudi elementary schools (Alqahtani, 2019). A study by Alqahtani (2019) aimed to explore teachers' attitudes toward the inclusion of students with Intellectual Disability (ID) regarding the benefits of inclusion, inclusive classroom management, ability to teach students with ID, and special versus integrated general education. This study revealed that female teachers showed negative attitudes regarding their ability to teach students with intellectual disabilities in the GE classroom (Alqahtani, 2019).

Factors that Shape Teachers' Attitudes in Saudi Arabia

Gender, type of disability, years of experience, previous training in special education, previous experience teaching in an inclusive school, and level of education are some of the factors which have played a role in shaping Saudi teachers' attitudes towards including students with disabilities in GE classrooms (Abed, & Alrawajfh, 2017; AL Jaffal, 2019; Alqahtani, 2019; ALQuaraini, 2012; Alsedrani, 2018; Alshenaifi, 2018; Alzaidi, 2017)

Gender. Female teachers hold more positive attitudes towards including students with disabilities in GE classrooms (Abed & Alrawajfh, 2017). Based on a survey research study that investigated 100 teachers in Jeddah, Abed and Alrawajfh (2017) found that female teachers showed more positive attitudes towards teaching students with disabilities. In contrast, ALQuaraini (2012) found that in public schools in Riyadh male teachers had more positive

attitudes towards the inclusion of students with severe intellectual disabilities. Similarly, male high school teachers showed more positive attitudes towards including students with autism (AL Jaffal, 2019). Female teachers in elementary schools in southern Saudi showed more positive attitudes towards the importance of inclusion of students with intellectual disabilities (Alqahtani, 2019). The Alqahtani study included 297 female teachers and 186 male teachers in elementary schools in Southern Saudi Arabia (Alqahtani, 2019).

Type of Disability. Mild mental disability was reported the most difficult to be included in the GE classrooms and students with visual impairments were reported as the second most difficult (Abed, & Alrawajfh, 2017). Teachers stated that the severity of disability influenced their attitude towards inclusion. In other words, teachers considered that students with mild forms of impairment can benefit from being included in the GE classroom (Alshenaifi, 2018). However, they emphasized that students with severe cognitive disabilities or behavior problems might not benefit from being included in the GE classroom (Alshenaifi, 2018). Teachers specifically were confident in including and teaching students with physical disabilities, but were unprepared to teach students with cognitive impairments (Alshenaifi, 2018).

Years of Experience. Years of teaching experience is one of the factors identified as playing a role in shaping teachers' attitudes. Teachers with less years of experience (1-5) showed significantly more positive attitudes towards including students with autism than teachers with more years of experience (AL Jaffal, 2019). Similarly, teachers with less than five years of experience showed more positive attitudes towards the benefits of inclusion, inclusive classroom management, ability to teach students with ID, and special versus integrated general education (Alqahtani, 2019). On the contrary, both GE and SE teachers in Riyadh with more years of

experience showed more positive attitudes towards including students with disabilities in the GE classroom (Alshenaifi, 2018).

The years of teaching experience had no effect on shaping teachers' attitudes towards including students with mild intellectual disabilities (ALQuaraini, 2012). Similarly, years of experience was not found to have an effect on GE teachers' attitudes (Alsedrani, 2018).

Previous Training in Special Education. Previous training is one of the factors that affects teachers' attitudes negatively in Saudi Arabia. Some studies (e.g. ALQuaraini, 2012; Alsedrani, 2018) found no effect of previous training on teachers' attitudes. Although teachers showed positive attitudes towards the importance of including students with autism in the GE classroom, they reported that lack of previous training and knowledge might affect their abilities to include students with autism into the GE classroom (Alsedrani, 2018). Similarly, teachers reported lack of training as one of the barriers to include students with autism in the GE classroom (Alzaidi, 2017). The results of a qualitative study, that adopted interviews and observations of 20 GE and SE teachers in Riyadh (Alzaidi, 2017), highlighted that lack of knowledge regarding inclusion and lack of training were the main barriers to inclusion of students with disabilities, specifically autism (Alzaidi, 2017).

Previous Experience Teaching in an Inclusive School. Teachers who had previous teaching experience in an inclusive school had positive attitudes towards inclusion (ALQuaraini, 2012). On the contrary, teachers who had previous experience of teaching students with LD showed fewer positive attitudes towards inclusion than teachers with no previous experience (Al-Ahmadi, 2009).

Level of Education. Level of education plays a role in shaping teachers' attitudes (ALJaffal, 2019). Teachers with a graduate degree had significantly more positive attitudes towards including students with autism in the GE classroom (ALJaffal, 2019).

Since the current research will be designed to investigate GE teachers' attitudes towards including students with learning disabilities (LD), the following section will include previous studies designed to explore teachers' attitudes towards LD and teachers' collaboration to include students with LD in the GE classroom.

Saudi Teachers' Attitudes Towards Including Students with LD in the GE Classroom

Although LD is the second largest disability category, with 33% identified students in Saudi (Battal, 2016), there is a limited number of schools that have special education programs to support students with LD (Al-Shareef, 2017). Also, teachers in Saudi Arabia do not have adequate knowledge regarding LD (Al Ahmadi & El Keshky, 2019). There are limited studies conducted in Saudi regarding LD as this area can be considered to be in the early stages of research (Al-Ahmadi, 2009). Although the Saudi education system has encouraged the inclusion of students with LD, there are few studies that have investigated GE teachers' attitudes and knowledge concerning the needs of students with LD (Alrubaian, 2014). This section will review previous studies conducted in Saudi Arabia regarding teachers' attitudes towards including students with LD into GE classrooms. Mostly, Saudi teachers hold positive attitudes towards including students with LD in the GE classroom (Al-Ahmadi, 2009; Alrubaian, 2014; Alqahtani, 2017; Alharthi, 2014).

Positive Attitudes. Studies conducted in Makkah (Al-Ahmadi, 2009) and Riyadh (Alharthi, 2014; Alrubaian, 2014; Alqahtani, 2017) identified that Saudi teachers showed positive attitudes towards including students with LD in the GE classroom. The study in Makkah

of 251 GE and SE teachers (122 males and 129 females) showed teachers held positive attitudes towards including students with LD in the GE classroom (Al-Ahmadi, 2009). Although teachers in this study expressed that inclusion of students with LD in the GE classroom will increase peer interaction and acceptance of students with LD, teachers were more in favor of the use of resource rooms to integrate students with LD (Al-Ahmadi, 2009). Also, SE teachers were found to have slightly more positive attitudes than GE teachers.

A study conducted with high school teachers in Riyadh showed that SE teachers hold positive attitudes towards including students with LD in terms of the inclusion benefits, ability to teach students with LD and ability to manage an inclusive classroom (Alqahtani, 2017). This study included 262 teachers from all high schools in Riyadh. Via questionnaires, 20 teachers out of the 262 thought that it is better that teaching students with LD should be mainly by SE teachers, not GE teachers. This indicates that the teachers in this study, both GE and SE, are positive about the concept of inclusion and willing to collaborate to include students with LD in the GE classroom.

Similar to the Alqahtani (2017) and AL Ahmadi (2009) studies, SE teachers had more positive attitudes than GE teachers regarding collaboration to including students with LD in the GE classroom (Alharthi, 2014). In a mixed methods study, 262 GE and SE teachers in middle schools in Riyadh participated. The aim of this study was to explore teachers' attitudes towards the inclusion of students with LD. The findings showed that the majority of SE teachers disagreed with using resource rooms to provide support for students with LD. Furthermore, both GE and SE teachers indicated that lack of training prevented them from achieving full inclusion, (Alharthi, 2014).

Another study conducted with GE teachers in Riyadh showed that teachers held positive attitudes towards including students with LD in GE classrooms (Alrubaian, 2014). A sample of 278 GE male teachers indicated positive attitudes regarding the inclusion of students with LD. It is crucial to say that of these, 164 teachers in this study were teaching students with LD and 184 had a student with LD in their classroom. Although teachers showed positive attitudes towards inclusion of students with LD, they raised the need for more information about curriculum accommodation and requested more assistance in the classroom to be able to achieve full inclusion.

Negative Attitudes. Teachers have expressed negative attitudes towards including students with LD in specific classes including Math, Arabic, and Science (Alhammad, 2017). Interestingly, the environmental context influenced the attitudes of teachers in the Alhammad study, where 15 teachers had ambivalent attitudes towards including students with LD (Alhammad, 2017). The teachers included in this case study indicated that including students with LD might succeed if they are included in Art or physical education. However, the teachers stated that students with LD should not be included in certain classes including Math or Science. On the other hand, nine teachers, including GE and SE teachers, expressed negative attitudes towards including students with LD in the GE classroom (Alhammad, 2017). The majority of teachers, 16 out of the 24 who participated, stated that they identify students with LD to have low learning ability when compared to students without LD (Alhammad, 2017). Another study conducted by Al-Shareef (2017) showed that teachers held negative attitudes towards including students with LD in the GE classroom. Teachers lack of awareness regarding policies addressing LD and practices might be the reason of their negative attitudes towards inclusion (Al-Shareef, 2017).

Neutral Attitudes: Teachers in elementary and middle schools in Riyadh expressed neutral attitudes regarding including students with LD in the GE classrooms (Alharthi, 2014; Alshenaifi, 2018). Although SE teachers in the Alharthi (2014) study showed positive attitudes towards including students with LD, GE teachers held neutral attitudes towards including students with LD in the GE classroom. A more recent study conducted with GE and SE teachers in Riyadh showed that both GE and SE teachers expressed neutral attitudes towards including students with LD in the GE classroom (Alshenaifi, 2018). Teachers in this study reported that the disadvantages of inclusion of students with LD are far more than the advantages. The main disadvantage reported related to including students with LD is that the negative effect on the educational progress of students with LD (Alshenaifi, 2018).

Although most of the studies conducted in Saudi regarding teachers' attitudes towards inclusion of students with LD revealed positive attitudes, teachers pointed out significant issues that could prevent the inclusion of students with LD.

Barriers to the Inclusion of Students with LD in Saudi Arabia

Lack of awareness, knowledge of SE laws, lack of training on SE teaching methods, and lack of school resources, were all reported as factors that inhibit the inclusion of students with LD into GE classes in Saudi Arabia (Al-Ahmadi, 2009; Alharthi, 2014; ALqahtani, 2017; Alnahdi, 2020; Alrubaian, 2014; Alsedrani, 2018).

Lack of Awareness. Lack of awareness in regard to the importance of inclusion was one of the issues reported that affect creating inclusive classrooms for students with LD in Saudi Arabia (Al-Ahmadi, 2009; Al-Shareef, 2017). Through surveys and interviews more than half of the teacher sample reported that they lack awareness regarding the importance of inclusion and this has affected their willingness to change their attitudes towards inclusion (Al-Ahmadi, 2009).

In a recent case study, using interviews and observations, teachers pointed out that there is a lack of awareness concerning LD and teaching methods of students with LD (Al-Shareef, 2017).

Lack of Knowledge. Lack of knowledge concerning laws relating to SE was reported as another obstacle to inclusion of students with LD (Al-Ahmadi, 2009; Alrubaian, 2014; Alnahdi, 2020). Interestingly, teachers reported that their lack of knowledge concerning the SE laws in Saudi affected their willingness to include students with LD in the GE classroom. Also, a study of 214 teachers in Riyadh indicated that low knowledge levels concerning law and policies regarding inclusion affected teachers' abilities to communicate with other teachers to establish an inclusive classroom (Alnahdi, 2020)

Lack of Training. Lack of training on SE teaching methods was another factor that was reported as an obstacle to achieving inclusion of students with LD in the GE classroom (Al-Ahmadi, 2009; Alhammad, 2017; Alrubaian, 2014; ALqahtani, 2017; Alsedrani, 2018; Al-Shareef, 2017; Alshenaifi, 2018). Alrubaian (2014) found that 74 % of a sample of GE teachers in Riyadh reported that their preparation programs did not facilitate them to be able to work with students with LD. Similarly, GE and SE teachers researched in Makkah reported that lack of training was one of the obstacles that prevents them from including students with LD in the GE classroom (Al-Ahmadi, 2009). Also, lack of training was raised as an obstacle to be able to include students with LD at the high school level (ALqahtani, 2017). Both GE and SE teachers in middle schools in Riyadh reported that their training was insufficient to apply and collaborate efforts to include students with LD (Alharthi, 2014). Two hundred and sixty-two Saudi SE and GE teachers in middle schools in Riyadh reported, via open-ended questions within a survey, that their training was insufficient to be able to include students with LD in the GE classroom (Alharthi, 2014). Recent research by Alshenaifi (2018) confirmed the importance of training in

shaping teachers' attitudes towards inclusion of students with LD in the GE classroom. A study of 423 teachers in Riyadh in a mixed methods study, identified that teachers who receive training held more positive attitudes towards the inclusion of students with LD in the GE classroom (Alshenaifi, 2018).

Lack of training was raised as an obstacle to achieve full inclusion of students with LD in Riyadh (Alhammad, 2017). A case study, employing interview and observation, of 24 male teachers highlighted that lack of training regarding teaching students with LD was a potential barrier to including students with LD in GE classroom (Alhammad, 2017). Similarly, a case study that was conducted in two primary schools, showed that teachers, both SE and GE, stated that their lack of training was one of the obstacles to be able to include students with LD in the GE classroom (Al-Shareef, 2017).

