

Concerns and professional development needs of teachers at elementary schools
in Saudi Arabia in adopting inclusive education

By

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B.A., King Saud University, Riyadh, Saudi Arabia, 2004

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AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

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Abstract

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Participants in this research were special and general education teachers randomly selected from elementary schools in Riyadh, Saudi Arabia, that include special education programs.

The theoretical framework of the study was the Concern Based Adoption Model (CBAM), and a non-experimental cross-sectional survey design was used to collect data. The data were obtained from 332 teachers, a response rate of 83%.

The Stages of Concerns Questionnaire (SoCQ) provided by CBAM indicated that respondent stages of concern 0-2 (Unconcerned, Informational, and Personal) ranked highest, while stages 4-6 (Consequence, Collaboration, and Refocusing) ranked lowest. This profile was identified as a “nonuser profile”, meaning respondents wanted more information about inclusive education. A one-way MANOVA test revealed a statistically significant difference between respondent degree area and concerns about adopting inclusive education. Statistically significant differences were found in stages zero (Unconcerned), four (Consequence), five (Collaboration), and six (Refocusing). Furthermore, a *t*-test indicated that special education teachers are more concerned about inclusive education than general education teachers.

Teachers in this study showed responses converging between agreement and disagreement, with slightly more respondents agreeing that administrators supported inclusive

education. A statistically significant difference was found among teacher degree areas. Special education teachers tend to think administrator support for inclusive education is insufficient, while general education teachers tended to have no opinion about administrator support of inclusive education.

In this study, teacher attitude towards inclusive education was positive with no statistically significant difference between teachers and their attitudes about adopting inclusive education.

Teachers are in general show high desire for professional development on inclusive education, including immediate training and seminars/workshops on inclusive education. The only significant difference in desire for professional development was by gender. The *t*-test indicated that female teachers have more desire for professional development than male teachers.

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Approved by:

Major Professor
Dr. Warren J. White

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Table of Contents

List of Figures	xiii
List of Tables	xiv
Acknowledgements	xvi
Dedication	xvii
Chapter 1 - Introduction	1
Chapter Overview	1
Introduction	1
Legislation of Special Education.....	2
Statement of the Problem	2
Purpose of the Study	3
Research Questions	4
Significance of the Study	7
Delimitation of the Study	7
Limitations of the Study	7
Definitions	8
Abbreviations	10
Organization of the Study	11
Chapter 2 - Review of the Literature	12
Chapter Overview	12
Overview of The Kingdom of Saudi Arabia's Education System	12
Overview of the Kingdom of Saudi Arabia	13
Development of the Education System in KSA	14

Development of Special Education in The Kingdom of Saudi Arabia	15
Disability Statistics.....	16
The Future of Education in KSA.....	17
Pilot Study	19
Theoretical Framework: The Concerns-Based Adoption Model.....	19
Stages of Concern.....	21
The CBAM and Special Education	23
The CBAM and Inclusive Education	24
Selected Personal Characteristics of Teachers.....	25
Gender	25
Years of Teaching Experience	25
Academic Qualification.....	25
Area of Degree	26
Grade Instructed	26
Literature on Inclusive Education	27
Supporting Inclusive Education	27
Benefit to All Students	27
Benefit to Teachers.....	28
Chapter 3 - Methodology.....	30
Chapter Overview.....	30
Research Questions.....	30
Research Design.....	33
Research Settings.....	34
Study Population.....	35
Study Sample and Participants	35
Protection of Human Subjects.....	36

Data Collection Methods.....	37
Survey Preparation	37
Outcome Measure	39
Data Analysis.....	43
Independent Variables.....	43
Dependent Variables	43
Descriptive Statistics	44
Inferential Statistics.....	45
Chapter 4 - Data Analysis and Findings.....	48
Chapter Overview.....	48
Research Questions.....	49
Descriptive Statistics.....	52
Gender	52
Academic Qualifications	52
Degree Area.....	52
Years of Teaching Experience	52
Grade Teachers Instructed.....	53
Descriptive Statistics of the Survey	53
Administrative Support for Inclusive Education.....	53
Attitudes Towards Inclusive Education	56
Professional Development Needs for Inclusive Education	58
Stages of Concern.....	59
Inferential Statistics.....	61
Research Question One	62
Research Question Two	66
Research Question Three	70

Research Question Four	72
Chapter Summary	75
Chapter 5 - Summary, Conclusions, Discussion, and Recommendations for Practice and Future Studies	79
Chapter Overview.....	79
Summary	80
Personal Characteristics	80
Administrative Support for Inclusive Education.....	81
Attitudes Towards Inclusive Education	81
Professional Development Needs for Inclusive Education	81
Stages of Concern.....	82
Findings	82
Research Question One	82
Research Question Two	83
Research Question Three	84
Research Question Four	84
Conclusions and Discussion	84
Research Question One	85
Research Question Two	86
Research Question Three	88
Research Question Four	89
Recommendations for Adopting Inclusive Education in Saudi Arabia.....	90
Recommendations for Future Studies	94
References.....	96
Appendix A	107

Appendix B	109
Appendix C	114
Appendix D	115

List of Figures

Figure 2.1 Map of Saudi Arabia (World Atlas, 2009)	13
Figure 2.2 The Concerns-Based Adoption Model (Hall & Hord, 2014)	20
Figure 4.1 Administrators support of inclusive education in school	55
Figure 4.2 District Administrator support for inclusive education	56
Figure 4.3 Participant Percentiles of their Attitudes Toward Inclusive Education.....	57
Figure 4.4 Professional Development Needs for Inclusive Education	59
Figure 4.5 Stages of Concern profile for respondents	60

List of Tables

Table 2.1 Students with disabilities who receive special education services (Alquraini, 2013) ..	17
Table 2.2 Levels of Concern about Innovation (George et al., 2013, p.8)	22
Table 2.3 Beliefs and ideologies of traditionalists and inclusionists (Fitch, 2003, p. 238)	29
Table 3.1 Survey Preparation Summary	39
Table 3.2 Coefficients of Reliability for the Seven Stages in SoCQ (George et al., 2013).....	42
Table 3.3 Coefficients of Reliability for the Seven Stages in SoCQ (George et al., 2013).....	42
Table 3.4 Summary of the Independent and the Dependent Variables in the Study	44
Table 4.1 Summary of Participant Personal Characteristics.....	53
Table 4.2 Administrators support of inclusive education in school.....	54
Table 4.3 District Administrator support for inclusive education	56
Table 4.4 Attitudes toward inclusive education.....	57
Table 4.5 Professional Development Needs	58
Table 4.6 Percentile Stages Score for the Respondents.....	60
Table 4.7 Results Summary of Pillai’s Trace Test of MANOVA on Stage of Concerns.....	62
Table 4.8 ANOVA Significance Values for Concerns in Adopting inclusive education by Degree Area.....	64
Table 4.9 Means of participants based on Degree Area	65
Table 4.10 Pillai’s Trace test results of MANOVA for teacher recognition of administrator support for inclusive education.	66
Table 4.11 ANOVA Significance Values for Administrator Support for Adopting inclusive education by Degree Area.....	68
Table 4.12 Means of participants based on Degree Area about Administrator Supports.....	69
Table 4.13 ANOVA Significance Values for Administrator Support for Adopting inclusive education by the grade teachers instruct	69
Table 4.14 Mean for responses of participants to school administrator Support based on the grade teachers instruct.	70
Table 4.15 ANOVA Results for Teacher Attitudes Toward Inclusive Education.....	70
Table 4.16 ANOVA Results for Teachers and their need for professional development in inclusive education.....	72

Table 4.17 Mean of responses by gender on the need for professional development in inclusive education	73
Table 4.18 Null Hypothesis Summary	74
Table 4. 1 Summery of Participant Personal Characteristics.....	53
Table 4. 2 Administrators support of inclusive education in school.....	54
Table 4. 3 District Administrator support for inclusive education	56
Table 4. 4 Attitudes toward inclusive education.....	57
Table 4. 5 Professional Development Needs	58
Table 4. 6 Percentile Stages Score for the Respondents.....	60
Table 4. 7 Results Summary of Pillai’s Trace Test of MANOVA on Stage of Concerns.....	62
Table 4. 8 ANOVA Significance Values for Concerns in Adopting inclusive education by Degree Area	64
Table 4. 9 Means of participants based on Degree Area	65
Table 4. 10 Pillai’s Trace test results of MANOVA for teacher recognition of administrator support for inclusive education.....	66
Table 4. 11 ANOVA Significance Values for Administrator Support for Adopting inclusive education by Degree Area.....	68
Table 4. 12 Means of participants based on Degree Area about Administrator Supports.....	69
Table 4. 13 ANOVA Significance Values for Administrator Support for Adopting inclusive education by the grade teachers instruct	69
Table 4. 14 Mean for responses of participants to school administrator Support based on the grade teachers instruct.....	70
Table 4. 15 ANOVA Results for Teacher Attitudes Toward Inclusive Education.....	70
Table 4. 16 ANOVA Results for Teachers and their need for professional development in inclusive education.....	72
Table 4. 17 Mean of responses by gender on the need for professional development in inclusive education	73
Table 4. 18 Null Hypothesis Summary.....	74

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Dedication

To the love of my life Asma Alhamadi,

To the joys of my life, Misk, Tasneem, and Mohammed,

To all students with disabilities,

I dedicate this dissertation to you.

Chapter 1 - Introduction

Chapter Overview

In this chapter, an overview of the study's research problem will be presented. It begins with an introduction about inclusive education. Special education legislation and its importance in clarifying the rights of students with disabilities to obtain appropriate educational services are presented. Next, the statement of the problem, purpose and significance of the study, research questions, and null hypotheses will be provided. Finally, the limitations and delimitations of the study are presented, along with definitions of terms and abbreviations.

Introduction

Access to education is one of the essential rights for all people – including those with disabilities – in any community (Cole, 2017). The Universal Declaration of Human Rights (1948) says in Article 26, Section 1:

Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit (p. 7)

Unfortunately, “everyone” hasn't always included those with disabilities. There are many countries in the world that have begun demanding inclusive education in their education systems (Waitoller & Thorius, 2015; Artiles et al., 2006; Clough, 2000). This demand will not be met without a comprehensive overhaul of the education systems in these countries. One such country is Saudi Arabia, which is the focus of this study.

Many special education studies have found great advantages of inclusive education for students with and without special needs (Rojewski, Lee & Gregg, 2015; Cole, Watdron, & Majd,

2004; Manset & Semmel, 1997; Rea, McLaughlin, & Walther-Thomas, 2002; Westling & Fox, 2009). Also, more inclusive education will reflect our inclusive lives that exist in our families and communities (Kurth & Gross, 2015).

Legislation of Special Education

Students with disabilities in Saudi Arabia have the right by law to have free educational services in all levels of education. The Disability Welfare Law in Saudi Arabia was provided by The Ministry of Labor and Social Development (2000) article 2 (Educational Aspects) states, “Provide educational services in all levels of education from preschool, general education, technical education, and higher education in the way that meets the abilities and needs of the disabled. Facilitate the enrollment and continued evaluation of the curriculum and the provided educational services.” (p. 3). In the United States of America, the 2004 Individuals with Disabilities Education Improvement Act (IDEIA) goes further and states that the services must be provided in the least restrictive environment (IDEIA, 2004). Clear and comprehensive education legislation can help to protect the rights of individuals with disabilities to appropriate education without any discrimination (Andrews & Lupart, 2000; Bauer & Brown, 2001; Loreman, 2001; Loreman et al., 2005; Loreman, 2007).

Statement of the Problem

In Saudi Arabia, there are approximately more than 200,000 school-aged children with disabilities (General Authority of Statistics in KSA, 2017). According to the Ministry of Education (2017) approximately about 27k children in schools received special education services in 2016. According to General Authority of Statistics in KSA (2017) there are approximately 27,000 children with disabilities in age 10-19 years old did not receive any educational services. In Saudi Arabia, the extent of the needs and challenges of the disabled

cannot be accurately tracked because a clear definition of disability does not exist, and the country lacks a standardized and unified database of people with disabilities (Transformation Program, n.d.). There is a lack of special education institutes and programs. The Ministry of Education does everything possible in dealing with the significant number of students with disabilities who do not receive appropriate educational services.

They began addressing this issue and are considering inclusive education, two schools now are adopting inclusive education under the umbrella of the Ministry of Education. The Ministry of Education has a vision toward inclusive education, since the special education services provided are inadequate to meet all students with disabilities in all Saudi cities. In order to provide equitable education to children and youth with disabilities, inclusive education may be a helpful strategy if it is adopted in all schools in Saudi Arabia to reach all learners with special needs.

In order to develop appropriate training programs for teachers in adopting inclusive education, it is important to understand their concerns and professional development needs. The findings from this study will help determine the support and resources needed to successfully implement inclusive education in Saudi Arabia.

Purpose of the Study

This study investigated the concerns and professional development needs regarding adoption of inclusive education as expressed by elementary school teachers in Saudi Arabia. The goal is to provide baseline information for the Department of Planning and Development in the Ministry of Education for adopting inclusive education for the purpose of increasing the number of students with disabilities who receive appropriate special education services.

Research Questions

This study investigated the concerns and professional development needs of teachers from schools that include special education programs in Riyadh city in Saudi Arabia regarding the adoption of inclusive education. Four research questions will guide the study:

Research Question #1: What is the relationship between personal characteristics (gender, academic qualifications, degree area, years of teaching experience, and grade instructed) and concerns about adopting inclusive education?

Null Hypotheses:

H0 1.1. There are no statistically significant differences in how gender affects teacher concerns about adopting inclusive education.

H0 1.2. There are no statistically significant differences in how teacher academic qualifications affect teacher concerns about adopting inclusive education.

H0 1.3. There are no statistically significant differences in how years of teaching experience affect teacher concerns about adopting inclusive education by.

H0 1.4. There are no statistically significant differences in how teacher degree area affects teacher concerns about adopting inclusive education.

H0 1.5. There are no statistically significant differences in how the grade teacher instruct affects teacher concerns about adopting inclusive education.

Research Question #2: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher recognition of administrative support (administrators in school and administrators in the district department of education) for inclusive education?

Null Hypotheses:

H0 2.1. There are no statistically significant differences in how teacher gender affects their recognition of school and district administrator support for adopting inclusive education.

H0 2.2. There are no statistically significant differences in how teacher academic qualification affects their recognition of school and district administrator support for adopting inclusive education.

H0 2.3. There are no statistically significant differences in how years of teaching experiences affects teacher recognition of school and district administrator support for adopting inclusive education.

H0 2.4. There are no statistically significant differences in how teacher degree area affects their recognition of school and district administrator support for adopting inclusive education.

H0 2.5. There are no statistically significant differences in how the grade teachers instruct affects their recognition of school and district administrator support for adopting inclusive education.

Research Question #3: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher attitude about adopting inclusive education?

Null Hypotheses:

H0 3.1. There is no statistically significant difference in how gender affects teacher attitudes toward adopting inclusive education.

H0 3.2. There is no statistically significant difference in how academic qualifications affect teacher attitudes toward adopting inclusive education.

H0 3.3. There is no statistically significant difference in how years of teaching experience affect teacher attitudes toward adopting inclusive education.

H0 3.4. There is no statistically significant difference in how degree area affects teacher attitudes toward adopting inclusive education.

H0 3.5. There is no statistically significant difference in how the grade teachers instruct affects teacher attitudes toward adopting inclusive education.

Research Question #4: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher needs for professional development for inclusive education?

Null Hypotheses:

H0 4.1. There are no statistically significant differences in how gender affects the need for professional development training on inclusive education.

H0 4.2. There are no statistically significant differences in how teacher academic qualifications affect their need for professional development training on inclusive education.

H0 4.3. There are no statistically significant differences in how teaching experience affects the need for professional development training on inclusive education.

H0 4.4. There are no statistically significant differences in how degree area affects the need for professional development training on inclusive education.

H0 4.5. There are no statistically significant differences in how the grade teachers instruct affects the need for professional development training on inclusive education.

Significance of the Study

Saudi Arabia's Ministry of Education has a vision toward inclusive education to increase the number of children with disabilities who receive appropriate special education services. Also, the Ministry focuses on improving teachers' skills in adopting inclusive education. However, there is little information about the concerns and professional needs of teachers in Saudi Arabia in adopting inclusive education. Information from this study will be used to design professional development programs for teachers' training for inclusive education. The study will also be used to provide information to the universities to consider training prospective teachers for inclusive education.

Delimitation of the Study

This study was limited to a survey of teachers of elementary schools in Riyadh city that include special education programs. All teachers in Saudi Arabia teach in public schools under supervision of the Ministry of Education in Saudi Arabia. This study took place during spring 2018 and examined the concerns and professional development needs for both special education and general education teachers.

Limitations of the Study

In this study some limitations existed. The survey is the research tool and the honesty of the participants cannot be controlled. In addition, some general education teachers may not be attentive to or interested in the topic of the study and as a result may not respond to the survey. Also, the generalizability of the results might be affected because the study location was limited to just Riyadh city.

Definitions

Inclusive Education: According to Uditsky (1993) who states that in inclusive education:

The student with a significant disability, regardless of the degree or nature of that disability, is a welcomed and valued member in the neighborhood school. The student is: taught by the regular classroom teacher (who is supported as needed); follows the regular curriculum (with modification and adaptation); makes friends; and contributes to the learning of the entire class [and] participates in all aspects of school life according to her interests and moves year to year with her peers from kindergarten through high school (p. 79).

Adoption: Adoption is “the decision to make full use of an innovation as the best course of action available” (Rogers, 2003, p. 21).

Professional development: According NCLB, under Title IX, Part A, Sections 9101, professional development should include activities that help to increase teachers' knowledge and improve their skills of the academic subjects and enable teachers to become highly qualified. Also, it should give teachers, principals, and administrators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards. Professional development should also improve classroom management skills and be high quality, sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom.

Special Education: Special Education is a system of education that provides specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability, including (a) instruction conducted in the classroom, in the home, in hospitals and institutions, and in other settings and (b) instruction in physical education (IDEA, 2004, p.118, STAT. 2657).

The Individuals with Disabilities Education Improvement Act (IDEA 2004): IDEA is a law ensuring services to children with disabilities. These services can be provided as early intervention, special education, and related services in the least restrictive environment to eligible children and youth (ages 3-21) with disabilities. IDEA also mandates that students with exceptionalities have an individualized educational program (IEP) that guides the delivery of special education services, addresses academic and functional goals, and fosters students' education, postsecondary options, employment, and independent living (U.S. Department of Education, 2004).

The Educational Law of Individuals with Disabilities in KSA: According to Article Two, Section Two under Educational Field, "Providing educational services at all levels (pre-school, general, technical, and higher education) in a manner that suits the capabilities and needs of disabled persons and facilitates their enrolment, alongside with continuous assessment of curricula and services provided" (The Ministry of Labor and Social Development, 2000, p. 2).

Least Restrictive Environment: According to IDEA (2004), "least restrictive environment" is a procedure to assure that, to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and that special classes, separate schooling, or other removal of children with disabilities from the general educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily .

