This dissertation titled
Teachers' Perspectives and Attitudes towards Integrating Students with Learning Disabilities in Regular Saudi Public Schools

by
NSREEN A. AL-AHMADI

has been approved for
the Department of Teacher Education
and the College of Education by

__________________________________________
Dianne M. Gut
Associate Professor of Teacher Education

__________________________________________
Renée A. Middleton
Dean, College of Education
ABSTRACT

AL-AHMADI, NSREEN A., Ph.D., June 2009, Curriculum and Instruction, Special Education. Teachers' Perspectives and Attitudes towards Integrating Students with Learning Disabilities in Regular Saudi Public Schools (366 pp.)

Director of Dissertation: Dianne M. Gut

In 2005, Saudi Arabia amended legislation to allow students with learning disabilities (LD) to attend regular public schools. However, a variety of cultural considerations influences teachers' responses to this legislation. This dissertation investigates via mix methodology teachers’ perspectives and attitudes regarding the integration of students with learning disabilities in regular Saudi public schools. Two-hundred fifty-one Saudi special and general education teachers completed a modified version of Opinions Relative to the Integration of Students with Disabilities (ORI) survey; 20 special and general education teachers were interviewed regarding the issue. The ANOVA test, an independent t test with equal variances not assumed and a Tukey HSD procedure were used in current study. Even though qualitative finding indicates some facts, such as general education teachers and specials education teachers believed their training was inadequate to manage the behaviors of students with disabilities due to many issues. Participants were also concerned about the perceived inability of regular education teachers and Saudi schools to meet the learning needs of students with learning disabilities. The tests find significant differences of Saudi special and general education teachers’ attitude toward the integration of students with LD in regular Saudi public schools. The statistical analysis of the average of total responses of teachers to the 27
items, with each of the eight independent variables (gender, type of degree held),
emerged as significant factors determining Saudi teachers’ attitudes toward integrations
of LD. Interestingly the significant factors in the study results demonstrated to have an
effect only on general education teachers; the factors have effect only on general
education teachers as a significant difference between groups across degree level with F
[1, 94] = 9.547, p<0.01). Another interesting significant factor gender for the general
education teachers is significant, F (1, 94) = 12.959, P=0.001. The results indicate that
male teachers and female teachers are significantly different in attitudes toward
integration of students with LD. Male teachers are more positive (M=101.125,
SD=11.286) than female teachers (M=91.562, SD=14.537). This was justified by the
qualitative finding that special education teachers have more of the realistic “point of
view” of the kingdom recourses.

Approved: _____________________________________________________________

Dianne M. Gut

Associate Professor of Teacher Education
DEDICATION

To the loving memory of my adopted grandparents who died while I was doing this research: Abdul-kareem & Saeedah

It was their wisdom and guidance that helped me to achieve more than I ever thought was possible. You will always be with me.

I love and miss you, Mom and Dad
ACKNOWLEDGMENTS

My gratitude and praise to Allah for granting me the strength and patience to accomplish my Ph.D. study. I acknowledge His Grace and Guidance, without which my journey this far in my academic dreams would have been fruitless.

A countless number of personalities have influenced my academic life in various positive ways. While I may not be able to mention all of these great mentors, I wish to express my profound gratefulness for an exciting and rewarding educational opportunity; acknowledgement is due Dr. Dianne Gut, Dr. Stephen Safran, Dr. Scott Jarvis, Dr. Scott Sparks, Dr. Francis Godwyll, and Dr. George Johanson.

I could hardly find the words to express my gratitude to my advisor, Dr. Dianne Gut for her unlimited support throughout my study. Without her patience, encouragement, nourishing and guidance I could not complete this work. I'll miss your encouragement and hugs. I have a suggested solution for that dilemma. May we do another research paper together as Dr. Nsreen, please?! Professor Dr. Steve Safran for his wonderful mentorship and support in getting me into the Ph.D. program and continuously encouraging me to work harder as my program advisor. Special thanks must be made to Dr. Scott Jarvis who was my M.A. in Linguistics advisor; without his knowledge and theoretical analytical thinking about languages, I would not have put my feet on the ground as a foreign language major without him, as well as smiling and looking at the world from its bright side. Dr. Francis Godwyll and Dr. Scott Sparks who not only taught me special education, but they were there for me in my greatest period of need at OU. Dr. George Johanson provided unending advice for me on this
statistical research and helped me make connections between the academic world of theory and the reality of research in instructional technology and education as it is practiced in so many ways.

Warm special appreciation goes to Dr. Adel Al-Ahmadi who was a true best friend and academic advisor before he is a loving, caring husband and family. Adel, you knew me well and you did a good job in motivating me through rough times. To my two beautiful roses, Sereena and Aljuri, you know well when to spread your charming aroma through tough times; my handsome little prince Muhannad, thank you for forcing me to take a break sometimes when I really needed it, yet I could not take it. Mom and Dad, I will not even try to think of words to thank you because I will not succeed or even achieve something to say. I strongly, sobbingly miss you. All I cannot thank you enough.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>3</td>
</tr>
<tr>
<td>Dedication</td>
<td>5</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>6</td>
</tr>
<tr>
<td>List of Tables</td>
<td>14</td>
</tr>
<tr>
<td>List of Figures</td>
<td>16</td>
</tr>
<tr>
<td>Chapter 1: Introduction</td>
<td>17</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>25</td>
</tr>
<tr>
<td>The Purpose of the Study</td>
<td>26</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>29</td>
</tr>
<tr>
<td>Teachers’ Attitudes about Integration</td>
<td>32</td>
</tr>
<tr>
<td>Implication of Legislation</td>
<td>33</td>
</tr>
<tr>
<td>Insights into Resources</td>
<td>33</td>
</tr>
<tr>
<td>Delimitations of the Study</td>
<td>35</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>36</td>
</tr>
<tr>
<td>Prior Assumptions</td>
<td>37</td>
</tr>
<tr>
<td>Special Considerations</td>
<td>38</td>
</tr>
<tr>
<td>Definitions of Terms</td>
<td>39</td>
</tr>
<tr>
<td>Chapter 2: Setting</td>
<td>43</td>
</tr>
<tr>
<td>Background</td>
<td>43</td>
</tr>
<tr>
<td>Saudi Arabian Teachers' Attitudes toward Persons with Disabilities</td>
<td>43</td>
</tr>
</tbody>
</table>
The Voluntary Organizations

Divisions of Voluntary Organizations

Medical Treatment

Rehabilitation Training and Education

Support Supply Division

Disability-Related Activity in the Kingdom of Saudi Arabia

Medical Services and Rehabilitation

Medical Services and Rehabilitation for People with Disabilities

Vocational Training in the Kingdom of Saudi Arabia

Social Services for Persons with Disabilities in the Kingdom of Saudi Arabia

Education in Saudi Arabia

History of General Education

The History of Special Education

Disabilities in the Kingdom

Disability-Related Central Government Organizations

The Ministry of Education

The Ministry of Special Placement in the Saudi Programs Systems

Chapter 3: Review of the Literature

Definitions of Learning Disabilities

History of Learning Disabilities

The Foundation Era (1800-1923)

The Transition Era (1930-1960)
Pilot Study ................................................................................................................... 140
Sample Size.................................................................................................................. 141
Identification of the Population..................................................................................... 142
Research Design and Approach ................................................................................... 143
Collecting Data ............................................................................................................. 145
Record Reviews and Observations .............................................................................. 145
Quantitative Survey/ Operational Definition of the Variables ................................. 146
Validity .......................................................................................................................... 150
Criterion Validity or Content Validity .......................................................................... 152
Instrument Reliability .................................................................................................. 153
Procedures ..................................................................................................................... 154
Quantitative Data Analysis .......................................................................................... 156
Qualitative Interviews .................................................................................................. 157
Qualitative Data Collection .......................................................................................... 160
Qualitative Data Recording .......................................................................................... 161
Data Management ......................................................................................................... 161
Qualitative Data Analysis .............................................................................................. 162
Summary of the Chapter ................................................................................................. 164
Chapter 5: Result of the Study ....................................................................................... 166
Demographics ................................................................................................................ 166
Saudi Teachers Attitudes Regarding the Integrations .................................................. 177
Favorable Attitudes ........................................................................................................ 178
Appendix D: Screen Plot Dimension of items and Total Variance Demonstrated ...... 332

Appendix E: University IRB Approval................................................................. 337

Appendix F: The Ministry of Saudi Education Permission Letter to do the Study in all Boys’ School and The Ministry of Saudi Education Permission Letter to do the Study in all Girls’ School .............................................................................................................. 338

Appendix G: Introduction/Foreword Letter to School........................................ 341

Appendix H: Interview Protocol.............................................................................. 342

Appendix I: School Consent Form ......................................................................... 343

Appendix J: SPSS Output: Analysis of Variance Output......................................... 344

Appendix J: Open-ended Questions Answer.......................................................... 364
LIST OF TABLES

Table 1: Percent of Persons with Disabilities by Region and Type of Disability……..46
Table 2: Summary Statistics on Special Education: 2005 – 2006 ......................... 68
Table 3: Type of Disability by Age.................................................................69
Table 4: Disability-related Central Governmental Organizations..........................74
Table 5: Response Rate by Gender.................................................................156
Table 6: Frequency and Percentage of Teachers by Age ................................. 167
Table 7: Teachers’ Education Levels ...............................................................168
Table 8: Frequency and Percentage of Specialization and Primary Teaching Field ....170
Table 9: Frequency and Percentage of the Teachers’ Experience.........................171
Table 10: Percentage of Special Education Students Included for at Least 79% of Their School Day (Not Including Gifted).........................................................172
Table 11: Overall Mean, Standard Deviation T-value for Saudi Special and General Education Teachers .................................................................182
Table 12: ANOVA between Mean Attitude and Gender ................................. 209
Table 13: ANOVA for Mean Attitude and Age .................................................210
Table 14: ANOVA for Mean Attitude and Type of Degree Held.........................212
Table 15: ANOVA between the Mean Attitude and Years of Experience ..........214
Table 16: ANOVA for Mean Attitude Score and Having Family and Relatives with Disabilities..............................................................................................216
Table 17: ANOVA for Mean Attitude and Teaching Field.................................218
Table 18: ANOVA for Mean Attitude and Number of Students with Disabilities in the Classrooms…………………………………………………………………………………………. 220

Table 19: ANOVA for Mean Attitude and Extra Special Education Training …………222

Table 20: ANOVA for Mean Attitude for age levels and gender………………….. ……..224

Table 21: ANOVA for Mean Attitude for Relationship between teaching fields and education level …………………………………………………………………………………..226

Table 22: ANOVA for Mean Attitude for major and presence of family members or relatives with learning disabilities …………………………………………………………….228
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Map of the Kingdom of Saudi Arabia</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>Persons with Disabilities in Urban and Rural Areas</td>
<td>47</td>
</tr>
<tr>
<td>3</td>
<td>Number of Persons with Disabilities by Type</td>
<td>48</td>
</tr>
<tr>
<td>4</td>
<td>Disability-Specific Data: 1997</td>
<td>66</td>
</tr>
<tr>
<td>5</td>
<td>Prevalence by Disability Category</td>
<td>70</td>
</tr>
<tr>
<td>6</td>
<td>The Broca and Wernicke Regions of the Brain</td>
<td>87</td>
</tr>
<tr>
<td>7</td>
<td>Type of Special Education Programs in Schools</td>
<td>173</td>
</tr>
<tr>
<td>8</td>
<td>Percentage of Students Present in Programs</td>
<td>174</td>
</tr>
<tr>
<td>9</td>
<td>Histogram for Special Education Teachers’ Distribution</td>
<td>186</td>
</tr>
<tr>
<td>10</td>
<td>Histogram for General Education Teachers’ Distribution</td>
<td>187</td>
</tr>
</tbody>
</table>
CHAPTER 1: INTRODUCTION

Figure 1. Map of the Kingdom of Saudi Arabia

It has been argued that a global perspective on disability issues is needed to “avoid assuming that developments in one country are the norm in the other”

(Barton & Tomilinson, 1984, p. 56)
The Kingdom of Saudi Arabia, like any other nation, values education; however, the Kingdom’s political, economic, and social system underpins a unique kind of education system, unlike any other. The basis for the education system is the religion of Islam (Al-Abdul-Jabbar, 1994; Al-Gamdi, 1984; Al-Mousa, 2000; overton, 2003). Additionally, (Al-Mansour, 1983; Maajeeny, 1990) noted that the Kingdom of Saudi Arabia differs from many other countries not only for its free education, but because the legislation for the education system separates children by sex and constantly raises the level of excellence in education. However, recent global political issues have correlated with a declination of religious values in Saudi education.

With respect to people with disabilities, Saudi Arabia respects the principle of the Koran that repeatedly commands people to take responsibility for their brothers and sisters. The Kingdom provides free services to individuals with disabilities so all members of society may benefit from equal education and medical care, and participate in the social and economic dynamics of their communities. This principle, in theory, is one that evokes the idea that children with disabilities, similar to their typically developing peers, are a part of Saudi society. Consequently, the Ministry of Education and other legislators in the Kingdom mandate that children with disabilities, regardless of the severity of their disabilities, must have the full rights given to any person to maximize their options in Saudi society (Maajeeny, 2005).

In spite of this Islamic principle, culturally and historically, children with disabilities, including physical and emotional, have always been educated by their own families or placed in institutions (Ministry of Education, 2002). In the past, a diagnosis of
disabilities was considered a negative social stigma in Saudi Arabia, with people considering the disability a punishment from God for a past sin the parents committed. Much of the research on strategies for viewing disabilities within religious states have found that many people keep disabilities secret to avoid the feeling of dishonor they might experience if others knew of the disability (Bailey, Skinner, Rodriguez, Gut, & Correa, 1999; Burker, 2004). Thus, public education for individuals with disabilities is not a Saudi tradition. Furthermore, cultural norms dictate that allowing "less fortunate members" of society to receive care from an institution or the state rather than the family brings disgrace to the families of persons with disabilities. For this reason, families decide to educate and care for their children with disabilities without the assistance of educational institutions, despite the degree of care required (Barr, 1983).

Recent Saudi Arabian policies created an amendment that demands Saudi’s special education system to incorporate a curriculum appropriate for students with special needs in order to maintain the religious values of Islam. Attributable to the world-wide changes in exceptional education, especially in the two leading continents that most influence the Arabian Peninsula (Europe and North America), Saudi’s special education system has undergone several significant modifications. Changes instituted during 2005 caused the curriculum standards and/or standard education to move from an Islamic-based traditional education to a more generic educational system of developing curricula (See Appendix A for the Executive Summary of The Ministry of Education’s ten-year plan). In the past few years, the special education system has taken another turn, particularly with the concept of considering students with learning disabilities as students
with special needs. According to the General Secretariat of Special Education (GSSE) administrator and supervisor, Dr. Nassir Al-Mosaa (2004),

Certainly the quantity and quality of Special Education programs and support services have crossed the boundaries of the impossible; integrate and start from what other successful countries have developed/left off for their children with disabilities into the Saudi system to better develop our education system for students with special needs. (p. 22)

The Kingdom’s special education system has tried in some ways to adopt the American policy, No Child Left Behind (NCLB). The complicated NCLB Act, which is over a thousand pages in length, was signed into legislation on January 8, 2002, by President George W. Bush and puts forth one central goal: to create the best educational opportunities for all United States children, including those with special needs. It seeks to ensure that children have every opportunity to succeed while having a decent life with opportunities to function within their society, particularly encouraging persons with disabilities to become reliable actors in their society. The goal is momentous, but the law has many downsides.

Even in the United States, many teachers and scholars have vehemently opposed NCLB, highlighting many gaps and debating issues contained within the law (Kavale, 2000). However, the overarching goal of NCLB appealed to Saudi Arabian policymakers in charge of the Kingdom’s special education system. Both countries view students with disabilities as equal to typically-developing students, and their hope is to grant the same quality of provisions to both, a tenant reflected in the foundation of NCLB. For Saudi
policymakers, NCLB may part from the values they hold inside, but they nevertheless accepted it on the grounds that its principles do not conflict with the Islamic ethos – the value of which may be declining in the public education sphere. However, the principles of NCLB do conflict with some cultural beliefs that affect teachers’ attitudes toward learning disabilities and inclusion. This will be discussed in detail in the following paragraphs. Unfortunately, adaptation of this legislation in Saudi Arabia did not take into consideration the NCLB’s problematic weaknesses. It could be that external pressures are prompting Saudi education personnel to try to adopt this foreign system.

Many scholars and investigative articles have analyzed NCLB and identified four main problems with how the legislation addresses the needs of special education programs in the United States (Four Pillars of NCLB, 2005; Popham, 2004; Our Children Left Behind: IDEIA reauthorization, 2005). Not only does the law lack good, solid, explicitly defined principles for special education in today’s schools, the law does not translate cross-culturally, especially to a society like Saudi Arabia, which is very different from the United States. The United States legislature developed a more complex system for students with disabilities. U.S. lawmakers extracted certain ideals from the all-purpose NCLB legislation related to special education, more specifically to U.S. national standards for special education in the Individuals with Disabilities Education Act (IDEA), suggesting that this is what the Saudi special education system should adapt and implement. Johns (1974), who is a learning and behavior consultant, highlights the differences between IDEA and NCLB:
It is most difficult over the long term to be both ‘equal’ and ‘unequal’ at the same time. IDEA allowed [even demanded] unequal treatment. NCLB demands equal treatment with once-a-year tests in reading and math as the measuring instrument. IDEA focuses entirely on the individual. NCLB focuses entirely on the group [not all those with disabilities]. (p. 23)

With the group focus of the NCLB, it can also be said that the legislation is too broad to apply to the needs of Saudi special education programs. The whole system of Saudi education is different than the United States; adopting only the most applicable parts of NCLB to Saudi Arabia’s special education services would benefit the educational system more than applying the Act in its entirety to the Saudi education system.