Lack of Resources. Lack of resources affects the inclusion of students with LD negatively (Al-Ahmadi, 2009; Alharthi & Evans, 2017). A study that included 250 GE and SE teachers concluded that teachers showed concerns that GE teachers lack the resources needed to be able to accommodate the needs of students with LD in the GE classroom (Al-Ahmadi, 2009). Teachers pointed out that due to limited resources (lack of LD diagnostic tools, lack of equipped schools, lack of trained teachers, lack of administrative support) full inclusion of students with LD cannot be successfully applied in Saudi schools (Al-Ahmadi, 2009). Similar concerns were raised by SE teachers in middle schools in Riyadh (Alharthi & Evans, 2017). Finally, lack of administrative support was raised as a potential barrier to create an inclusive environment for students with LD in the GE classroom (Alharthi & Evans, 2017)

Factors that Influence Attitudes Towards Inclusion in Saudi

Gender, years of teaching experience, and the level of education are some of the factors that influenced teachers attitudes towards including students with LD in Saudi Arabia (Al-Ahmadi, 2009; Alqahtani, 2017)

Gender. Male teachers tend to have more positive attitudes towards inclusion in Saudi schools (Al-Ahmadi, 2009; Alqahtani, 2017). For instance, 251 GE and SE teachers from Makkah responded to a survey that was designed to measure their attitudes towards including students with LD in the GE classroom. Male SE teachers showed more positive attitudes towards including students with LD (Al-Ahmadi, 2009). Similarly, a study by Alqahtani (2017) in Riyadh of 262 teachers (75 male and 187 female) investigated their attitudes through a survey regarding including students with LD in the GE classroom in high schools. It was found that male teachers had more positive attitudes towards inclusion than female teachers in high schools.

Years of Experience. Teachers with fewer years of experience showed more positive attitudes towards inclusion of students with LD in the GE classroom (Alqahtani, 2017). Teachers who had 1- 5 years of experience showed more positive attitudes towards the benefit of inclusion on both students with and without LD (Alqahtani, 2017)

Level of Education. The level of teachers' education is a significant factor in terms of affecting teachers' attitudes towards including students with LD (Al-Ahmadi, 2009; Alqahtani, 2017). Teachers who hold Bachelor's or graduate degrees have more positive attitudes towards including students with LD than teachers who only hold a two-year diploma qualification. Also, teachers who hold Master's degree are more positive towards including students with LD into the GE classrooms (Alqahtani, 2017).

Factors that Enhance Inclusion of Students with LD in Saudi Arabia

Longer class times and fewer students placed in classrooms are two of the main factors that may enhance the practice of including students with LD in the GE classrooms (Al-Ahmadi, 2009; Alrubaian, 2014; Alshenaifi 2018)

Class Time. To be able to accommodate having students with LD in the GE classrooms, teachers, both GE and SE, suggest that class times should be longer than 45 minutes. Another suggestion is to reduce the number of students in the classroom to be able to include students with LD in the GE classrooms (Al-Ahmadi, 2009). Similar to the teachers in Makkah, teachers in Riyadh expressed the same perception about how class time is crucial to achieve full inclusion of students with LD in the GE classroom. Teachers emphasize the importance of having more class time to be able to address the individual needs of students with LD in the GE classroom (Alshenaifi, 2018).

Class Size. The number of students placed in each class was again raised as a factor considered critical to achieve inclusion of students with LD (Al-Ahmadi, 2009, Alrubaian, 2014). Saudi GE teachers desire fewer students in the class in order to be able to include students with LD in the classrooms (Alrubaian, 2014). In one study, 66% of the GE teachers in elementary schools in Riyadh pointed out that class size is one obstacle that prevents the full inclusion of students with LD (Alrubaian, 2014). Similarly, teachers in the Al-Shareef (2017) case study raised class size as a potential obstacle to achieving successful inclusion. Despite the fact that Saudi Arabia has a very low pupil to teacher ratio the obstacle of class size and LD inclusion raises concerns for teachers.

Summary

In summary, this chapter has discussed and highlighted some of the recent studies relating to attitudes of teachers and collaboration efforts to include students with disabilities in the GE classroom in Saudi Arabia and around the world. This chapter has also included some background information relating to Saudi Arabia, including the inclusion status, education system, and Saudi Vision 2030. Also, a list of barriers to inclusion and factors that enhance inclusion among GE and SE teachers has been considered.

CHAPTER 3 METHODOLOGY

Introduction

This study was designed to explore GE teachers attitudes towards inclusion in Saudi Arabia. More specifically, the purpose of this study is to (1) measure GE teachers' attitudes towards inclusive education for students with LD in Saudi elementary schools, (2) investigate GE teachers' attitudes towards collaboration to include students with LD in GE classroom, (3) compare the differences in GE teachers' attitudes in schools with or without SE services.

The following research questions guided this study:

1. What are GE teachers' attitudes towards inclusive education for students with LD in a GE classroom?
2. What are GE teachers' attitudes towards collaboration to include students with LD in a GE classroom?
3. Is there a difference between GE teachers' attitudes towards inclusion in schools with SE services and schools with no SE services?
4. Is there a difference between GE teachers' attitudes towards collaboration in schools with SE services and schools with no SE services?

This chapter will detail the methods used in this study, including the research design, participants, settings, sampling, instrument, data collection procedures, and data analysis.

Research Design

A quantitative descriptive research design employing a survey was selected for this study. A descriptive research design was selected because "descriptive research is a type of quantitative research that involves making careful descriptions of educational phenomena" (Gall, Borg, & Gall, 1996, p.374). The educational phenomenon in this study is the attitude of a particular

sample group of teachers towards inclusion and collaboration to include students with LD in GE classrooms. When attitudes and self-reporting are researched (Davis & Sutton, 2004), surveys are often considered appropriate tools as they can provide information on “quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population” (Creswell, 2014, p. 249). The survey instrument used in this study had been used in a previous study by Alharthi (2014). Two open ended questions and a request for final thoughts were added to the survey to enrich the context of this study and reduce bias (Reja, 2003).

The focus of this study on a Saudi Arabian context had numerous implications in the design of the study. The survey that used in this study was used in a previous study in Saudi Arabia (Alharthi, 2014). This research study focused on the attitudes of elementary schools' GE teachers due to their important role in the identification process of students with LD (Pierangelo & Giuliani, 2002). This is also true in Saudi Arabia, where GE teachers are responsible for identifying students with LD in elementary schools among individualized special education teams (Ministry of Education, 2020). The researcher chose elementary schools specifically because SE programs in Saudi elementary schools are more robust and developed compared to middle and high schools (Alharthi & Evans, 2017).

Participants

The participants in this research included 188 GE teachers working in elementary schools in the Eastern Province of Saudi Arabia. All participants were recruited via the Ministry of Education (MOE) online portal. The survey was sent via the MOE in Saudi Arabia to all elementary school teachers in the Eastern province. The sample included both male and female teachers from all elementary schools in the Eastern region of Saudi Arabia who agreed to participate. The participants included 49 Male teachers and 139 Female teachers. To answer

research questions 3 and 4, the sample can be divided into two groups, teachers who work in schools that have SE services (n=117), and teachers who work in schools that do not have SE services (n=71).

Settings

The study was conducted online with GE teachers who work in public elementary schools in the Eastern Province of Saudi Arabia. The Eastern Province area is 778,479 square kilometers, representing 36.2% of the total area of the Kingdom, which is 2,400 million square kilometers (Eastern Province, n.d.). The major cities in the Eastern Province include Dammam, Khobar, Dahrán, AL-Hasa, Qatif, Jubail, Abgaig, Ras Tanura, Khafji. There are 590 female elementary schools and 554 male elementary schools in the Eastern Province (General Authority for Statics, 2017).

Sampling

Convenience sampling method was used to recruit participants in this study. Convenience sampling is a type of non-probability sampling where only participants who matches the inclusion criteria of the study will be included in the sample (Fink, 2003). For the current study, only GE teachers who work in both male and female elementary schools in the Eastern Province of Saudi Arabia and who currently teach students from grade 1 to 6 in public schools were included. GE teachers who teach in private schools or teachers in middle and high schools were excluded.

Instrument

This study used a modified version of the survey instrument originally used by in a study by Alharthi (2014). In that study, Alharthi (2014) sought to examine SE and GE teachers' attitudes towards teaching students with LD in the GE classroom in middle schools in Riyadh,

Saudi Arabia. Before proceeding with the use of the original survey, the researcher received permission via email from the author to use the survey. The Alharthi (2014) survey was actually a modified version of the survey developed and applied by Ragland (2005) to explore inclusive education and collaboration in elementary or primary schools in the United States (U.S.). Further adaption was made by Grahn (2007) to assess secondary school teachers' attitudes. Alharthi (2014) used both these versions to create her survey instrument.

Modifications were made to the Alharthi (2014) survey questionnaire to meet the aim of this study, which was to assess the attitudes of GE teachers towards inclusion and collaboration of students with LD in GE classrooms. Since the targeted population of the current study was GE teachers only, survey items meant for SE teachers were removed to suit the purpose of this survey. Further details of these modifications are described later in this chapter.

The modified version of the survey emulated the original sections in the Alharthi (2014) survey by covering three sections to include:

- Demographic information.
- GE teachers' attitudes towards inclusive education.
- GE teachers' attitudes towards collaboration. This section includes:
 - (1) knowledge of collaboration
 - (2) feelings towards collaboration

The survey items used a five-point Likert type scale response; 5 (Strongly Agree), 4 (Agree), 3 (Undecided), 2 (Disagree), 1 (Strongly Disagree). The following open-ended questions were added after the demographic section of the survey to collect contextual information that could contribute to interpretation of the results;

- How would you describe the role of the general education teacher in an inclusive classroom?
- How would you describe what successful collaboration looks like between a general education teacher and a special education teacher?

The purpose of adding these two questions at the beginning of the survey was to avoid influencing the participants responses as they progressed to the closed ended questions (Foddy, 1993). Placement of the open-ended questions was also designed to avoid any bias that may occur from suggesting the answers to participants (Reja et al., 2003).

In addition to these questions, there was one open-ended question towards the end of the survey to allow the participants to add any additional thoughts regarding their attitudes towards inclusion/collaboration of students with LD in the GE classroom. The question was as follows:

- Please write any additional thoughts you may have about the inclusion of students with LD in the general education classroom and/or attitudes towards collaboration with special education teachers to include students with LD in general education classrooms.

Modified Instrument

The survey used in this study was based on the original survey used in the Alharthi (2014) study. The sections of the original survey focus on the areas of demographic information, attitudes towards inclusion, and attitudes towards collaboration. Some modifications were made to the original survey including grouping the questions under each specific section. The question order was changed and grouped under logically coherent sections to enhance the legibility of the survey. To ensure the reliability of the survey after the modifications, a Cronbach's alpha test

was applied (Cronbach, 1951). The Cronbach's alpha after the modification was 0.82 which indicate a high internal consistency of the modified survey (Santos, 1999).

The following are descriptions of the sections in the current survey and any modifications made for this study. See Appendix C for the modified survey.

Demographic Information

The first section included eight items about demographic information. In the demographic information section, some modification occurred from the Alharthi (2014) study. One modification was the removal of a set of items that were designed to be answered by the SE teachers. The items that were removed are shown below:

- As part of your education degree did you complete a unit of study in numeracy or literacy?
- Do you work in one or more general education classroom as part of your teaching?
- Have you ever worked as a general education teacher?

Attitudes Towards Inclusion

The modified survey used in this study included 5 items to assess GE teachers attitudes towards inclusion of students with LD in the GE classroom. The same questions were used by Alharthi (2014) in a different order. In the modified survey, the questions were grouped under the Attitudes Towards Inclusion section and numbered (1, 2, 3, 4, 5)

Knowledge of Collaboration

The modified survey used in this study included 16 items grouped into the Knowledge of Collaboration section. The same questions were used by Alharthi (2014) in a different order. In the modified survey, the questions were grouped under the Knowledge of Collaboration section and numbered (6-21).

Feelings Towards Collaboration

The modified survey used in this study included 8 items grouped into the Feelings Towards Collaboration section. The same questions were used by Alharthi (2014) in a different order. In the modified survey, the items were grouped under the Feelings Towards Collaboration section and numbered (22-29).

Survey Translation and Pilot Study

The survey was translated into the Arabic language and was tested for validity and clarity before conducting the study. A panel of specialists in English, in education, and in the Arabic language provided input on the validity and clarity of the Arabic version of the survey.

To ensure the validity of the survey translation, a cross cultural translation technique was used (Banville, Desrosiers & Genet-Volet, 2000). The cross-cultural translation technique includes several steps to ensure the validity of the translated instrument. The following steps were conducted to translate the survey: (1) two separate versions of the surveys were translated by the researcher and by an expert in both English and Arabic languages, (2) the two versions were compared, reviewed, and revised into a single draft, (3) the final translated draft was revised by an expert in the Arabic language, (4) after the edits made by the Arabic language expert, the draft was sent to a professor who is bilingual to ensure the validity of the translated

version of the survey, and (5) the final version of the translated draft was ready after minor edits of some words. In total, there were four experts who helped validate the survey.

After ensuring the accuracy of the translated survey, an online version of the survey was created via Qualtrics. The online survey was piloted with five GE teachers who teach in middle school. The results of this test concluded that the survey was clear and accessible via the Qualtrics online system. The application of bilingual technique, where experts in both the Arabic and English languages were involved in reviewing the survey items, insured the translated survey was reliable and was not influenced by any error in translation (Esposito, 2001).

Research Questions to Survey Items

To ensure that the modified version of the survey would help in answering the proposed research questions, each item in the survey was matched to the corresponding research questions.

Below is a table that matches the research questions to the survey items.

Table 1

Research questions to survey items

Research questions	Survey items to answer the question
1. What are GE teachers' attitudes towards inclusive education for students with LD in a GE classroom?	Inclusive Education (1,2,3,4,5)
2. What are GE teachers' attitudes towards collaboration to include students with LD in a GE classroom?	Knowledge of Collaboration (6-21) Feelings towards collaboration (22-29)

Data Collection

The data were collected from the participants through surveys sent to all elementary schools in the Eastern Province of Saudi Arabia through the Saudi Ministry of Education (MOE) platform. After receiving permission from the MOE in Saudi Arabia (Appendix A) and the University of Arizona Institutional Review Board approval (Appendix B), an email was sent near the end of Fall semester 2020 to the MOE, with the agreement that the MOE forward the message to all teachers working in public elementary schools in the Eastern Province of Saudi Arabia. After 1 month, an email reminder was sent to the MOE, which was in turn to be sent to teachers to remind them to complete the survey.