Student with a Disability: The term "student with a disability" means a student who has one or more of the following disabilities: Visual impairment, hearing impairment, mental disability, physical and motor disability, learning disabilities, speech disorders, behavioral and emotional disorders, autism, double and multiple disabilities, and other disabilities that require special care.

Prevention: The set of medical, psychological, social, educational, informational, and legal measures for prevention, limiting or early detection of disabilities as well as limiting their effects. (The Ministry of Labor and Social Development, 2000, p. 1)

Concerns: The way we perceive things depends on what they are and who we are. Whenever something heightens our feelings and thoughts and gets our attention, because of external forces (the influence of others), internal forces, or a combination of the two, we are registering concern about it. (George, Hall & Stiegelbauer, 2013)

Concerns-Based Adoption Model (CBAM): The CBAM is a conceptual framework that describes, explains, and predicts probable behaviors throughout the change process, and it can help educational leaders, coaches, and staff developers facilitate the process (George, Hall & Stiegelbauer, 2013, p. 5).

Integration Programs: “Integration programs” is the term used for the placement of students with disabilities into regular schools – “in which students with disabilities attended the regular school but were primarily instructed in separate special classes” (Westling & Fox, 2009, p. 243).

Abbreviations

CBAM: Concerns-Based Adoption Model

KSA: Kingdom of Saudi Arabia

LRE: least restrictive environment

SoCQ: Stages of Concern Questionnaire

MOE: Ministry of Education

Organization of the Study

This study is organized into five chapters. The first chapter introduces the need for Inclusive education in Saudi Arabian, statement of the problem, purpose of the study, the research questions and null hypotheses, the significance of the study, and limitations and delimitation of the study, and definitions. The second chapter reviews the literature. It starts with an overview of the education system in Saudi Arabia, then it details the major aspects of the theoretical framework - the Concerns-Based Adoption Model. Next, it reviews the selected teachers' characteristics for this study before it ends with literature on inclusive education. The third chapter describes the selected research methodology to answer the research questions. The research questions are revisited, followed by information about the participants of the study, instruments used, data collection, and data analysis. Chapter four present the results of the statistical analysis and is organized according to the research questions. Chapter five presents a discussion of the study findings and recommendations for The Ministry of Education in Saudi Arabia for best practices and for future research.

Chapter 2 - Review of the Literature

Chapter Overview

The literature review is structured into four sections. First, the chapter will present an overview of the education system in Saudi Arabia. Second, the study's theoretical framework, the Concerns-Based Adoption Model (CBAM), will be provided. Third, the chapter will present the teachers' selected personal and professional characteristics in the study. Finally, the fourth section will review and synthesize general literature on inclusive education.

Overview of The Kingdom of Saudi Arabia's Education System

The education system in the Kingdom of Saudi Arabia (KSA) has evolved dramatically since it was established in 1932 (Ministry of Education, 2015). According to the U.S. Energy Information Administration (2016), KSA ranks as the second country in the world in oil production, which has been the main factor of KSA's economic improvement. In turn, this economic improvement provided much-needed support for the education system. The education system in the past was very simple and consisted of teaching boys writing and reading in mosques, but now there are more than 26,000 public schools and about 60 governmental and private universities and colleges, and the system is continuing to grow (Ministry Deputyship for Planning and Information, 2016). The following sections will discuss KSA's vision for this growth, starting with general information about KSA and followed by an examination of the development of its education system. Then, the current education situation and the vision for continued reform will be identified.

Overview of the Kingdom of Saudi Arabia

King Abdul-Aziz bin Abdul-Rahman Al-Saud unified a great part of the Arabian Peninsula in 1932, and the country was named the Kingdom of Saudi Arabia, an Islamic state with Arabic as its national language and the Holy Qur'an as its constitution. (About Saudi Arabia, n.d). KSA is located in the Middle East and is bordered on the north by the countries of Jordan, Iraq, and Kuwait, and on the east by Bahrain, United Arab Emirates, Qatar, and the Arabian Gulf Sea. The south is bordered by the countries of Oman and Yemen, and the west is bordered by the Red Sea. KSA dominates the Arabian Peninsula in terms of land area, having over two million square kilometers of land (Alquraini, 2011). Over 31 million people live in Saudi Arabia, according to the General Authority of Statistics (2016). The geography of Saudi Arabia varies from north to south and includes mountains, plains, and deserts. The temperature varies from over one hundred degrees Fahrenheit in the daytime to well below 30 degrees on a cold desert night. Saudi Arabia's capital city is Riyadh.



Figure 2.1 Map of Saudi Arabia (World Atlas, 2009)

The economy in KSA is driven by oil. According to the National Geographic Society (2014), oil was discovered in Saudi Arabia in 1938. It is now ranked second in the world in oil production according to the U.S. Energy Information Administration (2017). According to the Economic Freedom index (2016), oil's income accounts in KSA for about 90 percent of export earnings and about 80 percent of the government revenues. Government envisions that by 2030 they will start to raise non-oil revenues as they strive to reduce the dependence on oil (Transformation Program, 2016). Saudi Arabia is now moving toward a more inclusive vision known as Vision 2030 that aims to create a vibrant society, a thriving economy, and ambitious nation (Vision 2030, 2016). Therefore, the government of Saudi Arabia created a National Transformation Program that is running now by all the KSA institutions, that aim to achieve Vision 2030 goals.(Transformation Program, 2016)

The government system of KSA is a theocratic monarchy. It is ruled over by a royal family, and the current King is Salman ibn Abdual-Aziz. The King rules the country according to Sharia law, which is based on the Quran and Sunnah. According to Islamweb (2018), Sunnah is “Anything narrated from or about the Prophet Mohammed either before or after he became a prophet, of his statements, actions, confirmations, biography, and his physical characteristics and attributes” (p.2). By far, the dominant religion in KSA is Islam. Under Sharia law, certain rights are applied equally to all people, such as living with dignity, healthcare, and education (Alquraini, 2011; World Factbook, 2016).

Development of the Education System in KSA

Before the establishment of the KSA in 1932, education was the privilege only of sons of the elite, wealthy families. The form of education that was practiced at that time was teaching students how to write and read Arabic as well as how to recite the holy Quran. They used

mosques and Quranic Schools as educational institutes at that time (Alrashidi & Phan, 2015; Alquraini, 2011).

King Abdul-Aziz founded the Directorate of Education before the unification of the whole country and the proclamation of the Kingdom of Saudi Arabia in 1932 (Alrashidi & Phan, 2015, p. 34). The responsibility of the Directorate of Education was to establish public schools across the country. Only males were allowed to have education at that time because of the influence of traditions and cultural issues (Alsharif, 2011; Wiseman, 2010). In 1960, females were able to enroll in education that was separate from males, and this gender separation continues until today (Al-Zarah, 2008). Today there are more than 30,000 public schools for both genders in KSA (Alrashidi & Phan, 2015). Also, there are 34 universities and about 72 private colleges. Education opportunities have expanded at all levels and for both genders (Oxford Business Group, 2015).

The KSA is a religious country. It is where the religion of Islam began, and it has the holy mosques Makkah and Madinah. The Quran and Sunnah rules impact the education system in KSA, which means that in all levels of education there are different religious subjects that all students have to take. However, general subjects are taught in most grades as well, such as mathematics, science, history, physics, geography, art, and physical education (Alquraini, 2011).

Development of Special Education in The Kingdom of Saudi Arabia

The Special Education Department in the Ministry of Education was established in 1962 to provide special education services just for male blind and deaf learners in private institutes (Aldabas, 2015). Then, in 1971, the Ministry of Education established the first special education school, the Intellectual Education Institute. The main purpose of this school is to provide education services and lifelong skills for students with intellectual disabilities (Aldabas, 2015). Between 1990-2000 the Ministry of Education started to open integration programs for special

education classes in regular elementary schools to provide educational services for students with mild to moderate intellectual disabilities, mild to moderate autism disorders, and hearing impairments (Aldabas, 2015).

Students with special needs in Saudi Arabia are typically placed in special education institutes or self-contained classrooms in regular elementary schools. In self-contained classrooms students with disabilities usually do not learn or interact with their non-disabled peers (Al-Mousa, 2010). In addition, there are studies that show that integration into regular school is the appropriate strategy to enhance education and social interaction for students with disabilities (Alkashrami, 2001). However, students are segregated from engaging with typical students in academic or extracurricular activities. Now there is a trend from the Ministry of Education in Saudi Arabia toward inclusive educational teaching practices, which means students with special educational needs are placed into regular public education classrooms and are taught alongside their non-disabled peers (Al-Mousa, 2010). However, this is not yet applied effectively in all public schools in Saudi Arabia.

Disability Statistics

According to *World Report on Disability* (2011) there are over 1.8 billion children with disabilities around the world. According to the General Authority of Statistics in KSA (2016) there are 1,111,306 Saudi people (all ages) with disabilities. Alquraini (2013) states that students with special needs who are receiving services in Saudi's schools are 10% of the schools' population, which at that time would have been 53,414 of the total number of students (4,904,777) (see Table 2.1). Alquraini (2013) argues that there are more than 400,000 students who are not receiving educational services. Another source, however, estimates a lower – but still significant – number (Battal, 2016). According to the Ministry of Education (2016), the students with special needs who are receiving services in all public schools from kindergarten to

high school are just 27,439 students. However, according to the General Authority of Statistics in KSA (2016) there are 120,971 people with disabilities in KSA from age 5-19. Subtracting the 27,439 students who receive special education services from the total number of 120,971 student-aged Saudis with disabilities, we are left with 93,532 children with disabilities without educational services.

Table 2.1 Students with disabilities who receive special education services (Alquraini, 2013)

Type of Disability	Female Students	Male Students	Total
Learning Disabilities	6964	17842	24806
Intellectual Disabilities	5932	13657	19589
Hearing Impaired	1606	4613	6219
Visually Impaired	480	1042	1421
Autism	100	725	825
Multiple disabilities	32	421	453
Total	15,114	38,300	53,414

The Future of Education in KSA

The government understands that the quality of education impacts the development of the country and spends a lot of money to ensure all citizens have access to free public education from first-grade education through college (Alamri, 2011; Alsharif, 2011; Onsmann, 2010; Alrashidi & Phan, 2015). “The government’s ongoing commitment to education was underlined in the budget for 2015, when it received a quarter of the total government spending allocation, or SR217bn (\$57.8bn)” (Oxford Business Group, 2015, para. 5). Furthermore, the government encourages students who enroll in college with not only free education in all disciplines, but also monthly rewards of US \$225 to US \$250 (Alrashidi & Phan, 2015, p. 35). Also, the government provides scholarships for study abroad in countries such as the United States and the United Kingdom and now has more than 80,000 students around the world (Alamri, 2016).

Moreover, the government believes digital education can help to reach more citizens who cannot travel to schools every day and, accordingly, provides online education anywhere and anytime. According to ZAWAYA (2015), e-learning is now growing faster than ever before in the KSA. “Ten years ago the government created the National Centre for e-Learning and Distance Learning (NCEL) which is tasked with implementing the national plan to develop e-learning in the Kingdom” (para. 5).

In addition, the government created a transformation program called Vision 2030. The purpose of this transformation program is to improve the whole system in the country, to include the economy, healthcare, safety, and education. According to the National Transformation Program for Vision 2030 (2016), this vision “was adopted as a methodology and roadmap for economic and developmental action in the KSA” (p. 7). In Vision 2030 the government focuses on 8 objectives related to education reform:

1. Provide education services for all student levels.
2. Improve recruitment, training, and development of teachers.
3. Improve the learning environment to stimulate creativity and innovation.
4. Improve curricula and teaching methods.
5. Improve students’ values and core skills.
6. Enhance the educational system’s capability to address national development requirements and to meet labor market demands.
7. Develop creative financing methods and improve the educational system’s financial efficiency.
8. Increase Private Sector Participation in the Education Sector. (National Transformation Program 2030, 2016)

The government of KSA hugely invests in education. Education is the stepping stone to being a successful country. All levels of education still need a lot of improvement, but there has been huge progress and changes already, and more is on the horizon. The whole country is waiting for students who are studying abroad, of whom I am one, to come back and transfer what he/she learned and contributed in the wheel of development. The goals in Vision 2030 are not impossible; with strong education and training and equal rights that meet all citizens' needs, we can realize the vision.

Pilot Study

A pilot study “is a small study for helping to design a further confirmatory study” (Arain et al, 2010). A pilot study had been conducted in 2016 in one school in Saudi Arabia. The pilot study provides an understanding of teachers' perceptions about inclusive education in one male school. The participants were 16 special education teachers and 22 general education teachers. The study helped to identify more items that were added to the survey instrument. Also, it was useful to make sure about the data collection procedure, which is an electronic survey designed through Qualtrics software.

Theoretical Framework: The Concerns-Based Adoption Model

“Change is everywhere” (Hall & Hord, 2006, p. 3). Every day there are new educational products, curriculum, system, or strategies that can help to improve education. The more important issue is to assess and understand teachers' concerns, which can determine the extent of implementation, and to then guide teachers successfully through the change process (George, Hall, & Stiegelbauer, 2013).

The Concerns-Based Adoption Model (CBAM) is a conceptual framework that describes, explains, and predicts probable behaviors throughout the change process, and it can help

educational leaders, coaches, and staff developers facilitate the process (George, Hall, & Stiegelbauer, 2013, p. 5) It was founded in 1973 by Hall, Wallace, and Dossett based on the work of Fuller (1969). The CBAM's main focus is on what happens to teachers when presented with change (Hall, Wallace, & Dossett, 1973). Also, it provides tools and strategies for comprehensive management of educational innovations to facilitate the implementation process.

The Stages of Concern (SoC) will be applied in this study, which is the main element in the CBAM. The SoC can give us a way of thinking about people's feelings and perceptions about the change (Hall & Hord, 2006).

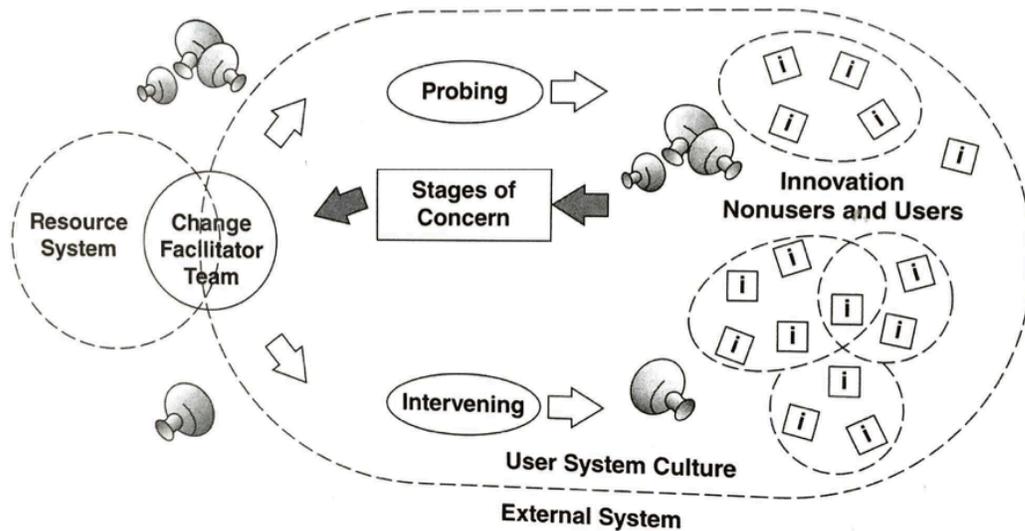


Figure 2.2 The Concerns-Based Adoption Model (Hall & Hord, 2014)

In Figure 2.2, the change facilitator team is in the center because of their important role in the process. The change facilitator can be anyone in the organization (e.g., consultants, curriculum coordinators, or subject specialists). Change facilitators “support, help, assist, and nurture. Sometimes their task is to encourage, persuade, or push people to change, to adopt an innovation and use it in their daily schooling work” (Hord et al., 1987, p. 3). Also, change facilitators deliver actions based on teachers’ needs who are involved in the change (presented as

“i” in figure 2.2). The hypothesis underlying the CBAM suggests that “with diagnostic information the change facilitator can make decisions about how to use resources and provide interventions to individuals to facilitate the school improvement process” (Hord et al., 1987, p. 10). In this study, the change facilitator is the Department of Special Education in Riyadh’s Department of Education.

Stages of Concern

Hall, George, & Rutherford (1998) describe the concept of “concerns” as:

[T]he composite representation of feelings, preoccupation, thought and consideration given to a particular issue or task. Depending on the personal make-up, knowledge and experience, each person perceives and mentally contends with a given issue differently; thus there are different kinds of concerns (p. 5).

The primary tool in the CBAM is the Stages of Concern (George, Hall, & Stiegelbauer, 2013). Frances Fuller is a counseling psychologist at the University of Texas. It was her idea to call teachers’ feelings and perceptions about innovation and the change process *concerns* (Hall & Hord, 2006). After further research, Fuller proposed that teachers’ concerns moved through four levels:

- **Unrelated Concerns:** This type of concern is found most frequently among student teachers or prospective teachers who do not have direct contact with students.
- **Self-Concerns:** This type of concern is typically found among new teachers. Their concern is about success for themselves rather than the teaching or the student needs.
- **Task Concerns:** This comes after teaching. Teachers’ concerns begin to be centered more on the teaching process, to include materials, preparation, coordination, and scheduling.

- **Impact Concerns:** At this level, teachers’ concerns are about improving themselves to be more effective as teachers and improving students’ outcomes (Hall & Hord, 2006).

Table 2.2 Levels of Concern about Innovation (George et al., 2013, p.8)

Impact	6	Refocusing	The focus is on the exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing form of the innovation.
	5	Collaboration	The focus is on coordination and cooperation with others regarding use of the innovation.
	4	Consequence	Attention focuses on impact of the innovation on “clients” in the immediate sphere of influence.
Task	3	Management	Attention is focused on the process and tasks of using innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are utmost.
Self	2	Personal	Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his/her role with the innovation. This includes analysis of him/her in relation to the reward structure of the organization, decision-making, and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.
	1	Informational	A general awareness of the innovation and interest in learning more detail about it is indicated. The person seems to be unworried about himself/herself in relation to the innovation. She/he is interested in substantive aspects of the innovation in a selfless manner, such as general characteristics, effects, and requirements for use.
	0	Unconcerned	The individual indicates little concern about or involvement with the innovation.

Based on these levels of concern, the seven stages of concerns were developed. Hall & Hord stated, “the term ‘Stages’ implies, and as the numbering of the stages suggests, there is a hypothesized pattern to the concerns profiles when the change process unfolds successfully” (2006, p. 143). The CBAM’s Stages of Concern elements provides a framework through which to view the personal aspect of the change process. Also, “the Stages of Concerns addresses the

individual's perceptions, feelings, and attitudes relative to the innovation" (Hord et al., 1987, p. 30). See Table 2.2.