Applying the NCLB legislation to an Arabic educational system is culturally inconsiderate; additionally, it is not logical because of the many problems and issues that currently exist in the United States as a result of the NCLB Act. NCLB does not cross-culturally translate for two basic reasons. First, in Saudi schools there is a lack of teacher involvement in developing legislation and a lack of consideration for teachers’ personal and professional qualifications for adjusting to any new policy, especially the recent proposal regarding children with special needs. Second, while both the Saudi and the United States governments subsidize public education, what acts as a motivating factor for one will not work for the other. NCLB legislation in the United States calls for the termination of federal funding if schools' education goals are unmet. This type of punitive measure would not be socially or politically acceptable in the Kingdom of Saudi Arabia.
NCLB has many other contentious issues (Deno, 1970; Connor, 2007; Connor, & Ferri, 2007), including the fact that it is test-driven, which puts many American districts and schools under stress to maintain a constant supply of resources. Teachers must spend more of their time on paperwork than on trying to teach children with exceptionality. Hobbs, 1975 state that in order to help American schools and districts meet NCLB goals, the law provides a blend of requirements that, when met, result in schools receiving increased funding. However, teaching-related incentives are hard to achieve with all the aforementioned constraints.

It is believed that because Saudi and America have the same intentions in educating students with learning disabilities, it is valuable and significantly beneficial to base the newly reformed Saudi Arabian education system on U.S. educational policies like NCLB and IDEA, extracting the ideas that have produced the best outcome for the U.S. special education system in order to provide education for every child to prosper and become an industrious member of Saudi society. However, NCLB regulations are not applicable to the Saudi Arabian educational system because of current teacher qualifications in Saudi Arabia. In Saudi Arabia, there is a lack of trained or well-trained teachers, most specifically special education teachers, to help students with special needs already in regular classrooms. Therefore, adding the constraints of bureaucracy and paperwork will only exacerbate the situation. Thus, NCLB may not be appropriate to implement in the Saudi special education system because its biggest issue is a lack of qualified special education teachers.
Teacher qualifications in Saudi Arabia are different from those in the United States. In Saudi Arabia, special education teachers are considered highly qualified by obtaining a bachelor’s degree or higher. In the United States, though, special education teachers are required to have full state teaching certification or pass the state teacher licensing examination, along with a bachelor’s degree and demonstrated competency in the subject area in which they teach (Ryans, 1970). Furthermore, the U.S. provides transitional support to teachers in terms of training, workshops and in-service days when new policies are implemented (Bewe, 1980). On the other hand, because Saudi limits the workday, concurrent training causes a logistical problem. Saudi schools start at 7:00 a.m. and ends no later than 1:00 p.m.; by law, no one should be at school after that time. Consequently, if teachers were to spend so much time completing paperwork and/or meeting requirements for teacher qualifications, what time is left for teaching children with learning disabilities?

Hastening to adapt to global changes in special education demands great effort, including adjusting to new definitions of special education in the Kingdom of Saudi Arabia. The problems originate not just from borrowed theory, but in part from the unique educational environment of Saudi Arabia, particularly when contrasted with culturally-related nations. Since 2005, children with learning disabilities are being educated in the general education environments, which is a new concept for the Saudi Arabian education system. Unfortunately, this legislative change is happening without focusing on educating and preparing teachers to deal with children with learning disabilities in regular Saudi public schools. Moreover, Saudi teachers are not able to
fulfill the standards for becoming highly qualified special education instructors.

Studying this problem will contribute to the existing literature on special education systems and the need for context-specific sensitivities when enacting legislation, particularly in contexts where special education programs are relatively new. Alexander (2004) and Daniels (2000) call for comparative special education studies. The authors suggest these types of studies benefit countries’ efforts to advance special education, whether countries are in the beginning stages, like Saudi Arabia, or in more established stages of special educational program development, like the United States.

Statement of the Problem

Until recently, the Kingdom of Saudi Arabia had very minimal special education services. In the early 1950s, there were only three categories for persons with disabilities. Saudi standards defined disabilities as having a physical and /or psychological and developmental condition that affects an individual’s appearance and behavior, such as blindness, deafness, and cognitive disabilities, Mental retardation. Nevertheless, in the recent decade, due to global concern for how to deliver academic services to students with disabilities, the Ministry of Education in the Kingdom of Saudi Arabia was motivated to establish a program to educate students with learning disabilities in regular schools’ public education. AlMosa, (2006) the Supervisor General of Special Education (SGSE), acknowledged that "the qualitative progress in Saudi special education is signified by six crucial issues one of them is including non-traditional disabilities category such as learning disabilities LD…” (p. 33). This far-reaching change in the Saudi system stemmed from Saudi education officials’ goal for children with exceptionalities to
succeed academically like their global peers, in order to provide more opportunities for these students to maximize their academic and social potential (See Appendix A for the Executive Summary of the Ministry of Education ten-year plan).

Educational mandates are time consuming and require the investment of resources. Even more complex and stressful is the complete renewal of the traditional system (Reschly, 2002), which is the case in Saudi Arabia now with the introduction of children with learning disabilities into regular Saudi schools. This involves a major change in educational programs, strategic planning, and methods. The academic environment needs to be adapted for children with all types of exceptionalities, such as children with learning disabilities and Attention-Deficit Hyperactivity Disorder (ADHD).

The Purpose of the Study

Teachers strongly agree in theory with the educational changes mandated by law. However, the degree of support the Saudi educator will give to the integration of students with disabilities in the general educational setting, in terms of a teacher’s willingness, qualifications to fulfill the requirements, and attitude towards the new regulations in general, is not known. This study attempts to discover the Saudi teachers’ perspectives on educating children with learning disabilities in public school settings. Findings will give Saudi educational officials greater knowledge of the degree of the teachers’ willingness to work with students with learning disabilities. Through statistical analysis, the study also addresses and determines the extent of Saudi Arabia’s need to establish a program for properly preparing teachers to handle the integration of children with learning disabilities.
Saudi teachers (general and special) cannot express, unless through an official or anonymous study, their true opinions about the current issues resulting from having students with learning disabilities in general education classrooms. It is important to see how teachers feel about this new era in Saudi schools, to determine the appropriateness of their training to teach students with special needs. Thus, this study’s inquiry will greatly benefit the Saudi educational system by providing statistical evidence regarding Saudi special education and existing service resources in order to determine what is needed and assess the status and/or the state of special education in general. This study was designed to obtain a true picture of how general and special education teachers react to the new goals of the Ministry of Education and to obtain their suggestions and feelings about meeting the needs of students with learning disabilities.

This study will explore general and special education teachers' points of view toward the new system of teaching students with learning disabilities in regular classrooms and obtains a measure of the teachers' knowledge about learning disabilities. In the past, a great deal of scholarly research focused on the attitudes of teachers regarding educating students with disabilities. These studies suggest that general and special education teachers have conflicting opinions regarding educating students with LD. However, up until now, it has been unknown whether the differences in teachers' opinions were significant. Are the concerns of general education teachers significantly different from those of special education teachers? Alternatively, do teachers’ opinions simply differ regardless of their training and experience (Abeson & Zettel,1977; Olson, Shaywitz & Shaywitz, 2002) AlAbuljabber (1994) state that cross-national studies are
important as they might reveal differences, which perhaps will in turn motivate and challenge researchers to re-examine the entrenched practices and theories that prevail in their own countries. With this in mind, the current study explores the following research questions:

R1: What are the attitudes of Saudi general and special education teachers toward integration of students with learning disabilities into public schools?

R2: Are there differences between the attitudes of general and special education teachers working in the Saudi public schools? More specifically,

a. What are the points of agreement and disagreement among Saudi teachers regarding educating students with learning disabilities in public schools?

b. Are Saudi general and special education teachers' attitudes toward the integration of children with LD in public schools differentiated by factors including gender, age, degree held, years of teaching experience, fields of teaching experience, having family members with disabilities, extra training in special education or experience with teaching students with disabilities in a regular classroom?

R3: From the Saudi general and special education teachers' perspectives, what are the specific benefits of the resources and training available to them, challenges and suggestions to improve the new amendment to create an appropriate learning environment for students with LD?
Significance of the Study

The Saudi Ministry of Education has contemplated educating students with exceptionalities in regular schools since the early 1950s. However, due to the fact that the country had to deal with many internal and external political issues, the Kingdom permitted a lack of educational opportunities for children with learning disabilities. Recently, The Kingdom's lawmakers and teachers were overwhelmed to discover the thriving climate internationally in servicing children with special needs. This thriving international climate made the Saudi Arabian government realize the critical state of special education programs in the Kingdom and their inability to serve students with exceptionalities in public education. Due to the lack of available training programs for teachers in the field of special education in the Kingdom of Saudi Arabia, the Ministry of Education found itself especially lacking in its ability to serve those with learning disabilities. Thus, in 2005 the Saudi Ministry of Education established integrated learning disabilities services and special education programs as a new alternative to institutionalizing students with disabilities or keeping students with special needs at home, where family members are their sole teachers and caretakers.

Saudi Arabia lacks a significant amount of practical data regarding the integration of students with mild-to-moderate disabilities, specifically learning disabilities, into regular schools with their typically developing peers. Thus, this study is imperative to the Saudi Arabian Kingdom, as it provides insights regarding general and special education teachers’ attitudes toward including students with learning disabilities in the general education classroom. The data from Saudi special and general education teachers may
contribute a great deal to the initiation of the new Saudi system of integrating students with learning disabilities. For instance, this study found that teachers anticipate higher expectations and improved teacher preparation programs as one of the benefits of inclusion.

Using the findings from this study, the Ministry of Education in Saudi Arabia may develop new methods for motivating teachers to deal with students with disabilities, especially teachers with outdated training. More than half of the teachers surveyed indicated that a major motivational challenge of inclusion is the resistance to change, which can alleviated by awareness. Thus, the Ministry may consider utilizing awareness campaigns in order to smooth the transition to inclusion.

Moreover, this study may provide Saudi officials with a better understanding of the resources available in the Kingdom to help guide students with disabilities towards academic and social excellence, because the study provides a thorough review of Saudi educational endeavors for students with disabilities.

In order to promote Saudi public school programs and special education services, Saudi special education officials transitioned the previous education system toward the integration of children with exceptionality. Teachers' perspectives are of great value to the new system because these professionals can address any gaps between formally designed education programs and the actual delivery of these programs, in terms of the curriculum modifications and adaptations that are appropriate for students with learning disabilities.
Teachers are very influential persons in the lives of their students, second only to a child’s immediate family. Therefore, teachers’ attitudes greatly affect the educational development of students with disabilities (Jamieson, 1984; Williams; 1977; Williams; 1986; Zigmond, 1993). This notion is supported by Abduljabber (1994) in his statement: Readiness of general education administrators to make appropriate decisions and of classroom teachers to maximize the educational experiences of children with disabilities is important to translate the concept of integration into practice. (Abduljabber,1994, p. 22)

A valuable aspect of this study is that it addresses attitude in terms of both gender (male and female) along with both categories of teaching (general and special teachers), unlike earlier studies (Afrooz,1978;Al Abduljabber,1994;Al-Alga ,1985 and Al-Dayil, 1979) that only investigated male teachers' attitudes. To date, it seems that the only published study exploring the attitudes of teachers in the Kingdom of Saudi Arabia included only male participants. Abduljabber (1994) justified having only male participants because at the time he piloted his research, the Ministry of Education only focused on the education of male students, while female students had their own Ministry of Education which was called the Girl Ministry of Education. Both ministries were merged to one ministry in 2005, which makes this study all the more time-appropriate.

Saudi teachers' perspectives are vital not only to global special education programs in general, but also to the Saudi education context in particular. As most of the research addressing special education issues has been done in Europe and in the United States, advocates of special education reform concerned with issues of access and
integration have called for a study that focuses on non-industrialized countries (Artiles, Csapo, & Lorenzo, 1995; Pfeiffer, Sam, Guinan, Ratliffe, Robinson & Stooden, 2003). Saudi teachers have been assigned the task of managing the implementation of the law, yet their attitudes about the law and issues relevant to the new legislation are unknown. This new change in the Saudi schools provides the perfect opportunity to obtain teachers' attitudes and to know what the individuals involved in the Saudi education system really think about the issues. Teachers' thoughts are always prerequisites for any successful educational program, particularly special education programs (Larrivee & Cook, 1979). The cooperation and commitment of those directly involved in implementing mainstream polices is essential to the success of the new inclusive system.

*Teachers' Attitudes about Integration*

This inquiry provides the Saudi Ministry of Education with preliminary data regarding the teachers' level of support or resistance to the mandate to include students with disabilities in the general education classroom. Findings from this study are significant as the research indicates that any mainstreaming strategies of students with learning disabilities are only effective when teachers' attitudes are positive toward the issue (Cook, 2002; Triandis, Adamopoulos & Brinberg, 1984). Currently, Saudi Arabia has not clearly defined the term “integration” of students with learning disabilities into regular schools. Saudi teachers understand the definition to equal full inclusion; however, from this researcher’s reading, observation and discussions with teachers, “integration” is not even partial inclusion, as the policy proposes to pull students out of the general education program to receive special education services.
Implication of Legislation

Naturally, this study’s findings have the potential to contribute to the Ministry of Education of the Kingdom of Saudi Arabia. The study provides feedback from teachers regarding the recent legislation change. If teachers are in favor of the integration of children with learning disabilities, then the Ministry will be able to base its policies on the information that teachers hold positive attitudes. Accordingly, the Ministry should consider teachers as potential participants for any preliminary case studies they might consider as part of implementing the integration of students with learning disabilities in the general classroom. Conversely, if teachers' views are negative, then the Ministry and Saudi lawmakers might consider developing new ideas/strategies for changing teachers' attitudes before implementing the mandated integration of students with learning disabilities. According to the Saudi law, strategic plans are pilot laws for ten years from the date of the amendment (See Appendix A). Starting in 2005, the integration of students with learning disabilities began the pilot phase of the amendment of the law. This study provides a basis for scientific research that will help indicate the kind of educational change and/or program needed by teachers who might work with students with disabilities.

Insights into Resources

In addition to providing the Ministry of Saudi Arabia with evidence of teachers' attitudes, the findings also provide insight into Saudi academic and/or human resources related to the education of children with learning disabilities. This study helps to determine teachers' operational definitions and awareness of inclusion through the
discussions between the researcher and the teachers who participated in the study. An additional outcome is the determination of the teachers' understanding of what learning disabilities are. Saudi Arabia needs the inclusion of students with learning disabilities to be a success. Integration would refute many cultural stereotypes associated with learning disabilities. Successful integration may put an end to myths that assume persons with disabilities are lazy and worthless, or incapable of contributing to an efficient society. Integration will also serve as an awareness program for typical students by providing them with a better understanding of their peers with disabilities.

In summary, because the Kingdom of Saudi Arabia has been able to settle the external and internal political issues that have demanded attention in the recent past, the country has now turned its attention to civilian conditions such as educational opportunities. One of those issues is educating students with learning disabilities in regular schools. It is this researcher’s contention that knowing teachers' points of view contributes to the implementation of the new Saudi agenda for education in general and students with learning disabilities in particular. Studies like this one have very significant importance for Saudi’s education system and its Ministry of Education. For these reasons, the goals of the current study were:

1. To contribute to the body of knowledge in the area of special education, especially in developing countries such as Saudi Arabia,

2. To examine the possibility of educating students with learning disabilities (LD) in regular academic environments (Least Restrictive Environment: LRE),
3. To identify problems that Saudi Arabia may encounter when the new special education system faces obstacles and how Saudi can deal with such problems,

4. To obtain a clearer picture of experienced teachers' perspectives and beliefs concerning special education that would help Saudi personnel and lawmakers plan for programs that serve students with learning disabilities,

5. To identify the educational needs of teachers, principals, and supervisors who work with students with learning disabilities.

Delimitations of the Study

This inquiry regarding the Kingdom of Saudi Arabia focuses most specifically on special education teachers in the eastern part of Saudi Arabia. The findings include only the status of integration of students with learning disabilities in the eastern part of the Kingdom. Collecting data from the entire Kingdom of Saudi Arabia was not feasible for the researcher due to the size of the country and time limitations. This does not mean that the other region is not relevant for the study; in fact, given the resemblance between the regions, the findings from the current study will presumably be applicable to the whole Kingdom. Thus, this study was concerned with the eastern part of Saudi Arabia, which provides a strong representative sample because curriculum, policies, and teacher qualifications are identical from school to school throughout the kingdom. The question of the Ministry allowing access to public school teachers is discussed in further detail in Chapter IV, which is devoted to research methodology.
Limitations of the Study

Common sense suggests that any study could not be completely inclusive in terms of the research inquiry, research design and methodology, underpinning theoretical framework, and the sample. The current study was not that far from the previous limitations notion of common sense, yet the researcher attempted to overcome these limitations as much as possible; the following are the current study’s limitations. One of the study’s methods of data collection was a questionnaire which has its limitations. This method relies on participants’ honesty in their self-reporting; their responses are also dependent upon the presentation of questions. Poorly worded, poorly presented, or misinterpreted questions influence the conclusions researchers can draw from their findings.