There are many benefits of using electronic surveys, especially when conducting research during the COVID-19 pandemic. Since most schools around the world, including Saudi Arabia, work remotely, the use of electronic surveys allowed participants to take the survey at their convenience with no physical contact with the researcher. However, all participants were provided the researcher's email address and phone number in case of any questions or concerns regarding the survey questions.

The email sent to the participants included (1) a Qualtrics electronic link to the survey (2) consent form to include the purpose of the research and affirm the confidentiality of participation, (3) instructions on how to answer the survey. Participants of the study were made aware that their participation is voluntarily and that they had the option of not participating or withdrawing from the study at any time.

Data Analysis

After closing the survey, the data was exported to an excel sheet to check for any missing data. While looking at each variable in the survey, some variables indicated some missing

values. The missing data rate for the current study is 3.3%. There were only 20 missing values within the categories included in the survey items. According to Enders (2003), a missing data rate of 15% to 20% is common in educational studies. The researcher followed a technique called *imputation* to fill the missing values with the category mean (Buuren, 2018). The data from the surveys was analyzed using R statistical software R Core Team (2020). The following section describes the tests that were applied to analyze the data.

Descriptive Statistics

Descriptive statistics were a technique used to organize and represent the scores from the sample and represent them in a more meaningful way (Gravetter, Wallnau, Forzano, & Witnauer, 2020). Means, standard deviations, and frequencies were calculated for each Likert-scale item on the survey, for participant demographics, as well as for survey sections (Attitudes Towards Inclusion, Knowledge of Collaboration, Feelings Towards Collaboration).

One-way ANOVA

One-way Analysis of Variance (ANOVA) is a technique used to determine whether any statistical difference exists between two groups or more for one dependent variable (Ross & Willson, 2018). One-way ANOVA was used to determine the difference in GE teachers' attitudes in schools with SE and without SE services towards inclusive education, knowledge of collaboration, and feelings towards collaboration.

Below is a table to show the research questions and the analysis technique used to answer each research question.

Table 2

Data Analysis Method to each Research Questions

Research Questions	Data Analysis Method
1. What are GE teachers' attitudes towards inclusive education for students with LD in a GE classroom?	Descriptive Statistics
2. What are GE teachers' attitudes towards collaboration to include students with LD in a GE classroom?	Descriptive Statistics
3. Is there a difference between GE teachers' attitudes towards inclusion in schools with SE services and schools with no SE services?	One-way ANOVA
4. Is there a difference between GE teachers' attitudes towards collaboration in schools with SE services and schools with no SE services?	One-way ANOVA

Thematic Analysis of Open-ended Questions

As described before, the survey was translated to the Arabic language. Survey responses were not translated due to time restrictions and the design of the study. Also, reading the data in Arabic helped the researcher to engage with the data. Therefore, the analysis was completed in Arabic with reporting and interpretation done in English. This method was applied in ALhammad (2017), who also analyzed the data in Arabic, then interpreted and reported the data in English.

After exporting the data, the researcher analyzed the data in Arabic to identify themes within participants responses. The responses were color coded to be grouped under specific themes. Each question of the three open-ended questions also generated themes. Further details of the themes along with direct quotes will be reported in chapter four.

CHAPTER 4 RESULTS

Introduction

The purpose of this survey study was to achieve a broad understanding of the attitudes of GE teachers towards inclusion and collaboration to create an inclusive environment for students with LD in Saudi elementary schools. This chapter includes the results of the survey items which are organized by participants' demographics, attitudes towards inclusive education (Research Question 1), attitudes towards collaboration (Research Question 2), difference in attitudes towards inclusive education (Research Question 3) and difference in attitudes towards collaboration (Research Question 4).

Sample Demographic

The online survey was completed by GE teachers (n=188) who work in Saudi public elementary schools. The survey was disseminated via the Ministry of Education platform to all elementary schools in the Eastern province of Saudi Arabia. The sample consisted of forty-nine (26.06%) male teachers, and one hundred and thirty-nine (73.94 %) female teachers. Of the participants, fifty-eight teachers (30.85%) had more than fifteen years teaching experience, thirty-nine (20.7%) teachers had 10-15 years of teaching experience, thirty-five (18.8%) teachers had 6-10 years of experience and fifty-six teachers (29.7%) had 0-5 years teaching experience.

One hundred and seventy (91.4 %) of the participants held Bachelor's degree. Only sixteen (8.6%) of the participants held postgraduate degrees (two of the participants did not answer this question). One hundred and sixteen (63.04%) of the participants indicated that they did not receive any previous training in special/inclusive education, while sixty-eight (36.9%) of the participants reported that they did receive previous training (four participants did not answer). One hundred and thirteen (60.1%) of the participants did not complete any units of

study in special education, whereas seventy-five (39.9%) did complete units of study in special education. Lastly, one hundred and thirty-three (71.89%) of the participants had previous experience in teaching students with LD, whereas fifty-two (28.1%) did not have any previous experience teaching students with LD (three participants did not answer). Table 3 below displays the demographic information of the sample.

Table 3

Demographic Information of the Participants

Variable	Frequency	Percentage
Gender		
Male	49	26.06
Female	139	73.94
Years of Experience		
0-5	56	29.79
6-10	35	18.82
10-15	39	20.74
15-20+	58	30.85
Qualification		
Bachelor's degree	170	91.40
Postgraduate	16	8.60
Previous SPED Training		
Yes	68	36.96
No	116	63.04
Completion of SPED Units		
Yes	75	39.89
No	113	60.11

Existence of SPED Service in the School		
Yes	117	62.23
No	71	37.77
Experience Teaching LD		
Yes	133	71.89
No	52	28.11

Research Question 1: Attitudes Towards Inclusive Education

General education teachers' attitude towards inclusive education in elementary public schools in the Eastern region of Saudi Arabia were explored using five survey items (items 1, 2, 3, 4, 5). The participants answered these survey items using a Likert scale rating of 5 = Strongly Agree (SA), 4 = Agree (A), 3 = Neutral (N), 2 = Disagree (D), 1 = Strongly Disagree (SA). Participants generally showed neutral attitudes towards inclusive education based on the general mean of ($M=3.3$, $SD=0.73$). However, review of response means and distributions on individual questions demonstrate a more complex mix of attitudes. The data are presented here. Further interpretation is included in the Discussion section of this dissertation.

The means across all variables indicated that teachers held neutral to negative attitudes towards inclusive education. For instance, teachers' attitudes were neutral towards item number 5 that students with LD can be well served in the GE classroom ($M=3.03$, $SD= 1.13$).

Of the participants 37.7 % ($n=71$) agreed and 17 % ($n= 32$) strongly agreed to item 1, that the GE classroom is the best environment for students with LD. The majority of participants disagreed, 36.7 % ($n=69$) or were neutral, 31.3 % ($n= 59$) to item 2 regarding their professional knowledge to implement educational practices that would support students with LD in the GE classroom. However, most of the participants agreed, 39.3 % ($n= 74$), and strongly agreed, 39.3% ($n=74$) with item 3, that students with LD should receive educational support in the

resource room, not in the GE classroom. Item 4 shows that 32.4% (n=61) GE teachers agreed and 30.3% (n=57) disagreed that GE teachers are knowledgeable about students with LD and the support they require to be included in the GE classroom curriculum. Item 5 shows 30.3% (n=57) agree and 30.3% (n=57) disagree that students with LD can be well served in the GE classroom. In both items 4 and 5 almost equal levels of agreement and disagreement are shown. Of the 5 items, item 3 shows the lowest level 12.2% (n=23) of neutral opinion regarding educational support in the GE classroom. Table 4 below shows the participants level of agreement with each statement in the first section that explored their attitudes towards inclusive education.

Table 4

Frequency and Mean for Items: Attitudes Towards Inclusive Education

Item	Statement	Frequency and (%)					Mean (StdDev)
		SA	A	N	D	SD	
1.	The general education classroom is the best environment for students with LD.	32 (17)	71 (37.7)	39 (20.7)	41 (21.8)	5 (2.6)	3.45 (1.09)
2.	GE teachers have the professional knowledge to implement education practices that support the education of students with LD	12 (6.3)	34 (18)	59 (31.3)	69 (36.7)	14 (7.4)	2.79 (1.03)
3.	Students with LD should receive educational support in the resource room not the GE classroom.	74 (39.3)	74 (39.3)	23 (12.2)	14 (7.4)	3 (1.6)	4.07 (0.98)
4.	General education teachers are knowledgeable about students with LD and the support they require to be	18 (9.5)	61 (32.4)	37 (19.6)	57 (30.3)	15 (7.9)	3.05 (1.16)

	included in the general education classroom curriculum.						
5.	Students with LD can be well-served in general education classroom.	17 (9)	57 (30.3)	43 (22.8)	57 (30.3)	14 (7.4)	3.03 (1.13)

Research Question 2: Attitudes Toward Collaboration

GE teachers' attitudes towards collaboration was assessed using two scopes: 1) knowledge of collaboration and 2) feelings towards collaboration.

Knowledge of Collaboration

Knowledge of collaboration was assessed using 16 items (6- 21) of the survey. These results are summarized in Table 5. The general mean across all 16 items ($M=4.52$, $SD=0.55$) indicates an overall positive belief in the value of collaboration. The mean scores were also consistently high on individual items. On the highest rated item, 59.5 % ($n=112$) strongly agreed and 37.2% ($n=70$) agreed with statement 10; ("Clear delineated roles and responsibilities are imperative for successful collaboration"). The lowest rated was item 14 ($M=3.76$, $SD=1.07$), on which 25% ($n=47$) of GE teachers strongly agreed and 44.6% ($n= 84$) agreed; ("GE teachers should hold primary reasonability for planning and implementation the GE classroom curriculum with the support from the SE teacher").

To confirm the lack of GE teachers' willingness towards teaching responsibility, most teachers 44% ($n=83$) strongly agreed, and 43% ($n=81$) agreed with item 16; ("SE teacher should hold primary responsibility for making accommodations and modifications for all students with LD, with the support from the GE teacher"). Most of the participants acknowledged the importance of administrative support on the success of collaboration, with 63.3 % ($n= 119$)

strongly agreeing and 32.9% (n= 62) agreeing with item 19; (“Strong administrative support is a requirement of successful collaboration”).

Table 5

Frequency and Mean for Items: Knowledge of Collaboration

Item	Statement	Frequency and (%)					Mean (StdDev)
		SA	A	N	D	SD	
6.	Collaboration between GE and SE education teachers is necessary for successful education for students with LD in GE classrooms.	90 (48.1)	76 (40.6)	15 (8)	4 (2.1)	2 (1)	4.33 (0.80)
7.	SE and GE teachers should share responsibility for student success.	88 (46.8)	72 (38.3)	17 (9)	11 (5.8)	0 -	4.26 (0.85)
8.	Lesson planning should be equally shared between GE and SE education teachers	76 (40.4)	69 (36.7)	22 (11.7)	15 (7.9)	6 (3.1)	4.03 (1.06)
9.	Clear, open communication between GE and SE education teachers is imperative for successful collaboration.	103 (54.7)	75 (39.8)	8 (4.2)	2 (1)	0 -	4.48 (0.63)
10.	Clear delineated roles and responsibilities are imperative for successful collaboration.	112 (59.5)	70 (37.2)	5 (2.6)	1 (0.5)	0 -	4.56 (0.58)
11.	Implementation of the classroom curriculum should be a responsibility shared equally between SE and GE teachers.	82 (43.6)	76 (40.4)	22 (11.7)	6 (3.1)	2 (1)	4.22 (0.85)
12.	Regularly scheduled shared planning time is imperative for successful collaboration.	80 (42.5)	92 (48.9)	15 (7.9)	0 -	1 (0.5)	4.33 (0.67)
13.	GE teachers should participate in the collaborative process of	64 (34)	79 (42)	23 (12.2)	16 (8.5)	6 (3.1)	3.95 (1.05)

	developing IEP's for students with LD.						
14.	GE teachers should hold primary responsibility for planning and implementing the GE classroom curriculum to all students, with support from the SE teacher.	47 (25)	84 (44.6)	28 (14.8)	22 (11.7)	7 (3.7)	3.76 (1.07)
15.	Teacher preparation courses at universities and colleges should prepare all future teachers for collaboration	97 (51.6)	78 (41.4)	10 (5.3)	3 (1.6)	0 -	4.43 (0.67)
16.	The SE teacher should hold primary responsibility for making accommodations and modifications for all students with LD, with the support from the GE teacher.	83 (44.1)	81 (43)	20 (10.6)	3 (1.6)	1 (0.5)	4.29 (0.76)
17.	Special and general education teachers must be committed to the concept of inclusion in order to be able to collaborate successfully.	70 (37.2)	91 (48.4)	20 (10.6)	7 (3.7)	0 -	4.19 (0.77)
18.	I am willing to participate in discussion with my colleague regarding the educational needs of students with LD.	76 (40.4)	84 (44.6)	20 (10.6)	7 (3.7)	1 (0.5)	4.21 (0.82)
19.	Strong administrative support is a requirement of successful collaboration.	119 (63.3)	62 (32.9)	6 (3.1)	1 (0.5)	0 -	4.59 (0.58)
20.	Accommodations should be shared equally among GE and SE teachers.	72 (38.3)	86 (45.7)	21 (11.1)	9 (4.7)	0 -	4.18 (0.81)
21.	GE and SE teachers should equally share the responsibility of classroom management.	69 (36.7)	79 (42)	27 (14.3)	7 (3.7)	6 (3.1)	4.05 (0.97)

Feelings Towards Collaboration

Participant feelings towards collaboration were assessed using 8 items (22-29). The results from these items are summarized in Table 6. Across the items, the mean score indicates that GE teachers have positive attitudes regarding their feelings towards collaboration. Similar to the knowledge of collaboration domain, the general mean across all eight items ($M=3.95$, $SD= 0.49$) related to the feelings towards collaboration indicated a positive attitude.