The CBAM and Special Education

Many researchers have used the CBAM in studies in a variety of educational innovations (George, Hall, & Stiegelbauer, 2013). A study published in Saudi Arabia used the CBAM as a theoretical framework (Alsalem, 2015). The purpose of the study was to "investigate the variables associated with the implementation of Universal Design for Learning (UDL) and identify the barriers that could prevent the implementation of UDL" (Alsalem, 2015, p. iii). The participants were 269 teachers. The researcher found that teachers lack knowledge about UDL and they wanted to learn more about UDL for successful adoption. Furthermore, teachers believed that understanding UDL would enhance their performance and it would be a good way to support the learning of students who are deaf and hard of hearing (Alsalem, 2015).

In the U.S., Barrio & Combes (2015) used the CBAM to identify if teachers' levels of concern provide support for the impact that teacher preparation programs have on the successful implementation of innovations (Barrio & Combes, 2015). The participants were 100 teachers. Researchers found that teachers' concerns were about their lack of preparation and understanding how to effectively implement RTI. They suggested that preparation programs for teachers can lead to effective implementation of RTI.

Hawley (2014) used the CBAM to identify how teachers would adapt new writing instruction methods for students with language-learning disabilities in their classrooms. The researcher found that teachers with professional development are able to adapt the new text writing instruction methods for students with mild to moderate disabilities. Also, an instructional coach's effectiveness can be improved with extended training and background knowledge in the innovation.

The CBAM and Inclusive Education

Two studies about inclusive education that used the CBAM as a theoretical framework (Cline, 2016; Davidson, 2010). Cline (2016) used the CBAM to “examine the perceptions of general and special education teachers towards educating students with disabilities in an inclusion classroom” (Cline, 2016, p. vi). The researcher found that teachers’ level of concern was high at Stage 0 (unconcerned), which means low concern about the innovation of inclusion, “but high concern about other innovations present in the district. Teachers had high concerns about the management of inclusion, including the time needed to implement strategies successfully” (Cline, 2016, p. 108). The researcher suggested that educational leaders should develop training programs to meet teachers’ concerns and consider teachers’ demands for successful implementation of inclusive education (Cline, 2016).

Davidson (2010) used the CBAM to “understand the attitudes and concerns towards inclusion of Junior High special education resource teachers. Also, to determine if focused professional development alters Junior High resource teachers' concerns towards inclusion along the Stages of Concern continuum of the CBAM of change” (Davidson, 2010, p. 18). The researcher collected data through pre/post-intervention. The results indicated that there were changes in concerns within the primary, secondary, and lowest levels of concerns for participants. The researcher suggested that there is “a need for continued professional development and growth of the established community of practice for all teachers and administrators who work within an environment that promotes inclusive practices” (Davidson, 2010, p. 48).

Selected Personal Characteristics of Teachers

Gender

Most studies on inclusive education have investigated the differences in teachers' attitude based on gender. Two studies found that male teachers have a more positive attitude toward inclusive education than female teachers (Chopra, 2008; Alquraini, 2011). Other studies found that female teachers have a more positive attitude toward teaching students with disabilities in their regular classrooms (Vaz et al., 2015; Tabakhmelashvili, 2008; Al-Zyoudi, 2006). Also, some studies found that there is no effect of gender on teachers' attitude in how they perceive inclusive education (Alghazo, Dodeen & Algaryouti, 2003; Woodcock, 2013). The gender issue can be different from most of the studies that have been reviewed, because of gender segregation forced by traditions and culture in all level of education in Saudi Arabia.

Years of Teaching Experience

In a study about inclusive education in Saudi Arabia, Alquraini (2011) found that teachers with different years of teaching experience were willing to teach students with disabilities if they received the necessary training. Walker (2012) could not find a positive relationship between teaching experience and teachers' attitude toward teaching students with disabilities. Other studies found that teachers with less experience had a more positive attitude toward inclusive education than teachers with more experience (Forlin, 1995; Avramidis & Norwich, 2002; de Boer, Pijl & Minnaert, 2011; Vaz et al., 2015).

Academic Qualification

Teachers with a master's or doctoral degree may have a more positive perception of inclusive education than their cohorts with just a bachelor's degree (Taylor, Richards, Goldstein & Schilit, 1997). Another study in India by Parasurma (2006) found that teachers with a master's

degree had a positive attitude toward inclusive education. As well, another researcher identified that positive perception of inclusive education increased among teachers with higher academic qualifications (Anotank, Mulick, Kobe, & Fiedler, 1995).

Area of Degree

In this study, area of degree refers to a teacher's qualification in special education or general education. In a study from India, researchers found that teachers with special education qualifications have a lower level of concern about inclusive education than other teachers (Shah, Das, Desai & Tiwari, 2013). The special education teachers were n=102 and the general education teachers were n= 458. Another study from Saudi Arabia found that there was no difference between special and general education teachers' perspectives about integrating students with learning disabilities in general education classes (Al-Ahmadi, 2009). Alquraini (2011) found in his study about including students with severe disabilities in regular classrooms in Saudi Arabia that general education teachers had "more positive perspectives toward inclusive education of these students than special education teachers" (p. 152).

Grade Instructed

Grade level instructed can also impact how teachers perceive inclusive education. According to Tortu (2015) in her dissertation research about the perceptions of general and special education teachers toward inclusive education, special education teachers have more positive perceptions about inclusive education in regard to grade levels than general education teachers. Another study by Stidham-Smith (2013) found different results – that grade level teachers had a positive perspective about inclusive education.

Literature on Inclusive Education

Supporting Inclusive Education

There are a large number of educational studies that support inclusive education through examining classroom practices and educational methods (Rojewski, Lee & Gregg, 2015; McLeskey & Waldron, 2011; Loreman, 2007; Loreman, Deppeler, & Harvey, 2005; Mastropieri & Scruggs, 2000). According to Loreman (2007) it is more essential to examine the background conditions related to inclusive education. Loreman (2007) provided seven pillars of support that can be a guide for effective inclusive practices. The seven pillars of supporting inclusive education are:

1. development of positive attitudes.
2. Supportive policy and leadership.
3. School and classroom processes grounded in research-based practice.
4. Flexible curriculum and pedagogy.
5. Community involvement.
6. Meaningful reflection.
7. Necessary training and resources. (p. 24)

Benefit to All Students

In the article titled “Fair Does Not Mean Equal,” Meglemre (2016) writes that “having students with all kinds of disabilities in the general education classroom can be good for all students. They learn tolerance, they learn to help one another, and they can learn that everyone gets what they need; fair does not mean equal” (p. 37). Inclusive classes can help to create a caring environment for students with disabilities and different learning moments for typical students.

Dieker and Hines (2013) believe that inclusion “facilitates more appropriate social behavior because of higher expectations in the general education classroom; promotes levels of achievement higher or at least as high as those achieved in self-contained classrooms; offers a wide circle of support, including social support from classmates without disabilities” (p. 156). The authors also believe that typical students in inclusive education classrooms will have more skills and academic understanding because they will benefit from the extra teacher and aid that are provided in the class.

Benefit to Teachers

Meglemre (2016) found that “teachers who grapple with the challenges of differentiating their lessons for students with disabilities find themselves becoming more effective teachers to all of their students” (p. 37). Inclusive education can be a good reason for teachers to develop their teaching skills to meet all students’ needs in a professional way. Also, it can help to change the educational beliefs of teachers from traditional to inclusive educational beliefs. See table 2. 3 for an overview about the comparison of traditional and inclusion education based on Fitch (2003).

Table 2.3 Beliefs and ideologies of traditionalists and inclusionists (Fitch, 2003, p. 238)

Traditionalist beliefs/ideology	Inclusionist beliefs/ideology
<p>Diversity in schools and society is problematic.</p>	<p>Diversity is expected and valued. Individual and group diversity contributes positively to classroom climate, learning outcomes, and community quality.</p>
<p>Disabilities are innate conditions of certain human beings. Those “with disabilities” are essentially different. Disability labels are inevitable, objective, fair, and beneficial.</p>	<p>Human commonalities cut across socially constructed categories of race, class, gender, sexual orientation, and disability. It is unnecessary and damaging to publicly label and group people according to how they differ from the norm.</p>
<p>Support and interventions are most appropriately and effectively provided in separate settings by special education experts. Progress is accomplished by professional expertise, technology, diagnosis, and intervention.</p>	<p>It is in the interest of everyone to be in socially inclusive learning environments in which all individuals are valued. Teachers with different expertise can co-teach in inclusive settings while providing optimal social and academic results for all students.</p>
<p>Special education and lower-achieving students will improve (catch up) to their peers if they receive specialized, skill based, intensive, individualized instruction in separate settings. Learning is primarily developmentally linear; it takes place one sequential step at a time.</p>	<p>Knowledge and competence are purposely constructed in a variety of ways.</p>
<p>Competitive school structures are natural, fair, and expected; therefore, homogeneous grouping of students is inevitable. Special education is a rational system of services that helps those individuals labeled or identified.</p>	<p>Competitive structures and activities are socially constructed and not inevitable. Collaboration, cooperation, and mutual support are preferred forms of interpersonal interaction.</p>

Chapter 3 - Methodology

Chapter Overview

This study examined the concerns and professional development needs of teachers in elementary schools in Saudi Arabia regarding the adoption of inclusive education. The purpose is to provide a baseline of information for establishing a professional development plan for adopting inclusive education for the purpose of increasing the number of students with disabilities in general education settings. All aspects of the research methodology to be used in this study are reported in this chapter. It is organized into the following sections: research questions, research design, research settings, study population, study sample and participants, statement about the protection of human subjects, data collection, data analysis, reliability and validity, quantitative measures, and ethical considerations.

Research Questions

This study investigated the concerns of teachers of elementary schools that include special education programs in Riyadh city in Saudi Arabia regarding the adoption of inclusive education and how these concerns relate to their professional development needs.

There are four research questions:

Research Question #1: What is the relationship between personal characteristics (gender, academic qualifications, degree area, years of teaching experience, and grade instructed) and concerns about adopting inclusive education?

Null Hypotheses:

H0 1.1. There are no statistically significant differences in how gender affects teacher concerns about adopting inclusive education.

H0 1.2. There are no statistically significant differences in how teacher academic qualifications affect teacher concerns about adopting inclusive education.

H0 1.3. There are no statistically significant differences in how years of teaching experience affect teacher concerns about adopting inclusive education by.

H0 1.4. There are no statistically significant differences in how teacher degree area affects teacher concerns about adopting inclusive education.

H0 1.5. There are no statistically significant differences in how the grade teacher instruct affects teacher concerns about adopting inclusive education.

Research Question #2: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher recognition of administrative support (administrators in school and administrators in the district department of education) for inclusive education?

Null Hypotheses:

H0 2.1. There are no statistically significant differences in how teacher gender affects their recognition of school and district administrator support for adopting inclusive education.

H0 2.2. There are no statistically significant differences in how teacher academic qualification affects their recognition of school and district administrator support for adopting inclusive education.

H0 2.3. There are no statistically significant differences in how years of teaching experiences affects teacher recognition of school and district administrator support for adopting inclusive education.

H0 2.4. There are no statistically significant differences in how teacher degree area affects their recognition of school and district administrator support for adopting inclusive education.

H0 2.5. There are no statistically significant differences in how the grade teachers instruct affects their recognition of school and district administrator support for adopting inclusive education.

Research Question #3: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher attitude about adopting inclusive education?

Null Hypotheses:

H0 3.1. There is no statistically significant difference in how gender affects teacher attitudes toward adopting inclusive education.

H0 3.2. There is no statistically significant difference in how academic qualifications affect teacher attitudes toward adopting inclusive education.

H0 3.3. There is no statistically significant difference in how years of teaching experience affect teacher attitudes toward adopting inclusive education.

H0 3.4. There is no statistically significant difference in how degree area affects teacher attitudes toward adopting inclusive education.

H0 3.5. There is no statistically significant difference in how the grade teachers instruct affects teacher attitudes toward adopting inclusive education.

Research Question #4: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher needs for professional development for inclusive education?

Null Hypotheses:

H0 4.1. There are no statistically significant differences in how gender affects the need for professional development training on inclusive education.

H0 4.2. There are no statistically significant differences in how teacher academic qualifications affect their need for professional development training on inclusive education.

H0 4.3. There are no statistically significant differences in how teaching experience affects the need for professional development training on inclusive education.

H0 4.4. There are no statistically significant differences in how degree area affects the need for professional development training on inclusive education.

H0 4.5. There are no statistically significant differences in how the grade teachers instruct affects the need for professional development training on inclusive education.

Research Design

The research design that was used to address the research questions in this study is a non-experimental, cross-sectional survey. The cross-sectional design can help to examine large groups of subjects or different variables at the same point in time (Crosser, 2005) and allow the researcher to present an overview of the extensive perceptions or attitudes as well as examine relationships with other characteristics (Dillman, Smyth, & Christian, 2014). This is useful when trying to conclude whether relationships exist between teachers' concerns when adopting inclusive education and their personal characteristics.

Quantitative data was collected in this study through closed-ended questions that were provided in an electronic survey (See Appendix B).

Descriptive statistics began with demographic characteristics, which cover teachers' gender, academic qualifications, years of teaching experience, grade, and area of degree. Then, the percentile scores for each section of the survey that cover: administrative support for inclusive education, attitudes towards inclusive education, teacher perceptions of professional development needs for inclusive education and stage of concern. A series of one-way Multivariate Analysis of Variance (MANOVA) was used to find values of significance. MANOVA test whether there are statistically significant differences among groups on multiple dependent variables. Also, it can protect against Type I errors (rejection of a true null hypothesis) (French, Poulsen, & Yu, 2006). SPSS provides different statistic tests based on MANOVA, such as Pillai's Trace statistic, which was used to determine statistical significance at the $p < .05$ level. When the MANOVA reveals statistically significant differences, then an Analysis of Variance (ANOVA) test will be conducted to identify the values of significance.

Research Settings

The study was conducted in public elementary schools that include special education program(s) in the capital city Riyadh, Saudi Arabia. According to *The General Authority of Statistics in KSA* (2016), the population of Riyadh city is 8,002,100. The number of public schools in Riyadh city is 2,540. Riyadh city has the largest population of teachers in KSA: there are 58,008 teachers and there are 730,926 students in all public schools. The number of students with disabilities who enroll in special education programs in Riyadh's schools is 5,240 (Ministry of Education, 2016).

Most teachers in general education hold a bachelor's or master's degree(s) from different Teachers colleges or universities in various disciplines such as science, math, Arabic language, Islamic teaches, art, social science and so forth. Special education teachers hold either a bachelor's or master's degree(s) in special education in three main areas (learning disability,

intellectual disabilities, and deafness) from Special Education departments in Universities and Teachers colleges.

Study Population

The population of this study included male and female general and special education teachers from Riyadh elementary schools. The population of all general education teachers in all public elementary schools that include special education program(s) is $n=2,346$. The special education teachers number $n=1,044$. Thus, the total of the study population is all teachers in public elementary schools that include special education program(s), which numbers $n=3,390$ teachers (Ministry of Education, 2016).

Study Sample and Participants

According to Dillman, Smyth, & Christian (2014), instead of selecting everyone in the target population we can select a sample or subset of the population. The researcher needs to be confident that those who are selected to participate in the study are representative of the targeted population. Therefore, a multiple sampling or multistage sampling strategy was used to select the study sample, which means using stratification and cluster sampling strategies to identify the study sample (Dillman, Smyth, & Christian, 2014).

According to Dillman, Smyth, & Christian (2014) stratification “refers to grouping the units on the sample frame into subgroups, called strata, based on certain characteristics, so that sampling can be performed independently for each stratum” (p. 57). In this study, stratification was used to identify male and female teachers in public elementary schools in Riyadh. This city is divided by the Ministry of Education into five different school districts (East, West, North, South, and the center of the city). Accordingly, the North, South, East, West, and Center districts will each comprise strata, for a total of five groups.

The second sample strategy that was used is cluster sampling. Schools were the unit of sampling in the study. The education system in Saudi Arabia is gender segregated in all levels of education, which means there are separate schools for female students with female teachers, administrators, and all employees, and the same for male schools. This is true of all public schools in the city's five districts (East, West, North, South, and Center).

Approximately 17 schools include special education programs in each district. The researcher randomly selected four schools from each district (two female and two male schools) by giving each school a number and randomly selected a number that represent the schools, using True Random Number Generator service www.random.org, which is well known website for simple random sampling that has been used by many published studies (Haahr, 2006); then, twenty teachers were selected randomly from selected schools to respond to the survey. The size of the study sample was 100 teachers from each subgroup (female special education teacher, female general education teacher, male special education teacher, male general education teacher). The total of the targeted sample size of this study was (n= 400) teachers.

The department of Planning and Development in the Ministry of Education provided the researcher a letter that supported the study. This letter required support from all selected schools, and also required to provide any data needed that related to the study purposes (See Appendix E).

Protection of Human Subjects

In conformity with the guidelines of the Kansas State University's Committee for Research Involving Human Subjects (IRB) the researcher completed and submitted the application to the Institutional Review Board (IRB) after defending the proposal. The approval application form was submitted prior to the study and an IRB approval was obtained (See Appendix F). Participants were given a consent form (see Appendix A) with the information

needed to make an informed decision on whether to participate in the research study or not. Upon approval of the IRB, participants were informed that their identities and survey responses will be kept confidential by the researcher.

Data Collection Methods

Data for this study was collected through closed-ended survey questions. Weisberg, Krosnick & Bowen (1996) stated, “many researchers believe that the best way to find out what people like and believe is to ask them” (p. 16). Data was collected through a cross-sectional, which is a method that can allow researcher to compare between differences in variables of large groups of teachers at the same time. A survey form was sent as a link to all participants emails. The survey administered using Qualtrics software for the convenience of the participants as alternative to a paper-based survey. Also, teachers were able to access the survey through computers or smart phones multiple times until complete. At the same time, an email was sent to the participants to encourage them to complete the survey. Increased response rates and reduction in coverage and non-response errors are the reasons for using electronic survey version (Selm & Jankowski, 2006). Also, it is an increasingly common method among researchers (Dillman, Smyth & Christian, 2014).

Survey Preparation

The survey in this study contains 48 questions divided among five sections: (1) Stages of Concern; (2) Administrative support for inclusive education; (3) Attitudes towards inclusive education; (4) Professional development needs prior to inclusive education; (5) Demographic information. These sections are described in more detail below:

- Section I: the Stages of Concern Questionnaire (SoCQ) (questions 1-35). The copyright of the SoCQ is maintained by the Southwest Educational Development Laboratory

(SEDL) in Austin, Texas. Permission was granted from SEDL to reprint and distribute the questionnaire (See Appendix C). This section of the survey was designed to obtain a broad picture of teachers' concerns about adopting inclusive education.