Due to the political climate in Saudi, teachers are often reluctant to share their perceptions. However, in this study, the Ministry approved the survey prior to its distribution. While this provided a safer climate for teachers to participate, it also provided a strong incentive for teachers to participants to answer the survey, knowing that the Ministry had approved it. The researcher also met with the participants to reassure them of the confidentiality and safety of participating. For both the survey and the interviews, the researcher protected the identities of the participants. This was more difficult in the case of the interviews. The researcher tried to overcome potential informants’ hesitancy by showing them the questions ahead of time and by conducting the interviews in places where they would be comfortable expressing their opinions. A
well-detailed approach for identity protection is laid out in Chapter 4, which deals with this study’s methodology.

The researcher could not find literature in Saudi Arabia or a nearby country on teacher attitudes regarding integration of students with special needs, thus most of the literature was gathered from western sources, mainly the United States and other industrialized countries. Keeping in mind the fact that LD education and research is in its formative stages in Saudi Arabia, another limitation for the current research is that relevant western literature is somewhat dated, much of it published in the 1970s and 1980s.

Prior Assumptions

Based on the researcher’s firsthand knowledge of Saudi culture and Saudi public schools, the researcher assumed that many Saudi teachers would welcome the idea of integrating students with learning disabilities into regular public schools. Furthermore, as expected, the fact that the policy change requires these students be pulled out of special education programs, in which students with learning disabilities (LD) have specific classes that focus on their special needs, was essentially a relief to general education teachers. This is because it is widely believed that special education teachers are better qualified to handle students with exceptionality in pullout programs or in special classrooms (UNESCO, 1994). Additionally, some students spend their entire day in resource rooms, rather than in the regular classrooms.

Even though Saudi public schools are moving forward in terms of including children with LD in regular classrooms, they are not fully ready to complete this task due
to the lack of professional resources for general education teachers who may work with
students with learning disabilities. There are teachers who are not prepared to teach
students with special needs in general and with learning disabilities in particular.

In addition, Saudi special education teachers are having difficulties, as they are
not prepared to implement curriculum modifications, accommodations and adaptations.
For instance, some plans or programs these teachers may want to use are not always
available in Arabic.

Aside from the educators’ roles, methods of testing and diagnosing for learning
disabilities are not stable and lack continuity. Saudi schools utilize different testing
methods each year and do not fully consider test bias, which may affect the specific
populations of schools. Teachers in Saudi Arabia are relying on other professionals, such
as social workers and pediatricians, for diagnosis and identification of children with
learning disabilities. This creates problems such as biases in the tests and over- and
under-identification of students with LD as most tests are being administered in English
and languages other than Arabic. Moreover, the term “learning disability” (LD) is a
recently introduced disability category in the Kingdom. Consequently, teachers who are
already in the school system are unfamiliar with procedures for referral, assessment, and
identification of students with disabilities.

Special Considerations
People with special needs in the U.S. and Saudi Arabia have different self-perceptions,
reflected in their respective preferred titles. While in the U.S., people with special needs
consider it politically correct to avoid such labels as “handicapped,” or “disabled” and
prefer “people with special needs,” (making it known they are people first), the population in Saudi Arabia with special needs prefer to be known as “handicapped” or “blind person” (accepting their limitations as a defining limitation). In short, this reflects their social, academic and cultural status.

Definitions of Terms

**Attitudes:** "The mental position with regard to fact or state, a feeling or emotion toward a fact or state" (Webster's New Collection Dictionary, 2000, p. 74)

**Exceptional children:** In the field of Special Education, the term “exceptional” is widely used to describe children with disabilities. However, in the Saudi context, this term is not used, primarily because of the wishes of those with disabilities. These individuals believe themselves to be left behind socially, academically, and in terms of accessibility, and therefore prefer to be identified as “handicapped” until they are provided with the same level of service as other individuals with disabilities around the world.

**Inclusion:** Obtaining a clear definition of integration and/or inclusion is a problem because nowhere in federal legislation is it defined as it is an educational philosophy, rather than a stipulation of the law. This study defines inclusion as a service delivery model in which there is a commitment to meeting the educational needs of students with special needs within the regular classrooms to the maximum extent appropriate. Inclusion allows students with learning disabilities full access to the social and educational opportunities offered to their fully developing peers (Connor, 2007).
an environment of inclusion, students with special needs are challenged to work to the best of their abilities and provided the additional support to be successful.

**Individualized Education Program:** A legal document designed by committee to provide strategies to increase specific skill levels of students with disabilities (ODE, 2006c).

**Individuals with Disabilities Education Act (IDEA):** "A law ensuring services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education and related services to more than 6.5 million eligible infants, toddlers, children and youth with disabilities [in the United States of America]" (Turnbull, Turnbull, Shank, & Leal, 2007, p. 89).

**Integration:** A term that is used interchangeably with the term inclusion. In the case of Saudi Arabia, Saudis state they have ‘inclusion systems.’ However, the researcher believes that “pulling out” students with learning disabilities to receive additional supports does not exemplify the full inclusion of students with LD in general classroom settings.

**Learning Disability:** “Learning disability (LD) is a general term that describes a specific kind of learning problem that range in severity. A learning disability can cause a person to have trouble learning and using certain skills. The skills often affected are reading, writing, listening, speaking, reasoning, and doing math” (IDEA 20 U.S>C. 1401 (a)(1); Fletcher, Morris, & Lyon, 2003, p. 11).

These are the Ministry of Special Education’s definitions:
**Learning Disabilities:** Disorder in one or more of the basic psychological processes which include understanding and using written or spoken language, which appears in the disorder of thinking and listening and talking, reading, writing (including spelling and expression), and mathematics, which are not due to reasons of mental disability or audio or visual or other types of learning disabilities or conditions or family care.

**Least Restrictive Environment:** Least Restrictive Environments (LREs) are defined by IDEA as spaces where “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 non-disabled; and that special classes, separate schooling or other removal of children with disabilities from the regular educational environment occurs only if the nature or severity of the disabilities is such that education in regular classes with the use of supplemental aids and services cannot be achieved satisfactorily” (IDEA 20 U.S.C. 1412 (5)(B); Turnbull, Turnbull, Shank, & Leal, 2004)

These are the Ministry of Special Education’s definitions:

**Least Restrictive Environment and/or Educational and educational place:**
For people with learning disabilities – special education services are provided for students who have difficulties learning in general education classrooms through servicing them with the appropriate education in resources rooms.

**Mainstreaming:** A term used to refer to the selective placement of special education students in one or more regular education classes. Proponents of mainstreaming generally assume that a student must ‘earn’ his or her opportunity to be
placed in regular classes by demonstrating an ability to ‘keep up’ with work assigned by regular classrooms teachers (Stough & Aguirre-Roy, 1997).

**No Child Left Behind:** A federal education mandate that stipulates students with disabilities be exposed to the same curriculum as their peers, participate in the state’s graduation tests, have those scores incorporated in the district report card, and that teachers meet competency standards in core subject areas (NASOSE, 2002).

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

**Resources rooms:** A terminology and concept beyond mere space in which specialized educational services is provided, it is an educational system containing specialized programs to ensure maximizing students with LD academic options in individual manners to their characteristics, needs and abilities, while they learn in regular public setting information and skills, not only academic, but also social interaction and communication with others that are an essential element of the most important elements of sound social life.

**Special Education:** IDEA defines special education as “specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disabilities” (IDEA 20 U.S.C. 1401(a)(16); Turnbull, Turnbull, Shank, & Leal, 2007).
CHAPTER 2: SETTING

The development of special education in the Kingdom of Saudi Arabia has been a very unique process. Special education roles have been developed in a multidisciplinary manner, disconnected from individual personal efforts to educate and care for students with special needs. Suddenly, in the year 2005, legislators implemented an educational discipline that would evolve into the inclusion of those with learning disabilities. The special education system in the Kingdom of Saudi Arabia is not that clear and cohesive because it has not been documented very extensively. The following section is a description of special education in Saudi Arabia, giving an overview of the top-down process from which the system evolved, and includes Islamic cultural views of disabilities as well as educational policy. Placing this chapter here is justified in two ways; first, the audience may have minimal information about special education, and second this information is a crucial piece influencing the decision to include qualitative methodology, and provides a context for the qualitative data collected in this dissertation.

Background

*Saudi Arabian Teachers' Attitudes toward Persons with Disabilities*

In the past in Saudi Arabia, research on teachers' attitudes toward persons with disabilities included only the perceptions of health workers and voluntary, non-academic organizations. This has significantly influenced current attitudes regarding Saudi special education and services. The subsequent sections provide a general overview of these non-academic services in the Kingdom of Saudi Arabia. Unlike the United States, where students with special needs are mainly served by the Department of Education, Saudi
Arabia takes a more holistic approach, serving the students’ health, education, and lifestyle needs. Three different ministries, The Ministry of General Education, the Ministry of Special Education, and the Ministry of Healthcare, all have a role in providing resources and services for this population. Therefore, it is vital to understand the different aspects each ministry deals with as a policy change affecting the education of students with special needs comes to fruition.

Voluntary Organizations were founded to serve specific students with disabilities. Royal family members support public and private organizations and facilities for persons with disabilities, and donations are raised from families in the Kingdom. However, specialized organizations such as the hospitals of National Guard, military, social security and others, extend services to persons with disabilities as part of their constituency services. Most of these specialty organizations are extremely sensitive about persons with disabilities statistics for security reasons, and it is estimated that the statistics are vastly under-reported, when and if they are reported. (Gladnet Collection, 2002, p. 8)

The Voluntary Organizations were founded because of the public’s awareness of, and sensitivity to individuals with disabilities. While other organizations in the past focused on the health and well-being of these individuals, Voluntary Organizations focused on the academic opportunities available to individuals with disabilities.
The Voluntary Organizations

In Saudi Arabia, a Voluntary Organization is an institution or home for students with special needs, and its programs are intended to maximize students’ abilities and/or skills. They mainly serve pre-school aged children. Currently, the Voluntary Organizations are used by parents of children with exceptionalities that have never been to school and are used as an introduction to pre-school. Many parents use these programs to educate their children in basic skills. Due to the efforts of the Children with Special Needs Welfare Associations (SNWA) in 1983, Voluntary Organizations began to provide life-skills instruction for children in their care. This voluntary project was set in motion on October 12, 1986. The city of Riyadh launched this school project to help children with special needs acquire skills that would help them better assimilate into society (Arab News, 1986; A-Senble, Al-Khateeb, Mutwally, & Abd, 1998). Programs like Voluntary Organizations in the Kingdom of Saudi Arabia provide essential services for children with special needs. The admission ages for these programs range from 3-12 years. The aim of these organizations is not to educate children academically, but to teach them basic skills such as social skills so they can be integrated into regular schools and then into regular classes with their typically developing peers (Al-Jazerah Daily Newspaper, 1992). However, these programs were limited to the capital city of Saudi Arabia, Riyadh. This is an enormous issue in the Kingdom of Saudi Arabia as there is an immense gap between education services in the urban and rural areas (see Table 1). However, since 2000, rural areas have exceeded urban ones in the diagnosis of students with disabilities.
Table 1 (The Economic Bureau, Kingdom of Saudi Arabia. 2000), compares urban and rural areas in terms of types of disabilities.

Institutes for persons with disabilities are more prevalent in urban than rural areas, with an uneven distribution of facilities irrelative to the distribution of persons with disabilities. Regarding the number and the type of prosthesis and orthotics for persons with disabilities, due to insufficient data it is unknown whether needs are being met. (Gladnet Collection, 2002, p. 8)

Table 1

Percent of Persons with Disabilities by Region and Type of Disability

<table>
<thead>
<tr>
<th>Percent</th>
<th>Persons with Disability</th>
<th>Physical Impairment</th>
<th>Visual Impairment</th>
<th>Hearing Impairment</th>
<th>Intellectual Disability</th>
<th>Psychiatric Disability</th>
<th>Overlapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>41.30%</td>
<td>39.60%</td>
<td>48.20%</td>
<td>36.90%</td>
<td>38.70%</td>
<td>31.30%</td>
<td>37.70%</td>
</tr>
<tr>
<td>Rural</td>
<td>58.70%</td>
<td>60.40%</td>
<td>51.80%</td>
<td>63.10%</td>
<td>61.30%</td>
<td>68.70%</td>
<td>62.30%</td>
</tr>
</tbody>
</table>

Figures 2 and 3 (The Economic Bureau, the Kingdom of Saudi Arabia, 2000) show the difference between persons with disabilities by region and type of disabilities.

However, there is no available data on grade-specific differences or differences in disabilities based on geographical areas. Moreover, there used to be differences in
services for children with disabilities in urban areas compared to services in rural areas.

According to the Gladnet Collection (2002):

Almost all services and programs are concentrated in the metropolitan areas, and thus are not easily accessible to the rural population or nomadic tribes. On the one hand, there are duplication efforts in urban areas due to a lack of communication, coordination and cooperation among public and private organizations. On the other hand, there is a lack of services in rural areas where 58.7% of persons with disabilities are reported to live.

Therefore, accessibility consideration must be made for rural and nomadic persons with disabilities in further endeavors. (p. 11)

*Figure 2. Persons with Disabilities in Urban and Rural Areas*
Figure 3. Number of Persons with Disabilities by Type

Divisions of Voluntary Organizations

The Voluntary Organization is divided into three main divisions; (a) medical treatment, (b) rehabilitation training, and (c) support supply. It was serving 356 children with special needs as of 1987 (Al-Jazzier Daily, 1987).

While these three divisions provide medical treatment and rehabilitation training departments, they do not provide any physical or recreational activities because in Saudi Arabia, it is culturally believed that children with special needs cannot participate in sports, thus it is more important to focus on academics.

The goals and the objectives of these organizations are:

1. To care for a select category of student with special needs,
2. To prepare students with special needs to acquire the skills necessary for functioning in their life as independently as possible,
3. To prepare children with disabilities to more effectively interact with their fully developing peers,

4. To act as awareness programs for the families of students with special needs.

   This goal includes informing the families about their rights and their children’s rights, needs, and potential.

To be admitted into the programs, it is important the student must:

1. Be in the same city or closer so family transportation is possible,

2. Be aged 10 years or younger for residential school and 12 years for regular schooling hours,

3. Exhibit physical disabilities,

4. Have an average or slightly below average IQ,

5. Not experience total blindness or profound deafness (Saudi Ministry of Education, 2002).

As stated above, the Voluntary Organization’s main divisions are: medical treatment, rehabilitation training and education, and the support supply division. Each of these will be discussed in detail in the following sections.

**Medical Treatment**

This department provides students who have disabilities with all needed health services. According to Alwabely (1987), the department provides a general checkup and neurological examination for children in order to determine what kind of disabilities they have. The departments have clinics concerned with dental health, speech therapy, language therapy, psychological therapy, and social work. The social work clinic is
designed to coordinate between children and their families, Voluntary Organization staff, and disability associations. The disability associations are organizations that explain their rights to families and persons with disabilities.

Rehabilitation Training and Education

Rehabilitation training is similar to physical therapy training. Rehabilitation training and education is designed to help students adjust to their environment. The training it provides for students with special needs aims to help them with their mobility, functioning of their limbs, and physical coordination. Additionally, rehabilitation training teaches students who have severe motor disabilities to cope with their daily activities and learn life skills.

Support Supply Division

As of 1987, this division served 356 children with special needs who were interested in sports. It provided students who have disabilities with the help they needed either psychologically or materially. However, because Saudi culture did not encourage individuals with disabilities to participate in sports, this division was terminated and then opened again in 2005, when the Saudi soccer team won a gold medal in the Special Olympics of the Middle East/North Africa.

Disability-Related Activity in the Kingdom of Saudi Arabia

As a Saudi, the researcher knows of several Saudi organizations that motivate as well as sponsor many disability-related activities. The largest organization for persons with disabilities in the Kingdom of Saudi Arabia is the Islamic World Council on
Disabilities and Rehabilitation. However, no public information for this organization is available.

The Kingdom of Saudi Arabia’s Economic Bureau (2000) stated that there are NGOs (non-governmental organizations) that support persons with disabilities in Saudi Arabia. These include the Prince Salman Center for Disabilities, the Disabled Children Association, and the Joint Center for Research in Prosthetics and Orthotics and Rehabilitation Programs. Finally, there is only one cooperative organization between Saudi Arabia and other international organizations. The [World Health Organization] WHO has supported many community-based rehabilitation projects (CBRs) in the Eastern Mediterranean region by providing advisory services to Saudi Arabia (p. 200).

The above review of Saudi special services and disability-related activities for students with disabilities was completed by Japanese evaluation agencies for special education. Even though there have been many evaluations completed by the Japanese government in order to assess Saudi’s special education and services, Japan has not provided recommendations for organizations serving students with disabilities and/or there is no date for the publication of their findings. Following is a brief discussion of other disability-related activities available in Saudi Arabia.

Medical Services and Rehabilitation

The Kingdom of Saudi Arabia has a different system of service delivery for students with disabilities than the United States. Even though the available information about medical services and rehabilitation is conveyed to students with disabilities,
education institutes only provide education and health services. For example, public schools provide speech and hearing therapy in the United States, while in Saudi Arabia, hospitals administer this therapy. Therefore, the special education teacher and the school have no idea what is being accomplished during a student’s therapy sessions, which may affect his or her schooling.