The majority of participating teachers, 42.5 % (n= 80), strongly agreed and 52.1 % (n=98) agreed, to item 24 which sought their opinion about the need for in-service training programs to facilitate the collaboration process. Also, most participants 43.3 % (n=81) disagreed and strongly disagreed 7.4% (n=18) with the negative worded item 27; (“I prefer not to work with another teacher”). Although, the teachers generally showed positive attitudes towards collaboration, 29.8% (n=55) teachers were neutral and 29.8% (n=55) agreed with item 26 regarding their feelings towards sharing teaching responsibility in the GE classroom. Below, table (6) shows the items related to knowledge of collaboration including the mean and the level of agreement related to each item.

Table 6

Frequency and Mean for Items: Feelings Towards Collaboration

Item	Statement	Frequency and (%)					Mean (StdDev)
		SA	A	N	D	SD	
22.	A school culture of shared leadership for student success would increase my comfort in working collaboratively.	97 (51.8)	82 (43.8)	7 (3.7)	1 (0.5)	0 -	4.47 (0.60)
23.	I am knowledgeable enough to participate comfortably in serving students with learning	49 (26)	78 (41.4)	33 (17.5)	20 (10.6)	8 (4.2)	3.74 (1.09)

	disabilities in the general education classroom.						
24.	In-service training would increase my comfort with implementing collaboration to support students in GE classrooms.	80 (42.5)	98 (52.1)	6 (3.1)	3 (1.6)	1 (0.5)	4.35 (0.67)
25.	Sufficient regularly scheduled collaborative planning time would increase my comfort with implementing collaboration to support students with LD in GE classrooms.	77 (41.4)	95 (51)	11 (5.9)	1 (0.5)	2 (1)	4.31 (0.70)
26.	It is hard to imagine sharing teaching responsibility in a GE classroom	33 (17.9)	55 (29.8)	55 (29.8)	37 (20.1)	4 (2.1)	3.41 (1.06)
27.	I prefer not to work with another teacher.	17 (9)	29 (15.5)	46 (24.6)	81 (43.3)	14 (7.4)	2.75 (1.09)
28.	A school culture of open communication would increase my comfort in working collaboratively.	86 (46.4)	87 (47)	12 (6.4)	0 -	0 -	4.40 (0.61)
29.	I am comfortable with the concept of collaboration and support it in an educational delivery model.	74 (39.5)	82 (43.8)	22 (11.7)	7 (3.7)	2 (1)	4.17 (0.85)

Research Question 3: Difference in Attitudes Towards Inclusive Education

To answer research questions 3 and 4, the participants (n=188) were asked to whether their schools had SE services including SE teachers and resource rooms. The majority of participants 62.23 % (n=117) indicated that they had SE services in their schools, while 37.77 % (n=71) participants did not have any SE services in their schools.

To determine if there is any difference in attitudes towards inclusion between GE teachers who work in schools that include SE services and schools who do not have SE services, a one-way ANOVA test was used. There was a statistically significant increase in teachers' attitudes toward inclusive education when SE services existed in the school. $F = (1,186) = 5.893$, $p < 0.05$.

Table 7

The Effect of SE Services Existence Towards Inclusive Education

	Yes (SE services)	No (SE services)
<i>M</i>	3.38	3.12
<i>SD</i>	0.7	0.77

Research Question 4: Difference in Attitudes Towards Collaboration**Knowledge of Collaboration**

To determine if there is any difference in attitudes towards knowledge of collaboration between GE teachers who work in schools that have SE services ($n = 117$) and teachers who work in schools that do not have SE services ($n = 71$), a one-way ANOVA test was used. Although the mean of GE teachers who work in schools with SE services was slightly higher, there was no statistically significant difference between GE teachers' attitudes towards knowledge of collaboration

$F = (1,186) = 3.553$, $p = 0.061$.

Table 8

The Effect of SE Services Existence on Knowledge of Collaboration

	Yes (SE services)	NO (SE services)
<i>M</i>	4.58	4.42
<i>SD</i>	0.51	0.61

Feelings Towards Collaboration

To determine if there is any difference in attitudes regarding feelings towards collaboration between GE teachers who work in schools that have SE services (n= 117) and teachers who work in schools that do not have SE services (n= 71), a one-way ANOVA test was used. There was a statistical difference in feelings towards collaboration between teachers who work in schools that include SE services and teachers who work in schools that do not include SE services. GE teachers who work in schools that have SE services have significantly higher feelings towards collaboration $F = (1,186) = 4.989, p < 0.05$.

Table 9

The effect of SE services existence towards Feelings towards collaboration

	Yes (SE services)	NO (SE services)
<i>M</i>	4.01	3.85
<i>SD</i>	0.47	0.51

Open Ended Questions

There were three open ended question within the survey. After the demographic section in the survey, there were two open ended questions that were added to enrich the findings of the survey. The questions were as follows:

- How would you describe the role of the general education teacher in an inclusive classroom?
- How would you describe what successful collaboration looks like between a general education teacher and special education teacher?

A number of themes emerged from the participants' responses to the first question, including (1) the GE teacher has an active important role in creating an inclusive environment, (2) the GE teacher has a difficult role in an inclusive classroom, and (3) a need for professional development courses that focus on providing teaching methods for students with LD.

The second question addressed GE teachers' perceptions regarding what successful collaboration between GE and SE teachers would look like. From the responses, a number of themes emerged from the participants' responses including: (1) resources availability (knowledge, experience), (2) communication between GE and SE teachers, (3) lack of collaboration due to lack of SE teachers.

A third open-ended question was placed at the end of the survey. The question was as follows:

- Please write any additional thoughts you may have about the inclusion of students with LD in the general education classroom and/or attitudes towards collaboration with special education teachers to include students with LD in general education classrooms.

Based on the answers to the third question, three themes emerged including: (1) The need to reduce the number of students in the class, (2) support the collaboration to create inclusive classroom, (3) the need for training programs that focuses on inclusion and collaboration.

Summary

The purpose of this study is to explore GE teachers attitudes towards inclusion and collaboration to include students with LD in the GE classroom. The sample included ($n = 188$) GE teachers who currently work in elementary schools in the Eastern province of Saudi Arabia. The first research question regarded GE teachers' attitudes toward inclusive education. Participants generally showed neutral attitudes towards inclusive education with a general mean of ($M = 3.03, SD=0.73$). However, an analysis of the five responses means showed that teachers hold negative attitudes towards inclusive education.

The second question explored GE teachers' attitudes toward collaboration via two domains: knowledge of collaboration and feelings towards collaboration. GE teachers showed positive attitudes regarding the collaboration phenomena. With respect to knowledge of collaboration, the GE teachers held positive attitudes regarding their feelings toward collaboration with a general mean ($M= 3.95, SD= 0.49$). Similarly, GE teachers showed a positive attitude regarding the knowledge of collaboration domain with a general mean ($M=4.52, SD=0.55$).

The third question was to explore the difference in GE teachers' attitudes who work in schools that have SE services and schools that do not have SE services regarding inclusive education. GE teachers who work in schools that have SE services reported a higher mean ($M= 3.38$) than GE teachers who work in schools that do not have SE services ($M=3.12$). According to the ANOVA analysis, there was a statistically significant increase in teachers' attitudes

towards inclusive education when SE services existed in the school. $F = (1,186) = 5.893, p < 0.05$.

Similar to the third question, the fourth question explored the difference in GE teachers' attitudes towards collaboration when SE services exist in schools and when there are no SE services. With respect to GE teachers' attitudes towards knowledge of collaboration, the mean of GE teachers who work in schools with SE services was slightly higher. However, there was no statistical difference between GE teachers attitudes towards knowledge of collaboration $F = (1,186) = 3.553, p = 0.061$. Regarding feelings towards collaboration, GE teachers who work in schools that have SE services have significantly higher feelings towards collaboration $F = (1,186) = 4.989, p < 0.05$.

CHAPTER 5 DISCUSSION

Introduction

The purpose of this survey study was to achieve a broader understanding of GE teachers' attitudes towards inclusion and collaboration for the creation of inclusive environments for students with LD in Saudi elementary schools. This study was also designed to explore whether the existence of special education services, including SE teachers and resources rooms, affected teachers' attitudes towards inclusion and collaboration to include students with LD in the GE classroom. The following questions guided the current study:

1. What are GE teachers' attitudes towards inclusive education for students with LD in a GE classroom?
2. What are GE teachers' attitudes towards collaboration to include students with LD in a GE classroom?
3. Is there a difference between GE teachers' attitudes towards inclusion in schools with SE services and schools with no SE services?
4. Is there a difference between GE teachers' attitudes towards collaboration in schools with SE services and schools with no SE services?

This chapter provides a review of the findings of this study, considers the findings in relation to previous research, and adds context using themes identified from the open-ended questions in the survey. This chapter also describes study limitations and ends with a discussion of implications for future research and practice.

Review of Findings

Attitudes Towards inclusive Education

The general mean related to the attitudes towards inclusion suggest that GE teachers in the current study held neutral attitudes towards inclusive education. However, looking at all variables means indicates that teachers lean towards showing negative attitudes towards inclusion,

Participants, based on the five variables responses means and the open-ended responses, generally showed negative attitudes towards including students with LD in the GE classroom. This is consistent with previous research, conducted in Saudi Arabia, examining teachers' attitudes towards including students with disabilities in the GE classroom (Alamri, 2019; Alqahtani, 2019; ALQuaraini, 2012), including LD (Alhammad, 2017). It is crucial to highlight the shift in attitudes between GE teachers in the ALharthi (2014) study who demonstrated neutral attitudes towards including students with LD in the GE classroom in middle schools in Riyadh. The shift in attitudes, identified in participants in the current study, is related to certain factors including lack of time due to the number of students in the class and the need for courses to enhance teachers' knowledge regarding inclusive practices. This finding aligns with findings from previous studies that have reported lack of time and knowledge as barriers to inclusion in Saudi schools (AL Ahmadi, 2009; Alrubaian, 2014; Alnahdi, 2020).

Although GE teacher in the current study held negative attitudes towards the inclusion of students with LD, GE teachers were positive regarding the statement indicating that the GE classroom is the best environment for students with LD. Teachers do acknowledge the importance of the inclusive environment on students' progress. Almost 55% of the participant s agreed that the GE classroom is the best environment for students with LD. However, their

negative attitudes regarding their abilities and knowledge concerning students with LD might be creating an obstacle to the inclusion of students with LD.

To give deeper insight to the survey findings, in the open-ended question GE teachers reported lack of time due to the number of students in class as being a main obstacle to achieving an inclusive environment for students with LD in the GE classroom. As one of the teachers stated:

“With large numbers of students and an unsuitable classroom environment such as cooling classes, for example, and changing requirements for learning, such as active learning, it is difficult to achieve inclusive education in a regular classroom.”

Participants, in the current study, pointed out that their lack of abilities affected their attitudes towards including students with LD. The majority of participants disagreed 36.70 % (n=69) and 31.38 % (n= 59) were neutral in regard to their abilities to implement educational practices that would support students with LD in the GE classroom. The lack of ability to implement educational practices has been identified as an obstacle to creating inclusive education in Saudi Arabia (Alqahtani, 2019). Furthermore, another recent study also confirms that teachers in Saudi Arabia do not have adequate knowledge regarding LD (Al Ahmadi & El Keshky, 2019).

Among all of the survey items, 80% of the participants agreed with the items stating that students with LD should receive the support needed in the resource room and not in the GE classroom. Meaning, the GE teachers' attitudes are extremely negative to the idea of providing support to students with LD in the GE classroom. These negative attitudes could be derived from the lack of knowledge regarding how to provide the support needed in the GE classroom.

The lack of knowledge and abilities to include students with LD was raised when teachers were asked about their role in the inclusive education. One teacher stated that they:

“Cannot include students with LD in the GE classroom, GE teachers lack qualification to achieve an inclusive environment.”

Of more significance is another comment relating to teachers’ lack of training to identify students with LD:

“It is difficult for a regular education teacher to discover cases early because he is not aware of the characteristics of students with LD.”

These results confirm the strong relation between teachers’ level of knowledge and their attitudes towards the concept of inclusion. A recent study confirmed that lack of knowledge, among Saudi teachers, was one of the main barriers to achieving inclusive education (Al-Shareef, 2017; Alqahtani, 2019). Overall, GE teachers in the current study, based on the general mean of the inclusion domain, held neutral attitudes towards the inclusion of students with LD in the GE classroom. However, an analysis of the individual item mean showed that teachers held neutral to negative attitudes towards inclusion. Specifically, teachers held negative attitudes towards their knowledge and abilities to be able to include students with LD in the GE classroom. Also, teachers indicated a negative attitude towards the inclusion of students with LD in the GE classroom and voted for the resource room to be the best place to receive support.

Attitudes Towards Collaboration

GE teachers, in this survey study, held positive attitudes towards collaboration to include students with LD in the GE classroom. The teachers showed positive attitudes regarding the two domains designed to assess teachers’ attitudes towards collaboration. This finding is contrary to the finding of Alharthi (2014), where GE teachers held neutral attitudes towards collaboration in

middle schools in Riyadh. The positive shift in GE teachers' attitudes could be related to the increasing knowledge of teachers regarding the importance of their collaborative relationships on students' success.

The majority of teachers (88%) acknowledged the importance of collaboration on the educational success, in the GE classroom, of students with LD. This can be considered a promising finding given that the teachers' level of knowledge of collaboration has been reported, in previous research, as a factor that contributes to successful collaboration (Morgan, 2016; Pellegrino et al., 2015). Sharing responsibility is considered a key to successful collaboration (Caron & McLaughlin, 2002; Morgan, 2016; Pellegrino et al., 2015; Wallace et al., 2002). In addition to acknowledging the importance of collaboration, 88% of the participants in the current study acknowledged the importance of sharing responsibility to ensure students' success.