- Section II: the second section of the survey (question 36) is intended to measure the administrative support for inclusive education. It was revised from Dr. Petherbridge's study (2007) (See Appendix D for Dr. Petherbridge's permission).
- Section III: the third section of the survey (questions 37-40) measures teachers' attitudes towards inclusive education revised from Yidana (2007).
- Section IV: the fourth section of the survey (questions 41-43) measures teachers' perceptions of professional development needs about inclusive education. Questions 41-43 were revised from Yidana (2007).
- Section VII: the demographic information section (questions 44-48) was developed by the researcher and includes gender, academic qualification, department, years of teaching experience, degree area, and teaching grade to identify demographic characteristics of the participants.

Table 3.1 Survey Preparation Summary

Research Question	Variables	Survey Questions
Research Question One	Stages of Concern	Questions 1-35
	Gender	Demographic
	Years of Teaching Experience	Demographic
	Academic Qualification	Demographic
	Area of Degree	Demographic
Research Question Two	Grade Instruct	Demographic
	Gender	Demographic
	Years of Teaching Experience	Demographic
	Academic Qualification	Demographic
	Area of Degree	Demographic
Research Question Three	Grade Instruct	Demographic
	Administrative Support	Question 36
	Gender	Demographic
	Years of Teaching Experience	Demographic
	Academic Qualification	Demographic
Research Question Four	Area of Degree	Demographic
	Grade Instruct	Demographic
	Attitude toward Inclusive Education	Questions 37-40
	Gender	Demographic
	Years of Teaching Experience	Demographic
Research Question Four	Academic Qualification	Demographic
	Area of Degree	Demographic
	Grade Instruct	Demographic
	Professional Development need	Questions 41-43

Outcome Measure

The most rigorous technique for measuring concerns is the Stages of Concerns Questionnaire (SoCQ) (Hall & Hord, 2006, p147). The Stages of Concern Questionnaire is a 35-item questionnaire with five questions for each stage of concern. It has strong reliability estimates (test/retest reliabilities range from .65 to .86) and internal consistency (alpha-coefficients range from .66 to .83) (Hall & Hord, 2006). The Stages of Concern Questionnaire was constructed to apply to all educational innovations (Hall & Hord, 2006). The Stages of Concern Questionnaire can be used to build concerns profiles. The questionnaire has been designed so that a raw score is calculated for each stage; then, a profile can be built in the form of a graphic representation.

According to George, Hall, and Stiegelbauer (2013) the Stages of Concern Questionnaire has several strengths. First, it has strong reliability and validity. Second, it provides a complete set of data of concerns. Third, it can be administered to the same group of people over a long time to track the change in their concerns in future research.

External Validity

External validity is “the degree to which research results are generalizable to participants, settings, and materials beyond those actually included in the study” (Warner, 2013, p. 1086). In the context of this study, as mentioned in the delimitations of the study, the researcher’s main focus is to investigate the concerns and the professional development needs of a clearly defined population: the teachers in elementary schools in Riyadh city in Saudi Arabia.

Internal Validity

According to Warner (2013), internal validity is “the degree to which results from a study can be used as evidence of a causal connection between variables” (p. 1093). Internal validity makes sure that the study is measuring what it is actually intended to measure. According to George, Hall, and Stiegelbauer (2006), a series of studies were piloted to investigate the validity of the questions in the Stages of Concern Questionnaire through examining how the scores of the seven stages relate to each other and to other variables. The most convincing demonstrations of the validity of the Stages of Concern Questionnaire took place when the 35-item questionnaire was used in cross-sectional and longitudinal studies of 11 educational innovations (George et al., 2006). The researchers interviewed the respondents about their concerns, and the interview tapes were analyzed to determine the participants’ stages of concerns. After that, the researchers administered the Stages of Concern Questionnaire and compared its result with the ratings from

the interviews. The general conclusion was that the Stages of Concern Questionnaire precisely measures the stages of concerns about an innovation (George et al., 2013).

Reliability

Reliability is “the ability of a measure to produce consistent results when the same entities are measured under different conditions” (Field, 2013, p. 882). To emphasize the reliability of the SoCQ, a study was conducted in 1974 on 830 school teachers and university professors (George et al., 2006). The study found coefficients of internal consistency for the seven stages of concerns varying from the lowest (.64) to the highest (.83) (see Table 3-2 and 3-3 for more details). Alpha in Social Science literature considered 0.7 or greater is acceptable, while alphas below 0.6 are considered unacceptable (Neill, 2004). Furthermore, the questionnaire has been used in an extensive number of studies and its reliability has been ensured many times (see

Table 3.2 Coefficients of Reliability for the Seven Stages in SoCQ (George et al., 2013).

Authors	Sample Size	Stages of Concern						
		0	1	2	3	4	5	6
Hall, George & Rutherford, 1979	830	.64	.78	.83	.75	.76	.82	.71
Van den Berg & Vandenberghe, 1981	1585	.77	.79	.86	.80	.84	.80	.76/ .73*
Kolb, 1983	718	.75	.87	.72	.84	.79	.81	.82
Barucky, 1984	614	.60	.74	.81	.79	.81	.79	.72
Jorda-Marsh, 1985	214	.50	.78	.77	.82	.77	.81	.65
Matin, 1989	388	.78	.78	.73	.63	.71/ .78*	.83	.76
Hall et al., 1991	750	.63	.86	.65	.73	.74	.79	.81

**In these studies, the authors proposed two subscales in place of the original SoC scale.*

Table 3.3 Coefficients of Reliability for the Seven Stages in SoCQ (George et al., 2013).

Coefficients of Internal Consistency for the Stages of Concern Questionnaire (35 items, n = 830, Fall 1974)							
Stage	0	1	2	3	4	5	6
Alpha	0.64	0.78	0.83	0.75	0.76	0.82	0.71
Test-Retest Correlations on the Stages of Concern Questionnaire (n = 132)							
Stage	0	1	2	3	4	5	6
Alpha	.65	.86	.82	.81	.76	.84	.71
Percent of Respondents' Highest Stage of Concern, Initial Stratified Sample (n = 830)							
Stage	0	1	2	3	4	5	6
Alpha	22	12	9	13	13	20	11

Data Analysis

The data collected from the closed-ended questions was analyzed through two methods. Descriptive statistics (means and standard deviations) and a series of Multivariate Analysis of Variance (MANOVA) tests will be used through SPSS software to find values of significance. Additionally, Post hoc test will be conducted to determine if differences between groups' means exist. Furthermore, MANOVA tests will be conducted to assess the relationship between teachers' characteristics (gender, area of degree, years of teaching experience, Academic qualification, and teaching grade) and the stages of concern in adopting inclusive education. The seven stages of concerns, Administrative Support, Prior Instructional Training, and Attitude toward Inclusive Education are the dependent variables in the MANOVA.

Independent Variables

Independent variables are the treatment variables that are “manipulated by the experimenter and so its value does not depend on any other variable’s experimenter” (Field, 2013, p. 877). The independent variables in this study are the demographic variables:

- Gender
- Years of Teaching Experience
- Academic Qualification
- Area of Degree
- Teaching Grade

Dependent Variables

Dependent variables are the variables that “are not manipulated by the experimenter and so its value depends on the variables that have been manipulated” (Field, 2013, p. 873). The independent variables in this study are:

- Stages of Concerns (unconcerned, informational, personal, management, consequence, collaboration, and refocusing)
- Administrative Support
- Prior Instructional Training
- Attitude toward Inclusive Education

Table 3.4 Summary of the Independent and the Dependent Variables in the Study

Variables	Level of Measurement
Independent Variables	
Gender	Nominal
Academic Qualification	Nominal
Years of Teaching Experience	Interval
Teaching Grade	Ordinal
Area of Degree	Nominal
Dependent Variables	
Stages of Concerns	Interval
Administrative Support	Interval
Prior Instructional Training	Interval
Attitude toward Inclusive Education.	Interval

Descriptive Statistics

Descriptive statistics was used for analysis of data to describe the sample.

Descriptive statistics are “Statistics that are reported merely as information about the sample of observation included in the study and that are not used to make inferences about some larger population” (Warner, 2013, p. 1082). Descriptive statistics will be used to describe the demographics related to age, gender, academic qualification, years of teaching experience, teaching grade, and area of degree. Then, the percentile scores for each section of the survey that

cover: administrative support for inclusive education, attitudes towards inclusive education, teacher perceptions of professional development needs for inclusive education and stage of concern.

Inferential Statistics

Waner (2013) explains inferential statistics as follows: “Statistics involve using descriptive statistics for a sample to make an inference or estimate about the value of a corresponding population parameter” (p. 1092). To determine if significant differences exist between variables, a series of one-way Multivariate Analysis of Variance (MANOVA) test was conducted. SPSS provides four different statistics tests based on the MANOVA table, including: Pillai Trace, Wilk's Lambda, Hotelling Trace, and Roy's largest root. Pillai's Trace statistic was used when Levene's test of equality of error variances among the dependent variables revealed a significance of less than .05. According to Field (2013), Pillai's Trace statistic is robust, particularly when assumptions of homogeneity of variance-covariance matrices and equal cell sizes are violated. An alpha level of .05 or less was identified in this study to make a decision about the null hypotheses. MANOVA was used to test whether there are statistically significant mean differences among groups on multiple dependent variables. ANOVA is inadequate to test groups' differences on several dependent variables. The only way to test multiple dependent variables using ANOVA is by conducting ANOVA multiple times, once for each dependent variable (Field, 2013). Field (2013) explains the advantages of MANOVA over ANOVA thusly:

When we carry out multiple tests on the same data the Type I error [incorrect rejection of a true null hypothesis] start to mount up. For this reason, we should not really conduct separate ANOVA on each outcome variable. Also, if separate ANOVAs are conducted on each outcome, then any relationship between dependent variables is ignored and we lose this important information. MANOVA, by including all dependent variables in the

same analysis, takes account of the relationship between these variables. (p. 624)

The Analysis of Variance (ANOVA) test identified values of significance when MANOVA showed statistical significance. Moreover, independent t- tests were conducted among dichotomous variables to decide where differences between groups occur.

Statistically significant differences and the degree and the strength of the associations in this research will be reported. An *eta* test will be used to measure relationships between the nominal and interval variables, since the study includes different variable categories. Results of *eta* tests can range from 0 to +/- 1.00. The .00 result means there is no association at all, +1.00 and -1.00 mean strong association, and the positive and negative signs specify the direction (Warner, 2013).

Validity

The validity of the measuring instrument means “evidence that a study [instrument] allows correct inferences about the question it was aimed to answer” (Field, 2013, p.885). The suspected threats to validity in this study are:

- Attrition (also named Mortality): This can happen if a certain group of participants (for example based on area of degree, such as general education teachers or gender) of the study decide to drop out or not to participate for any reason. Attrition may prevent equal distribution among the groups as well as lead to a lack of ability to generalize the result.
- Selection: This can happen if participants in a specific school work together to fill out the survey.

Ethical Considerations

Researcher completed and submitted the application to the Institutional Review Board (IRB) after defending the proposal and it was approved by the researcher’s program committee

members, IRB approval was obtained (See Appendix F). The main ethical considerations in this study include: protecting the rights of participants through informed consent; protecting participants from harm; and ensuring confidentiality. Participants in this study were informed clearly of their right to decide whether to participate or not and of their right to confidentiality. The researcher is taking reasonable precautions to maintain confidentiality and anonymity for the participants in the study. Data of the study stored in cloud storage and only the study researcher can have access to the data.

Chapter 4 - Data Analysis and Findings

Chapter Overview

In this study, the researcher investigated the concerns and professional development needs of elementary school teachers regarding adopting inclusive education. A survey with closed-ended questions was used to collect data. The survey was sent to 400 teachers in 20 schools. All the schools included special education programs that represent all five districts in the capital city of Riyadh, Saudi Arabia. The researcher randomly chose four schools from each district (two for females and two for males) by giving each school a number and randomly selecting four of those numbers. The school leaders received a letter from Riyadh Department of Education asking them to support and collaborate with the researcher (see Appendix E). Then, twenty teachers were selected randomly from each school to fill out the survey. All 400 teachers received an electronic copy of the survey via email and text messaging. The response rate was 83% (n=332).

In this chapter, the data analysis will be provided in two sections. First, the descriptive statistics began with demographic characteristics, which cover gender, academic qualifications, years of teaching experience, grade, and area of degree. Then, the percentile scores for each section of the survey that cover: administrative support for inclusive education, attitudes towards inclusive education, teacher perceptions of professional development needs for inclusive education and stage of concern.

The second section in this chapter covers the inferential statistics used to illustrate the results of MANOVA tests. In this section, significant responses to the questions are examined. Also, other results were identified using ANOVA. Independent *t*-tests were conducted to decide where differences between groups occur. SPSS version 25 was used for all data analysis. Microsoft Excel 2016 was used to construct the figures.

Research Questions

Research Question #1: What is the relationship between personal characteristics (gender, academic qualifications, degree area, years of teaching experience, and grade instructed) and concerns about adopting inclusive education?

Null Hypotheses:

H0 1.1. There are no statistically significant differences in how gender affects teacher concerns about adopting inclusive education.

H0 1.2. There are no statistically significant differences in how teacher academic qualifications affect teacher concerns about adopting inclusive education.

H0 1.3. There are no statistically significant differences in how years of teaching experience affect teacher concerns about adopting inclusive education by.

H0 1.4. There are no statistically significant differences in how teacher degree area affects teacher concerns about adopting inclusive education.

H0 1.5. There are no statistically significant differences in how the grade teacher instruct affects teacher concerns about adopting inclusive education.

Research Question #2: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher recognition of administrative support (administrators in school and administrators in the district department of education) for inclusive education?

Null Hypotheses:

H0 2.1. There are no statistically significant differences in how teacher gender affects their recognition of school and district administrator support for adopting inclusive education.

H0 2.2. There are no statistically significant differences in how teacher academic qualification affects their recognition of school and district administrator support for adopting inclusive education.

H0 2.3. There are no statistically significant differences in how years of teaching experience affects teacher recognition of school and district administrator support for adopting inclusive education.

H0 2.4. There are no statistically significant differences in how teacher degree area affects their recognition of school and district administrator support for adopting inclusive education.

H0 2.5. There are no statistically significant differences in how the grade teachers instruct affects their recognition of school and district administrator support for adopting inclusive education.

Research Question #3: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher attitude about adopting inclusive education?

Null Hypotheses:

H0 3.1. There is no statistically significant difference in how gender affects teacher attitudes toward adopting inclusive education.

H0 3.2. There is no statistically significant difference in how academic qualifications affect teacher attitudes toward adopting inclusive education.

H0 3.3. There is no statistically significant difference in how years of teaching experience affect teacher attitudes toward adopting inclusive education.

H0 3.4. There is no statistically significant difference in how degree area affects teacher attitudes toward adopting inclusive education.

H0 3.5. There is no statistically significant difference in how the grade teachers instruct affects teacher attitudes toward adopting inclusive education.

Research Question #4: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher needs for professional development for inclusive education?

Null Hypotheses:

H0 4.1. There are no statistically significant differences in how gender affects the need for professional development training on inclusive education.

H0 4.2. There are no statistically significant differences in how teacher academic qualifications affect their need for professional development training on inclusive education.

H0 4.3. There are no statistically significant differences in how teaching experience affects the need for professional development training on inclusive education.

H0 4.4. There are no statistically significant differences in how degree area affects the need for professional development training on inclusive education.

H0 4.5. There are no statistically significant differences in how the grade teachers instruct affects the need for professional development training on inclusive education.

Descriptive Statistics

Participant Personal Characteristics

Participant personal characteristics for this study were gender, academic qualification, degree area, years of teaching experience, and grade a teacher instructs. Each characteristic is summarized and presented in tables and charts in the following sections.

Gender

In this study, the female participants were 181 teachers (45%), male participants were 151 teachers (38%).

Academic Qualifications

Academic qualifications fall into three categories: bachelors, masters, and doctoral degrees. Teachers with a bachelor's degree were the most frequent degree with 288 (72%). Teachers with a master's degree were 34 (8%). Teachers with a doctoral degree numbered 10 (3%).

Degree Area

In this study, 148 teachers (37%) of respondents were special education teachers. General education numbered 184 teachers (46%).

Years of Teaching Experience

Teachers with more than ten years of teaching experience were the largest group, numbering 194 (49%). Teachers with 6-10 years of teaching experience came next with 74 teachers (18%). The smallest group held teachers with 1-5 years of teaching experience. In this group were 64 teachers (16%).

Grade Teachers Instructed

In this study, teaching grade was divided into two categories: first to third and fourth to sixth. Teachers who taught grades, 1-3 numbered 157 (47%). The second category, teachers who teach fourth to sixth grades numbered 175 teachers (53%). The following table 4.1, summaries the participant personal characteristics.

Table 4.1 Summary of Participant Personal Characteristics

Variable	Total Number (N=332)	Total Percentage (83%)
Gender		
Male	151	38%
Female	181	45%
Academic Qualification		
Bachelor	288	72%
Master	34	8%
Doctoral	10	3%
Years of teaching experience		
1-5 years	64	16%
6-10 years	74	18.5%
More than 10 years	194	48.5%
Degree Area		
Special Education	148	37%
General Education	184	46%
Teaching Grade		
First-Third grades	157	39%
Fourth-Sixth grades	175	44%

Descriptive Statistics of the Survey

The survey was divided into four categories: Administrative support, Attitude toward inclusive education, Professional development needs, and Stages of Concerns. Frequencies and percentile scores for the four categories are provided in the next sections.

Administrative Support for Inclusive Education

Administrative support for inclusive education was covered in question 36 of the survey. This question has two parts: (a) three sub-questions that measured school administrator support

for inclusive education and (b) three sub-questions that measured the amount support for inclusive education from administrators in the educational districts. A five-point Likert scale was used in this section with each statement anchored from “strongly agree,” to “strongly disagree.” The results show an apparent convergence of responses about school and district administration support for inclusive education.

School Administrator support

- Statement (a1) asks about school administrator support of teachers in inclusive education classrooms. The responses that support this statement are slightly higher than other responses that disagreed with this statement.
- Statement (a2) shows responses that converge around the recognition of administrators that additional work is required to teach in inclusive classrooms.
- Statement (a3) evaluates the communication between administrators and teachers on the value of inclusive education. Most responses show that communication is insufficient. See Table 4.2 and Figure 4.1.