The Ministry of Heath is responsible for all rehabilitation services for persons with disabilities in Saudi Arabia; This includes physical, occupational, speech and hearing therapy services, as well as any additional transportation services needed from the child’s home to school and vice versa. According to the Saudi Ministry of Education and a report that was completed by the Saudi Economic Bureau (2000), health care should be provided, and it is free to students with special needs. It can be delivered either by the institute that the child is in or by the public hospitals.

However, not all Saudi hospitals provide services to students with disabilities. Specialized medical centers such as the King Faisal Specialist Hospital and Research Center and the King Khalid Eye Hospital have been established. Also, the Prince Sultan City for Humanitarian Services is expanding services to provide multidisciplinary rehabilitation services and innovations for students with congenital anomalies, traumatic injuries, strokes, and related speech problems.

The Gladnet Collection from Cornell University (2000) reports these hospitals are among the most modern health facilities in the world. Still, Saudi has problems providing special education services to students with special needs. They possess the resources, but
lack trained, proficient personnel who can maximize the benefits and integrate these first-rate resources to meet the needs of students with disabilities (Al Kheraigi, 1989).

**Medical Services and Rehabilitation for People with Disabilities**

The Kingdom of Saudi Arabia has established various rehabilitative services to aid people with disabilities. Physical, occupational, speech and hearing therapy, prosthetic and orthotics services are some of the current, up-to-date health care services provided by the government.

The World Health Organization’s (WHO) Regional Office for the Eastern Mediterranean (1994) provides assistance in training professionals in various areas of Community-Based Rehabilitation (CBR) to 12 Eastern Mediterranean countries. The Kingdom of Saudi Arabia is one of the 12 countries receiving support. WHO insisted that the Kingdom strengthen the exchange and dissemination of information. As a result, the Kingdom is trying to implement national programs on rehabilitation.

As stated before, the services the governmental groups and charities provide are of outstanding quality, yet within the context of Saudi Arabia, the institutionalization of a person with disabilities means social segregation. It therefore contradicts the Kingdom of Saudi Arabia’s objective for special education that focuses on “developing acceptable social behaviors in children with disabilities, and preparing them for a stable life,” as well as “preparing children with disabilities for public life so that they become productive members of society, able to support themselves, and productively participate with others” (Leahey, 2007, p. 304). The biggest obstacle in mainstreaming students with disabilities is the people’s current view toward disabilities. According to the Gladnet Collection
(2002), persons with disabilities are viewed with pity, and the stereotypes and perceptions of people with disabilities present barriers to mainstreaming. In this regard, “public awareness campaigns on the feelings and barriers faced by persons with disabilities may be necessary to lay a foundation for transition from institutionalization to community-based services and rehabilitation according to international trend” (p. 19).

**Vocational Training in the Kingdom of Saudi Arabia**

The Ministry of Labor and Social Affairs launched vocational training and rehabilitation services in Saudi Arabia. According to the Ministry, vocational centers help provide rehabilitation services only to students with physical and/or intellectual disabilities. However, in order to receive rehabilitation services, candidates must be between 15 and 45 years of age. In vocational centers, service providers modify the rehabilitation services according to each person’s disability. Vocational centers’ work is comparable to Individual Educational Plans (IEPs) in the United States; these modified plans articulate what an individual can do and what he/she needs. The objective is to “arrange to develop unexploited human potential, to create productive individuals that can adapt socially and psychological to become effective partners in society” (Al-Mansour, 1983, p. 46).

Vocational training options are limited in the Kingdom of Saudi Arabia. Vocational centers provide training in electricity, bookbinding, carpentry, computers, clerical work, typing, secretarial work, embroidering, grinding, painting, engraving, ornamenting, landscaping, tailoring, sewing, and dressmaking. Moreover, vocational centers also have a system in place that pays people in training. The government provides
individuals with disabilities with a monthly allowance of SR 1,200 if the trainees are married and a daily allowance to cover the cost of transportation to and from the center in a situation where trainees live with family. These centers also provide medical, social and psychological care, physiotherapy services and sensitivity devices, as well as boarding and lodging.

Social Services for Persons with Disabilities in the Kingdom of Saudi Arabia

Persons with disabilities in the Kingdom of Saudi Arabia have the following rights and benefits as stated under the Saudi law of persons with disabilities:

(a) A 50% airfare discount for oneself and a companion; (b) artificial limbs; (c) employment support on an equal basis with the typically developed population; (d) special parking places at various institutes; (e) access to public roads, parks and gardens; (f) education opportunities for persons with visual, hearing, or speech impairments and intellectual disabilities at specialized institutions (special education) under the supervision of the Ministry of Education and General Presidency for Girls’ Education; and (f) a subsidy of SR 10,000 for persons with disabilities to help them buy a car. (Ministry of Education, Kingdom of Saudi Arabia, 2007, p.367)

Education in Saudi Arabia

This section provides general information and an evaluation of the Saudi education systems. It will be divided into two major sections: the history of Saudi general education and the history of special education in the Kingdom of Saudi Arabia.
History of General Education

As previously mentioned, religion has played an important role in formulating early schools in the Kingdom of Saudi Arabia, even long before the Kingdom was established. Kuhttabs were places where Muslim children learned to read and write. Early basic schools were located within mosques. According to many scholars such as Sheaha (2004), these schools were specifically designed to teach children to read and write the Holy Koran. These schools also granted higher degrees in the study of the Holy Koran through a network of religious scholars (U. S. Government 2005, p. 120). Oliver (1987) states that education in the Arabian Peninsula was established when the founder of the Kingdom of Saudi Arabia himself, King Abdul-Aziz, established schools for his children and those of his relatives long before the Kingdom itself existed. Furthermore, Fouzan (1986) reported that the Saudi educational system in existence today, was not developed until after 1924, closely corresponding to the founding of the Kingdom of Saudi Arabia which did not occur until 1932. The education system as it exists today was not established until the 1950s (Saudi Directory of Education, 2006).

The special education system in Saudi Arabia has experienced a slow era of development, and the country’s system is currently trying to align with the global changes in educating students with learning disabilities. Since the initiation of the Kingdom’s social and economic development plans two decades ago, the focus has changed from imparting Islamic values to replicating overseas values such as those reflected in the NCLB legislation. The Saudi government is also focusing on providing modern and appropriate welfare means for persons with disabilities to help them adapt to
society and their environments, and to use their skills by taking into consideration their intellectual, psychological, physical, and livelihood characteristics.

Not only general and special education, but also higher education existed in the Kingdom for individuals who wished to attain higher education for the purpose of becoming teachers, either academic personnel and/or teachers in general, and special education teachers in particular. Since the establishment of the Ministry of Education, many universities have been opened to educate Saudis in general and to train teachers in many disciplines. These include King Saud University; Islamic University, founded in 1961; University of Petroleum and Minerals, founded in 1963; King Abdul-Aziz University, founded in 1971; Imam Muhammad bin Saud Islamic University, founded in 1974; King Faisal University, founded in 1975; and Umm Al-Qura University, founded in 1981. Many of these universities are still in the process of developing special education departments (Royal Embassy of Saudi Arabia, 2007).

Prior to the 1950s, girls in the Arabian Peninsula were not educated. Since the establishment of the Ministry of Special Education, many schools were opened to fulfill the educational needs of girls, and the Kingdom of Saudi Arabia has opened many schools and colleges to train girls in various disciplines. According to the Gladnet Collection: Country Profile on Disability: Kingdom of Saudi Arabia (2002) and Fouzan(1986), this is because the Kingdom of Saudi Arabia’s cultural values emphasize a segregation of the genders. There is no statistical data to justify this conclusion; however, it is likely true because, in the past, women did not seek employment after academic training. An investigational study by area, gender, and others factors is required to
improve education services in general and special education in particular. For religious and cultural reasons, Saudi females and males cannot learn together in the same academic environment. It has been hypothesized that this Saudi philosophy of segregation that applied to students in the past, caused students with special education needs to desire to be educated in the same gender-segregated environments as their typically developing peers.

The Ministry of Education provides special training to all populations of individuals, including typically developing children. Training of teachers in technical, vocational, and military spheres is also undertaken. There are privately run schools in the Kingdom of Saudi Arabia, most offering bilingual and/or special training, as well as facilities for students with special needs.

According to the Saudi Arabia Monetary Agency, the Ministry of Education (1987), and Maajeeny (1990), an example of the rapid changes and/or improvements in the Saudi education system occurred in the early 1980s. They note there were more than 11,000 schools throughout the Kingdom. Yet seven years later, in 1987, there were more than 20,000 schools educating 2.4 million men and women enrolled. According to the Federal Research Division of the Library of Congress (1993), these statistics are only for schools that were run by the government of Saudi Arabia. Maajeeny (1990) adds that “approximately 8 percent of the Kingdom’s total student population attended either private-run schools or schools run by government departments existing separately from the Ministry of Education, the General Presidency of Girls’ Education, or the Ministry of Higher Education” (p. 25).
The Data Center of the Ministry of Education, along with General Presidency of Girls’ Education (1992), indicates the educational system of the Arabian Peninsula has been engaged in cautious advancement. As of 1991-92, the total number of males and females enrolled in Saudi Arabian public schools was 2,759,831, including 1,315,606 female students and 1,444,226 male students. Many scholars, such as Maajeeny (1990), state these enrollment figures do not include private schools operated by other agencies.

To summarize, this section described the unique history of education in Saudi Arabia in chronological order, outlining the unique influences of Islamic beliefs, the Saudi King, and the establishment of the Ministry of Education in the 1950s. Also discussed was the shift of perspectives from traditional to liberal and local to global. As mentioned previously, now that the Kingdom of Saudi Arabia is more settled with regard to its external and internal political issues, the country has been able to respond to the new trend to educate students with learning disabilities in regular schools. The following paragraphs provide an overview of the Saudi special education services.

The History of Special Education

Unfortunately, early schools in Saudi Arabia had no place for children with disabilities because people of the Arabian Peninsula considered individuals with disabilities worthless and opted not to care for them. However, this did not mean children were ill-treated when they had a disability (Scheerenberger, 1983). Scheerenberger states that because of the caretakers’ strong Islamic beliefs, based on the Koran (verse 2:55), which states that people with special needs are considered innocent in the eyes of God, the treatment of children with special needs is appropriate, but is not educationally
adequate. Thus, according to Scheerenberger (1983), “Arabs, in many respects, were reportedly more humane and socially advanced in the treatment of the mentally deviant than was Western Europe during its infancy” (p. 22).

Even so, the Saudi educational system still did not reflect some of these religious principles, and progress with respect to children with disabilities has only been seen in the past 20 years. Scholars state the inclusion of children with disabilities did not evolve until well after 1924, when the Saudi Education Legislation was passed. The Directory-General of Special Education Programs reported that, in the 1950s, educating children with disabilities was only a theoretical concept. During the 1950s, there were only 65 primary schools in the entire Kingdom with an enrollment of 10,000 male students (Federal Research Division Library of Congress, 1993). Student enrollment, school establishment, and the establishment of special education programs have increased remarkably due to the establishment of the Ministry of Education in 1953. The Ministry of Education provides special training to all populations of individuals, including typically developing people and people with special needs. The training of teachers in technical, vocational, and military spheres is also undertaken. As previously stated, there are also privately run schools in the Kingdom of Saudi Arabia, most of which offer bilingual and/or special training, as well as facilities for students with special needs.

The special education system in Saudi Arabia experienced a slow era of development, and the country’s system is currently trying to catch up. As mentioned earlier, the plan to include students with special needs in the Saudi education system was
part of the government’s plan for education in the late 1950s. However, until 2002, traditional values still provided the foundation for the special education programs, and no effective mechanisms were in place to include and/or educate children with exceptionalities. In this regard, it should be noted that the Kingdom of Saudi Arabia is based on the Islamic Sharia system (religious law), which emphasizes human rights, ensuring that persons with disabilities particularly have the right to live with dignity and to benefit from welfare (Gladnet Collection: Country Profile on Disability: Kingdom of Saudi Arabia, 2002). The Sharia system of teaching involves the scrutinizing of religious law by religious scholars, who then condense each application and interprets how the religious law applies to modern ideas. These concepts cover every aspect of life, including instruction on hygiene, economics, work ethics, politics, and legal issues (Esposito, 2003). Combining and integrating this belief system with the education system provides for the care and education of all children with disabilities without prejudice. Because of pressing global political issues, implementation of specific care for people with special needs was not formally addressed on a national level until the mid-1900s. Until this time, people with special needs received society-based care at the local level, which varied according to regional resources.

The first milestone for the special education system in the Kingdom of Saudi Arabia occurred mainly through individualized efforts. At that time, the country did not even have teachers who were equipped to teach children with special needs. In 1949, a man who knew Braille taught his relatives’ and friends’ children who were visually impaired. Anecdotes suggest the informal Braille school had about 5 to 7 students when it
started. According to the Directory of Special Education in the Kingdom of Saudi Arabia (1981), the school expanded to a program that served 100 students with visual impairments. The program was an evening class that taught Braille methods. Recently, an institution for teaching Braille to students with visual disabilities, known as the Institute of Light, was established to educate and train people with visual impairments in Riyadh. This was the main source of special education services in the Kingdom of Saudi Arabia.

Once the evaluation of the program highlighted its outstanding results, the Ministry of Education launched similar programs providing services for other disabilities such as hearing impairments and mental retardation. According to scholars such as Al-Mansour (1983) in 1964, the Ministry of Education included two different programs serving students with hearing impairments. In the following years, the programs continued to expand and included many other categories of disabilities.

There were times when the Saudi special education programs failed to provide quality services to children with special needs. Nevertheless, the programs continued to grow. The motivation behind the Saudi special education system is its philosophy explicated by the Directorate General of Special Education programs in 1981:

The view that such education will help transfer the nation’s population of individuals with disabilities into… productive human resources capable of depending on themselves after God, and making a living and participating in building their own nation with confidence and security. (p. 5)
The Saudi special education system’s objectives have remained the same since special education services began in 1952. The following paragraphs present three sets of goals for special education services. The first, reported by Maajeeny (1990), has been rephrased to make more sense to the reader, while the second and third are the actual terminology presented in the objectives.

1. To promote equality among citizens.

2. To implement confidence.

3. To provide children with exceptionality with learning and training experiences by developing and training their sensory abilities, and using suitable aids in order to transform these children into more productive human resources capable of depending on themselves, making a living, and participating in building their nation with confidence and security.

4. To upgrade students’ education and knowledge level so that they will be productive citizens, and to alter the current misconception that students with disabilities need help and compassion but that they are not productive.

5. To give the children of the Kingdom of Saudi Arabia every possible chance to learn according to their abilities.

According to Maajeeny (1990) and the Director-General of Special Education Programs (1981), specifically outlined objectives concerning children with disabilities are reported in chapter nine of the Education Policy in the Kingdom of Saudi Arabia (1974) as follows:
188—within the limits of its resources, the state is concerned about the education of mentally and physically retarded children. Special and diversified educational and training program are set up to suit their needs.

189—the objective of this kind of education is to care for retarded individuals, provide them with Islamic and necessary general education and train them on certain skills that suit their nature in order to help them attain a higher standard of living consistent with their capacities.

191—concerned authorities shall set up a carefully studied plan to promote all branches in this field of education in achievement of its objectives. An organic law shall be enacted to organize this kind of education. (p. 34)

The Ministry of Education and the General Secretary of Special Education (GSSE) of the Kingdom of Saudi Arabia are aligned with the advice of many scholars who recommend the following when trying to reach the above-mentioned special education objectives:

1. Discovering the skills and inclinations of each child, and developing each of these skills through suitable activities and education.

2. Providing children with every educational opportunity, rewarding and helping them to achieve their highest potential.

3. Raising children to have an awareness of Islam and its morals and teaching.

4. Developing acceptable social behaviors in handicapped children, and preparing them for stable lives.
5. Providing stability for children, by way of medical, psychological and social care, and also helping them to learn to depend on themselves in every aspect of their lives, whenever possible.

6. Preparing handicapped children for public life so that they become productive members of society, able to support themselves, and productively participate with others.

7. Raising the awareness of others members of society to the various types of existing disabilities and the manner and ways in which one should associate with and relate to handicapped children as much as possible. (p. 865)

The previous section provided general information and an evaluation of the Saudi education systems. It was divided into two major sections: the history of Saudi general education and the history of special education in the Kingdom of Saudi Arabia. General education in Saudi Arabia began with basic teaching of the foundation skills of reading and writing. Then in the 1950s, the current special education system was conceptualized (Saudi Directory of Education, 2006). According to the Saudi Arabian Monetary Agency, the Ministry of Education (1986), and Maajeeny (1990), rapid changes and/or improvements in the Saudi education system occurred in the early 1980s with the introduction of different curricula and the introduction of special education.

The Saudi special education system’s objectives have remained the same since special education services began in 1952 due to internal and external political issues in the Kingdom of Saudi Arabia. The following section is a statistical overview of disabilities in the kingdom of Saudi Arabia.
Disabilities in the Kingdom

The Gladnet Collection: Country Profile on Disability: Kingdom of Saudi Arabia (2000) articulated that until 2002, Saudi Arabia defined disability under the Labor and Workman’s Law, Article 51. A person with a ‘disability’ is thus defined as “any person whose capacity to perform and maintain a job, to sit still and learn, has actually diminished as a result of physical or mental infirmity (p. 67). Figure 4 (The Economic Bureau, Kingdom of Saudi Arabia, 2000) shows the breakdown of the range of disabilities prevalent in Saudi Arabia.