Although the teachers in this study showed high agreement toward the importance of shared responsibility, 87 % of the GE teachers thought that the SE teacher should hold primary responsibility for making accommodations and modifications for all students with LD, with support from the GE teacher. This is an unexpected finding, given that teachers acknowledge the importance of collaboration on students' success. This suggests that despite the recognition of the value of collaboration, it is the responsibility of the SE to be the instigator. More importantly, it has been identified that one of the practices that encourages collaboration between GE and SE teachers is the use of instructional modifications (Hamilton-Jones & Vail, 2013; Wallace et al., 2002). This unwillingness to share responsibility of making accommodations to students with LD in the GE classroom might be related to the teachers' lack of knowledge regarding the needed accommodations to create an inclusive classroom for students with LD, as has been previously reported. This is significant when considered in conjunction with the

previously noted GE teachers' lack of awareness associated with the characteristics of students with LD.

Importantly, 98% of the survey participants acknowledged the importance of understanding their roles and responsibilities as strong factors in successful collaboration. Indeed, as previous research has found, the lack of role and responsibility understanding affects the collaboration process negatively (Khairuddin et al., 2016). Consequently, of immense concern is the result regarding the sharing of teaching responsibilities in the GE classroom. Almost half (48%) of the teachers agreed that it is hard to share teaching responsibility in the GE classroom (e.g., with the SE teacher). The high agreement to this item might be related to the expectation of the Saudi learning system in regard to SE and GE teaching responsibilities. In Saudi schools, that include SE services, SE teachers are expected to provide support in the resource room, and they are not allowed to teach in the GE classroom (Bin Mahfooz, 2019). This expectation might hinder the willingness of GE teachers to share teaching responsibilities with the SE teacher in the classroom. With regard to how GE teachers, in the current study, acknowledge the importance of their roles and responsibilities in the success of the collaboration process it was noted in the responses to the open-ended question, where one teacher stated:

“The SE teacher must clarify the student's with LD with us and set a joint plan between them so that his condition is better measured and evaluated in the GE classroom”

Responses to the survey items about factors that contribute to successful collaboration revealed that participants do understand the effect of such factors on creating successful collaboration. For instance, 92 % of the GE teachers agreed that regular scheduled planning time is imperative for successful collaboration. This can be considered a promising finding in terms of the collaboration between teachers in Saudi schools. Previous research found that planning time

is identified as one of the important aspects of the collaboration process (Caron & McLaughlin, 2002; Kamens, 2007; Wallace et al., 2002). Also, 97% of the participants identified strong administrative support as a requirement for successful collaboration. This finding is closely aligned with outcomes from previous research, which has identified that the support provided to teachers is one of the fundamental aspects of successful collaborations between GE and SE teachers (Al-Natour et al., 2015; Schwab, Holzinger, Krammer, Gebhardt, & Hessels, 2015; Wallace et al., 2002).

The need for in-service training programs was a major finding reported in the Alharthi (2014) study. In the present study, 95 % of the participants identified the importance of in-service training on increasing their comfort zone with implementing collaboration to support students in GE classrooms. GE teachers, in both the current study and in the Alharthi study, identified more in-service training programs that focus on inclusive and collaboration practices would contribute to creating successful collaboration. Previous research has confirmed that lack of in-service training is one of the barriers that prevents GE and SE teachers from conducting successful collaboration (Khairuddin et al., 2016; Kroeger & Laine, 2009; Santoli et al., 2008). This situation applies in Saudi Arabia, where a study conducted in Riyadh recently, found that lack of training was raised as an obstacle to achieving full inclusion of students with LD (Alhammad, 2017).

In general, teachers demonstrate positive attitudes in the knowledge of collaboration domain. Previous studies found that one of the main factors that contribute to creating successful collaboration is teachers' knowledge of collaboration (Morgan, 2016; Pellegrino et al., 2015). Although teachers do acknowledge the importance of sharing responsibility, GE teachers thought that SE teachers should be responsible for accommodations related to the students with LD in the

GE classroom, also GE teachers thought that it would be hard to share teaching responsibility in the GE classroom. There was a high level of agreement towards the importance of understanding roles and responsibilities, regular planning time, and administrative support as an influence on the success of collaboration. Lastly, based on the survey and open-ended results, GE teachers identified the importance and need for in-service training to enhance the collaborative relationships between GE and SE teachers.

Comparison of Attitudes Towards Inclusion (SE VS no SE services)

A statistically significant difference in attitudes towards inclusion was found when SE services exist in schools. In other words, GE teachers are more positive towards inclusive education when SE services, including resource room and a SE teacher, exists in the school. This result ties well with the results of a recent study conducted in Riyadh, Saudi Arabia. Teachers in the Alshenaifi, (2018) study highlighted that the availability of resource rooms in schools is crucial to achieving inclusive education.

Comparison of Attitudes Towards Collaboration (SE VS no SE services)

The attitudes towards collaboration were divided in this study into two domains: (1) knowledge of collaboration, (2) feelings towards collaboration. No statistically significant difference was found in GE teachers' attitudes towards knowledge of collaboration. Namely, the existence of SE services in schools did not influence GE teachers' attitudes towards collaboration in the knowledge of collaboration domain. Although there was no statistical difference in the knowledge of collaboration domain, teachers did, however, report more positive attitudes towards knowledge of collaboration when a SE service exists in the school.

Regarding feelings towards collaboration, there was a statistically significant difference in GE teachers' attitudes towards their feelings towards collaboration when SE services exist in

school. Specifically, teachers were more positive with regard to their feelings towards collaboration and the results emphasize that the existence of SE services in schools do significantly influence teachers' attitudes towards inclusion and collaboration.

Overall, these findings are in accordance with findings reported by Al-Ahmadi (2009) and Alharthi and Evans (2017), that lack of resources negatively influence teachers' attitudes towards inclusion and collaboration to include students with LD in the GE classroom.

Open Ended Results

The Role of General Education Teachers in Inclusive Classroom

Most of the participants stated that GE teachers have an active and important role in creating an inclusive environment. Although participants in the current study showed negative attitudes towards including students with LD, their responses to the open-ended questions indicated a high awareness of the importance of their roles in the success of inclusion. Also, most participants described the GE teacher's role as a difficult role that requires extra efforts and time. This explains why GE teachers were found to hold negative attitudes towards the inclusion of students with LD.

Teachers also highlighted the need for professional development courses that focus on teaching methods for students with LD. This response arises from item 2, that stated: "GE teachers have the professional knowledge to implement education practices that support the education of students with LD". The mean response to this item was 2.79, proving that teachers have negative attitudes towards professional knowledge that is required to be able to create an inclusive classroom.

Successful Collaboration

In response to the question asking how GE teachers would describe what successful collaboration looks like between a GE teacher and SE teacher, a few themes emerged including: the availability of resources is key in successful collaboration, the need for more SE teachers in schools to achieve successful collaboration, and the importance of communication between GE and SE teachers to achieve successful collaborative relationships.

The availability of resources (including training, admin support) was reported by most of the participants as key to establishing successful collaboration between teachers in order to create inclusive classrooms for students with LD. This finding confirms the findings from the survey, item 19 (“Strong administrative support is a requirement of successful collaboration”), with a very high mean of 4.59. In other words, teachers do acknowledge the importance of resources availability, including administrative support, as a contribution to successful collaboration.

Teachers also highlighted the need for more SE teachers in schools, which would increase the success of collaboration. Teachers raised concerns regarding the lack of SE teachers in schools and how it affects their willingness to collaborate to include students with LD. Some of the responses regarding this concern included: *“It is very important for the two to complete each other, and we need a lot of SE teachers in schools”* and another teacher stated: *“Collaboration does exist, but assigning one or two SE teachers to a school with a population of at least 500 students and possibly 700 or 800, what kind of collaboration is needed?”*

Teachers also emphasized the importance of communication between GE and SE teachers in achieving successful collaboration. This finding aligns with the survey results of item 9 (“Clear open communication between GE and SE education teachers is imperative for

successful collaboration”). With a high mean of 4.48, indicating that GE teachers do have positive attitudes towards the importance of collaboration on successful collaboration. For instance, as one of the participants stated:

“Collaboration and communication between GE and SE teachers are very important to know the methods that should be applied to create inclusive classrooms for students with LD.”

Additional Comments

Answering the question regarding any additional thoughts GE teachers might have about inclusion of students with LD in the GE classroom and/or attitudes towards collaboration with SE teachers to include students with LD in GE classrooms, a few themes emerged including: reducing the number of students in the class, positively supporting collaboration relationships to create inclusive classrooms, and the need for training programs that focus on inclusive and collaboration practices.

A number of participants pointed out how the number of students in classes is a huge barrier to establishing any attempt to create inclusive classrooms. Some of the participants’ statements were:

“The problem of overloading in class remains the only obstacle to collaboration.”

“Preferably, integration in the schools to prepare female students in the classroom, does not exceed 25 students.”

“Reducing the number of students in the classroom helps.”

“If the number of students in the class is reasonable, so that the teacher can manage the class and communicate with everyone.”

“It is useless to include a student with learning difficulties in a class of more than 20.”

Teachers' concerns regarding the negative effect of class size on the success of inclusion are similar to teachers' concerns that have been reported in previous studies (e.g., Al-Ahmadi, 2009; Alrubaian, 2014; Al-Shareef, 2017).

Based on the survey results, most participants do hold positive attitudes regarding collaboration with SE teachers to include students with LD in the GE classroom. The survey findings align with the participants' thoughts that most teachers do support the concept of collaboration. Some of the GE teachers' statements were:

"I strongly advocate cooperation between all teachers to achieve the goal of learning for those with difficulties."

"The concept of collaboration is very beautiful, and I agree with including students with special needs on the condition that a full staff is available for their needs to facilitate the education process."

"The necessity of continuous collaboration between the regular teacher and the special education teacher."

"It is necessary to collaborate and develop special plans for students with difficulties and to understand each case and its requirements."

The last statement regarding the importance of collaboration to develop plans for students with LD confirms the findings of survey item 13 ("GE teachers should participate in the collaborative process of developing IEP's for students with LD"), with a mean of 3.95, indicating positive attitudes regarding collaborating to develop IEPs for students with LD.

The following concern: *"Assigning training to the general education teachers that focusses on students with learning difficulties to facilitate the principle of collaboration"* was raised regarding the need for in-service training programs that focus on inclusion and

collaboration to enhance GE teacher's knowledge. This finding is directly in line with previous findings from the ALHarthi (2014) study, where GE teachers highlighted the need for more training programs that focus on inclusion and collaboration. To confirm the need for in-service training, GE teachers in the current study positively rated item 24 ("In-service training would increase my comfort with implementing collaboration to support students in GE classrooms"), with a mean of 4.35, indicating the need and importance of in-service training on the success of the collaboration process.

Limitations

This study adds to the body of evidence supporting the need for in-service training programs that focus on inclusive education and collaboration between teachers in order to create inclusive education. However, several limitations should be considered including study context, research design, and the Corona Virus Pandemic.

Study Context

It is acknowledged that there may be different teacher attitudes, regarding inclusion and collaboration to include students with LD, in high schools or higher education. The current study only investigated the attitudes of GE teachers who work in elementary schools. The rationale behind choosing elementary schools was because SE services are more developed in elementary school in comparison to middle and high schools (Alharthi & Evans, 2017).

Research Design

The use of quantitative survey, with a few open-ended questions, may not have provided sufficient in-depth information about teachers' attitudes towards inclusion and their attitudes towards collaboration to include students with LD in the GE classroom. Therefore, the use of

mixed methods, including quantitative and qualitative data, could help in exploring GE teachers' attitudes more deeply to identify both barriers and/or facilitators to the inclusion process.

Coronavirus Pandemic

The current study was conducted during the occurrence of a global Coronavirus pandemic, that started in the beginning of 2020. This global pandemic might have affected teachers' responses due to stress and additional workload. Since the start of the pandemic, the schools in Saudi Arabia have experienced unprecedented total lockdown, during which both teachers and students have had to move to and adopt online platforms for learning and teaching. The change to teaching practice may have created stressful situations due to overload of work (MacIntyre, Gregersen & Mercer, 2020). This situation might have affected the teachers' perceptions and willingness to participate in any extra work, including completing an online survey.

Future Research and Practical Implications

This section provides additional theoretical analysis of the findings of this study. This section also discusses issues of inclusion in Saudi schools that are consistent with this study. This section also describes barriers to inclusion that were found in this study and how the study results may point to solutions.

Fazio Theory

The findings of negative attitudes in Saudi GE teachers towards inclusive education can be applied to Fazio's theory, presented in Chapter 2. Fazio's (1986) theory elucidated that any attitude towards a certain object will ultimately be reflected in an expressed behavior. Also, he claimed that expectations, individual knowledge, values, are all factors that influence an individual's expressed behavior. Saudi GE teachers in this study lack the sufficient knowledge

regarding creating an inclusive classroom that would meet the needs of students with LD. Based on Fazio's theory, GE teachers lack the knowledge needed to create an inclusive environment for students with LD. Therefore, the lack of this major factor has shaped the negative attitudes GE teachers held in this study. Similarly, a recent study conducted in Saudi Arabia, reported that teachers do not have sufficient knowledge regarding LD (Al Ahmadi & El Keshky, 2019). In fact, most of the recent studies in Saudi Arabia reported that lack of knowledge regarding inclusive education is one of the major barriers to creating inclusive education (ALAhmadi, 2009; Alrubaian, 2014; Alnahdi, 2020). Also, teachers' knowledge regarding collaboration is one of the main necessities to create successful teacher collaborations (Morgan, 2016; Pellegrinoan et al., 2015). Therefore, teachers do need to receive training that enhances their knowledge regarding inclusion and collaboration in order to create inclusive environments for students with LD.