Table 4.2 Administrators support of inclusive education in school

Statements	Frequency				
	SA	A	N	D	SD
a1 Administrators in my school are supportive of teachers who teach in inclusive education classrooms.	52	80	104	48	48
a2 Administrators in my school recognize the additional workload required to teach in inclusive education classroom.	50	79	76	69	58
a3 Administrators in my school communicate with teachers about the value of inclusive education.	37	73	78	78	66

Note. SA= Strongly Agree; A= Agree; N= Natural; D= Disagree; SD= Strongly Disagree

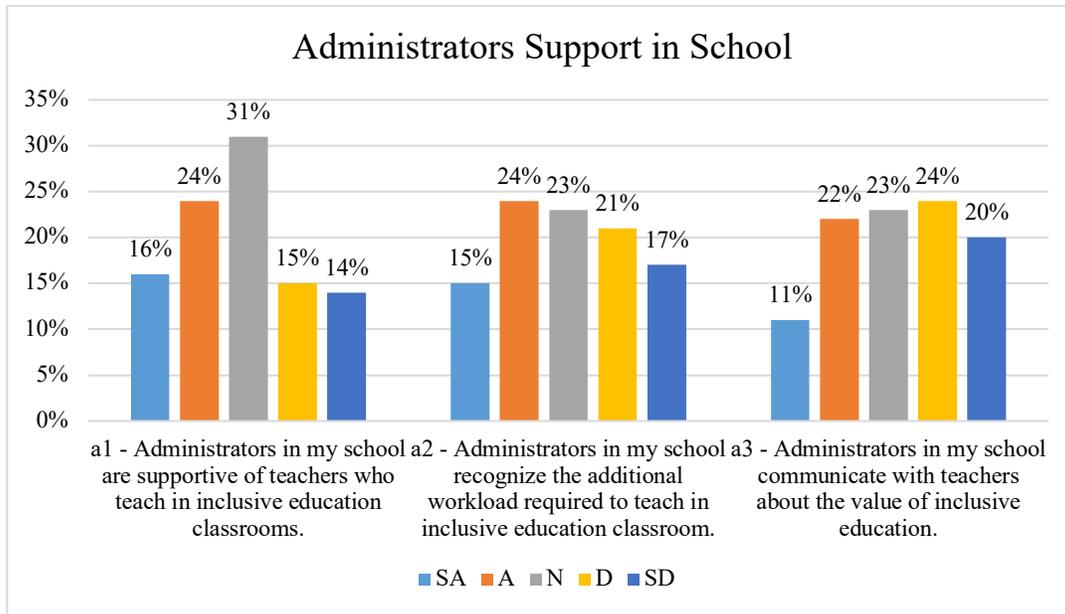


Figure 4.1 Administrators support of inclusive education in school

School District Administrator Support

- Statement (b1) asks about school district administrator support of teachers in inclusive education classes. Most respondents felt the district administrators were supportive, but nearly a third felt they did not, and another third had no opinion.
- Statement (b2) asks if school district administrators recognize the additional workload required in teaching inclusive classes. The responses are pretty even, with a slight edge going to respondents who thought the district administrators knew that the workload would be heavier.
- Statement (b3) asks if school district administrators communicate the value of inclusive education with teachers. The responses who thought the district administrators communicate the value of inclusive education with teachers are slightly higher than others who have no opinion or felt they did not. See Table 4.3 and Figure 4.2.

Table 4.3 District Administrator support for inclusive education

Statements	Frequency				
	SA	A	N	D	SD
b1 - Administrators in my school district are supportive of teachers who teach in inclusive education classrooms.	35	97	102	51	47
b2 - Administrators in my school district recognize the additional workload required to teach in the inclusive education classroom.	35	92	101	57	47
b3 - Administrators in my school district communicate with faculty about the value of inclusive education.	29	93	110	61	39

Note. SA= Strongly Agree; A= Agree; N= Natural; D= Disagree; SD= Strongly Disagree

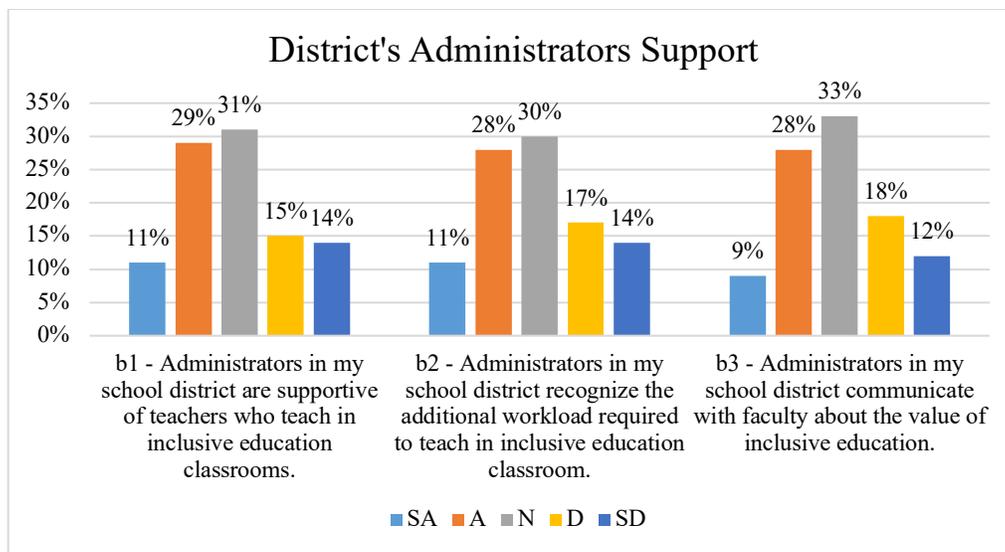


Figure 4.2 District Administrator support for inclusive education

Attitudes Towards Inclusive Education

This section of the survey included four statements: 37, 38, 39, and 40. These statements measured respondent general attitudes toward inclusive education. A five-point Likert scale ranging from “strongly agree” to “strongly disagree” was used to measure the responses. The data in this section indicate a strong positive attitude toward inclusive education. See Table 4.4 and Figure 4.3.

- Statement number (37) asks about teacher interest in learning how to teach in inclusive classroom. Most respondents (79%) want this.

- Statement number (38) asks if teachers would change their pedagogy to teach inclusive education classes. Again, most respondents (79%) would do this.
- Statement number (39) asks if teachers believe inclusive education can benefit their students, and again almost two thirds (59%) believe so.
- Statement number (40) asks if teachers would attend workshops on inclusive education, and again, three quarters (75%) would.

Table 4.4 Attitudes toward inclusive education

Statements	Frequency				
	SA	A	N	D	SD
37. I am interested in learning how to teach in the inclusive classroom.	123	139	42	12	16
38. I am interested in learning how to change my pedagogy to be able to teach in inclusive classroom.	111	148	40	14	19
39. I believe that inclusive education would be beneficial to my students.	88	107	66	30	30
40. I am interested in attending workshops about inclusive education.	127	122	43	21	19

Note. SA= Strongly Agree; A= Agree; N= Natural; D= Disagree; SD= Strongly Disagree

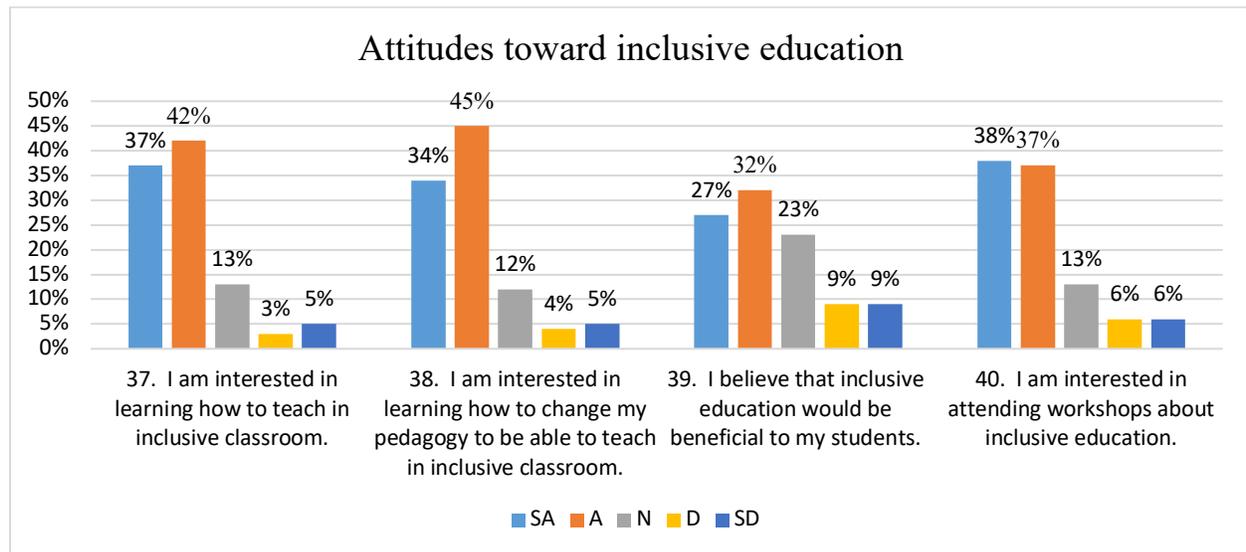


Figure 4.3 Participant Percentiles of their Attitudes Toward Inclusive Education

Professional Development Needs for Inclusive Education

This section of the survey had three statements (41, 42, and 43) to measure what teachers need in professional development for inclusive education. A 5-point Likert scale ranging from “strongly agree” to “strongly disagree” was used to measure the responses. Responses indicate that respondents need professional development in inclusive education. See Table 4.5 and Figure 4.4.

- Statement number (41) asked if respondents needed training on curricula that enhance inclusive education. Most respondents (81%) did need training.
- Statement number (42) asked if respondents needed a special education teacher to support their teaching, and again most respondents (73%) did see that need.
- Statement number (43) asked if respondents needed seminars and workshops on inclusive education, and again, most respondents (86%) saw that need.

Table 4.5 Professional Development Needs

Statements	Frequency				
	SA	A	N	D	SD
41. I have an immediate need for more training with curriculum that enhances inclusive education.	144	126	42	4	16
42. I need special education teacher to support my teaching in inclusive education.	137	105	42	26	22
43. I need inclusive education seminars/workshops.	151	134	27	4	16

Note. SA= Strongly Agree; A= Agree; N= Natural; D= Disagree; SD= Strongly Disagree

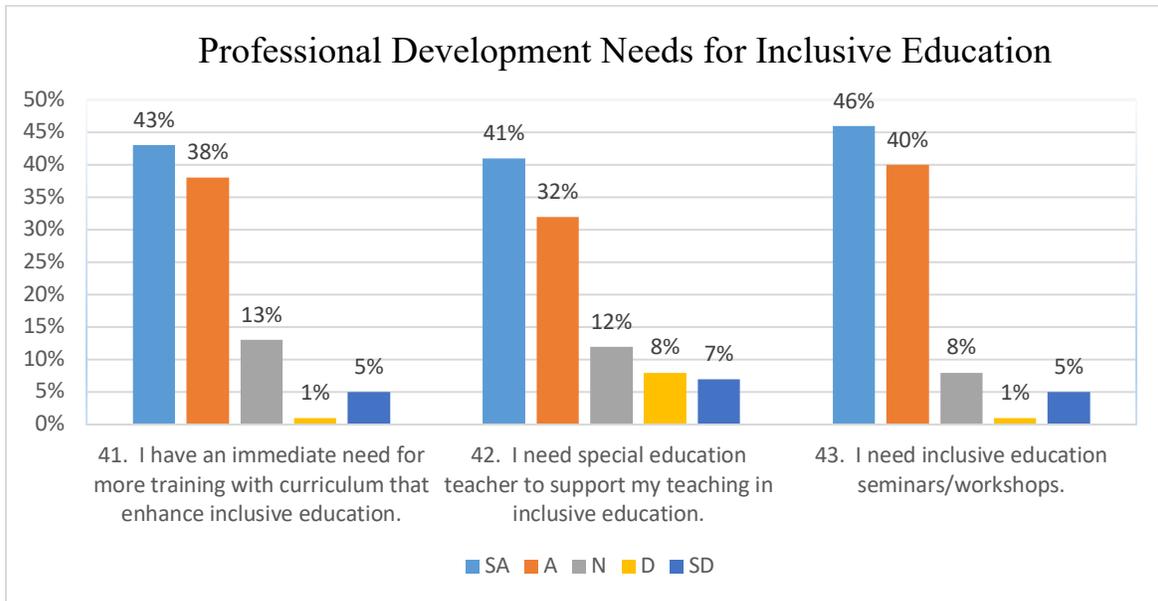


Figure 4.4 Professional Development Needs for Inclusive Education

Stages of Concern

Stages of Concern Questionnaire (SoCQ), developed by the Southwest Educational Development Laboratory (SEDL), was used to measure the depth of teacher concerns about inclusive education. SEDL granted permission to use SoCQ (See Appendix B; George, Hall, & Stiegelbauer, 2006)

The first 35 statements in this study’s survey comprise the SoC questionnaire. Five statements measure the intensity of each stage of concern. Scoring the SoCQ requires transforming raw scores into percentile scores (Gene et al., 2013). The raw scores are the sums of the mean scores for the five statements that represent each stage (scale) of the seven SoCs.

Interpretation of Stages of Concern Data

Gene et al. (2013) provide an inclusive method that can clarify data interpretation using the manual *Measuring Implementation in Schools: The Stages of Concern Questionnaire*. The method guides the researcher in creating a profile of stages of concern as percentile scores on a graph. This, when analyzed, “provides the most complete clinical interpretation and assessment of both individual and group data” (Gene et al., 2013, p. 31). The decision maker at the Ministry

of Education in Saudi Arabia can use the interpretation to provide direction on moving to the next development stage in inclusive education. According to Gene et al. (2013), “data can be interpreted at several different levels of detail and abstraction. The simplest form of interpretation is to identify the highest stage score. Examining both the highest and second highest stage scores (First and Second High Stage Score Interpretation) (p. 31) provides the most comprehensive interpretation possible. Table 4.6 provides the percentile scores, and Figure 4.6 graphs the scores to show trends in the stages of concern.

Table 4.6 Percentile Stages Score for the Respondents

	Stages of Concern	Percentile
Unrelated	Stage 0: Unconcern	96%
	Stage 1: Information	95%
Self	Stage 2: Personal	94%
	Stage 3: Management	88%
Task	Stage 4: Consequence	71%
	Stage 5: Collaboration	80%
Impact	Stage 6: Refocusing	90%

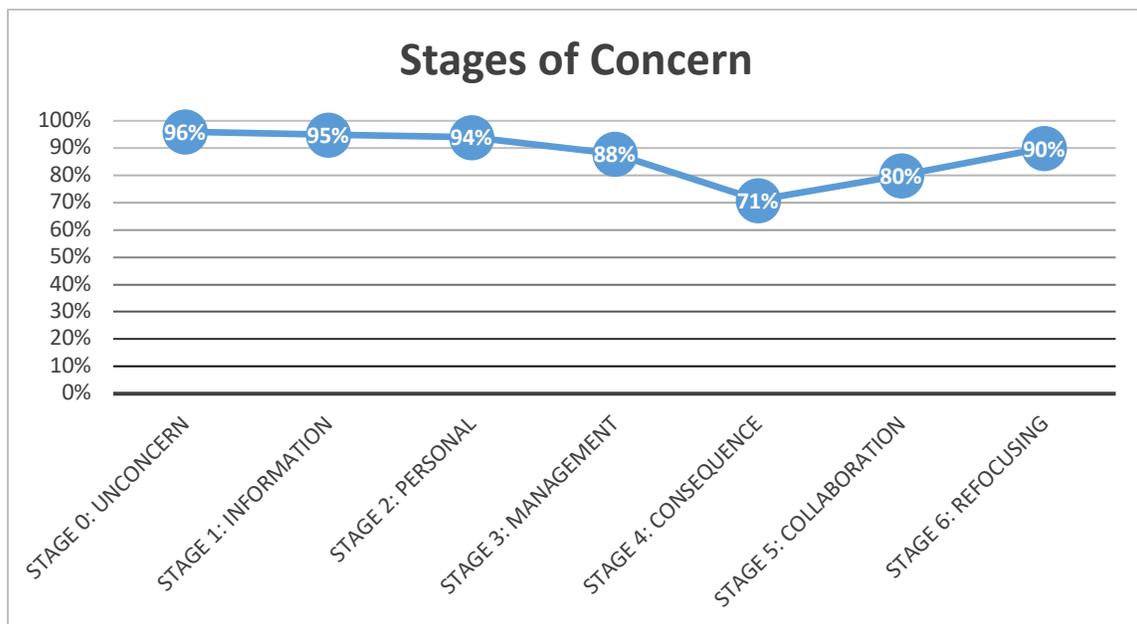


Figure 4.5 Stages of Concern profile for respondents

In the profile, respondent input for items 1-35 indicates that stage zero (Unconcerned) was the highest with 96% percentile score. Respondents apparently have only slight concern about involvement with inclusive education. Stage one (informational) was the second highest stage score with 95% percentile score. These respondents may want more information about inclusive education. They are not concerned about the details but want fundamental information about what inclusive education is, what it will do, and what its practice will require.

According to Gene et al. (2013), respondent stages of concern 0-2 were highest, and stages 4 through 6 were the lowest, making the profiles of those who have never practiced an innovation the one of most concern. This profile is the nonuser profile. The nonuser profile is commonly found in institutions at the early stages of implementing an innovation. Thus, in this study, the nonuser profile shows that inclusive education either has not been implemented or is in the very early stages on implementation. The highest concerns among nonusers were self-concerns: unconcerned, informational, and personal. The Ministry of Education must address personal concerns first before the impact of inclusive education can increase.

For nonusers, the score of stage six (Refocusing) is most important. When stage six concerns occur, or tail up, we can infer that respondents see other ideas as having more value than inclusive education (Gene et al., 2013). When stage six tailing-up is seven to ten percentile points, the respondents might have resistance to inclusive education (Gene et al., 2013).

Inferential Statistics

In this section, the results of the statistical analysis will be presented. A series of Multivariate Analysis of Variance (MANOVA) tests answered the research questions. In this analysis, assumptions of linearity, homogeneity of variance-covariance, and normality have been met. Pillai's Trace statistic was used when Levene's test of equality of error variances among the dependent variables revealed a significance of less than .05. According to Field (2013), Pillai's

Trace statistic is robust, particularly when assumptions of homogeneity of variance-covariance matrices and equal cell sizes are violated. The Analysis of Variance (ANOVA) test identified values of significance when MANOVA showed statistical significance. Moreover, independent t-tests were conducted to decide where differences between groups occur.

Research Question One

What is the relationship between personal characteristics (gender, academic qualifications, degree area, years of teaching experience, and grade instructed) and concerns about adopting inclusive education?

The relationship between teacher personal characteristics and their concerns about adopting inclusive education were assessed using a one-way MANOVA test. Dependent variables were the seven items that represent the stages of concerns: unconcerned, informational, personal, management, consequence, collaboration, and refocusing. Independent variables were the five personal characteristics of the teachers: gender, academic qualification, degree area, years of teaching experience, and grade the teacher instructed. The results are presented in Table 4.7 in a summary of Pillai's Trace test results of the MANOVA for the respondent personal characteristics and their concerns about adopting inclusive education.

Table 4.7 Results Summary of Pillai's Trace Test of MANOVA on Stage of Concerns

Independent Variables	Value	F	df	Error df	Sig	Eta
Gender	.010	.488	7	324	.843	
Academic Qualification	.037	.870	14	648	.529	
Years of Teaching Experience	.062	1.474	14	648	.115	
Degree Area	.167	9.267	7	324	.000	.167
Teaching Grade	.24	1.153	7	324	.329	

Note. Findings that approach statistically significant depending on the p-value: Significant at the $p < 0.05$ level

Test Results for Null Hypotheses for Question One

H0 1.1. There are no statistically significant differences in how gender affects teacher concerns about adopting inclusive education.