**Disability-specific Data in 1997**

- Visual 29.9%
- Physical 33.6%
- Overtapping 13.4%
- Psychiatric 2.7%
- Intellectual 9.7%
- Hearing 10.7%

*Figure 4. Disability-Specific Data: 1997*

Figure 4 clearly shows that until 2000, visual impairments and physical disabilities represented the bulk of disabilities being served in Saudi Arabia. However, “despite medical statistics compiled by the Ministry of Health for its annual report, there
are no regular and reliable reports on disabilities including number, types of disabilities, amputee population, or geographical distribution” (Gladnet Collection, 2002, p. 8).

Shortly after 2000, Saudi special education experienced huge changes. Looking at the 2005–2006 special education statistics, one sees the data supports the opinion of the General Secretariat of Special Education (GSSE) mentioned earlier, that the Saudi education system has increased its services to include many new disabilities. In this regard, the GSSE (2004) reported,

Its role is the general overall planning and supervision of special education programs for children with special needs in the Kingdom, (i.e., gifted, disabled) ...

This includes: discovering those children, planning the suitable services and providing educational services in the least restrictive environment for those children. The number of students serviced by (GSSE) across the country has increased to 43,379 students distributed in 1,875 programs in the school year 2006. (p. 293)

As of 2006, there were huge changes in the reported statistics of disabilities in the Kingdom of Saudi Arabia. Currently, mental disabilities account for the largest number of students with disabilities being served in Saudi Arabia, followed by gifted and talented, learning disabilities, hearing disabilities, and finally students with visual disabilities. This is shown in Table 2 (The Ministry of Education, Saudi Arabia, 2006).
Table 2  

*Summary Statistics on Special Education: 2005 – 2006*

<table>
<thead>
<tr>
<th>Disability Type</th>
<th>No. of Institute Programs</th>
<th>No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hearing Disabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaf</td>
<td>214</td>
<td>5137</td>
</tr>
<tr>
<td>Hard of Hearing</td>
<td>84</td>
<td>1405</td>
</tr>
<tr>
<td>Total</td>
<td>298</td>
<td>6542</td>
</tr>
<tr>
<td><strong>Visual Disabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blind</td>
<td>134</td>
<td>1396</td>
</tr>
<tr>
<td>Low vision</td>
<td>2</td>
<td>2070</td>
</tr>
<tr>
<td>Total</td>
<td>136</td>
<td>3466</td>
</tr>
<tr>
<td>Mental Retardation</td>
<td>517</td>
<td>11163</td>
</tr>
<tr>
<td>Learning disabilities</td>
<td>761</td>
<td>9065</td>
</tr>
<tr>
<td>Gifted &amp; Talented</td>
<td>80</td>
<td>10824</td>
</tr>
<tr>
<td>Autism</td>
<td>35</td>
<td>330</td>
</tr>
<tr>
<td>Multi-disabled</td>
<td>47</td>
<td>347</td>
</tr>
<tr>
<td>Physical disability</td>
<td>1</td>
<td>1642</td>
</tr>
<tr>
<td>Total</td>
<td>1875</td>
<td>43379</td>
</tr>
</tbody>
</table>
Table 3 (The Economic Bureau, Kingdom of Saudi Arabia, 2000) shows disabilities in the Kingdom of Saudi Arabia by age. It is clear that learning disabilities (or intellectual disabilities, as they are commonly known) are being identified at school age.

Table 3

*Type of Disability by Age*

<table>
<thead>
<tr>
<th>Age</th>
<th>Physical</th>
<th>Visual</th>
<th>Hearing</th>
<th>Intellectual</th>
<th>Psychiatric</th>
<th>Overlapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>2.00%</td>
<td>1.60%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.20%</td>
</tr>
<tr>
<td>3-13</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>51.30%</td>
<td>23.70%</td>
<td>44.60%</td>
</tr>
<tr>
<td>14-24</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>26.60%</td>
<td>-</td>
<td>23.10%</td>
</tr>
<tr>
<td>25-60</td>
<td>-</td>
<td>41.10%</td>
<td>-</td>
<td>-</td>
<td>38.90%</td>
<td>-</td>
</tr>
<tr>
<td>60+</td>
<td>Majority</td>
<td>31.50%</td>
<td>39.60%</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Until 2002 in the Kingdom of Saudi Arabia, special education was mainly treated and diagnosed at the hospital level as shown in Figure 5 (The Economic Bureau, Kingdom of Saudi Arabia, 2000).
Figure 5. Prevalence by Disability Category

Note. Each category includes conditions as follows: (a) Congenital: cerebral palsy, mental retardation, spina bifida; (b) Metabolic: diabetes mellitus, malnutritional disease; (c) Bone and Joint: rheumatoid arthritis, osteoarthritis; (d) Hereditary: muscular dystrophies, hemophilia; (e) Traumatic: spinal cord injury, traumatic brain injury; (f) Infections: poliomyelitis, tuberculosis, leprosy, malaria; (g) Vascular: smoke, myocardial infection, Buerger’s disease; and (h) Others: cancer, collagen diseases, and other immunological diseases.

This is the only data available for the causes and diagnoses of disabilities in the Kingdom of Saudi Arabia. According to many scholars, there is little knowledge of the
incidences of disabilities in the Kingdom, and some of it is not comprehensible. For instance, the only information found on prevention, identification, and early intervention in the Kingdom of Saudi Arabia, according to the Gladnet Collection (2002), includes the following:

1. Genetic counseling for person with disabilities
2. Parental care, mental nutrition, growth retardation, and low birth weight
3. Nutrition support of inherited metabolic diseases
4. International legislation to ban land mines
5. Disability prevention for the elderly
6. Measures to prevent vehicle accidents
7. Child safety and injury prevention
8. Sports safety for all
9. Substance abuse
10. Terrorism
11. Mass media and public awareness

Although these services (prevention methods, identification methods, and some early intervention methods) exist, diagnoses and awareness of services are still lagging behind in the Kingdom of Saudi Arabia. The Gladnet Collection (2002) reported that,

Several royal foundations are quite active in terms of developing infrastructure for person with disabilities, but the type and qualities of services are not well known, as these institutes are still under development and not fully operational. Founders and contributors have only recently
recognized the most contributions have gone into the development of facilities and infrastructure. (p. 8)

Moreover, Figure 4 clearly shows that until 2002 disabilities were diagnosed from a medical point view, which meant that for many, it was thought that disabilities could be corrected through medical treatment and medication.

Great attention has been placed on persons with disabilities health care services rather than education and training, and there is very little attention given to helping persons with disabilities gain employment. Close family intermarriages appears to be a major cause of disabilities, rather than socio-environmental factors. (Gladnet Collection, 2002, p. 8)

The section above provided a statistical overview of disabilities and the government’s management of them in the Kingdom. According to The Gladnet Collection: Country Profile on Disability: Kingdom of Saudi Arabia (2002), mental disabilities account for the largest number of students with disabilities being served in Saudi Arabia, followed by gifted and talented, learning disabilities, hearing disabilities, and finally students with visual disabilities. The next section provides a review of the literature regarding the Saudi Disability-Related Central Government Organizations.

Disability-Related Central Government Organizations

The establishment of special education institutions and programs in the Kingdom of Saudi Arabia was through the efforts of many. Al-Keraigi (1989) noted the different agencies that helped the Ministry of Education in Saudi Arabia provide services for students with disabilities.
Different agencies provided assistance depending on the type of disabilities. These agencies include the Ministry of Labor and Social Affairs and the Ministry of Health. Private organizations have been formed to meet other needs. The Disability-Related Central Government Organizations (DRCGO) are comprised of the Ministry of Education, the Ministry of Health, and the Ministry of Labor and Social Affairs. Descriptions of these agencies and their goals can be found in Table 4. Since this research is concerned mainly with school-aged children, the focus of this discussion will be on the Ministry of Education and Voluntary Organizations. The reason is that the Ministry of Education provides services to all school-aged children with disabilities, whereas other ministries do not. The Ministry of Labor and Social Affairs provides services for all those over school age and offers rehabilitation and occupational programs. Finally, the Ministry of Health provides services to students with physical disabilities in the form of “physical therapy programs.” The following paragraphs explain these Ministries in detail.
Table 4

*Disability-related Central Governmental Organizations*

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Labor and Social Affairs</td>
<td>Supervises activities related to vocational rehabilitation and social adaptation of persons with disabilities</td>
</tr>
<tr>
<td>Ministry of Health</td>
<td>Provides healthcare services to persons with disabilities as well as disease control and prevention</td>
</tr>
<tr>
<td>Ministry of Education</td>
<td>Provides educational programs for persons with disabilities</td>
</tr>
</tbody>
</table>

*The Ministry of Education*

Education in the Kingdom of Saudi Arabia is controlled by the Ministry of Education. The Ministry itself has many divisions: the General Presidency for Girls’ Education, the Ministry of Higher Education, and the General Organization for Technical Education (The Ministry of Education, 2007). One defining principle of the Ministry of Education is that male teachers teach males and females teach female students, which provides an explanation for the subdivisions with reference to girls’ education within the Ministry of Education.

The education of students with special needs and their typically developing peers is one of the top priorities and important duties of the Ministry. The organization was established in 1953 to provide general education for students. Its duties included the
design of educational policy, curriculum, and teaching methods, as well as the
preparation of teachers and superintendents (Al-Hakeel, 1986; Al-Khaldi, et al., 2002;

Another important duty of the Ministry of Education in Saudi Arabia has been
the coordination of general and special education programs. It has made special education
service delivery to students much easier by formulating and building a service model for
teachers as well as students. The Ministry is also responsible for fostering communication
between children receiving special education services and their typically developing
peers. According to the report of the Gladnet Collection (2002), coordination between
persons with disabilities is intended to avoid duplication of service. Royal Decree No.
1229, dated 5/18/1984 (9/7/1376) established a joint committee comprised of
representatives of the three ministries mentioned above. The main tasks of the committee
are to: (1) provide suggestions and recommendations to officials on medical, education,
vocational, social welfare, and rehabilitation of person with disabilities, and (2) exchange
research and studies on disabilities-related topics and issues.

Of the three organizations listed above, the Ministry of Education’s mission is to
serve students with special needs who are school-aged. The other general programs, of
which the Ministry of Education is one, are to insure that the sub-programs are doing
their work effectively. According to the Gladnet Collection: Country Profile on
Disability: Kingdom of Saudi Arabia (2004):

The Ministry of Education operates the Noor Institute for the Blind, the Amal
Institute for the Deaf, and the Institute for the Intellectually Disabled. Meanwhile,
the Ministry of Labor and Social Affairs operates the Rehabilitation Center in Riyadh, Taif and Dammam, the Social Rehabilitation Center for the Severely Disabled in Riyadh, Al-Ahsa, and Medinah, the Comprehensive Rehabilitation Center in five regions, the Institute for Paraplegic Children in Riyadh and Taif, and the Social Welfare Center for the Elderly in seven major cities. (p. 10)

The Institute for Blind, the Institute for Deaf, and the Institute for Mental Retardation not only serve students with special needs academically, but also culturally and medically. These institutes are similar to boarding schools. Children with special needs are admitted to these schools on weekdays and nights and only go home for the weekends. This is comparable to institutions for students with disabilities that existed in the United States in the 1970s. These institutions are discussed more fully in later sections of this chapter.

Until recently, the Ministry of Education served students with special needs in segregated schools (GSSE in Saudi Arabia, 2004). The Ministry provides a segregated education for students with disabilities, no matter the type of disabilities, through three different types of institutions. These include institutes for students with hearing impairments, institutes for students with mental retardation, and institutes for students with visual impairments. The Saudi Gazette (1986) reported the Secretary of the Associations articulated the aim of these institutions was to “help those unfortunate ones to overcome their shortcomings and train them, whenever possible, to mange their lives, and to build them psychologically in order to feel normal” (p. 3).
In past statistical reports of special programs in Saudi Arabia, it is clear the Ministry of Education created four programs to cover all the primary education levels and beyond: pre-schooling (preparatory), primary, intermediate, and secondary. However, the quality of the academic content and the level of schooling vary from one institution to another depending on the districts. Even though Saudi Arabia has a national curriculum, the academic content for students with disabilities varies according to the child’s age and academic level. Additionally, the academic instruction also varies with regard to teacher qualifications. There are teachers who teach students with special needs who are not fully qualified to deal with children with exceptionalities. Accordingly the Saudi directory indicates:

The Saudi director of special education, which supervises the education of blind, deaf and mute, and the mentally and physically retarded, has adapted and modified the general education curriculum to meet the needs of this group of learners. The director has recognized that these children have the right to free education, the right to free medical services at health centers, the right to financial support and the right to a supportive social environment. (Campbell, 1985, p. 145)

*The Ministry of Special Placement in the Saudi Programs Systems*

How does the Ministry of Special Education fit in with these other four programs? The Ministry of Special Education is designed to care for people with special needs in terms of diagnosing and developing appropriate means to refine their abilities, establishing plans and programs for their education and upbringing. In addition, the Ministry of
Special Education is dedicated to educating them in the least restrictive area according to their abilities and potential.

After Saudi’s 2005 amendment requiring special education to integrate students with learning disabilities, the ministry provided the public with an update in its policy and requirements, including the creation of the Department of Learning Disabilities. The guidelines for the new policies were established by a superintendent educator of LD in the special education department, Suleiman bin Abdul Aziz Abd Latif in 2005. They were then reviewed and approved by a specialized consulting group, Learning Disabilities Consulting Group, followed by a second review from Secretariat of Special Education Yasser a Habib Ben Ahmed and a third review by Mohammad Bin Abdul Rahman Salem, who supervises the department of educators of people with learning disabilities (For lists of policy updates and requirements, see Appendix B).

The previous sections discussed education in the Kingdom of Saudi Arabia controlled by the Ministry of Education. The Ministry itself has many divisions: the General Presidency for Girls’ Education, the Ministry of Higher Education, and the General Organization for Technical Education (The Ministry of Education, 2007) and the Ministry of Special Education. Until recently, the Ministry of Education served students with special needs in segregated schools (GSSE in Saudi Arabia, 2004), but as of 2005, the Ministry of Education required that students with learning disabilities (LD) be integrated into regular public Saudi schools.
CHAPTER 3: REVIEW OF THE LITERATURE

The purpose of the first section of this chapter is to provide an overview of the literature on learning disabilities (LD). The Kingdom of Saudi Arabia is only in the early stages of LD research. Since the Ministry of Education has mainly adapted the United States’ LD education models and borrowed from the models of other industrialized countries, much of the literature on LD in Saudi Arabia is derived from Western research. This Western bias is evident in the emphases of LD literature in Saudi Arabia, the discussions of effective methods to educate students with LD, as well as in the legislation of programs which contain students with learning disabilities.

Lerner (2003) stated that due to the complexity of LD and differences in the types of LD, professionals from various scientific disciplines outside of education are attracted to studying LD, particularly researchers from the fields of psychiatry, neurosciences, psychology, and sociology. As various disciplines explain the phenomena from different perspectives (Fuchs, Fuchs, Mathes, Lipsey & Roberts 2002; Fuchs & Fuchs, 1998; Fuchs & Fuchs, & Speece, 2002; Fulcher, 1989; Hallahan, 1992; Nelson & Sandin, 2005; Reid, 1984; Reid, & Valle, 2004). Literature from these disciplines has influenced how teachers conceptualize LD.

Definitions of Learning Disabilities

To date, there are major debates about how to define learning disabilities (LD). Professionals disagree about how to define learning disabilities due to this contention and the elusiveness of LD terminology (Francis, Stuebing, & Shaywitz, 1994; Francis, Shywitz, Stuebing, Shywitz, Fletcher, 1996; Meyer, 2000; Stangvik, 1998; Stanovich,
The controversy around how to define LD relates to the disabilities themselves. The fact that the term ‘learning disabilities’ refers to a range of various types of learning difficulties, such as dyscalculia (impaired ability to learn grade-appropriate mathematics), dysgraphia (impaired ability to learn to write), and dyslexia (impaired ability to learn to read), makes it a more challenging concept to define. Yet again, not only do learning disabilities vary from one individual to another, a person with LD can have multiple learning disabilities (Fletcher, Morris & Lyon, 2003; Fletcher, Coulter, Reschly & Vaughn 2004).

Despite these challenges, Fletcher, Morris and Lyon (2003) provide a general concept of learning disabilities:

Learning disability (LD) is a general term which describes a specific kind of learning problem. A learning disability can cause a person to have trouble learning and using certain skills. The skills often affected are reading, writing, listening, speaking, reasoning, and doing math. (p. 11)

Thus, from this definition, one can infer that persons who have learning disabilities have difficulty interpreting and/or linking what they see/hear to various parts of their brain. Accordingly, a person with a learning disability might have specific difficulties with spoken and written language, coordination, self-control, or attention. According to the previous phenomena, professionals came up with specific learning disabilities (SLDs). Even though students with LD/SLD may look like their typically developing peers, they are not. Students’ inability to read, write, or calculate numeric values often negatively affect their schoolwork. Because of the multidisciplinary nature of the field, there is
ongoing debate on the issue of defining learning disabilities; currently, at least 12 definitions appear in the professional literature. Of these, there are several technical definitions supported by various health and educational sources. Overall, most experts (Epps, Ysseldyke, McGue, 1984; Klatt, 1991; Lyon, Fletcher, Shaywitz, Shaywitz, Wood, Schulte et al, 2002; Ysseldyke, Algozine, Shinn & McGue, 1982) agree on the following definition:

A learning disability is a neurological disorder that affects the brain’s ability to receive, process, store, and respond to information. The term *learning disability* is used to describe the seemingly unexplained difficulty a person of at least average intelligence has in acquiring basic academic skills. These skills are essential for success at schools and work, and for coping with life in general. (Pieragelo, 2006, p. 33)

Aaron (1997) suggests that in the United States, perceptual and communication disorders should be added to this definition. This idea is evident in a concept which defines a learning disability as a “specific learning disorder that causes a discrepancy between actual performance and the level at which professionals and parents think they should achieve, when this discrepancy is not due to any identifiable physical disability” (p. 135).