The Inclusion of Students with LD in Saudi Arabia

The findings of this study concerning teachers' attitudes towards inclusion are certainly contrary to some of the research cited in the literature review (Chapter 2). For instance, recent research conducted in Saudi Arabia reveals that teachers hold positive attitudes towards the inclusion of students with LD in (e.g, ALAhmadi, 2009; Alharthi, 2014; Alrubaian, 2014; Alqahtani, 2017), however, the results of Al-Shareef (2017) and Alhammad (2017) align with the findings of the current study.

More importantly, by observing the findings of the Alharthi (2014) study, on the one hand, GE teachers' attitudes in the current study show negative attitudes towards inclusion and positive towards collaboration. On the other hand, GE teachers in the Alharthi study were neutral towards inclusion and collaboration to include students with LD. A similar concern, regarding

the need for more in-service training that focusses on inclusive and collaboration practices to ensure the success of including students with LD in the GE classroom, was observed in the participants of both the current and Alharthi studies.

The findings from the current research aligns with the body of evidence regarding the status of the inclusion of students with LD in Saudi schools. Teachers in Saudi Arabia are still faced with the same obstacles preventing the inclusion of students with LD in the GE classrooms including lack of knowledge (e.g., ALAhmadi, 2009; Alrubaian, 2014), lack of training (e.g. Alhammad, 2017; Alrubaian, 2014) and lack of resources (e.g ALAhmadi, 2009; Alharthi, 2014). Similar obstacles were reported by teachers in the current study including: the need for in-service training programs, the importance of administrative support, and the lack of teachers' knowledge regarding students with LD.

The results of the current study build on existing evidence regarding the importance of training, on teachers' attitudes, towards inclusion and collaboration. Saudi teachers, generally, lack sufficient training to be able to provide an inclusive GE classroom for students with disabilities (Alhammad, 2017; Al-Shareef, 2017). However, research suggests that providing training can enhance a teacher's ability to include students with disabilities in the GE classrooms (Al-Shareef, 2017).

When comparing the results of the current study to older studies conducted in Saudi Arabia, it is crucial to highlight that GE teachers in the current study acknowledge the importance of administrative support in the success of collaboration. Previous research found that lack of resources, including administrative support, affects the inclusion of students with LD negatively (ALAhmadi, 2009; Alharthi & Evans, 2017).

Lastly, lack of knowledge regarding the needs of students with LD in the GE classroom is one of the main concerns in the current study. Similarly, recent studies conducted in Saudi Arabia found that lack of knowledge regarding inclusive settings' practices was one of the strong barriers to achieving an inclusive environment (ALAhmadi, 2009; Alrubaian, 2014; Alqahtani, 2019). This could be related to the quality of preparation programs as researchers have highlighted that Saudi teachers lack quality preparation that enhances their ability to teach students with disabilities (ALAhmadi, 2009; Al Ahmadi & El Keshky, 2019).

Barriers to Collaboration

Although GE teachers, in the current research, revealed positive attitudes towards collaboration, few concerns were highlighted in the open-ended questions. Some of the concerns included lack of time and lack of SE teachers. Lack of time being one of the main concerns that prevents teachers establishing collaborative relationships. Similarly, previous research, discussed in Chapter 2, found that lack of time was reported as one of the main obstacles to collaboration between teachers (Al-Natour et al., 2015; Santoli et al., 2008).

In addition to lack of time as a barrier to collaboration, GE teachers in the current study considered the lack of SE teachers in schools as a potential barrier to the collaboration process. This indeed aligns with the significance of positive attitudes noted when SE services exist in schools. Also, previous research considered that the lack of availability of resources, including SE teachers, had a negative influence on teachers' attitudes regarding collaborating to achieve inclusion (ALAhmadi, 2009)

Previous literature, discussed in Chapter 2, indicated that positive change could occur if teachers are provided sufficient training that enhances their knowledge and abilities to collaborate, with the aim to include students with LD in the GE classroom. Most of the research

conducted in Saudi Arabia, as discussed in Chapter 2, identified that providing sufficient training could be a key factor to shift teachers' attitudes towards the inclusion of students with LD (Alshenaifi, 2018; Alharthi, 2014; Alhammad, 2017; Alsedrani, 2018; Alrubaian, 2014; Alqahtani, 2017). The findings from the current research also confirm the need for more training that is designed to enhance teachers' attitudes towards inclusion and collaboration to include students with LD in the GE classrooms. Evidence from research reveals that teachers in Saudi Arabia need more knowledge regarding SE practices to create inclusive classrooms. For instance, in Murry and Alqahtani's (2015) research, teachers requested more knowledge about SE laws and practices that would enhance their abilities to create inclusive environments in public schools. The need for more knowledge across most of the studies shows the need for more training regarding inclusion and collaboration is needed to achieve inclusive education in Saudi schools.

Conclusion

In summary, teachers in this study held neutral attitudes towards inclusive education. However, a closer inspection of the variable means showed that teachers showed negative attitudes towards inclusive education. For instance, teachers do acknowledge that the GE classroom is the best environment for students with LD, however, they hold negative perceptions about their professional knowledge to implement practices that help in creating inclusive education. Lastly, GE teachers in the current study consider the resources room as the best place to receive support, and not the GE classroom.

With regard to collaboration, the GE teachers in this study endorsed the phenomenon of collaboration. The teachers were knowledgeable about the importance of collaboration and were positive regarding the implementation of collaborative between GE and SE teachers, to include

students with LD in the GE classroom. They were significantly more positive if SE services (resource room and SE teacher) exist in their schools. Teachers highlighted that the number of students in a class and lack of knowledge are the main barriers to the inclusion of students with LD in the GE classrooms. Based on the findings of this study, the existence of resource rooms within schools significantly affects teachers' attitudes towards inclusion and collaboration to include students with LD in the GE classroom.

This study has highlighted the need for in-service training to facilitate inclusive education. The current study found that the negative attitudes of GE teachers arose because teachers were mainly concerned about their knowledge and abilities to be able to include students with LD in the GE classroom. There is a need to establish in-service training programs that focus on inclusive education and collaboration between GE and SE teachers to create successful inclusive learning environments. There is a gap in studies, specific to Saudi Arabia, that identify ways to enhance collaboration between teachers to create inclusive education for students with disabilities including LD. Research in this area is limited and can be considered to be in its early stages (AlAhmadi, 2009). Future studies should focus on investigating the best practices required to provide in-service teachers the knowledge needed to be able to include and collaborate to create inclusive classrooms for students with LD. Moreover, future studies should consider students' perceptions about having collaborative teaching and how this could facilitate their learning process. Identifying students' perceptions, especially students with LD, about having a collaborative team of teachers could motivate and guide the level of support provided in the GE classroom. Finally, future research should consider using other methodological approaches to investigate in-depth the phenomena of teachers' attitudes towards inclusion and collaboration, including using mixed methods research. The use of mixed methods research will

allow to investigate the phenomena more in-depth by implementing quantitative and qualitative data collection and not relying solely on one method such as surveys.

APPENDICES

Appendix A

Letter of Intent to Ministry of Education

Appendix B

IRB Approval Letter

Appendix C

Modified Survey Questions

Appendix A Letter of Intent of Ministry of Education

<p>الرقم : ٧١٩١٢</p> <p>التاريخ : ٣١/١٠/١٤٤٢ هـ</p> <p>المرفقات :</p>	 <p>وزارة التعليم Ministry of Education</p>	<p>الملحكة المرئية المعرجية</p> <p>وزارة التعليم (٢٨٠)</p> <p>الإدارة العامة للتعليم بالمنطقة الشرقية إدارة التخطيط والتطوير</p> <p>PD</p>
<p>القيم: التواصل - الأمانة - العدل - العمل بروح الفريق - التنمية الذاتية - المسؤولية الاجتماعية</p>	<p>الرسالة: تقديم خدمات تربوية وتعليمية ذات جودة عالية وفق معايير عالمية بمشاركة مجتمعية</p>	<p>الرؤية: الريادة لبناء جيل مبدع</p>
<p>الموضوع: تسهيل مهمة الباحثة مضاوي المدلج.</p>		
<p>حفظهم الله</p>	<p>مديري ومديرات مكاتب التعليم</p>	
<p>السلام عليكم ورحمة الله وبركاته</p> <p>بناءً على خطاب مدير مكتب التعليم بالجبيل الوارد إلينا برقم ٧١٩١٢ وتاريخ ١٤٤١/١١/٢٠ هـ.</p> <p>أمل منكم التكرم بتسهيل مهمة الباحثة / مضاوي عبدالرزاق المدلج طالبة الدراسات العليا لمرحلة الدكتوراه بجامعة ولاية أريزونا في الولايات المتحدة الأمريكية، والتي تقوم بإعداد دراسة بعنوان "أوجهات المعلمين نحوه التعاون لخلق التعليم الجامع: تصورات معلمين التربية العامة في المدارس السعودية"، حيث تتطلب الدراسة تعبئة استبانة من قبل معلمي ومعلمات التعليم العام في المدارس الابتدائية بالمنطقة الشرقية على الرابط الإلكتروني التالي:</p> <p>https://uarizona.col.qualtrics.com/jfe/form/SV_3DDc8K9T8AhM5dr</p> <p>شاكرين لكم تسهيل مهمتها وفق اللوائح والأنظمة المنظمة لذلك.</p> <p>والسلام عليكم ورحمة الله وبركاته</p>		
<p>مدير إدارة التخطيط والتطوير</p> <p>د. حميد بن عايش آل ادريس</p>		

Appendix B IRB Approval Letter



THE UNIVERSITY OF ARIZONA
**Research, Discovery
 & Innovation**

Human Subjects
 Protection Program

1618 E. Helen St.
 P.O.Box 245137
 Tucson, AZ 85724-5137
 Tel: (520) 626-6721
<http://rgw.arizona.edu/compliance/home>

Date: September 29, 2020
Principal Investigator: Modhawi Abdulrazaq Almedlij
Protocol Number: 2009043142
Protocol Title: Attitudes Towards Collaboration to create inclusive education in Saudi Elementary Schools: General Education Teachers Perceptions

Determination: Approved
Expiration Date: September 28, 2025

Documents Reviewed Concurrently:

Data Collection Tools: *ALMedlijSurveyFinal.docx*
Data Collection Tools: *ArabicSurveyALMedlij.docx*
HSPP Forms/Correspondence: *ALMedlij_research Personnel.pdf*
HSPP Forms/Correspondence: *ALMedlijIRBdECEDIT.pdf*
HSPP Forms/Correspondence: *appendix_waiver_ALMedlij.pdf*
Informed Consent/PHI Forms: *ArabicConsent.docx*
Informed Consent/PHI Forms: *ArabicConsent.pdf*
Informed Consent/PHI Forms: *IRBconsent.doc*
Informed Consent/PHI Forms: *IRBconsent.pdf*
Other Approvals and Authorizations: *COI Certification Complete for 2009043142 (1).msg*
Other Approvals and Authorizations: *TranslatedMOEletter.pdf*
Recruitment Material: *Recruitment email.docx*

Regulatory Determinations/Comments:

- The project listed is required to update the HSPP on the status of the research in 5 years. A reminder notice will be sent 60 days prior to the expiration noted to submit a 'Project Update' form.
- The project is not federally funded or supported and has been deemed to be no more than minimal risk.

This project has been reviewed and approved by an IRB Chair or designee.

- The University of Arizona maintains a Federalwide Assurance with the Office for Human Research Protections (FWA #00004218).
- All research procedures should be conducted according to the approved protocol and the policies and guidance of the IRB.
- The Principal Investigator should notify the IRB immediately of any proposed changes that affect the protocol and report any unanticipated problems involving risks to participants or others. Please refer to Guidance Investigators [Responsibility after IRB Approval](#), [Reporting Local Information](#) and [Minimal Risk or Exempt Research](#).
- All documents referenced in this submission have been reviewed and approved. Documents are filed with the HSPP Office.

Appendix C Modified Survey Questions**Attitudes Towards Collaboration in Saudi Elementary Schools**
Modhawi ALMedlij**Section 1: General information:**

Please check the appropriate space below:

Gender:

- Male
- Female

How long have you been teaching for?

- 0-5 years
- 6-10 years
- 10-15 years
- 15- 20+ years

What is the average number of students in each of your classes?

- 20-29
- 30-39
- 39-49
- 50+

My school is located in:

.....

Is there a program for students with learning disabilities in your school (eg: Special education teacher, resource room) ?

- YES
- NO

What sort of services are provided for students with learning disabilities in your school?

- Resource room services
- In the general education classroom
- Both

- None

Level of education:

- Bachelor’s degree
- Postgraduate degree

As part of your education degree did you complete a unit of study in special education/ inclusive education?

- YES
- NO

Have you attended a training program in special and inclusive education?

- YES
- NO

Have you taught in a classroom that includes students with learning disabilities?

- YES
- NO

How would you describe the role of the general education teacher in an inclusive classroom?

.....

.....

How would you describe what successful collaboration looks like between a general education teacher and special education teacher?

.....

.....

Section II: Inclusive Education:

1.The general education classroom is the best environment for students with learning disabilities.

- Strongly agree
- Agree
- Undecided
- Disagree
- Strongly disagree

2. General education teachers have the professional knowledge to implement education practices that support the education of students with learning disabilities.

- Strongly Agree
- Agree

- Undecided
- Disagree
- Strongly Disagree

3. Students with learning disabilities should receive educational support in the resource classroom not the general education classroom.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

4. General education teachers are knowledgeable about students with learning disabilities and the support they require to be included in the general education classroom curriculum.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

5. Students with learning disabilities can be well-served in general education classroom.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

Section III: Knowledge Collaboration

6. Collaboration between general and special education teachers is necessary for successful education for students with learning disabilities in general education classrooms.