Finding

Pillai's Trace test showed no statistically significant difference between gender and teacher concerns about adopting inclusive education (see Table 4.7). Thus, respondent concerns about adopting inclusive education were not influenced by gender. Therefore, the null hypothesis *H0 1.1* was accepted.

H0 1.2. There are no statistically significant differences in how teacher academic qualifications affect teacher concerns about adopting inclusive education.

Finding

Pillai's Trace test shows no statistically significant difference between academic qualification and teacher concerns about adopting inclusive education (see Table 4.7). Thus, respondent concerns about adopting inclusive education were not influenced by their academic qualification. Therefore, the null hypothesis *H0 1.2* was accepted.

H0 1.3. There are no statistically significant differences in how years of teaching experience affect teacher concerns about adopting inclusive education.

Finding

Pillai's Trace test showed no statistically significant difference between years of teaching experience and teacher concerns about adopting inclusive education (see Table 4.7). Thus, respondent concerns about adopting inclusive education were not influenced by their years of teaching experience. Therefore, the null hypothesis *H0 1.3* was accepted.

H0 1.4. There are no statistically significant differences in how teacher degree area affects teacher concerns about adopting inclusive education.

Finding

Pillai's Trace test shows statistically significant differences between degree area and teacher concerns about adopting inclusive education (see Table 4.7). Thus, respondent concerns about adopting inclusive education were influenced by their degree area. Therefore, the null hypothesis $H_0 1.4$ was rejected.

ANOVA was conducted to determine the exact differences and find out which stage of concern did contain differences. Table 4.8 displays the significance values and the corresponding stages of concern based on degree area.

Table 4.8 ANOVA Significance Values for Concerns in Adopting inclusive education by Degree Area

Dependent Variable	Type III SSS	df	Mean Square	F	Sig.	Eta
Stage 0: Unconcern	96.005	1	96.005	45.682	.000	.122
Stage 1: Information	1.660	1	1.660	.808	.369	
Stage 2: Personal	3.407	1	3.407	1.418	.235	
Stage 3: Management	2.041	1	2.041	.908	.341	
Stage 4: Consequence	13.124	1	13.124	5.889	.016	.018
Stage 5: Collaboration	18.235	1	18.235	6.565	.011	.020
Stage 6: Refocusing	19.650	1	19.650	9.474	.002	.028

Note. Findings that approach statistically significant depending on the p-value: Significant at the $p < 0.05$ level

The ANOVA results showed that the significant values were found stages 0, 4, 5, and 6 (see Table 4.13). Because the independent variable Degree Area is dichotomous, a *t*-test was conducted to compare means among degree areas. Table 4.9 displays the means of special education and general education teachers for stages 0, 4, 5, and 6.

Table 4.9 Means of participants based on Degree Area

SoC	Degree Area	N	M	SD	Sig
Stage 0: Unconcern	Special Education	148	3.16	1.29	.000
	General Education	184	4.25	1.57	
Stage 4: Consequence	Special Education	148	6.10	1.32	.016
	General Education	184	5.70	1.62	
Stage 5: Collaboration	Special Education	148	6.19	1.50	.011
	General Education	184	5.72	1.79	
Stage 6: Refocusing	Special Education	148	5.84	1.30	.002
	General Education	184	5.35	1.55	

Note. N= Sample number. M= Mean. SD= Standard deviation. Sig= Significant at the $p < 0.05$ level.

The Stage (0) or Unconcern, the *t*-test showed teachers with special education degrees were more concerned about inclusive education than general education teachers. Second, for stage (4) or Consequence, the *t*-test showed special education teachers were more concerned about the consequences of inclusive education, showing they were more concerned than other teachers about the impact of inclusive education on students in their immediate sphere of influence. Third, stage (5) or Collaboration, the *t*-test showed special education teachers were more willing than general education teachers to collaborate with others on inclusive education. Fourth, stage (6) or Refocusing, the *t*-test showed that special education teachers were more concerned than general education teachers about how universal benefits could be gained from inclusive education, including the possibility of making major changes or replacing special education with a more powerful alternative.

H0 1.5. There are no statistically significant differences in how the grade teacher instruct affects teacher concerns about adopting inclusive education.

Finding

Pillai’s Trace test shows no statistically significant difference between the grade teachers instruct and their concerns about adopting inclusive education. Thus, the concerns of respondents about adopting inclusive education were not influenced by the grade they teach. Therefore, null hypothesis H_0 1.5 was accepted.

Research Question Two

Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher recognition of administrative support (administrators in school and administrators in the district department of education) for inclusive education?

Using gender, academic qualification, degree area, years of teaching experience, and the grade teachers instruct, teacher recognition of administrator support (administrators in school and administrators in the district’s department of education) for inclusive education was assessed using MANOVA tests for each of the five personal characteristics of teachers. The independent variables were gender, academic qualification, degree area, years of teaching experience, and the grade teachers instructed. The dependent variables were school administrator support and district administrator support.

Table 4.10 presents the results, summarizing Pillai’s Trace test results of the MANOVA for teacher recognition of administrator support for inclusive education.

Table 4.10 Pillai’s Trace test results of MANOVA for teacher recognition of administrator support for inclusive education.

Independent Variables	Value	F	df	Error df	Sig	Eta
Gender	.003	.534	2	329	.587	
Academic Qualification	.010	.826	4	658	.509	
Years of teaching Experience	.015	1.258	4	658	.285	
Degree Area	.044	7.653	2	329	.001	.044
Teaching Grade	.022	3.632	2	329	.028	.022

Note. Findings that approach statistically significant depending on the p-value: Significant at the $p < 0.05$ level

Test Results for Null Hypotheses for Question Two

H0 2.1. There are no statistically significant differences in how teacher gender affects their recognition of school and district administrator support for adopting inclusive education.

Finding

Pillai's Trace test shows no statistically significant difference between gender in teacher recognition of school and district administrator support for adopting inclusive education. Thus, recognition of school and district administrator support was not influenced by respondent gender. Therefore, null hypothesis *H0 2.1* was accepted.

H0 2.2. There are no statistically significant differences in how teacher academic qualification affects their recognition of school and district administrator support for adopting inclusive education.

Finding

Pillai's Trace test shows no statistically significant difference between academic qualification teacher their recognition of school and district administrator support for adopting inclusive education. Thus, academic qualification did not influence respondent recognition of school and district administrator support for adopting inclusive education. Therefore, null hypothesis *H0 2.2* was accepted.

H0 2.3. There are no statistically significant differences in how years of teaching experiences affects teacher recognition of school and district administrator support for adopting inclusive education.

Finding

Pillai's Trace test shows no statistically significant difference between years of teaching experience and teacher recognition of school and district administrator support for adopting inclusive education. Thus, years of teaching experience did not influence respondent recognition

of school and district administrator support for adopting inclusive education. Therefore, null hypothesis $H0$ 2.3 was accepted.

$H0$ 2.4. There are no statistically significant differences in how teacher degree area affects their recognition of school and district administrator support for adopting inclusive education.

Finding

Pillai’s Trace test shows statistically significant difference between degree areas in teacher recognition of school and district administrator supports for adopting inclusive education. Thus, degree area does influence respondent recognition of school and district administrator support for adopting inclusive education. Therefore, null hypothesis $H0$ 2.4 was rejected.

ANOVA determined the exact differences between the dependent variables (school administrators and district administrators). Table 4.11 displays the significance values of teacher responses about administrator support based on their degree area.

Table 4.11 ANOVA Significance Values for Administrator Support for Adopting inclusive education by Degree Area

Dependent Variable	Type III SSS	df	Mean Square	F	Sig.	Eta
School Administrators	19.530	1	19.530	14.847	.000	.043
District Administrators	5.387	1	5.387	4.686	.031	.014

Note. Findings that approach statistically significant depending on the p value: Significant at the $p < 0.05$ level

ANOVA results showed that significant values were found for school administrators (see Table 4.11). District administrators turned up one significant value (see Table 4.11). The independent variable, Degree Area, is dichotomous, so a *t*-test was conducted to compare means among degree areas. Table 4.12 displays the means of special education and general education

teachers in their recognition of school and district administrator supports for adopting inclusive education.

Table 4.12 Means of participants based on Degree Area about Administrator Supports

DV	Degree Area	N	M	SD	Sig
School Administrators	Special Education	148	2.70	1.09	.000
	General Education	184	3.19	1.19	
District Administrators	Special Education	148	2.90	1.05	.031
	General Education	184	3.16	1.09	

Note. N= Sample number; M= Mean; SD= Standard deviation; Sig= Significant at the $p < 0.05$ level.

The *t*-test showed that general education teachers tended to agree that administrators support inclusive education, while special education teachers tended to disagree.

H0 2.5. There are no statistically significant differences in how the grade teachers instruct affects their recognition of school and district administrator support for adopting inclusive education.

Finding

Pillai’s Trace test shows statistically significant difference in the relationship between grade teachers instruct and teacher recognition of school and district administrator support for adopting inclusive education. Thus, the grade teachers instruct does influence respondent recognition of school and district administrator support for adopting inclusive education.

Therefore, null hypothesis *H0 2.5* was rejected.

ANOVA was conducted to determine the exact differences and to find out which dependent variable (school administrators or district administrators) caused the differences.

Table 4.13 displays the significance values of the responses about administrator support based on the grade teachers instruct.

Table 4.13 ANOVA Significance Values for Administrator Support for Adopting inclusive education by the grade teachers instruct

Dependent Variable	Type III SSS	df	Mean Square	F	Sig.	Eta
School Administrators	7.211	1	7.211	5.331	.022	.016
District Administrators	.449	1	.449	.385	.535	

Note. Findings that approach statistically significant depending on the p value: Significant at the $p < 0.05$ level

The ANOVA results showed significant values for school administrators. The independent variable is dichotomous, so a *t*-test was conducted to compare means. Table 4.14 displays the means of teacher responses for first grade through third grade and fourth grade through sixth grade.

Table 4.14 Mean for responses of participants to school administrator Support based on the grade teachers instruct.

Dependent Variables	Degree Area	N	M	SD	Sig
School Administrators	First grade - Third grade	157	2.82	1.18	.022
	Fourth grade - Sixth grade	175	3.11	1.15	

Note. N= Sample Number. M= Mean. SD= Standard Deviation. Sig= Significant at the $p < 0.05$ level.

The *t*-test result indicated that responses of teachers who taught Fourth through sixth grade tend toward agreeing that School Administrators do support inclusive education, but responses of teachers who taught first through third grades felt that the support is insufficient.

Research Question Three

Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher attitude about adopting inclusive education?

One-way ANOVA tests were conducted for each personal characteristic to identify significant differences among personal characteristics (gender, academic qualification, degree

area, years of teaching experience, and the grade teachers instruct), which are the independent variables, as they affect the dependent variable, attitudes towards inclusive education. Table 4.15 provides the results.

Table 4.15 ANOVA Results for Teacher Attitudes Toward Inclusive Education.

Independent Variables	Type III SS	df	Mean Square	F	Sig
Gender	.391	1	.391	.405	.525
Academic qualification	.859	2	.430	.444	.642
Years of teaching experiences	1.972	2	.986	1.023	.361
Degree area	3.511	1	3.511	3.672	.056
Grade teachers instruct	.989	1	.989	1.026	.312

Note. None of the findings approached a statistically significant level; $p < 0.05$.

Test Results for Null Hypotheses for Question Three

H0 3.1. There is no statistically significant difference in how gender affects teacher attitudes toward adopting inclusive education.

Finding

The ANOVA results show no statistically significant differences in teacher attitude toward adopting inclusive education based on gender. Therefore, null hypothesis *H0 3.1* was accepted.

H0 3.2. There is no statistically significant difference in how academic qualifications affect teacher attitudes toward adopting inclusive education.

Finding

The ANOVA results show statistically significant differences in teacher attitudes toward adopting inclusive education based on their academic qualifications. Therefore, the null hypothesis *H0 3.2* was accepted.

H0 3.3. There is no statistically significant difference in how years of teaching experience affect teacher attitudes toward adopting inclusive education.

Finding

The ANOVA results show no statistically significant differences in teacher attitudes toward adopting inclusive education based on years of teaching experience. Therefore, the null hypothesis H_0 3.3 was accepted.

H_0 3.4. There is no statistically significant difference in how degree area affects teacher attitudes toward adopting inclusive education.

Finding

The ANOVA results show no statistically significant differences between teacher attitudes toward adopting inclusive education based on degree area. Therefore, null hypothesis H_0 3.4 was accepted.

H_0 3.5. There is no statistically significant difference in how the grade teachers instruct affects teacher attitudes toward adopting inclusive education.

Finding

The ANOVA results show no statistically significant differences in teacher attitudes toward adopting inclusive education based on the grade teachers instruct. Therefore, the null hypothesis H_0 3.5 was accepted.

Research Question Four

Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher needs for professional development for inclusive education?

One-way ANOVA tests were conducted for each personal characteristic to identify any significant differences among personal characteristics (gender, academic qualification, degree area, years of teaching experience, and teaching grade), which are the independent variables, as

they affect the dependent variable, the need for professional development training in inclusive education. Table 4.16 shows the ANOVA results.

Table 4.16 ANOVA Results for Teachers and their need for professional development in inclusive education.

Independent Variables	Type III SS	df	Mean Square	F	Sig	Eta
Gender	3.900	1	3.900	5.559	.019	.017
Academic qualification	1.219	2	.609	.856	.426	
Years of teaching experiences	.945	2	.473	.663	.516	
Degree area	.461	1	.461	.647	.422	
Teaching Grade	.004	1	.004	.005	.943	

Note. Findings that approach statistically significant depending on the p value: Significant at the $p < 0.05$ level

Test Results for Null Hypotheses for Question Four

H0 4.1. There are no statistically significant differences in how gender affects the need for professional development training on inclusive education.

Finding

The ANOVA results show gender created statistically significant differences among teachers who need professional development in adopting inclusive education. Therefore, null hypothesis *H0 4.1* was rejected.

This independent variable is dichotomous, so a t-test was conducted to compare means among the responses by gender. Table 4.17 displays the results.

Table 4.17 Mean of responses by gender on the need for professional development in inclusive education

Dependent Variable	Gender	N	Mean	SD	Sig
Professional Development Need	Male	151	3.7	.91	.019
	Female	181	4	.77	

Note. N= Sample number. M= Mean; SD= Standard deviation. Sig= Significant at the $p < 0.05$ level.

The *t*-test showed that female teachers are more likely than male teachers to see the need for professional development about inclusive education.

H0 4.2. There are no statistically significant differences in how teacher academic qualifications affect their need for professional development training on inclusive education.

Finding

The ANOVA results showed no statistically significant differences in the need for professional development training in adopting inclusive education based on academic qualifications. Therefore, null hypothesis *H0 4.2* was accepted.

H0 4.3. There are no statistically significant differences in how teaching experience affects the need for professional development training on inclusive education.

Finding

The ANOVA results showed no statistically significant differences in the need for professional development training in adopting inclusive education based on years of teaching experience. Therefore, null hypothesis *H0 4.3* was accepted.

H0 4.4. There are no statistically significant differences in how degree area affects the need for professional development training on inclusive education.

Finding

The ANOVA results showed no statistically significant differences in the need for professional development training in adopting inclusive education based on teacher degree area. Therefore, null hypothesis *H0 4.4* was accepted.

H0 4.5. There are no statistically significant differences in how the grade teachers instruct affects the need for professional development training on inclusive education.

Finding

The ANOVA results showed no statistically significant differences in the need for professional development training in adopting inclusive education based on the grade teachers instructed. Therefore, null hypothesis *H0 4.5* was accepted.

Table 4.18 Null Hypothesis Summary

RQ	Statement	Action
RQ 1	Stages of concern	
<i>H0 1.1.</i>	There are no statistically significant differences in how gender affects teacher concerns about adopting inclusive education.	Accepted
<i>H0 1.2</i>	There are no statistically significant differences in how teacher academic qualifications affect teacher concerns about adopting inclusive education.	Accepted
<i>H0 1.3</i>	There are no statistically significant differences how years of teaching experience affect teacher concerns about adopting inclusive education by.	Accepted
<i>H0 1.4</i>	There are no statistically significant differences in how teacher degree area affects teacher concerns about adopting inclusive education.	Rejected ($p=.000$)
<i>H0 1.5</i>	There are no statistically significant differences in how the grade teacher instruct affects teacher concerns about adopting inclusive education.	Accepted
RQ 2	Administrator Support	
<i>H0 2.1.</i>	There are no statistically significant differences in how teacher gender affects their recognition of school and district administrator support for adopting inclusive education.	Accepted
<i>H0 2.2.</i>	There are no statistically significant differences in how teacher academic qualification affects their recognition of school and district administrator support for adopting inclusive education.	Accepted
<i>H0 2.3.</i>	There are no statistically significant differences in how years of teaching experiences affects teacher recognition of school and district administrator support for adopting inclusive education.	Accepted
<i>H0 2.4.</i>	There are no statistically significant differences in how teacher degree area affects their recognition of school and district administrator support for adopting inclusive education.	Rejected ($p=.001$)
<i>H0 2.5.</i>	There are no statistically significant differences in how the grade teachers instruct affects their recognition of school and district administrator support for adopting inclusive education.	Rejected ($p=.028$)
RQ 3	Attitudes toward Adopting Inclusive Education	
<i>H0 3.1</i>	There is no statistically significant difference in how gender affects teacher attitudes toward adopting inclusive education.	Accepted
<i>H0 3.2</i>	There is no statistically significant difference in how academic qualifications affect teacher attitudes toward adopting inclusive education.	Accepted
<i>H0 3.3</i>	There is no statistically significant difference in how years of teaching experience affect teacher attitudes toward adopting inclusive education.	Accepted
<i>H0 3.4</i>	There is no statistically significant difference in how degree area affects teacher attitudes toward adopting inclusive education.	Accepted
<i>H0 3.5</i>	There is no statistically significant difference in how the grade teachers instruct affects teacher attitudes toward adopting inclusive education.	Accepted
RQ4	Need for Professional Development	
<i>H0 4.1</i>	There are no statistically significant differences in how gender affects the need for professional development training on inclusive education.	Rejected ($p=.019$)
<i>H0 4.2</i>	There are no statistically significant differences in how teacher academic qualifications affect their need for professional development training on inclusive education.	Accepted
<i>H0 4.3</i>	There are no statistically significant differences in how teaching experience affects the need for professional development training on inclusive education.	Accepted
<i>H0 4.4</i>	There are no statistically significant differences in how degree area affects the need for professional development training on inclusive education.	Accepted
<i>H0 4.5</i>	There are no statistically significant differences in how the grade teachers instruct affects the need for professional development training on inclusive education.	Accepted

Chapter Summary

The data in this study was acquired from n=332 teachers who teach in elementary schools that include special education programs in Riyadh, Saudi Arabia. The response rate was 83%. The data were analyzed using descriptive and inferential analysis. Descriptive data analysis revealed that for gender, the largest group (45%) were female, while 38% of participants were male. Teachers with bachelor's degree constituted 72% of respondents, with 8% holding a master's degree, and 3% with doctoral degrees. General education teachers were the largest group (46%), and 37% were special education teachers. The largest group based on teaching experience had taught more than 10 years (48.5%), followed by teachers who had taught 6-10 years (18.5%), and teachers with 1-5 years' experience (16%). For the final group, the largest group were teachers instructing grades four through six (44%), then teachers who taught grades one through three (39%).