The Saudi education system does not have a current working definition for LD specifically authored by the Ministry of Education. However, it appears that both the U.S. and Saudi Arabia define LD equivalently (Al Saloom, 1995). Keeping in mind the Saudi system just started serving children with learning disabilities and the lack of LD literature
in the Kingdom of Saudi Arabia and in nearby countries, the Individuals with Disabilities Education Act (IDEA) guidelines for learning disabilities definition were used in this study:

A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Such a term does not include children who have learning problems, which are primarily the results of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage (U.S. Department of Education, 1997, p. 3).

This definition has received some criticism in the United States. Many scholars thought it was vague. Controversies regarding the nature and definition of learning disabilities and identification criteria still inhabit the fundamentals in the field, leading many to describe LD as challenging to identify or clearly define (Adelman, 1995; Adelman, 1992; Christensen, 1999; Kavale & Forness, 1998; Keogh, 1983, Kidder-Ashly, Demi & Anderton, 2000; Klatt, 1991; Sleeter, 1986). According to many scholars, there are mainly three problems with definitions of LD:

First, the definition caused a rift between those who supported the importance of identifying underlying causes of learning disability, such as
psychological processing disorders, and those who did not. Second, the
definition alienated adults with learning disabilities by referring only to
children. Third, the definition included an ambiguous exclusion clause that
did not clearly state that learning disabilities can exist with other
disabilities but cannot be the result of them. This creates confusion in the
field. (Ysseldyke & Algozzine, 2006, p. 565)

The previous section provided an overview of LD concepts as defined in federal
documents and in noteworthy LD literature. The following section explores the history of
LD literature.

History of Learning Disabilities

Piecing together the history of learning disabilities (LD) is a very difficult task
due to the nature of LD, which is composed of various assumptions and concepts from
various disciplines to the extent that, on the surface, one does not see any connection
between the various disciplines which explain LD. The history of LD is divided into
several chronological periods (Falik, 1995; Fletcher, Morris & Lyon, 2003; Lerner, 2000;
Norwich, 1993). Accordingly, the history of LD will be explained using Hallahan and
Mercer (2002) and Lerner’s (2000) historical framework, which includes the Foundation
Era (1800-1923), the Transition Era (1930-1960), and the Emergent Era (1960-1975).

The Foundation Era (1800-1923)

Samuel Kirk (1963) has been credited as the father of the LD field. However, the
study dates back to the early 19th century, when scientific researchers were interested in
the human brain. The Foundation Era (1800-1923) is divided into two periods: the
Disorder of Spoken Language Period and the Reading Disorder Period. During these two periods, researchers significantly advanced our understanding of LD.

The human brain is the source of all human intellectual activities (Gardener, 1983; Zawidzski & Bechtel, 2005). Nevertheless, in the early 1800s, the human brain was depicted as a single entity which functioned in a uniform manner (Head, 1963). The single entity notion was disputed by Franz Joseph Gall (1758-1828), a German physician. Gall alleged that the brain is composed of different parts, each localized in different areas and each accountable for different practical intellectual tasks. Hence, Gall’s theory was called the Localization Theory (Zawidzski & Bechtel, 2005).

According to Head (1963), Gall’s theory of the brain led him to formulate his Ox Eye Theory during his childhood when he noticed that some of his classmates outshined him when memorizing school materials. Head noticed that these classmates had prominent eyes. Consequently, he hypothesized their significant verbal memory was located behind the eyes’ orbits and that large protruding eyes were a sign of outstanding rote memory (Finger, 2000). Many years later as a physician, Head advanced this notion by researching his theory that verbal memory was located behind the eyes’ orbits and that large eyes were evidence of this. Head distinguished 37 mental and moral areas located in different parts of the brain, yet he still could not prove his theory, then termed ‘brain localization,’ until he studied soldiers who suffered brain damaged after head injuries. Head uncovered a link between brain injury in the left frontal lobe and language disorders. This finding provided support for his theory that verbal memory was located
behind the eyes’ orbits and large protruding eyes were signs of subjects’ outstanding rote memory (Head, 1963).

Later, Head’s ox eye discovery was surpassed by his theory of “phrenology.” He argued the shape of skulls and their measurements could significantly estimate a person’s mental and moral abilities (Head, 1963). To test his theory, some of Gall’s students used phrenology to measure the size and the shape of people’s skulls as well as to examine facial expressions to calculate their intellectual abilities. However, many scholarly physicians believed that phrenology was a pseudoscience.

The notion of phrenology was disproved in the 1830s by John Baptiste Bouillaud, a neurological physician. However, when Bouillaud reviewed Head’s notion of the localization of brain functions, he was able to verify Head’s theory, using primarily clinical assessments of brain autopsies to analyze the relationship between brain and language (Finger, 2000). Bouillaud’s work opened the field to the scientific investigation of the brain. In subsequent years, several influential professionals continued with this research. Some parts of the brain were even named after Head and Bouillaud’s predecessors: the Broca, the Jackson, and the Wernicke. In 1861, John Baptiste with his anthropologist colleague, Pierre Paul Boca, asserted that the localization theory was a credible foundation for examining the brain of his most famous patient, Tan. A 50-year-old patient, Tan had endured a form of epilepsy which impaired his speech and comprehension. When Broca carried out an autopsy of Tan’s brain, he found progressive, severe lesions in the third frontal convolution of his brain’s left hemisphere (later called
aphasia). This discovery explained why the patient was unable to communicate effectively with words.

Hughlings Jackson’s interest in aphasia in 1868 led to significant results regarding hemispheric dominance which, in turn, influenced theories about the causes and the sources of LD. When Jackson closely studied his aphasic patients, he discovered they performed well when undertaking perceptual tasks. In addition, Jackson hypothesized that damage to the right hemisphere causes impaired spatial and perceptual functioning. Jackson articulated that the left and right hemispheres are specialized for different types of functioning. He determined that left hemispheres are associated with language, while right hemispheres are more specialized in perceptual and spatial functions (Finger, 2000).

With the rapid development of the field of spoken language disorders, in 1974, neurological scientist Carl Wernicke recognized a special form of aphasia he later called sensory aphasia while studying human speech disorders. Wernicke proposed this type of sensory aphasia resulted from damage to an area of the brain in the left temporal lobe. A patient with damage in that area may have trouble with the semantic meaning of a language even when producing speech typically (Zawidiki & Bechtel, 2005). This explicit type of language disorder was different from the disorder described by Broca. Thus, this disorder was called sensory aphasia or Wernicke’s aphasia (Finger, 2000).
The Transition Era (1930-1960)

The mental hygiene movement which occurred during the 20th century in the United States led to the American school and education system being a global leader in dealing with students who have special needs in general and LD in particular. Samuel Orton is one of the scholars credited with founding the Reading Disabilities Association of America and trying to help children with reading disabilities or difficulties (Hallahan & Mercer, 2002). Orton started his career in 1930 from his mobile clinic in the state of Iowa, where he investigated and assisted schoolchildren with learning and reading problems. After noticing varied challenges which seemed somewhat dependent on children’s age, he narrowed his investigations to 10-year-old children with readings/learning issues. Through scientific methods, Orton was able to justify his theory that reading disabilities are different from what had been proposed previously by many
scholars, especially by Torgesen (2004). Orton’s hypothesis, which he called sterphosymbolia or twisted symbols, stated that learning disabilities (or “reading difficulty,” as it was known in his time) originated due to a delay, or failure, in the launch region for language found in the brain’s left hemisphere. He supposed that reading disabilities were not due to damage or deficits to the angular gyrus, as Torgesen argued in his findings (Bender, 2004). Rather, Orton contended that sterphosymbolia, or twisted symbols, meant that children with veteran reading difficulties reversed words (e.g., saw-was, not-ton) or letters (e.g., b-d, p-q).

An era called Goldstein Shift occurred right after the mental hygiene movement. Scholars during the Goldstein Shift Period were influenced by earlier investigations of the brain. In particular, these researchers considered how earlier scholars’ (e.g., Gall, Broca, and Hinshelwood) assumptions influenced their work and their findings of language-related disorders – those of speaking, writing, and reading – which they named among others, aphasia and alexia (Goldestein, 1967; Widerholt, 1978). Nevertheless, in the 1930s, there was a shift in theories of LD. While there were professionals who agreed with Alfred Strauss and Heinz Werner, theorists Curt and Goldstein and others agreed with the interoperation and observation of the association between the brain and human behavior, as well as the conceptualizations of Strauss and Werner.

According to Hallahan and Mercer (2002), neurologist Goldstein was the first person to refer to emotional and behavioral issues as “brain injury.” He was able to do this through his work with patients who were soldiers during World War I. Goldstein justified his investigations by saying that many of his head/brain-injured patients
demonstrated clear signs of several behavioral and emotional issues, such as hyperactivity, compulsion, confusions, stiffness, and catastrophic reaction (Hallahan & Mercer, 2002). Consequently, Goldstein stated brain injuries are not the source for specific problems. At the same time, he said injuries play a role in a series of behavioral, emotional, and perceptual disorders affecting many aspects of people’s abilities (Hammill, 1993; Kavale & Forness, 2003).

In the United States, the history of LD is called the “Strauss & Werner and the foundation of the LD field” era. Goldstein’s study and his findings significantly influenced the field of special education, even more so the field of LD. Although Goldstein’s work dealt with adults, other researchers have applied his ideas to children (Hammill, 1993). For instance, Kavale and Forness (2003) and Torgesen (2004) stated that both Heinz Werner, a developmental psychologist, and Alfred Strauss, a neuropsychiatrist, laid the groundwork for the views currently held on LD, introduced by Goldstein. Hallahan and Mercer (2002) declared that both Werner and Strauss’ investigational findings supported Goldstein’s conclusion that students with cognitive disabilities show signs of behaviors similar to adult patients with brain injuries. Hence, Werner and Strauss hypothesized there are differences between the two types of mental retardation: ahría mental retardation, caused by pre-natal brain injury, and endogenous mental retardation, traumatic brain injury that happens after birth (Kavale & Forness, 1995). Presently, traumatic brain injury which occurs after birth is not considered mental retardation in the United States.
When Strauss and Werner made this assertion, they greatly influenced the field of special education in general and the field of LD in particular. According to them, the first group, students with exogenous mental retardation, usually score average or above in standardized testing and their mental abilities are average and above. Their problems stem more from emotional disturbances as well as from some learning difficulties. When compared, they found students with exogenous mental retardation caused by brain injury, experienced behavioral and emotional symptoms parallel to the conditions of the brain-injured soldiers studied by Goldstein. The second group, students with endogenous mental retardation, includes students with mild and moderate cognitive disabilities, who also have distinctive emotional and motor disabilities. Students with endogenous mental retardation were said to experience figure-background confusion and tended to be more hyperactive, impulsive, and timid (Hallahan & Mercer, 2002). It was significant to link exogenous conditions with what had been theorized by Goldstein. Torgesen (2004) contended that exogenous is a disorder which involves psychosomatic processes, meaning it affects the person in general rather than resulting in specific deficit disorders such as aphasia or dyslexia. Thus, each and every behavioral issue demonstrated among students with exogenous disorders was linked to a brain injury.

For this reason, Lerner (2000) reports that both Strauss and Werner called the condition “brain injured syndrome.” Although they failed to prove this condition originated from brain damage, they still referred to it as brain injured syndrome. Their concept was an alternative to the concept of minimal brain damage presented by Strauss (1974). Later, the name of the syndrome was rejected by professionals in the field of
special education, who believed the term ‘damage’ implied a structural abnormality in the brain, while the term *dysfunction* signifies that a brain injury could exist regardless of brain functions’ unsubtle deviations (Kavale & Forness, 1995, p. 44). For that reason, the analytical type of minimal brain damage was called *minimal brain dysfunction* (MBD), which was used in a wide range of clinical situations to describe children with a range of difficulties, such as attention issues, hyperactivity, visual/perceptual motor deficits, as well as learning intricacy (Hallahan & Cruickshank, 1973).

*The Emergent Era (1960-1975)*

According to Torgesen (2004), in the early 1960s there were no references to ‘learning disabilities,’ as they are now termed. There were, however, scholars with interests in continuing research in the areas related to children who seem typically developing yet exhibit learning and reading problems. This was evident in the many medical terms used during this period, for instance, *developmental aphasia, word blindness, dyslexia, brain injury, perceptual disability, and minimal brain dysfunction.* Kephart, Frostig, Cruickshank, and Kirk’s work helped further develop the emerging field of LD research specifically. The following will discuss some of their works and contributions to the field of LD.

Samuel Kirk is the most famous professional in the field of learning disabilities. Utilizing his background in neurology, physiology, and experimental psychology, he developed an outstanding program for the diagnosis and treatment of children with severe reading problems in the 1930s (Hallahan & Mercer, 2002). Then in 1949, Kirk established the first investigational study for preschool children with mental retardation.
Consequently, he advanced the development of techniques for recognizing children with mental retardation and perceptual disabilities.

After a time, the field of special education was influenced in 1963 by Kirk’s proposition to change references to ‘perceptual handicapped children’ (children with perceptual disabilities) to ‘students with learning disabilities.’ This occurred when Kirk attended a conference organized by both professionals and parents, affiliated with the Association for Children with Learning Disabilities (ACLD). While addressing the issues of "perceptual handicapped children" at the conference, Kirk was asked by a notable professional in the field to change the reference ‘perceptual handicapped children.’ Kirk rationalized that the change to ‘learning disabilities’ (LD) should include the medical language which was used to depict the condition and that LD logically exemplifies these conditions within educational contexts (Bender, 2004; Hallahan & Mercer, 2002). Many scholars stated that both brain dysfunction and/or learning disabilities as labels delineating these conditions mirror the discrepancy and/or the disparity flanked by medical professionals and psychologists as well as teachers’ debates about the nature and methods for diagnosing MBD (mental brain dysfunction) and LD. (Kauffman, 2001; Kaufman, Agard, & Semmel, 1985; Kaufman, Gottlieb, Agard & Kukic, 1975; MacMillan & Siperstein, 2002; MacMillan, Gresham & Bocian, 1998; MacMillan, Jones, & Meyers, 1976; MacMillan, Jones & Aloia, 1974; MacMillan, 1971)

Clement (1966) affirmed that medical professionals characterized children with MBD, or minimal brain dysfunction, as students who exhibit and experience:

1. hyperactivity,
2. perceptual-motor impairments,
3. emotional disturbance,
4. general coordination defects,
5. disorders of attention, such as short attention span, distractibility, preservation,
6. impulsivity,
7. disorders of memory and thinking,
8. specific learning disabilities, such as reading, writing, arithmetic, and spelling,
9. disorders of speech and hearing, and finally
10. equivocal neurological signs and electroencephalographic (EEG) irregularities (p. 565).

In view of the above complex characteristics, it was recently argued that the category MBD integrated learning difficulties next to hyperactivity and attention problems. Lerner (2000) argued this made it complex to characterize and accommodate such hefty and complex conditions/disorders. Thus, learning disabilities and what is now called ‘attention deficit-hyperactivity disorders’ (ADHD) were grouped together; LD was thereby separated from “behavioral characteristics without reference to brain dysfunction or etiology” (Kirk, 1972, p. 43). Torgesen (2004) suggested there is an urgent need to generate characteristics which are distinctive of special education from the characteristics already known for accommodation and adaptive curricula. This is a significant issue in empowering teachers to beneficially accommodate the needs of children using the best possible techniques. Kirk (1972) stated that:
Since all behavior, normal or abnormal, is related to brain function, it is not of benefit educationally to infer brain dysfunction from behavior. It is difficult to find the dysfunction in the brain, and even if it is found, little can be done about it. For pragmatic purposes, the task is to delineate within a child the basic behavior disability or disabilities and organize a remedial program for the amelioration or correction of the disability. (p. 44)

The above sections discussed the historical roots of learning disabilities, conceptualizations, and developments in the field of LD research, and the medical models from which LD conceptualizations evolved (Christensen, 1995; Poplin, 1988).

Recognizing and Defining Learning Disabilities

In 1968, the U.S. Office of Education established the National Advisory Committee on Handicapped Children (NACHC), chaired by Samuel Kirk. The agency’s main goal was to create a definition of LD which teachers could use as a principle rule when identifying or instructing students with LD characteristics, and as a basis for categorization, policies, and funding assessments for programs which serve students with LD. NACHC defined LD in the Public Law 91-230, the Children with Specific Learning Disabilities Act of 1969. The year 1969 was the first time in history that LD was recognized as a distinct disability in the field of special education services (Kavale & Forness, 2000; Torgesen, 2004). The NACHC definition of LD states:

Children with special (specific) learning disabilities exhibit a disorder in one or more of the basic psychological processes involved in understanding or using spoken and written language. These may be
manifested in disorders of listening, thinking, talking, reading, writing, spelling, or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, developmental aphasia, etc. They do not include learning problems which are due primarily to visual, hearing, or motor handicaps, to mental retardation, emotional disturbance, or to environmental disadvantages (cited in Lerner, 2000, p. 16).