- Strongly agree
- Agree
- Undecided
- Disagree
- Strongly disagree

7. Special and general education teachers should share responsibility for student success.

- Strongly agree
- Agree
- Undecided
- Disagree
- Strongly disagree

8. Lesson planning should be equally shared between general and special education teachers.

- Strongly agree
- Agree
- Undecided
- Disagree

- Strongly disagree
9. Clear, open communication between general and special education teachers is imperative for successful collaboration.
- Strongly agree
 - Agree
 - Undecided
 - Disagree
 - Strongly disagree
10. Clear delineated roles and responsibilities are imperative for successful collaboration.
- Strongly agree
 - Agree
 - Undecided
 - Disagree
 - Strongly disagree
11. Implementation of the classroom curriculum should be a responsibility shared equally between special and general education teachers.
- Strongly agree
 - Agree
 - Undecided
 - Disagree
 - Strongly disagree
12. Regularly scheduled shared planning time is imperative for successful collaboration.
- Strongly Agree
 - Agree
 - Undecided
 - Disagree
 - Strongly Disagree
13. General education teachers should participate in the collaborative process of developing IEP's for students with learning disabilities.
- Strongly Agree
 - Agree
 - Undecided
 - Disagree
 - Strongly Disagree
14. General education teachers should hold primary responsibility for planning and implementing the general education classroom curriculum to all students, with support from the special education teacher.
- Strongly Agree
 - Agree
 - Undecided
 - Disagree

- Strongly Disagree
15. Teacher preparation courses at universities and colleges should prepare all future teachers for collaboration.
- Strongly Agree
 - Agree
 - Undecided
 - Disagree
 - Strongly Disagree
16. The special education teacher should hold primary responsibility for making accommodations and modifications for all students with learning difficulties, with the support from the general education teacher.
- Strongly Agree
 - Agree
 - Undecided
 - Disagree
 - Strongly Disagree
17. Special and general education teachers must be committed to the concept of inclusion in order to be able to collaborate successfully.
- Strongly Agree
 - Agree
 - Undecided
 - Disagree
 - Strongly Disagree
18. I am willing to participate in discussion with my colleague regarding the educational needs of students with learning disabilities.
- Strongly Agree
 - Agree
 - Undecided
 - Disagree
 - Strongly Disagree
19. Strong administrative support is a requirement of successful collaboration.
- Strongly Agree
 - Agree
 - Undecided
 - Disagree
 - Strongly Disagree
20. Responsibility for the implementation of accommodations should be shared equally among general and special education teachers.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

21. General and special education teachers should equally share the responsibility of classroom management.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

Section IV: Feelings towards collaboration

22. A school culture of shared leadership for student success would increase my comfort in working collaboratively.

- Strongly agree
- Agree
- Undecided
- Disagree
- Strongly disagree

23. I am knowledgeable enough to participate comfortably in serving students with learning disabilities in the general education classroom.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

24. In-service training would increase my comfort with implementing collaboration to support students in general education classrooms.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

25. Sufficient regularly scheduled collaborative planning time would increase my comfort with implementing collaboration to support students with LD in general education classrooms.

- Strongly Agree
- Agree
- Undecided
- Disagree

- Strongly Disagree

26. It is hard to imagine sharing teaching responsibility in a general education classroom.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

27. I prefer not to work with another teacher.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

28. A school culture of open communication would increase my comfort in working collaboratively.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

29. I am comfortable with the concept of collaboration and support it in an educational delivery model.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

Please write any additional thoughts you may have about the inclusion of students with LD in the general education classroom and/or attitudes towards collaboration with special education teachers to include students with LD in general education classrooms.

.....
.....
.....
.....

THANK YOU FOR YOUR TIME.

REFERENCES

- Abed, M. G., & Alrawajfh, S. (2017). Elementary school teachers' attitude towards including students with special educational needs into regular public schools in Saudi Arabia. *International Journal of Education*, 9(1), 49-66.
- Afeafe, M. Y. (2000). Special education in Saudi Arabia. Retrieved from: <http://www.khayma.com/education>.
- Ajzen, I. (2005). *Attitudes, personality and behavior* (2nd ed.). Maidenhead, England: Open University Press.
- Aseery, F. (2016). Teachers' attitudes toward the inclusion of deaf and hard of hearing students in regular education classrooms in Saudi Arabia.
- Al-Assaf, S. (2017). *An Evaluation of the New Inclusion Model in Saudi Arabia: Teachers' Knowledge and Perspectives*. Edgewood College.
- Al Jaffal, M. (2019). *The attitudes of secondary school teachers regarding inclusion of students with autism in Saudi Arabia*. (Doctoral dissertation, Duquesne University). Retrieved from <https://dsc.duq.edu/etd/1755>.
- Al-Ahmadi, N. A. (2009). *Teachers' perspectives and attitudes towards integrating students with learning disabilities in regular Saudi public schools* (Doctoral dissertation, Ohio University).
- Alawfi, A. M. (2017). A Study Comparing the Educational Support for Students Experiencing Learning Disabilities in Australia and Saudi Arabia. *International Journal Online of Humanities*, 2(1), 2395 – 5155.

Al-Faiz, H. S. (2006). *Attitudes of elementary school teachers in Riyadh, Saudi Arabia toward the inclusion of children with autism in public education*. (Doctoral dissertation).

Available from ProQuest Dissertations and Theses database.

Alghazo, E.M., & Gaad, E. (2004). General education teachers in the United Arab Emirates and their acceptance of the inclusion of students with disabilities. *British Journal of Special Education*, 31(2), 94-99.

Al-hano, I. A. (2006). *Representations of learning disabilities in Saudi Arabian elementary schools: A grounded theory study* (Doctoral dissertation, University of Wisconsin-Madison).

Al-Hoshan, H. (2009). *Postsecondary outcomes of students with visual and auditory impairments in Saudi Arabia: Implications for special education policy* (Doctoral dissertation, Teachers College, Columbia University).

Al-Marsouqi, H. Q.(1980). *A facet theory analysis of attitudes toward handicapped individuals in Saudi Arabia*, Michigan State University. Unpublished doctoral dissertation,

Al-Mousa, N. (2010). The experience of the Kingdom of Saudi Arabia in mainstreaming students with special needs in public schools. *The Arab Bureau of Education for the Gulf States*, 5, 91-371.

Al-Mousa, N. A., Al-Sartawi, Z. A., Al-Abduljbar, A. M., Al-Btal, Z, M., & Al-Husain, A. S. (2008). The national study to evaluate the experiment of the Kingdom of Saudi Arabia in mainstreaming children with special educational needs in public education schools. Ministry of Education, Riyadh, Saudi Arabia.

Al-Muslat, Z. (1987). *Educators attitudes toward the handicapped in Saudi Arabia*, Indiana University. Unpublished doctoral dissertation.

- Al-Natour, M., Amr, M., Al-Zboon, E., & Alkhamra, H. (2015). Examining collaboration and constraints on collaboration between special and general education teachers in mainstream schools in Jordan. *International Journal of Special Education*, 30(1), 64-77.
- Allothman, A. (2014). *Inclusive education for deaf students in Saudi Arabia: Perceptions of schools principals, teachers and parents* (Doctoral dissertation, University of Lincoln).
- Al-Shareef, L. (2017). *A study of provision for specific learning difficulties (dyslexia) in primary education in the Kingdom of Saudi Arabia* (Doctoral dissertation, University of Birmingham).
- Al-Zoubi, S. M., & Bani Abdel Rahman (2016). Mainstreaming in Kingdom of Saudi Arabia: Obstacles Facing Learning Disabilities Resource Room. *Journal of Studies in Education*, 6(1), 37-55.
- Al-Zoubii, S. M., & Rahmani, M. S. B. A. (2012). The effect of resource room on improving reading and arithmetic skills for learners with learning disabilities. *The International Journal of Scientific Research in Education*, 5(4), 269-277.
- Al-Zyoudi, M. (2006). Teachers' attitudes towards inclusive education in Jordanian schools. *International Journal of Special Education* 21(2), 55-62.
- Alamri, A., & Tyler-Wood, T. (2017) Teachers' Attitudes Towards Children with Autism: A Comparative Study of the United States and Saudi Arabia. *Editorial Staff*, 14.
- Alamri, L. M. (2019). *Comparison between special and general teachers' attitudes towards inclusion of learners with special educational needs in primary mainstream girls' schools in the Kingdom of Saudi Arabia* (Doctoral dissertation, University of Birmingham).

- Alasim, K., & Paul, P. V. (2019). Understanding factors that affect teachers' attitudes toward inclusion of students who are hard of hearing in Saudi Arabia. *Deafness & Education International*, 21(4), 210-226.
- Albulayhi, A. (2018). *Teachers' Attitudes Regarding the Inclusion of Students with Visual Impairment in Saudi Arabian Public Schools* (Doctoral dissertation, Saint Louis University).
- Aldabas, R. A. (2015). Special education in Saudi Arabia: History and areas for reform. *Creative Education*, 6, 1158-1167. Retrieved from <http://dx.doi.org/10.4236/ce.2015.611114>
- Aldabas, R. (2020). Special Education Teachers' Perceptions of Their Preparedness to Teach Students with Severe Disabilities in Inclusive Classrooms: A Saudi Arabian Perspective. *SAGE Open*, 10(3), 2158244020950657.
- Alhammad, M. (2017). *The issues of implementing inclusion for students with Learning Difficulties in mainstream primary schools in Saudi Arabia* (Doctoral dissertation, University of Lincoln).
- Alharthi, N. W. T. (2014). *Collaboration for inclusive education: Attitudes of middle school teachers in Saudi Arabia* (Master's thesis, University of Sydney.).
- Alharti, N., & Evans, D. (2017). Special education teachers' attitudes towards teaching students with learning disabilities in middle schools in Saudi Arabia. *International Journal of Modern Education Studies*, 1(1), 1-15.
- Alnahdi, G. (2020). Are we ready for inclusion? teachers perceived self-efficacy for inclusive education in Saudi Arabia. *International Journal of Disability, Development and Education*, 67(2), 182-193.

- Alqahtani, A. S. (2019). *Teachers' attitudes toward the full inclusion of students with intellectual disabilities in general elementary school classrooms in Saudi Arabia* (Order No. 13901596). Available from ProQuest Dissertations & Theses Global. (2389240046). Retrieved from <http://ezproxy.library.arizona.edu/login?url=https://www-proquest-com.ezproxy2.library.arizona.edu/docview/2389240046?accountid=8360>
- Alqahtani, M. (2017). *Teacher perspectives on full inclusion of students with learning disabilities in Saudi Arabia high schools* (Doctoral dissertation, Indiana State University).
- Alquraini, T. A. (2012). Factors related to teachers' attitudes towards the inclusive education of students with severe intellectual disabilities in Riyadh, Saudi. *Journal of Research in Special Educational Needs*, 12(3), 170-182.
- Al-Rasheed, M. (2010). *A history of Saudi Arabia*. Cambridge University Press.
- Alrubaian, A. A. (2014). General education teachers' attitudes, knowledge, and strategies related to teaching students with learning disabilities in Saudi Arabia. (Doctoral dissertation, Washington State University).
- Alsalem, M. (2015). *Considering and supporting the implementation of universal design for learning among teachers of students who are deaf and hard of hearing in Saudi Arabia* (Doctoral dissertation, University of Kansas).
- Alsedrani, R. (2018). *General education teachers' attitudes toward the inclusion of students with autism in general education classrooms in Saudi Arabia* (Order No. 13419996). Available from ProQuest Dissertations & Theses Global. (2201442121). Retrieved from <http://ezproxy.library.arizona.edu/login?url=https://www-proquest-com.ezproxy2.library.arizona.edu/docview/2201442121?accountid=8360>

- Alshahrani, M. M. (2014). Saudi educators' attitudes towards deaf and hard of hearing inclusive education in Jeddah, Saudi Arabia.
- Alshenaifi, A. (2018). *The policy and practice of inclusion of children with specific learning difficulties in mainstream primary girls' schools in Riyadh, Saudi Arabia: Exploring the attitudes and experiences of teachers* (Doctoral dissertation, University of Plymouth).
- Alzaidi, F. A. (2017). *An exploratory study on educating learners with ASD in primary inclusive setting in Saudi Arabia: issues, attitudes, and challenges* (Doctoral dissertation, University of Lincoln).
- Al-Zoubi, S. M., & Bani Abdel, R. (2016). Mainstreaming in Kingdom of Saudi Arabia: Obstacles facing learning disabilities resource room. *Journal of Studies in Education, 6*(1), 37-55.
- Asiri, A. (2019). *Concerns and professional development needs of teachers at elementary schools in Saudi Arabia in adopting inclusive education* (Doctoral dissertation).
- Avramidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school in one local education authority. *Educational psychology, 20*(2), 191-211.
- Avramidis, E., & Kalyva, E. (2007). The Influence of Teaching Experience and Professional Development on Greek Teachers' Attitudes towards Inclusion. *European Journal of Special Needs Education, 22*, 367-389.
- Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration / inclusion: a review of the literature, *European Journal of Special Needs Education, 17*(2), 129-147.
- Baki, R. (2004). Gender-segregated education in Saudi Arabia: Its impact on social norms and the Saudi labor market. *Education Policy Analysis Archives, 12*(28).