Results for Research Question One: What is the relationship between personal characteristics (gender, academic qualifications, degree area, years of teaching experience, and grade instructed) and concerns about adopting inclusive education?

Using the respondent stages of concern, stages 0 through 2 were the highest, and stages 4 to 6 were the lowest. The highest stage of concern for respondents was stage zero (Unconcerned), indicating that these respondents had little concern about or involvement in inclusive education. The second highest stage score was stage one (Informational), indicating that the respondents wanted more information about inclusive education.

A one-way MANOVA test indicated that a statistically significant difference between respondents based on degree area and concerns about adopting inclusive education. Significant differences were found in four stages. First, for stage (0) or Unconcern, the *t*-test showed teachers with special education degrees were more concerned about inclusive education than

general education teachers. Second, for stage (4) or Consequence, the *t*-test showed special education teachers were more concerned about the consequences of inclusive education, showing they were more concerned than other teachers about the impact of inclusive education on students in their immediate sphere of influence. Third, stage (5) or Collaboration, the *t*-test showed special education teachers were more willing than general education teachers to collaborate with others on inclusive education. Fourth, stage (6) or Refocusing, the *t*-test showed that special education teachers were more concerned than general education teachers about how universal benefits could be gained from inclusive education, including the possibility of making major changes or replacing special education with a more powerful alternative. Therefore, the null hypothesis *H0 1.4* was rejected.

Results for Research Question Two: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher recognition of administrative support (administrators in school and administrators in the district department of education) for inclusive education?

Based on the descriptive statistics, the responses almost converged between agreement and disagree with slightly more respondents agreeing that administrator support of inclusive education was present. The MANOVA test results indicated a statistically significant difference between respondent degree area and recognition of administrator support of inclusive education. Significant differences occurred for both school and district administrators. The *t*-test showed that general education teachers tended to agree that administrators support inclusive education, while special education teachers tended to disagree. Therefore, the null hypothesis *H0 2.4* was rejected.

In addition, in research question two the MANOVA test confirmed another statistical difference between respondent teaching grade and their recognition of administrators' support of

inclusive education. Based on the t -test significance was found for just School Administrators. Responses of teachers who taught Fourth through sixth grade tend toward agreeing that School Administrators do support inclusive education, but responses of teachers who taught first through third grades felt that the support is insufficient. Therefore, the null hypothesis $H0 2.5$ was rejected.

Results for Research Question Three: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher attitude about adopting inclusive education?

Descriptive statistics showed that respondents are positive about inclusive education. The ANOVA test indicated no statistically significant differences between respondent personal characteristics and their attitude toward adopting inclusive education. Therefore, all null hypotheses were accepted in question three.

Results for Research Question Four: Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher needs for professional development for inclusive education?

Descriptive statistics indicated that most respondents agreed on the need for professional development for inclusive education. The ANOVA test results indicated a statistically significant difference between respondents based on gender and the need for professional development for inclusive education. The t -test showed that female respondents are more likely than male teachers to see the need for such professional development. Therefore, null hypothesis $H0 4.1$ was rejected.

Chapter 5 - Summary, Conclusions, Discussion, and Recommendations for Practice and Future Studies

Chapter Overview

In this study, we have investigated the concerns and professional development needs of teachers in elementary schools in Riyadh, Saudi Arabia, while adopting inclusive education. The findings will help determine what support and resources are needed to develop appropriate training programs to successfully implement inclusive education. To develop appropriate training programs for teachers in adopting inclusive education, we must identify their concerns and professional development needs.

There were four research questions:

1. What is the relationship between personal characteristics (gender, academic qualifications, degree area, years of teaching experience, and grade instructed) and concerns about adopting inclusive education?
2. Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher recognition of administrative support (administrators in school and administrators in the district department of education) for inclusive education?
3. Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher attitude about adopting inclusive education?
4. Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher needs for professional development for inclusive education?

This chapter provides a summary of the study, a discussion of each research question, and

overall conclusions drawn from the study. Additionally, recommendations for Ministry of Education in Saudi Arabia and for future studies are presented.

Summary

Personal Characteristics

Personal characteristics of the respondents in this study were gender, academic qualification, degree area, years of teaching experience, and grade instructed.

Gender

In this study, female teachers numbered 181 (45%), and male teachers numbered 151 (38%).

Academic Qualifications

Academic qualifications fall into three categories: bachelors, masters, and doctoral degrees. Most teachers (288 or 72%) had a bachelor's degree. Teachers with a master's degree numbered 34 (8%). Teachers with a doctoral degree numbered 10 (3%).

Degree Area

In this study, 37% or 148 of the respondents were special education teachers. General education teachers numbered 184 (46%).

Years of Teaching Experience

Teachers with more than ten years of teaching experience were the largest group, numbering 194 (49%). Teachers with 6-10 years of teaching experience came next, numbering 74 (18%). The smallest group had 1-5 years of teaching experience and numbered 64 teachers (16%).

Grade Instructed

In this study, grades were divided into two categories: first to third grade and fourth to sixth grade. Teachers of grades 1-3 numbered 157 (47%). The second category, teachers who teach fourth to sixth grades, numbered 175 (53%).

Administrative Support for Inclusive Education

For teacher recognition of administrative support (administrators in schools and district administrators) for inclusive education, responses converged between agreement and disagreement, with slightly more respondents agreeing that administrators supported inclusive education.

Attitudes Towards Inclusive Education

Teachers in this study have a positive attitude toward inclusive education. Most responses showed that teachers are interested and willing to change their teaching methods to adopt inclusive education. Also, the responses showed that teachers are interested in learning through workshops about adopting inclusive education.

Professional Development Needs for Inclusive Education

Professional development needs for inclusive education include training with a curriculum that enhances inclusive education, special education teachers to support teaching in an inclusive education classroom, and seminars/workshops to enhance teacher knowledge about inclusive education. The teacher responses were significantly positive about professional development for inclusive education.

Stages of Concern

The highest respondent stages of concern were stages 0 through 2, and stages 4 to 6 were the lowest. The highest stage among respondents was stage zero (Unconcerned), indicating that these respondents had little concern about or involvement in inclusive education. The second highest stage score was stage one (Informational), indicating that respondents wanted more information about inclusive education, one of the most common concerns of individuals who had not begun using inclusive education. Their profiles indicate a “nonuser profile” frequently found in institutions where inclusive education is only beginning to be implemented because innovation is in its early stages.

Findings

Following are the findings for each of the three research questions:

Research Question One

What is the relationship between personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) and concerns about adopting inclusive education?

A one-way MANOVA test revealed a statistically significant difference between respondent degree area and concerns about adopting inclusive education ($p=.000$). Statistically significant differences were found in stages 0: Unconcern ($p=.000$), 4: Consequence ($p=.016$), 5: Collaboration ($p=.011$), and 6: Refocusing ($p=.002$).

For Stage 0 or Unconcern, the t -test showed that teachers with special education degrees were more concerned about inclusive education than general education teachers. Second, for Stage 4 or Consequence, the t -test showed special education teachers were more concerned about the consequences of inclusive education, showing they were more concerned than other teachers

about the impact of inclusive education on students in their immediate sphere of influence. Third, for Stage 5 or Collaboration, the *t*-test showed special education teachers were more willing than general education teachers to collaborate with others on inclusive education. Fourth, for Stage 6 or Refocusing, the *t*-test showed that special education teachers were more concerned than general education teachers about how comprehensive benefits could be gained from inclusive education, including the possibility of making major changes or replacing inclusive education with a more powerful alternative.

Research Question Two

Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher recognition of administrative support (administrators in school and administrators in the district department of education) for inclusive education?

The one-way MANOVA test results indicated a statistically significant difference between respondent degree area and recognition of administrative support of inclusive education ($p=.001$). Significant differences occurred for both school and district administrators. The *t*-test showed that general education teachers tended to agree that administrators support inclusive education, while special education teachers tended to disagree.

The one-way MANOVA test confirmed a statistical difference between respondent teaching grade and recognition of administrative support of inclusive education ($p=.028$).

Based on the *t*-test, a significant difference was found for school administrators. Teachers of fourth through sixth grade tend to agree that school administrators do support inclusive education, but teachers of first through third grades felt that the support is insufficient.

Research Question Three

Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher attitude about adopting inclusive education?

The ANOVA test indicated no statistically significant differences between respondent personal characteristics and their attitudes toward adopting inclusive education. Furthermore, responses showed a positive attitude toward adopting inclusive education.

Research Question Four

Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher needs for professional development for inclusive education?

The ANOVA test results indicated a statistically significant difference between respondents based on gender and the need for professional development for inclusive education ($p=.019$). The t -test showed that female respondents are more likely than male teachers to see the need for professional development in inclusive education.

Conclusions and Discussion

The following conclusions are based on the results of the descriptive statistics and inferential statistical analysis. They are organized according to the research questions and provide the implications and significance of the obtained results.

Research Question One

What is the relationship between personal characteristics (gender, academic qualifications, degree area, years of teaching experience, and grade instructed) and concerns about adopting inclusive education?

There were statistically significant differences between degree area and teacher concerns about adopting inclusive education. The statistically significant differences were found in stages zero (Unconcerned), four (Consequence), five (Collaboration), and six (Refocusing).

Teachers with special education degrees were more concerned about inclusive education than general education teachers. Special education teachers are more familiar with the educational needs of students with special needs and the workload required in working with those students than general education teachers. Special education teachers have more concerns about inclusive education because they may well know the education environment in their schools and the obstacles that students with special needs may face when they move to general education classrooms, such as accessibility, curriculum, assistive technology, or any physical, communication, or emotional obstacles. Another study from Saudi Arabia (Alquraini, 2011) also found that special education teachers have more concerns than general education teachers. According to Hill (2009), general education teachers have more resistance toward inclusive education than special education teachers. Based on the stages of concern, when the general education teachers have little concern about inclusive education, we must look to information from the next stage (Stage 1), which had a high score ($M=5.6$) in this study. This can mean that general education teachers want to learn more detail, general characteristics, effects, and requirements involved in adopting inclusive education (Gene et al., 2013). Meeting these information needs can help general education teachers become more open to change, welcome students with disabilities into their classrooms, and successfully adopt inclusive education.

According to Shade and Stewart (2001), successful inclusive education depends on teacher training, attitudes, and most significantly, collaboration. Teachers in this study have a positive attitude toward collaboration, and special education teachers are more willing to collaborate. Collaborating and consulting with special educators will help overcome educational problems, improve instructional strategies, and help class environment become more accommodating. Collaboration between special and general education teachers is very important to inclusive education and the strategies required to meet student needs and make the general education classroom a successful experience for all students.

Research Question Two

Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher recognition of administrative support (administrators in school and administrators in the district department of education) for inclusive education?

There was a statistically significant difference between degree area and grade instructed in teacher recognition of school and district administrative support for adopting inclusive education.

In this study, the results on teacher recognition of administrative support for inclusive education were almost evenly divided between agreement and disagreement, with agreement having a slight edge in recognizing administrative support of inclusive education. Among teachers, 37.3% agreed that school administrators support inclusive education, while 37% found the support insufficient. Nearly 40% recognized the support of district administrators for inclusive education, while 30% did not.

The study's inferential statistics suggested that special education teachers tended to find the administrators support of inclusive education insufficient ($M=2.8$), while general education teachers tended to have no opinion about administrator support of inclusive education ($M=3$).

According to previous research (Andrews & Lupart, 2000; Bauer & Brown, 2001; Loreman, 2001; Loreman et al., 2005; Loreman & Raymond, 2005; Loreman, 2007), school or district administrators are very important to creating inclusive schools, but without clear legislation that supports inclusive education, they will have difficulty in enhancing inclusive education. Having policies and/or legislation that clearly supports inclusive education is useful in encouraging inclusive education and gaining support from schools and district administrators (Kennedy & Fisher, 2001; Loreman, 2007).

In examining the Saudi Disability Welfare Law (2000), I found it lacked clear support for inclusive education. The Saudi Disability Welfare Law article 2 (Educational Aspects) states, “Provide educational services in all levels of education from preschool, general education, technical education, and higher education in the way that meets the abilities and needs of the disabled. Facilitate the enrollment and continued evaluation of the curriculum and the provided educational services” (The Ministry of Labor and Social Development ,2000, p. 2).

In Saudi Arabia, the extent of the needs and challenges of the disabled cannot be accurately tracked because a clear definition of disability does not exist, and the country lacks a standardized and unified database of people with disabilities. Also, the awareness is lacking for issues related to working with and educating people with disabilities, as well as the obstacles they face. Furthermore, most work environments do not have accommodations for people with disabilities (Transformation Program, 2016).

Saudi Arabia is now moving toward a more inclusive vision known as Vision 2030 that aims to create a vibrant society, a thriving economy, and ambitious nation (Vision 2030, 2016).

Therefore, the government of Saudi Arabia created a National Transformation Program (Vision 2030, 2016). According to this program under theme number six (Labor Market Accessibility & Attractiveness), the second strategic objective is to integrate people with disabilities into the labor force. This objective aims to “remove obstacles that hinder people with disabilities from integrating into the labor market by providing opportunities, establishing infrastructure and developing their professional and social skills” (Transformation Program, 2016, p.80). One strategy that the Saudi government included to achieve this objective is improving and supporting legislation, policies, and classifications by establishing the Authority of Caring for Disabled People to provide necessary services to the disabled (Transformation Program, 2016).

Thus, the support of administrators in schools or districts will be sufficient if legislation supports inclusive education. School leaders will need to do more to encourage inclusive education, understand the workload, and organize collaboration between special and general educators. Also, school and district leaders can help develop support systems by connecting school communities with other organizations that advocate for the rights of the disabled to create an inclusive culture in schools and society. Vision 2030 promises improvement for the disabled, especially in legislation and policies for educating students with disabilities.

Research Question Three

Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher attitude about adopting inclusive education?

Teacher attitude towards inclusive education was positive with no statistically significant difference between teachers and their attitudes about adopting inclusive education. Teacher attitudes towards inclusive education are often based on professional concerns, about how inclusive education can be implemented (Forlin, 1995; Avramidis & Norwich, 2002; de Boer,

Pijl & Minnaert, 2011; Vaz et al., 2015). In this study, nearly three-quarters of all responses showed that teachers want to learn how to successfully adopt inclusive education, and teachers are willing to change their pedagogy to teach in inclusive education classrooms. They want to attend workshops and engage with experts to learn more about inclusive education, believing that inclusive education can benefit their students. Similarly, Al-Ahmadi (2009) found teacher perceptions of including students with special needs in regular classrooms were positive.

In another study, Shade and Stewart (2001) found teacher attitudes overall were positive in a course about inclusive education. Such positive attitudes from both general and special education teachers are necessary when adopting inclusive education. Special and general education teachers need each other for professional consultation and collaboration when teaching students with special needs, and positive attitudes will help make their teaching more effective (Shade & Stewart, 2001)

Research Question Four

Are personal characteristics (gender, academic qualification, degree area, years of teaching experience, and grade instructed) related to teacher needs for professional development for inclusive education?

Teachers responses indicate that they are in need of professional development. More than four-fifths of the responses agreed that teachers needed immediate training in inclusive education curriculum, a professional assistant to support their teaching, and seminars/workshops on inclusive education.

Gender showed the only significant difference ($p=.019$) with the t -test indicating that female teachers wanted professional development ($M=4$) more than male teachers ($M=3.7$).

Saudi women are struggling to pursue careers outside the home because of widespread gender stereotypes that women are valued only in their roles as homemakers, mothers, and wives

(Al-Asfour & Khan, 2014). Also, these cultural and social values are a barrier preventing women from advancing in their careers (Tlaiss, 2013). Despite these barriers, Saudi women have increased educational attainment and workforce participation, an impressive achievement (Al-Ahmadi, 2011)

According to the National Transformation Program (2016) theme number six, Labor Market Accessibility & Attractiveness, the first objective is to increase women's participation in the labor market: "Increase the contribution of women to economic and social development, by raising their participation in the labor market in all sectors. Also, by removing the barriers that stand in the way of their joining the labor market" (Transformation Program, 2016, p. 80). To achieve this objective, the program recommends four strategies:

- Increase women's share in the labor market through training and awareness.
- Increase women's share in managerial positions through training and leadership orientation for women, empowering women in the civil service and strengthening their leadership roles.
- Promote the culture of work and develop skills (personal and technical) for women.
- Develop support for women who are employed (e.g., transportation, nurseries, and attractive work environment) (The National Transformation Program, 2016, p.81).

As a result of the National Transformation Program that started in 2016, we can see that women in Saudi Arabia have gained some rights, such as driving cars, which was prohibited and attending soccer matches. More qualified women are now in managerial positions. Both Vision 2030 and the National Transformation Program make it easy to see why women feel more need for professional development than men.

Recommendations for Adopting Inclusive Education in Saudi Arabia

This study was conducted to explore the concerns and professional

development needs of elementary school teachers in Saudi Arabia while adopting inclusive education. The following are specific recommendations based on the study findings and may help the Saudi Ministry of Education to adopt inclusive education more efficiently and productively.

- **Provide training programs on inclusive education based on stages of concern among teachers.** Based on the collected data, the 0-2 stages of concern among respondents were the highest. This means that teachers understood very little about inclusive education. This result requires very careful attention. Intervention must include professional training and consultation depending on the current stage of concern. Professional development for a teacher with a high personal concern should be quite different than the one with high impact concern. Suggested strategies include

- Teachers who are at stage Zero (Unconcerned) should be involved in discussions, scenarios, and decisions about inclusive education. Also sharing enough professional information without overwhelming them is important in attracting their attention. Facilitating communication about inclusive education between general and special education teachers is one important way to let them share their concerns.
- Those at stage one (Informational) should be provided clear information about inclusive education, specifically definitions of different types of disabilities, ways to adapt curriculum and environments for different types of special needs, assistive technology tools and how to use them in classes, and ways for special and general education teachers to collaborate. In addition, delivering this information to teachers should include e-mail, brochures, short media presentations, and workshops/seminars.

- Teachers at stage two (Personal) may be concerned about the implications of inclusive education for themselves, especially if this is high. Acknowledging these personal concerns would be beneficial. Personal conversations with teachers may help them understand their own concerns and encourage them to find ways to reinforce personal adequacy.