Years later, in 1975, Public Law 94-142 was passed by the United States Congress; it was titled the Education for All Handicapped Children Act (EAHC), recently renamed the Individuals with Disabilities Education Act (IDEA). The law significantly altered the field of special education by increasing special education services for students with learning disabilities across the county (Lerner, 2000). Since 1969, the legislative definition for LD has not changed significantly.

There are 11 diverse definitions of LD in the literature of the field of special education (Hammill, 1990). The most cited and common definition of LD, however, was advanced from an assembly of significant LD organizations and professionals, the National Joint Committee on Learning Disabilities (NJCLD) (Lerner, 2000). According to NJCLD, learning disabilities are inherent disorders caused by central nervous system dysfunctions which could happen at any time during a person’s lifespan (Spear-Swerling, 1999, p. 54). In addition, according to Torgesen (2002), NJCLD disregarded controversial perceptions of LD as “basic psychological processes” (p. 34).
As was mentioned above, there is not one specific definition of LD; and there is a serious controversy over establishing a universal definition for LD. One could argue, though, among professionals labeling students with learning disorders/disabilities, there is general agreement regarding the key characteristics as well as components which help professionals conceptualize learning disabilities (Hammill, 1990; Mercer, Jordan, Allsop, & Mercer, 1996).

There are five different categories of characteristics in LD literature. A *biological component* is the first category. In it, situational learning disabilities are intrinsic to the individual and originate from a central nervous system dysfunction, meaning this category of disorders is due to a neuropsychological deficit and/or difference (Kirk et al., 2003). A second category of characteristics involves a *process component*, whereby children with learning disabilities display deficits in basic psychological processes (Mercer et al., 1996). The third category involves an *academic component*. These characteristics are evident in students’ inabilities and/or difficulties with learning to read, write, spell, or do mathematic calculations and reasoning. The fourth category involves an *exclusion criteria* which results from students experiencing difficulty learning due to other disabling conditions or environmental, cultural, and economic factors. Finally, the *intelligence component* refers to situations in which students with LD are not achieving in accordance with their presumed ability or potential (Kirk et al., 2003).

**Operational Definition for LD in Classrooms**

Defining LD is a critical issue when a child who experiences academic difficulties in school is identified with a LD (Hammill, 1993; Kavale & Forness,
because there is no universal definition for LD or procedures teachers and/or school
systems can use to identify children with LD (Lerner, 2000). Debates over whether to
include basic psychological components make it hard for professionals to commit to any
one operational definition for LD (Hammill, 1990). Christensen (1999) argued this lack
of agreement is in part due to the persistent difficulty in locating the brain deficits and
neurological impairments responsible for learning disabilities (Kavale, Forness, &
Bender, 1987). Premature learning disability or learning difficulty identification alerts
specify the basic psychological processes by deficits. Nevertheless, in the 1960s and
1970s, unsuccessful attempts to establish LD evaluation and training programs made
some professionals think about the validity and practicality of the psychological
processes in identification practices (Hallahan & Mercer, 2002).

In The Federal Register in 1977, the U.S. Office of Education advocated that the
concept of “severe discrepancy” be utilized to distinguish between intellectual ability and
achievement, in order to recognize if a child has LD or not (Hallahan & Mercer, 2002;
Schools use the aptitude-achievement discrepancy model to decide if a student has a
specific learning disability by seeing if there is a severe discrepancy between
achievement and intellectual ability in one or more of the following seven areas:
oral expression, listening comprehension, written expression, basic reading skills, reading
comprehension, mathematic calculations, or mathematics reasoning (Algozzine &
Ysseldyke, 1983).
The work of two special education teachers, Rutter and Yule, further supported using Kavale and Forness’ (1995) discrepancy model. Rutter and Yule’s (1975) participants were children whose reading scores were at least two standard points below the scores projected on the basis of their ages and IQs, creating a “hump” in the tail end of the distributions of residual scores. This led Rutter and Yule to hypothesize there are two subgroups of poor readers: those with specific reading retardation, differentiated by a severe discrepancy between observed and expected reading achievement; and another group with general reading backwardness whose reading problems were predictable based on IQs and age (Vellutino, Scanlon, & Lyon, 2000).

Because there was no method or technique schools which could use to measure intellectual ability or to explicitly justify how to determine severe discrepancies, this was developed at the federal level (Spear-Swerling, 1999). School district and federal suggestions for utilizing IQ and standardized achievement tests to determine discrepancy between ability and achievement were the major procedures for identifying LD students in most American schools (Commission, 2001; Frankenberger & Franzaglio, 1991; Mercer et al, 1996). Although there was notable condemnation of the discrepancy model among teachers and researchers, its use was crucial to the establishment of the LD field. The LD field advanced due to widespread use of the discrepancy model, presumably lending objectivity to the identification of children with learning disabilities.

The above section summarized the difficulties associated with identifying children with LD as well as controversial issues of concern when assessing students for LD (Kavale, Forness, & Bender, 1987). This problem is, of course, further complicated
when one considers diverse educational settings, especially in countries outside of the U.S. where there are different cultural and contextual considerations when defining LD.

**Identifying Learning Disabilities**

The process and procedures for identifying a child as having a learning disability, especially if a child is diagnosed as having one of the high-incidence disabilities, is complex. Moreover, the negative connotation associated with such a label cannot be overlooked (Kavale & Forness, 2003; Felton, 1993; Ferri, Connor, Solis, Valle & Volpitta, 2004; Turnbull & Turnbull, 2001). Thus, the process of LD identification is believed to be the most significant process in the field of special education (Turnbull, Turnbull, Shank, & Leal, 1999; Spinelli, 2002). This is largely due to three significant responsibilities: (a) making a binary decision as to whether or not the child’s problem is considered typical or atypical, (b) reaching a judgment regarding how to classify the problem specifically, and (c) designing educational programs to meet the needs of the classified student (Lerner, 2000; Merrell, 2003).

The United States amended a law stating teachers are responsible for setting guidelines and principles when determining students’ eligibility for special education services. The Individuals with Disabilities Act (IDEA) requires several procedures and standards to guide the decision-making process for diagnosis and eligibility for special services. The IDEA aimed to strengthen regulations to encourage fair and objective evaluation practices (Overton, 2003; Turnbull et al., 1999). Furthermore, the idea of providing general information on who should receive LD services, what should be the nature of these services, and how teachers can contribute to the decision-making
processes related to educating students with LD were all central concerns for IDEA (Spinelli, 2002).

Lerner (2000) contends that procedures for identifying students with LD should recognize the existence of challenges in the planning of special education services. Usually planning involves several stages: (a) informal referral and pre-referral intervention, (b) the formal referral, (c) the nondiscriminatory, multidisciplinary assessment, (d) eligibility decisions, and (e) case conferences and the development of an Individualized Education Plan (IEP).

The first step is officially determining if a student has a learning disability, and if s/he does, whether it is a moderate form of a disability or a more severe form. In many situations, it is determined that a child has no disabilities. Learning difficulties can be linked to school competence and a school’s inability to deliver academic instruction with the techniques and methods which are appropriate for individual children (Bender, 2004). According to Pierangelo and Giuliani (2002), generally there are three ways a student may be referred for LD identification: (a) if teachers ask the student to allow parents to evaluate the student’s performance more closely; this may be due to the injury of a student much less than their peers at a particular type of treatment and measuring school will alert to any potential problem might occurs; (b) when a teacher notices the student is performing below expectations because of his age, grade, or behavior which is disruptive to the extent that it impacts their learning; and lastly, (c) when the student or parents request their child be evaluated and considered for special education services. When
parents request an evaluation of their children, an evaluation must be done. Parents have a legal right to have their children evaluated for LD services.

During the 1980s, the number of students identified with LD significantly increased (Ysseldyke, Vanderwood, & Shriner, 1997). In addition, the high number of minority students in special education spurred a heated controversy about the effectiveness and quality of both public and private education. Thus, some teachers called for the use of pre-referral interventions. Pre-referral intervention was not only conceived as a strategy to reduce the number of students identified as needing special education, but also to strengthen the capacity of public education to accommodate a wide range of students.

The goal of pre-referral intervention is to intervene immediately. The interventions are structured to help teachers who experience difficulties instructing students with LD (Turnbull et al., 1999 and 1975). Overall, pre-referral interventions are based on the problem-solving approach, which includes identifying the nature of a student’s problem, finding a set of alternative solutions, and building a plan which can be implemented, as well as a means to evaluate whether the plan is working. This systematic process is intended to provide regular teachers and students who have learning difficulties with the appropriate support (Fuchs, Fucha, Bahr, Ferstorm, & Strecker, 1990). When Mercer et al. (1996) investigated students with LD and the notion of overrepresentation and underrepresentation, they found that most U.S. schools require some form of intervention before going on with any formal evaluation. However, if the goals of the pre-referral process are not met in terms of a pre-referral timeline, then the formal referral
phase takes place. This phase involves formal and legal identification and a request to assess a student to ascertain whether he or she has a disability and, if so, the nature and extent of his or her special education and related services (Turnbull & Turnbull, 2001, p. 238). Ysseldyke et al. (1997) said this phase changed the special education referral process to a placement in special education services process. They indicated approximately 90 to 92% of referred students are evaluated, and 70 to 74% of evaluated students are determined to be eligible for special education.

The formal phase involves a comprehensive formal evaluation to determine whether the student has a disability or not, and then if a child is eligible for an Individualized Education Plan. Researchers suggest an appropriate placement and education plan which fits a child’s needs and is conducted by a multidisciplinary team (Spinelli, 2002). Under IDEA, the multidisciplinary team typically includes (a) a general education teacher, (b) a special education specialist, (c) a school psychologist, (d) a social worker, (e) a school administrator, and (f) the student’s parents.

According to Pierangelo and Giuliani (2002), the 1997 IDEA evaluation guidelines stated that evaluations must be comprehensive and these evaluations should not be used exclusively as a basis for decision-making with regard to a student’s condition. Comprehensive evaluations involve a standardized intelligence test; standardized achievement tests; background information; interviews with parents and the student; academic history with interviews or reports from past teachers; classroom observation; a behavioral checklist; examination of the student’s health, vision, and
hearing; and, when appropriate, a speech and language evaluation (Mellard, Deshler, & Barth, 2004).

The last stage in the identification process involves the construction of an Individualized Education Plan or IEP (Malekoff, Johnson, & Kalappesack, 1991). The most important thing about the identification of LD is the involvement of parents in all stages of the process. However, parents can sometimes hinder the process of identification. For instance, even though parents may be more receptive to the term *learning disabilities*, some may display non-acceptance in regard to the labeling (Harry, 1992, p. 399). Furthermore, Harry (1997) states that cultures and societies have different perspectives on LD and special needs.

In a society in which academic success is important, failure in school strongly indicates the student’s having a disability which needed to be named. However, another society might not regard that failure as being attributed to a disability condition (Harry, 1997, p. 33).

**International Perspectives of LD**

The World Health Organization (WHO) established an International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10) to collect global health data as well as other sorts of information for each country. It is important here to define LD and factors which cause LD in terms of ICD-10. According to ICD-10, learning disorders fall under disorders of psychological development. In 1992, the ICD-10 agency declared its official definition of learning disabilities. It refers to LD as specific developmental disorders of scholastic skills which are significantly analogous
to the definition mentioned above used by United States federal officials (p. 20). In addition, they agree that a student with LD, or as they call it, specific developmental disorders of scholastic skills, must exhibit learning discrepancies. However, the ICD-10 agency disqualified this criterion from the definition. According to ICD-10, to include any individual under their learning disorders of scholastic skills, a child has to display long-term hindrances in his or her developmental functions due to a biological maturation of the central nervous system.

According to ICD-10, two main factors cause LD: “neurological factors and environmental factors.” ICD-10 states that LD syndromes occur due to abnormalities in cognitive processing caused by biological dysfunction. According to ICD-10, environmental factors also influence learning disabilities in terms of what resources are available for students with LD. Thus, ‘scholastic skill learning disorders’ refer to a child who has a specific reading disorder, a specific spelling disorder, and/or a specific disorder of arithmetic skills, mixed disorders of scholastic skills, other developmental disorders of scholastic skills, and unspecified disorders.

Despite the prominence of the WHO, there have been significant disputes about the global perception of LD. In this regard, there have been four major points of contention (Green, & Harvey, 1983; Hallahan, 1998; Mino, 1987; Ross, 1951; Ross, 1989; Vogel, 2001; Valentine, 2002; Whyte & Ingstad, 1995). When examining international literature in the LD field, there is a significant indication that there is no universal recognition of LD as a type of legal disability. In Australia, New Zealand, Italy, Spain, and Scandinavia, learning disabilities are not documented in federal legislation as
a disability in educational systems (Vogel, 2001). On the other hand, in Great Britain there are recommendations to have narrower definitions for types of LD; for instance, using terms such as *dyslexia* is preferable to simply referring to a child as having a LD. Other countries prefer to use the “learning disabled” label. Learning difficulties is another alternative to the term *learning disabilities*, since presumably this differentiation is better explained by a medical model of LD.

Nonetheless, other nations besides Saudi Arabia decided to co-opt the LD model found in the United States. Australia and New Zealand have LD models influenced by the United States. According to Elkins (2001), this is especially the case in terms of parent organizations and scientific research. Parent organizations in these countries launched public awareness movements for the rights of students experiencing academic difficulties in the 1970s, comparable to what the United States had done at about the same time. In these countries, educational problems are easily comprehended with little reference to disabilities as applicable in the United States (Elkins, 2001, p. 57).

Many professionals do not agree with existing LD terminology because they think it is not comprehensive and does not fit their country’s context (Dinero, 2002; Kalyanpur & Harry, 2004; Kalyanpur & Harry, 1999; Markova, 2003; Mclaughlin, Dyson, Nagle, Thurlow, Rouse, Hardman, Norwich, Burke, Perlin, 2006). Without mitigating these opinions, this notion is based on policymakers who suggested using the *learning difficulties* label as an alternative to learning disabilities (Elkins, 2001). Christensen and Elkins (1995) articulated that while both Australia and the United States have students with learning disabilities and there are commonalities between these countries due to
similarities in culture and language, their procedures for LD classifications are not identical, nor will they ever be.

In Australia, learning difficulties are defined as problems in learning that vary in cause, nature, intensity, and duration and arise from the way in which students learn, or the rate at which learning occurs. Social and cultural factors are acknowledged as potential sources of learning difficulties. Learning difficulties are seen as problems experienced by students arising from a diversity of factors, particularly factors outside the individual. Rather than being inherent characteristics of the individual they are often seen as transient, appearing and disappearing depending on the educational experiences of the student (p. 1).

New Zealand is another country which follows American models in terms of establishing an LD category. In 1971, the New Zealand Federation of Specific Learning Disabilities Associations (FSLDA) recommended the country establish an LD category (Chapman, 1992). FSLDA recommended LD be considered as a category of need in the New Zealand education system. Nonetheless, the Ministry of Education rejected FSLDA’s request. Another bill proposing New Zealand’s education system adopt the American federal definition of LD and delete the part of the definition stating LD was a category for White, middle-class children which was also rejected. According to Chapman (1992), the Ministry of Education rejected the proposed bill for two reasons. First, in the United States there was considerable controversy, disagreement, and confusion surrounding education policymakers’ caution about adopting the learning disabilities legislation. Second, New Zealand’s policymakers wanted to adopt a system of
inclusion without any sort of labeling whatsoever (Chapman, 1992). Fundamentally, the New Zealand Department of Education’s observation was that learning difficulty is complicated and has quite a few causes which should be tackled with flexible remedial programs predicated on the based the individually evaluated needs of each child (Chapman, 1992, p. 366). Teachers may arrive at a similar conclusion in Saudi Arabia after the end of the trial period for the new amendment.

In Germany, because there is a different cultural context than in the United (Opp.2001; States, Prucher and Langfeldt, 2002) stated that learning disability labeling has a particular cultural connotation. According to Prucher and Langfeldt (2002), “in Germany learning disability has officially been defined as a general and total failure in academic achievement combined with an IQ of between approximately 55 and 85” (p. 56). Evident in the classification of LD in both countries is an emphasis on the discrepancy between academic achievement and intelligence. In Germany, when there is a discrepancy between school achievement and intelligence, it is described as similar to the way learning disabilities are described in the United States (Ainscow, 1998; Opp.2001; Prucher & Langfeldt, 2002). In other words, if a student shows signs of or displays difficulty learning and has an IQ higher than 85, he or she receives services in special education classes or resource rooms.

Spain is very much comparable to the Kingdom of Saudi Arabia. Special education in Spain does not have learning disabilities as defined in the United States (Jimenez & Valle, 19999; Gonzalez & Hernandez, 19999). Even though there is not an LD category in Spain, there is a significant amount of writing which argues for using the
discrepancy model to identify LD (Gonzalez & Hernandez, 1999). According to Gonzalez and Hernandez (1999), in 1990, Spain instituted “special educational needs” as a label for all students with various types of disabilities. Even though the term LD instruction is used in special education in Spain, school reform integrated and uses the notion of LD when referring to students with special needs, following a U.S. model (Gonzales & Hernandez, 1999). Many scholars, such as Adelman and Taylor (1986), indicated that education professionals in Spanish schools use labels which are not in their education system, possibly indicating their desire for a conceptual LD model comparable to U.S. models, located within a continuum of learning and behavioral problems.