- Banville, D., Desrosiers, P., & Genet-Volet, Y. (2000). Translating questionnaires and inventories using a cross-cultural translation technique. *Journal of teaching in physical education, 19*(3), 374-387.
- Battal, Z. M. B. (2016). Special education in Saudi Arabia. *International Journal of Technology and Inclusive Education, 5*(2), 880-886.
- Binmahfooz, S. (2019). Saudi Special Education Preservice Teachers' Perspective towards Inclusion (Doctoral dissertation, University of Southern California).
- Boyle, C., Topping, K., & Jindal-Snape, D. (2010). Teachers' attitudes towards inclusion in high schools. *Teachers and Teaching: theory and practice, 19*(5), 527-542.
- Brownell, M. T., Adams, A., Sindelar, P., Waldron, N., & Vanhover, S. (2006). Learning from collaboration: The role of teacher qualities. *Exceptional Children, 72*(2), 169-185.
- Čagan, B., & Schmidt, M. (2011). Attitudes of Slovene teachers towards the inclusion of pupils with different types of special needs in primary school. *Educational Studies, 37*(2), 171-195.
- Caron, E. A., & McLaughlin, M. J. (2002). Indicators of beacons of excellence schools: What do they tell us about collaborative practices. *Journal of Educational and Psychological Consultation, 13*(4), 285-313.
- Chhabra, S.; Srivastava, R.; Srivastava, I. (2010). Inclusive education in Botswana: the perceptions of school teachers. *Journal of Disability Policy Studies, 20*(4), 219-228.
- Cook, B. G. (2002). Inclusive attitudes, strengths, and weaknesses of pre-service general educators enrolled in a curriculum infusion teacher preparation program. *Teacher Education and Special Education, 25*(3), 262-277.
- Convention on the Rights of Persons with Disabilities (2006).

<https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297-334.

Creswell, J.W. (2014) Research design: Qualitative, quantitative, and mixed methods approach. (4th ed.). London: SAGE Publications.

David, M., & Sutton, C. D. (2004). *Social research: The basics* (Vol. 74, No. 3). Sage.

Desombre, C., Lamotte, M., & Jury, M. (2019). French teachers' general attitude toward inclusion: the indirect effect of teacher efficacy. *Educational Psychology*, 39(1), 38-50.

Dukmak, S. J. (2013). Regular classroom teachers' attitudes towards including students with disabilities in the regular classroom in the United Arab Emirates. *The Journal of Human Resource and Adult Learning*, 9(1), 26.

Elhoweris, H., & Alsheikh, N. (2004). Teachers' Attitudes toward Inclusion. Paper presented at the New York State Federation of the Council for Exceptional Children (Albany, NY, Nov 2004).

El Keshky, M. E. S. & Al-Ahmadi, N. A. (2019). Assessing Primary School Teachers' Knowledge of Specific Learning Disabilities in the Kingdom of Saudi Arabia. *Journal of Educational and Developmental Psychology*, 9(1), 9-22.

Enders, C. K. (2003). Using the expectation maximization algorithm to estimate coefficient alpha for scales with item-level missing data. *Psychological methods*, 8(3), 322.

Esposito, N. (2001). From meaning to meaning: The influence of translation techniques on non-English focus group research. *Qualitative Health Research*, 11(4), 568–579.

Evans, C., & Weiss, S. L. (2014). Teachers working together: How to communicate, collaborate,

- and facilitate positive behavior in inclusive classrooms. *Journal of the International Association of Special Education*, 15(2), 142-146.
- Fakolade, O. A., Adeniyi, S. O., & Tella, A. (2009). Attitude of teachers towards the inclusion of special needs children in general education classroom: the case of teachers in some selected schools in Nigeria. *International Electronic Journal of elementary education*, 1(3), 155-169.
- Fazio, R. H. (1986). How do attitudes guide behavior. *Handbook of motivation and cognition: Foundations of social behavior*, 1, 204-243.
- Fink, A. (2003). How to sample in surveys (Vol.7). Sage.
- Friend, M., & Cook, L. (1992). *Interactions: collaboration skills for school professionals*. White Plains, NY: Longman.
- Flores, M. A., & Swennen, A. (2020). The COVID-19 pandemic and its effects on teacher education. The COVID-19 pandemic and its effects on teacher education, *European Journal of Teacher Education*, 43:4, 453-456, DOI: 10.1080/02619768.2020.1824253
- Foddy, W. (1993): *Constructing Questions for Interviews and Questionnaires: Theory and Practice in Social Research*. Cambridge: Cambridge University Press.
- Gaad, E., & Khan, L. (2007). Primary Mainstream Teachers' Attitudes towards Inclusion of Students with Special Educational Needs in the Private Sector: A Perspective from Dubai. *International journal of special education*, 22(2), 95-109.
- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction*. Longman Publishing.

General Authority for Statistics. (2017). *Education and training survey*. Retrieved from;

<https://www.stats.gov.sa/en/903>

Goddard, Y. L., Goddard, R. D., & Tschannen-Moran, M. (2007). A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers College Record*, 109(4), 877-896.

Grahn, K. A. (2007). Teachers' attitudes toward the implementation of inclusion, with emphasis on the collaboration element. Retrieved from ProQuest Dissertations and Theses. (UMINo. 3274725).

Gravetter, F. J., Wallnau, L. B., Forzano, L. A. B., & Witnauer, J. E. (2020). *Essentials of statistics for the behavioral sciences*. Cengage Learning.

Hamilton-Jones, B., & Vail, C. O. (2013). Preparing special educators for collaboration in the classroom: Pre-service teachers' beliefs and perspectives. *International Journal of Special Education*, 28(1), 56-68.

Hodgson, J. R., Lazarus, S. S., & Thurlow, M. L. (2011). *Professional development to improve accommodations decisions: A review of the literature (Synthesis Report 84)*. Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.

Hussain, O. A. (2010). *Evaluation of preparation program for teachers specializing in learning disabilities in Saudi Arabia* (Unpublished doctoral dissertation). Retrieved from

<http://repository.unm.edu/handle/1928/10325>

Intelligence Community Collaboration. (1999). Baseline study final report. Retrieved from

WWW.http://collaboration.mitre.org/prail/IC_Collaboration_Baseline_Study_Final_Report/appb.htm

Kamens, M. W. (2007). Learning about co-teaching: A collaborative student teaching experience

- for preservice teachers. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 30(3), 155-166.
- Kavale, K. A., Spaulding, L. S., & Beam, A. P. (2009). A time to define: Making the specific learning disability definition prescribe specific learning disability. *Learning Disability Quarterly*, 32(1), 39-48.
- Khairuddin, K. F., Dally, K., & Foggett, J. (2016). Collaboration between general and special education teachers in Malaysia. *Journal of Research in Special Educational Needs*, 16(S1), 909-913.
- Kingdom of Saudi Arabia, Council of Ministers (2000). The law of disability in Saudi Arabia (pp.1-9). Council of Ministers. Council of Ministers Resolution No. 224.
- Kroeger, S., & Laine, C. (2009). Preservice English teachers and special educators: Opportunities and barriers to collaboration. *American Reading Forum Annual Yearbook* [Online], Vol. 29.
- Lilly, M. S. (1971). Improving social acceptance of low sociometric status, low achieving students. *Exceptional Children*, 37, 341-347.
- MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, wellbeing and negative emotions. *System*, 94, 102352.
- McCray, E.D., & McHatton, P.A. (2011) "Less Afraid to Have "Them" in My Classroom": Understanding Pre-Service General Educators' Perceptions about Inclusion. *Teacher Education Quarterly*, (38)4 p135-155.
- McLeskey, J., Hoppey, D., Williamson, P., & Rentz, T. (2004). Is inclusion an illusion? An examination of national and state trends toward the education of students with learning

- disabilities in general education classrooms. *Learning Disabilities Research & Practice, 19*(2), 109-115
- Ministry of Education (2005). The Executive Summary of The Ministry of Education Ten - Year Plan. Retrieved from https://planipolis.iiep.unesco.org/sites/planipolis/files/resources/saudi_arabia_education_plan_english_summary.pdf
- Ministry of Education (2020) Retrieved October 13, 2020 from <https://departments.moe.gov.sa/EducationAgency/RelatedDepartments/SPECIAL EDUCATION/Pages/default.aspx>
- Moberg, S., Muta, E., Korenaga, K., Kuorelahti, M., & Savolainen, H. (2020) Struggling for inclusive education in Japan and Finland: teachers' attitudes towards inclusive education. *European Journal of Special Needs Education, 35*(1), 100-114.
- Morgan, J. L. (2016). Reshaping the role of a special educator into a collaborative learning specialist. *International Journal of Whole Schooling, 12*(1), 40-60.
- Murry, F., & Alqahtani, R. M. A. (2015). Teaching Special Education Law in Saudi Arabia: Improving Pre-Service Teacher Education and Services to Students with Disabilities. *World Journal of Education, 5*(6), 57-64.
- Murawski, M., & Swanson, H. L. (2001). A meta-analysis of co-teaching research: Where are the data? *Remedial and Special Education, 22*(5), 258 – 267.
- NCLD (National Center for Learning Disabilities). (n.d.). Retrieved from <http://www.nclld.org/index.php?option=content&task=view&id=448>.
- Nishimura, T. (2014). Effective professional development of teachers: A guide to actualizing inclusive schooling. *International Journal of Whole Schooling, 10*(1), 19-42.
- Odongo, G., & Davidson, R. (2016) Examining the attitudes and concerns of the Kenyan

- teachers toward the inclusion of children with disabilities in the general education classroom: A Mixed Methods Study. *International Journal of Special Education*, 31(2).
- Parasuram, K. (2006) Variables that affect teachers' attitudes towards disability and inclusive education in Mumbai, India. *Disability & Society*, 21(3), 231-242.
- Pellegrino, A., Weiss, M., & Regan, K. (2015). Learning to collaborate: General and special educators in teacher education. *The Teacher Educator*, 50(3), 187-202.
- Pierangelo, R., & Giuliani, G. A. (2002). *Assessment in Special Education: A Practical Approach*. Allyn & Bacon, 75 Arlington Street, Suite 300, Boston, MA 02116.
- Ragland, K. (2005). Teachers' attitudes regarding the collaborative elements involved in the inclusion of atypical learners in the general education classroom. Retrieved from ProQuest Dissertations and Theses. (UMI No. 3184475).
- Rakap S., & Kaczmarek, L. (2010). Teachers' Attitudes Towards Inclusion in Turkey. *European Journal of Special Needs Education*, 25(1), 59-75.
- R Core Team (2020). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria.
URL <https://www.R-project.org/>.
- Rea, P. J., McLaughlin, V. L., & Walther-Thomas, C. (2002). Outcomes for students with learning disabilities in inclusive and pullout programs. *Exceptional Children*, 68(2), 203-222.
- Reja, U., Manfreda, K. L., Hlebec, V., & Vehovar, V. (2003). Open-ended vs. close-ended questions in web questionnaires. *Developments in applied statistics*, 19(1), 159-177.
- Right of people with disabilities (n.d.) Retrieved January 18, 2021, from <https://www.my.gov.sa/wps/portal/snp/aboutksa/RightsOfPeopleWithDisabilities>

- Ross, A., & Willson, V. L. (2018). *Basic and advanced statistical tests: Writing results sections and creating tables and figures*. Springer.
- Royal Embassy of Saudi Arabia in Washington, DC. (2020). *About Saudi Arabia*. Retrieved from Royal Embassy website: <https://www.saudiembassy.net/education>.
- Salloom, I. H. (1995). *Education in Saudi Arabia* (2nd ed.) Beltsville, MD: Amana
- Santoli, S. P., Sachs, J., Romey, E. A., & McClurg, S. (2008). A successful formula for middle school inclusion: Collaboration, time, and administrative support. *RMLE Online*, 32(2), 1-13.
- Santos, J. R. A. (1999). Cronbach's alpha: A tool for assessing the reliability of scales. *Journal of extension*, 37(2), 1-5.
- Saloviita, T. (2020). Attitudes of teachers towards inclusive education in Finland. *Scandinavian Journal of Educational Research*, 64(2), 270-282.
- Saudi Arabia Cultural Mission, (2020). *Education in Saudi Arabia*. Retrieved from: <http://www.sacm.org/ksa/education-in-saudi-arabia/public-school>
- Saudi Vision (2030). *National Transformation Program*. Retrieved from: <https://www.vision2030.gov.sa/en/programs/NTP>
- Schwab, S., Holzinger, A., Krammer, M., Gebhardt, M., & Hessels, M. G. (2015). Teaching practices and beliefs about inclusion of general and special needs teachers in Austria. *Learning Disabilities--A Contemporary Journal*, 13(2).
- Smith, L., & Abouammoh, A. (2013). Higher education in Saudi Arabia: Reforms, challenges and priorities. In Smith, L., Abouammoh, A. (eds.) *Higher Education in Saudi Arabia* (pp. 1-12). Springer: Dordrecht.

- Somaily, H., Al-Zoubi, S., & Rahman, M. B. A. (2012). Parents of students with learning disabilities attitudes towards resource room. *International interdisciplinary journal of education, 1*(1), 9.
- Tayan, B. M. (2017). The Saudi Tatweer Education Reforms: Implications of Neoliberal Thought to Saudi Education Policy. *International education studies, 10*(5), 61-71.
- Thornton, A., McKissick, B. R., Spooner, F., Lo, Y. Y., & Anderson, A. L. (2015). Effects of collaborative preteaching on science performance of high school students with specific learning disabilities. *Education and Treatment of Children, 38*(3), 277-304.
- UNESCO. (1994). The Salamanca Statement and Framework for action on special needs education: Adopted by the World Conference on Special Needs Education; Access and Quality. Salamanca, Spain, 7-10 June 1994. Unesco.
- UNESCO (2009). Policy guidelines on inclusion in education. Paris, France.
- UNP (2020). Unified National Platform. Retrieved October 28, 2020, from <https://laws.boe.gov.sa/BoeLaws/Laws/LawDetails/dcc76b09-2e3b-41cc-8b8f-a9a700f2bb5e/1>
- Buuren, S, (2018). *Flexible Imputation of Missing Data*. 2nd ed. Boca Raton, FL: CRC Press.
- Wallace, T., Anderson, A. R., & Bartholomay, T. (2002). Collaboration: An element associated with the success of four inclusive high schools. *Journal of Educational and Psychological Consultation, 13*(4), 349-381. "*"
- Williams, M.L. (2010). *Teacher collaboration as professional development in a large, suburban high school* (Doctoral Dissertation). University of Nebraska-Lincoln, Lincoln, Nebraska.
- with the success of four inclusive high schools. *Journal of Educational and*

within a Southern Arizona school district. *Journal of Multilingual Education Research*, 6(5), 61-90.