• **Target the most interested group for early adoption.** The stages of concern analysis in this study indicated that special education teachers had doubts about and resistance to inclusive education (stages of concern 0 through 2 were high and stage 6 tail up). Addressing teacher resistance requires departments of education to adopt a plan that may include the following:

- Diagnose the resistance: Resistance may come from overwork, lack of information, fear of change, inadequate support, or unaccommodated class or school environment.
- Target the most interested group first: School leaders should facilitate adopting inclusive education by addressing the concerns of special education teachers before beginning to place special needs students in regular classrooms with general education teachers in selected schools or districts.
- Early adopters can serve as guides: Once early adopters have attended workshops and constructed inclusive classes, they can then serve as guides to other teachers, who may speak their concerns with more ease with teachers than school administrators. It would be easier for teachers who serve as guide to approach other teachers who may have resisted inclusive education.

• **Provide any necessary support through school and district administrators.** In this study, 62% of teachers have no opinion or thought that administrator support for inclusive

education is insufficient. Therefore, the Ministry of Education must start using reform legislations and policies related to the education of students with special needs. With clear inclusive education policies, supportive administrators can offer support for inclusive education. Other administrators will then be encouraged to support and facilitate teacher efforts in inclusive classes.

Also, administrators can establish a sub-department in special education departments to support teachers in inclusive education by providing information, assistive technology, or any support that teachers need in inclusive classes.

- **Provide equal and adequate training and incentives to teachers adopting inclusive education.** In this study, 86% of the teachers need immediate training on inclusive education through workshop and seminars. Structured training sessions must be offered and designed to meet teachers concerns and needs. Because education in Saudi Arabia is segregated by gender, providing equal opportunities for both genders is important in the workshops and training. Based on the findings, female teachers are more inclined to want professional development on inclusive education. Hence, seminars and training for female teachers should be increased. Also, female teachers should be encouraged to share their points of view about the professional development structure to ensure quality and equity in future training programs.

- **Developing a strategic plan for adopting inclusive education.** A strategic plan will ensure inclusive education is applied continuously and generally in all departments of education around Saudi Arabia. The following plan may help in reaching these strategic plan goals:

- Provide training courses in inclusive education for prospective teachers in all grades and subjects.
- Provide continuing education for teachers who are already in the field.

- Follow up in the field using a strict plan to ensure the inclusive education programs are on track.
- Provide incentives and rewards for teachers, both materially and morally, for successfully implementing inclusive education practices. These can be positive reinforcement and a good way to encourage other teachers to adopt inclusive education.
- Publish successful inclusive education experiences and generalize the experience to all targeted schools in Saudi Arabia.

Recommendations for Future Studies

- This study was limited to elementary schools in Riyadh, Saudi Arabia. Therefore, this study may not be generalized to research other cities or other departments of education in Saudi Arabia.
- This study investigates teacher concerns, attitudes, and professional development needs through quantitative research. A qualitative study may provide a deeper understanding of teacher concerns about inclusive education.
- To expand on the current study, conducting interviews with participants ranked at stage zero (Unconcerned) (96%) would be useful. Participants at this stage were the largest group, had the highest resistance to inclusive education, and they are the most challenging group to work with. Interviewing them will help to determine the reason for their resistance and how to encourage them to adopt inclusive education.
- This study was limited to teachers concerns. Other studies should be designed to investigate the concerns of students (both with special needs and typical students),

parents/guardians, and administrators to provide a comprehensive understanding of any concerns about inclusive education.

- A study of the legislation and policies of educational care for individuals with disabilities would provide insight into how inclusive education can be modified to make it more supportive.

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Appendix A

LETTER OF CONSENT TO SCHOOL TEACHERS

Project Title: Concerns and Professional Development needs of Teachers at Elementary Schools in Saudi Arabia in Adopting Inclusive Education.

What is inclusive education?

Inclusive education means that all students attend and are welcomed by their neighborhood schools in age-appropriate, regular classes and are supported to learn, contribute to, and participate in all aspects of the life of the school.

Researcher: Abdullah Asiri, Kansas State University

Faculty sponsor: Dr. Warren J. White, Special Education Professor at Kansas State University

Purpose:

The purpose of this study is to identify the concerns and professional development needs of teachers about inclusive education in elementary schools in Saudi Arabia.

Introduction:

You are being asked to participate in a research study being conducted by Abdullah Asiri for dissertation research under the supervision of Dr. Warren J. White, Special Education Professor at Kansas State University. You are being asked to participate by completing a survey regarding teachers' concerns and professional development needs about Inclusive Education. The survey will take approximately 15-20 minutes to complete. Please read this form carefully and ask the researcher any questions you have before agreeing to participate in the study. You may contact the researcher Abdullah Asiri at ali2008@ksu.edu

Procedures: If you agree to participate in this study, the following will occur:

- Complete the survey.

Voluntary Participation:

Participation in this study is voluntary. At any time during your participation, you may withdraw.

Confidentiality:

All data will be numerically coded. No other form of identification will be utilized. Only the researcher will have access to the data.

Risk/Benefits:

Participating in this research poses no risks beyond those associated with everyday life. Participants will be numerically coded to ensure confidentiality. There are no direct benefits from participation but the results will help better inform the educational field as to the factors that may influence teachers' perceptions toward inclusive education

Contacts and Questions:

If you have any questions about this research, please feel free to contact:

Abdullah Asiri at ali2008@ksu.edu

Dr. Warren J. White at wwhite@ksu.edu

If you have any questions about your rights as a research participant, you may contact the Kansas State University's Office of Research Services at 785-532-6220 or research@k-state.edu.

Appendix B

Section I: Concerns about the Innovation

The purpose of this questionnaire is to determine what people, who are using or thinking about using inclusive education, are concerned about at various times during the adoption process. The items were developed from typical responses of school and college teachers who ranged from no knowledge at all about inclusive education to many years of using them. Therefore, **many of the items on this questionnaire may appear to be of little relevance or irrelevant to you at this time.** For the completely irrelevant items, please circle “0” on the scale. Other items will represent those concerns you do have, in varying degrees of intensity, and should be marked higher on the scale.

For example:

This statement is very true of me at this time.	0 1 2 3 4 5 6(7)
This statement is somewhat true of me now.	0 1 2 3(4)5 6 7
This statement is not at all true of me at this time.	0(1)2 3 4 5 6 7
This statement is irrelevant to me.	(0)1 2 3 4 5 6 7

Please respond to the items in terms of *your present concerns*, or how you feel about your involvement with **inclusive education**. Inclusive education means that all students attend and are welcomed by their neighborhood schools in age-appropriate, regular classes and are supported to learn, contribute to, and participate in all aspects of the life of the school.

Thank you for taking time to complete this task.

1.	I am concerned about students' attitudes toward inclusive education.	0	1	2	3	4	5	6	7
2.	I now know of some other approaches that might work better.	0	1	2	3	4	5	6	7
3.	I do not even know what inclusive education is.	0	1	2	3	4	5	6	7
4.	I am concerned about not having enough time to organize myself each day.	0	1	2	3	4	5	6	7
5.	I would like to help other teachers in their inclusive education classroom.	0	1	2	3	4	5	6	7
6.	I have a very limited knowledge about inclusive education.	0	1	2	3	4	5	6	7
7.	I would like to know the effect of reorganization on my professional status.	0	1	2	3	4	5	6	7
8.	I am concerned about conflict between my interests and my responsibilities.	0	1	2	3	4	5	6	7
9.	I am concerned about revising my use of inclusive education.	0	1	2	3	4	5	6	7
10.	I would like to develop working relationships with both our teachers and outside teachers using inclusive education.	0	1	2	3	4	5	6	7
11.	I am concerned about how inclusive education affects students.	0	1	2	3	4	5	6	7
12.	I am not concerned about inclusive education.	0	1	2	3	4	5	6	7
13.	I would like to know who would make the decisions in inclusive education.	0	1	2	3	4	5	6	7
14.	I would like to discuss the possibility of inclusive education.	0	1	2	3	4	5	6	7
15.	I would like to know what resources are available if we decide to adopt inclusive education.	0	1	2	3	4	5	6	7
16.	I am concerned about my inability to manage all inclusive education requires.	0	1	2	3	4	5	6	7
17.	I would like to know how my teaching or administration is supposed to change.	0	1	2	3	4	5	6	7
18.	I would like to familiarize other schools or teachers with the progress of inclusive education.	0	1	2	3	4	5	6	7
19.	I am concerned about evaluating my impact on students.	0	1	2	3	4	5	6	7
20.	I would like to revise inclusive education's instructional approach.	0	1	2	3	4	5	6	7
21.	I am completely occupied with things other than inclusive education.	0	1	2	3	4	5	6	7
22.	I would like to modify our inclusive education based on the experiences of our students.	0	1	2	3	4	5	6	7
23.	I spend little time thinking about inclusive education.	0	1	2	3	4	5	6	7
24.	I would like to excite my students about their part in inclusive education.	0	1	2	3	4	5	6	7
25.	I am concerned about time spent working with nonacademic problems related to inclusive education.	0	1	2	3	4	5	6	7
26.	I would like to know what the inclusive education would require in the immediate future.	0	1	2	3	4	5	6	7
27.	I would like to coordinate my effort with others to maximize inclusive education's effects.	0	1	2	3	4	5	6	7

28.	I would like to have more information on time and energy commitments required by inclusive education.	0	1	2	3	4	5	6	7
29.	I would like to know what other teachers are doing in inclusive education.	0	1	2	3	4	5	6	7
30.	At this time, I am not interested in learning about inclusive education.	0	1	2	3	4	5	6	7
31.	I would like to determine how to supplement, enhance, or replace inclusive education.	0	1	2	3	4	5	6	7
32.	I would like to use feedback from students to change inclusive education.	0	1	2	3	4	5	6	7
33.	I would like to know how my role will change when I am teaching in an inclusive classroom.	0	1	2	3	4	5	6	7
34.	Coordination of tasks and people is taking too much of my time.	0	1	2	3	4	5	6	7
35.	I would like to know how inclusive education is better than what we have now.	0	1	2	3	4	5	6	7

Section II: Administrative Support for inclusive education

36. Please indicate your agreement with the following statements by circling your response.

Rating Scale: “1” indicates a strong disagreement and “5” indicates a strong agreement. .

	1	2	3	4	5
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
a1. Administrators in my school are supportive of teachers who teach in inclusive education classrooms.	1	2	3	4	5
a2. Administrators in my school recognize the additional workload required to teach in inclusive education classroom.	1	2	3	4	5
a3. Administrators in my school communicate with teachers about the value of inclusive education.	1	2	3	4	5

b1. Administrators in my school district are supportive of teachers who teach in inclusive education classrooms.	1	2	3	4	5
b2. Administrators in my school district recognize the additional workload required to teach in inclusive education classroom.	1	2	3	4	5
b3. Administrators in my school district communicate with faculty about the value of inclusive education.	1	2	3	4	5

Section III: Attitudes Towards inclusive education

Please circle the option that best reflects how you feel about each of the following statements.

Rating Scale: Strongly Agree (SA = 5), Agree (A = 4), Neutral (N = 3), Disagree (D = 2), Strongly Disagree (SD = 1)

Statement	SA	A	N	D	SD
37. I am interested in learning how to teach in inclusive classroom.	5	4	3	2	1
38. I am interested in learning how to change my pedagogy to be able to teach in inclusive classroom.	5	4	3	2	1
39. I believe that inclusive education would be beneficial to my students.	5	4	3	2	1
40. I am interested in attending workshops about inclusive education.	5	4	3	2	1

Section IV: Professional Development Needs About Inclusive Education

Teachers' perceptions of professional development need about inclusive education.

Please circle the option that best reflects how you feel about each of the statements.

Rating Scale: Strongly Agree (SA = 5), Agree (A = 4), Neutral (N = 3), Disagree (D = 2), Strongly Disagree (SD = 1)

Statement	SA	A	N	D	SD
41. I have an immediate need for more training with curriculum that enhance inclusive education.	5	4	3	2	1
42. I need special education teacher to support my teaching in inclusive education.	5	4	3	2	1
43. I need inclusive education seminars/workshops.	5	4	3	2	1

Section VII: Demographic Information

44. Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female
45. Academic qualification	Diploma Bachelor Master Doctoral Other, please specify _____
46. Years of Teaching Experience	
47. Degree area	Special Education General Education
48. Teaching grade	First grade - Third grade Fourth grade - Sixth grade Other, please specify _____

Appendix C



AGREEMENT FOR PERMISSION TO REPUBLISH — PRINT & ELECTRONIC

Please fill out, sign, and return copy to American Institutes for Research, Attn: Helen Sacco; 1120 E. Diehl Road, Suite 200; Naperville, Illinois 60563-1486; hsacco@air.org.

American Institutes for Research in the Behavioral Sciences (hereinafter called the “grantor”) grants the undersigned, Abdullah Asiri, doctoral student at Kansas State University (hereinafter called the “applicant”), nonexclusive license to reprint the following (hereinafter called “the selection”):

Title and Credit Line: George, A. A., Hall, G. E., & Stiegelbauer, S. M. (2006). *Measuring implementation in schools: The Stages of Concern Questionnaire*. Austin, TX: SEDL.

The undersigned agrees:

1. To give full credit in every copy printed; on the copyright page or as a footnote on the page on which the selection begins; or, if in a magazine or a newspaper, on the first page of each selection covered by the permission, exactly as indicated in this Agreement.
2. To make no deletions from, additions to, changes to, or electronic manipulation of the content without the written approval of the grantor.
3. That permission granted herein is nonexclusive and nontransferable.
4. That permission applies, unless otherwise stated, solely to reprint the Stages of Concern Questionnaire in a dissertation titled *Concerns and Professional Development Needs of Teachers at Elementary Schools in Saudi Arabia in Adopting Inclusive Education*, in all languages and forms and subsequent revisions in the United States and internationally. The anticipated publication date is May 2018.
5. That the permission shall automatically terminate at the end of the business day of May 29, 2020.
6. This permission does not extend to any copyrighted material from other sources that may be incorporated within the work in question—nor to any diagrams, illustrations, charts, or graphs—unless otherwise specified.
7. That the work containing grantor’s selection may be reproduced in Braille, large type, and sound recordings provided no charge is made to the visually handicapped.
8. That unless the agreement is signed and returned within three months from the date of issue, the permission shall automatically terminate.

Date: 2/15/2017

Signature of Applicant:

Printed Name:

Abdullah Asiri

Address: 317 Brooklawn Dr
Manhattan, KS. 66502

Permission on the foregoing terms
American Institutes for Research

Date: February 15, 2017

By: Helen Sacco

Appendix D

4/5/2017

Mail - ali2008@ksu.edu

Re: Permission Request for Using Dissertation Survey

Donna Petherbridge <pether@ncsu.edu>

Wed 4/5/2017 7:43 PM

To: Abdullah Asiri <ali2008@ksu.edu>;

Hi Abdullah,
Of course you can! I hope whatever you can use will help you successfully move forward in your studies.
Very best, and let me know if you have any questions,
Donna :-)

On Wed, Apr 5, 2017 at 7:45 PM, Abdullah Asiri <ali2008@ksu.edu> wrote:

Dear Dr. Petherbridge,

My name is Abdullah Asiri, I'm EdD candidate at Kansas State University. I would like to ask your permission to use part of your dissertation survey (2007) regards the administrative support. I will acknowledge you in my research regards the part that I will use. Thank you so much for your help.

Kind regards,

Abdullah Asiri

--

=====
Dr. Donna Petherbridge
Associate Vice Provost, Instructional Technology Support and Development Services
Distance Education and Learning Technology Applications (DELTA)
Teaching Assistant Professor, Educational Leadership, Policy and Human Development
College of Education

NC State University
Campus Box 7113
Center for Technology & Innovation
1010 Main Campus Drive
Raleigh NC 27606-7113
=====

919.513.3737(phone)

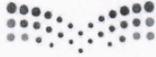
DELTA's LearnTech Help Desk
learntech@ncsu.edu
(919) 513-7094

LearnTech Help Desk Hours
Sunday: 11am to 8pm
Monday through Thursday: 8am to 8pm
Friday: 8am to 5pm

donna_petherbridge@ncsu.edu
[@dtpether@ncsu.edu](mailto:dtpether@ncsu.edu)
<http://delta.ncsu.edu>
<https://ced.ncsu.edu/elphd/>

=====
All electronic mail messages in connection with State business which are sent to or received by this account are subject to the NC Public Records Law and may be disclosed to third parties.

Appendix E

الرقم : ١٢٤١	 وزارة التعليم Ministry of Education	المملكة العربية السعودية
التاريخ : ٥١٤٣٩/٤/١٣		وزارة التعليم
المرفقات :		٢٨٠
		الإدارة العامة للتعليم بمنطقة الرياض
		إدارة التخطيط والتطوير

تسهيل مهمة باحث

الاسم	السجل المدني
عبدالله بن علي عبدالله عسييري	١٠٦١٢١٧٥١٧
العام الدراسي	الدرجة العلمية
١٤٣٨/١٤٣٩ هـ	الدكتوراه
عنوان البحث : اهتمامات واحتياجات التطوير المهني لمعلمي المدارس الابتدائية في المملكة العربية السعودية في تبني الدمج الشامل في التعليم	
عينة الدراسة معلم المرحلة الابتدائية	
الرابط الالكتروني: https://kstate.qualtrics.com/jfe/form/SV_8eKkDloGi688XQ1	

وفقه الله

المكرم قائد مدرسة الابتدائية

السلام عليكم ورحمة الله وبركاته ، وبعد :

إشارة إلى قرار معالي وزير التعليم رقم ٣٨٧١٧٠٨٠ وتاريخ ١٢/٥/١٤٣٨هـ بشأن تفويض الصلاحيات لمديري التعليم ، وبناءً على قرار سعادة مدير عام التعليم بمنطقة الرياض رقم ٣٨٩٢٠٧٩٣ وتاريخ ٢٣/٦/١٤٣٨هـ بشأن تفويض الصلاحية لإدارة التخطيط والتطوير لتسهيل مهمة الباحثين والباحثات ، وحيث تقدم إلينا الباحث (الموضحة بياناته أعلاه) بطلب إجراء دراسته ، ونظراً لإكمال الأوراق المطلوبة ، نأمل تسهيل مهمته .

مع ملاحظة أن الباحث يتحمل كامل المسؤولية المتعلقة بمختلف جوانب البحث ، ولا يعني سماح الإدارة العامة للتعليم موافقتها بالضرورة على مشكلة البحث أو على الطرق والأساليب المستخدمة في دراستها ومعالجتها.

شاكرين لكم وتقبلوا تحياتي..

مدير إدارة التخطيط والتطوير

سعود بن راشد آل عبد اللطيف

صورة لجميع مكاتب العلم

Appendix F

KANSAS STATE
UNIVERSITY

University Research Compliance Office

TO: Dr. Warren White
Special Education
312 Bluemont Hall

Proposal Number: 9012

FROM: Rick Scheidt, Chair
Committee on Research Involving Human Subjects

DATE: 11/06/2017

RE: Proposal Entitled, "Concerns and Professional Development Needs of Teachers at Elementary Schools in Saudi Arabia in Adopting Inclusive Education"

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written - and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §46.101, paragraph b, category: 2, subsection: ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.