Special education for students with learning disabilities in Costa Rica started in the 1960s. These programs resembled special education programs in the United States, where children classified as LD “are (a) of average or above average intelligence; (b) display some deficit in learning (e.g., in language, audition, vision, motor, or a combination of these); and (c) present small alterations in their cerebral function” (Stough & Aguirre-Roy, 1997, p. 568). In Costa Rica, LD education began after teachers stated there was a strong need for such services and instruction. These teachers also called for a differentiation between children with mental retardation and children with learning disabilities. They also called for tools to aid students who are experiencing reading or writing difficulties.

In Costa Rica, just as in Saudi Arabia, once teachers identify children with LD, children receive psychological evaluations administered via a multidisciplinary team that includes, for instance, some combination of psychologists, clinical psychologists,
neurologists, social workers, and teachers. Then students take standardized tests to measure their intellectual abilities, test discrimination, and evaluation of spatial behavior. Classification criteria vary between assessment teams; and only students who show deficiencies in the areas of reading, writing, and mathematics are classified as learning disabled (Stough & Aguirre-Roy, 1997).

This section included a discussion of learning disabilities from a variety of global perspectives. There have been significant arguments about different countries’ points of view in terms of the causes, terminology, and the classification of LD. The major disagreement between countries is concerned with classifying the causes of LD. This is largely because a number of countries question why verifying where exactly in the brain the disorder occurs is so elusive. Thus, narrow definitions of the LD conceptualization results in contention among teachers, who as a result, often adopt contextual models of causation. On the other hand, few countries perceive students with LD as those who have different learning abilities. Under such a theoretical framework, it is improper to categorize children according to a continuum spectrum model ranging from mild to severe. Instead, a number of countries prefer labels such as “special education needs” and “learning difficulties.” Unfortunately, these are still labels subject to discrepancy and omission problems.

Social Critical Model of LD

The following section is a review of the literature on the social critical model of learning disabilities, reflected in the work of four authors (Dudley-Marling & Dippo, 1995; Skrtic, 1995; Sleeter, 1986). When reviewing literature on LD, learning disabilities
are often discussed in terms of the following (Stanovich, & Siegel, 1994; Tomlinson, 1982; Triano, 2000; Tunik, Plat, & 1980)) (a) a search for a specific condition, (b) a search for a cause of the conditions, and (c) a search for a cure or treatment for conditions (Yssledyke, 2002). The medical model perspective is the most commonly used research framework in the history of LD literature (Skrtic, 1995; Sleeter, 1986). Many scholars have offered hypotheses for why this is so (Christensen, 1999; Dudley-Marling, 1995; Sleeter, 1986; Skrtic, 1995). This phenomenon is due to two significant elements in the history of LD research: First, the medical model is vital to the idea that learning disabilities are caused solely by deficits in the child’s brain. Second, the medical model justifies professionals’ skepticism of the assumption that learning disabilities are a fact of nature, pending scientific discovery through more objective and reliable tools (Christensen, 1999; Dudley-Marling, 1995; Sleeter, 1986; Skrtic, 1995).

Recently a new research perspective called the Social Critical Model (SCM) of LD has been proposed. This model conceptualizes learning disabilities in terms of social context pragmatics (Christen, 1999; Dudley-Marling, 1995; Sleeter, 1986; Skrtic, 1995). Critics of the medical model have suggested that LD models ‘medicalize’ and individualize school problems by presenting them as deficits located in a student’s brain (Christensen, 1999; Skrtic, 1995).

Using a study by Mercer, Skrtic (1999) argues that learning disabilities are organizational paths rather than inherent individual disabilities. Mercer’s study, *Labeling the Mentally Retarded*, (1973) explored the implicit logic behind the traditional frame of mental retardation and its basic assumptions. Skrtic (1999) uses this study to illustrate
why LD identification is an objective, rational practice. According to Mercer (1973), from a clinical perspective, empirical research of mental retardation stems from two inter-reliant models: the pathological model and the statistical model. The former, approved by physicians and medical professionals, defines mental retardation as conditions related to biological functions (Flynn, 1978; Flynn, 1974; Oklo & Guskin, 1984; Ottenbacher & Cooper; 982). The pathological model examines biological manifestations. However, when the pathological signs are not explicable, clinical researchers use a statistical model to assess behavioral manifestations. The statistical model approved by psychologists and teachers defines the abnormalities of mental retardation cases in terms of variances from population means, based on statistical principles and psychological testing (Coy, 1977; Richardson, 1975; Rodgers, 1983; Mercer, 1973; Thornstone, 1959). It is important to point out the recent most official definition of mental retardation is based on both models. Professionals using the clinical perspective tend to think in terms of the medical model, yet they have the social behavioral model in mind when doing clinical assessments (Mercer, 1973).

Considering how successful and significantly beneficial SCM has been in the field of mental retardation, Skrtic (1999) experimented with the same concept to analyze definitions of learning disabilities. Using Mercer (1973), Skrtic hypothesizes that learning disability definitions use both the pathological and statistical model. He stated that complex layers of medical concepts related to medical structures such as the neurological deficits, minimal brain injury, and psychological disorders inform the pathological model of LD. According to many scholars in the field of LD research, these constructs are an
integral part of LD language and taken for granted even though they are multifaceted and complex to identify and to justify. Academic success is demonstrated in a behavioral manner and not biologically; as a concept, it is transposed into a constant carrying all of the negative implications of the pathological model (SKrtic, 1995, p. 196). Hence, behavioral evidence is used to conjecture the presence of a central nervous system dysfunction.

Skrtic (1999) argued the medical model characterizes: (a) learning disabilities as individual pathological conditions, meaning they vary from one person to another; (b) learning disabilities as manifested in symptoms which can be impartially recognized using standardized, adequate instruments, and (c) special education as systems or programs which benefit diagnosed students. There is a limitation to the medical model. Social context or environmental surroundings which significantly influence and might cause LD do not have a place in the medical model. According to the medical model and Skrtic (1999), the pathologizing and individuation of students’ learning has precarious consequences in terms of the need for corresponding specializations. According to Skrtic, this phenomenon has resulted in school organizations acting as professional bureaucracies (or systems of government).

Given the nature of professionalization, teachers tend to screen out diversity rather than accommodate it, either by forcing their students’ needs into one of their standard practices or, given the logic of specialization, by forcing them out of their classrooms and into a new professional-client relationship with a different educational specialist who
is presumed to have the required practices in her or his repertoire of skills.

(SKrtic, 1995, p. 208)

Attempting to illustrate the negative consequences of pathology on today’s special education philosophy and practices as well as on the special educator, Skrtic advises researchers, teachers, and LD administrators to examine these assumptions and reorganize the categorization and treatment of learning disabilities. In addition, he suggests that teachers need to examine the pathological philosophy in order to serve the interests of all children with LD (SKrtic, 1995).

Sleeter (1986) used structural theory to re-construe the history and the conception of LD in the United States. Thus, he contended the Cold War in the 1950s led to educational improvements and elevated academic standards in public schools to create a highly skilled and trained workforce that would include more scientists. During this period, students who were way below the new standards were called “underachieving” students. They were separated into four different groups; slow learners, mentally retarded, emotionally disturbed, and culturally deprived. Sleeter (1986) contends other factors increase the likelihood that teachers will categorize students as underachievers. Students who are minorities or are from low-income households or both, are more often identified as underachieving students.

Sleeter (1986) suggested Skrtic consider an alternative for LD students who are typically developing intellectually or who even have above-average intellectual development. Sleeter (1986) reviewed Skrtic’s work by saying such identifications would significantly reduce these students’ stigma in and beyond school. In addition, when
Dudley-Marling and Dippo (1995) analyzed the medical model of LD, they showed how learning disabilities served to maintain the status quo in education and society. They argue that particular explanations for LD diagnoses and statuses of students with LD led them to draw this conclusion when they examined the discourse underlying these theories and at the same time evaluated a school’s need for available recourse. They articulated LD labels place relief or failure expectations on students. However, it should be stated that special education should not be regarded as a place to store a stock of students with LD; contrarily, special education is a service (M. Roth, personal lecture communication, February 28, 2004). If an educational establishment wrongly assesses students, the establishment is accountable for the disenfranchisement these students might experience.

The previous section of this chapter discussed definitions of learning disabilities (LD), history of LD, how to recognize and define LD, an operational definition for LD in classrooms, identification of LD, international perspectives of LD, and the Social Critical Model of LD. The following section will probe the second major topic in this study, attitudes – those toward students with special learning needs, teacher attitudes toward integrating students with special needs, teacher willingness to work with students with special needs, defining and measuring attitudes, structural complexity of teacher attitudes, techniques for measuring attitudes, and existing teacher rating scales that measure teachers’ attitudes.

Teacher Attitudes

The attitudes of teachers toward the public (Davis, 1995; Mohapatra, Rose, & Woods, 2001), education (Grossman, Onkol, & Sands, 2007), peers (Stevens, De
Bourdeaudhuij & Van Oost, 2000), and toward learning (Ferguson & Lopez, 2002) have been investigated and given considerable attention during the past four decades. In the Western world, the attitudes of teachers regarding the integration of children with special needs have become the most researched area. The reason for the concentration of research is that educational attitudes are key factors in successful educational outcomes (Gottlieb, 1975). It is essential to point out this attention has increased in the past decades due to the inclusion of students with special needs, especially those with mild-to-moderate disabilities (Gottlieb, 1975; Jones, Jamieson, Moulin & Tower, 1984; Jones, 1974; Moore, & Fiine, 1978; overline, 1977; Panda, 1972; Phelps, 1965; Schofield, 1978). The following section provides a review of the literature regarding teachers’ attitudes toward students with special needs. The proposed study is concerned with Saudi teachers’ attitudes and perspectives toward the integration of students with special needs. However, the literature presented below includes publications from the United States and other industrialized countries while integrating information and related literature from the Middle East. Presently, there is a lack of research in this field focusing specifically on Saudi Arabia and other Middle Eastern countries.

**Attitudes toward Students with Special Learning Needs**

An educator with negative attitudes toward a student’s ability to learn is very likely to influence how that student is going to feel about his or her learning experience. Negative attitudes can also influence the way the teacher is going to treat his or her students in other contexts. Current literature states that whether teachers do so intentionally or unintentionally, they provide a substandard level of instruction when they
doubt a student’s ability to learn (Dusek, 1975). Likewise, research has stressed that special education instructors often have a bias toward students if they feel a student with special need lacks a particular ability or has issues which prohibit him or her from learning in a standard way. Dusek (1975) divides research about the teacher bias effect into three categories: (a) studies dealing with experimenter bias effects in psychological research (e.g., Dusek, 1975), (b) studies dealing with tutoring situations involving teachers (e.g., Beez, 1970), and (c) teacher biases and their effects in the elementary school classroom or other classroom situations (e.g., Al-Saigh, 1981; Anastasiow, 1975; Ashmore, 1975; Azzahrani, 1986; Dusek et al., 1973; Rosenthal & Jacobson, 1968).

Research also states there are significant and well-known reasons why teachers may look down on students with special learning needs, including frequent behavior problems in the regular classroom environment. This might lead teachers to believe teaching and disciplining children with special needs is difficult. Through several types of experiments, Salvia and Munson (1985) articulated the ways teachers lower expectations and/or develop negative attitudes toward students with special needs in general and students with LD in particular. The process includes the following: (a) completing a checklist about hypothetical students; (b) watching videotapes; (c) evaluating the videotaped performance of labeled students; and lastly, (d) responding to different questions.

Results from these experiments illustrate educators’ attitudes and perspectives strongly influence the way they deal with students with special needs. Mix-ups and misapprehensions of teachers, whether in regular education or special education, may
contribute to unfavorable stereotypes about students with special needs in general and more specifically students with LD. According to (Shears & Jensema, 1969; Getzels & Jackson, 1965; Good, 1981; Warren & Turner, 1966), teachers have accepted children with disabilities in the hierarchal order of learner abilities and that teachers favor students with less severe types of disabilities. There are teachers who just do not know how to interact with children with special needs (i.e., due to a lack of adequate training or experience doing so). Unfortunately, this can provoke feelings of social distance between students with LD and teachers. Interestingly, researchers suggest teachers’ perceptions about the acceptance of students with special needs decreased when the level of intimacy increased. In addition, teachers’ perceptions of acceptance of students with special needs decrease when they are well prepared to deal with students with special needs.

Educator Attitudes toward Educational Placements and Full-Time Integration

Early literature suggests many teachers recommend students with disabilities receive instruction in regular schools. However, it was also recommended these students be placed in small, homogeneous groups administered and taught by a well-trained instructor specializing in the specific types of disabilities students possess (Johnson, 1950, 1962). Such an educator is a “highly trained professional who is capable of diagnosing the child, planning a teaching program on the basis of this diagnosis, and implementing a teaching plan” (Lerner, 1972, p. 21). This notion of special integration was the foundation for mainstreaming and inclusion programs. The notion of having a special pullout program was empirical until its founder questioned it (Johnson, 1984;

There was a new notion of integrating student with special needs, especially those with LD, into classrooms with their typically developing peers. This approach was favored by many people including teachers, parents of children with special needs, and finally by the legal system (Bacher, 1965; crisci, 1981; Doubrava-Harris, 1982; Dunn, 1968; Gickling & Theobold, 1975). The integration of students with disabilities took place in two stages: part-time inclusion and full-time inclusion (Fitch, 2002). Literature regarding teachers’ attitudes about the integration of students with disabilities during part-time inclusion all came from investigating resource room teachers and their perceptions. For years researchers have been investigating resource room teachers’ strategies such as arrangement, curriculum, and interactions (Connor, 2007; Connor & Ferri, 2007; Scruggs & Mastropieri, 1992). The role of resource room teachers in the United States during the late 1960s and early 1970s was developed to provide support to children with exceptionality and their teachers when students were mainstreamed into regular classrooms from special education classrooms (CESE, 2001; Gottlieb, 1981; Morris, 1982).

Scholars investigated and compared general education and special education in terms of teachers’ acceptance and their knowledge of mainstreaming of children with special needs (Good, 1981; Good, 1970: Peters 1977); and Peters indicated there is no significant relationship between teachers’ experience teaching and their acceptance of children with special needs, especially those with learning disabilities. In addition, it
should come as no surprise that resource room teachers had more knowledge about students with disabilities than regular education teachers. Scholars articulated that when placing a child in a regular or special education classroom, special education teachers had attitudes which are more realistic about such educational placements (McNamara, 1989; Peters, 1977; Practor, 1967). These attitudes might result from teachers’ special education knowledge and training in the field.

Skrtic (1995) suggests an orientation program designed to develop knowledge and understanding about students with exceptionalities would be beneficial for teachers before implementing such programs in schools. Orientation programs are beneficial for students with special needs as well as for teachers working with them.

The second type of special needs integration is full-time inclusion. Some researchers like to add to the mainstreaming definition (Yoshidah, 1986) by including the statement, “an integration of regular and children with exceptionality in a school setting where all children share the same resources and opportunities for learning on a full-time basis” (p. 196). Childs (1981) acknowledges that regular classroom teachers have taken most of the responsibility for mainstreaming children. However, this could influence the mainstreaming process since the literature indicates that general education teachers are not fully qualified to deal with students requiring special education services. Then, once they fail to deliver services to children with special needs, it is too late. Scholars (Childs, 1981; Delo, 1976; Donaldson, 1980; Murphy, Dickstein & Dripps, 1960; Restad, 1972; Sammel, 1959; Leyser & Abrams, 1982; Lindgren, & Patton, 1958; McGuire, 1969) also indicate many school administrators call for some intervention to improve the attitudes of
teachers toward children with special needs and to help teachers cope with such situations. Most importantly, these interventions help both general education and special education teachers cope with each other while administrators offer close supervision and immediate assistance.

The Council for Exceptional Children website (CEC; 2007) suggests that general education teachers take more courses in special education and allow special education instructors adequate time to provide services to children with special needs. Additionally, Tisdall (2007) suggests general education teachers allow special education teachers their space and allow special education teachers to help them best deliver services to students with special needs. Tisdall (2007) continues by directing his research to audiences of general education teachers and special education teachers.

**Teacher and Administrator Attitudes toward Integrating Students with Special Needs**

Position and duration are critically significant factors influencing attitudes toward the integration of students with special needs into a regular public school setting (Gilman, 2007; Leonetti, 1977; Nickoloff, 1962; Payne & Murray, 1974). Often educators such as teachers, supervisors, administrators, and experts in the field of special education have been studied in order to assess their attitudes toward the integration of students with special needs. Tisdall (2007) reports administrators located in suburban areas have significantly more favorable attitudes toward the integration of LD students into regular classrooms than urban administrators. (Gilman, 2007; Harth, 1971; Haring, 1957; Harasymiw & Horne, 1976) suggested administrators are more supportive of integrating students with special needs, yet attitudes differ not only among teachers, but among
administrators as well. Moreover, the location and size of the community seem to influence attitudes.

Tisdall (2007) suggested teachers are generally enthusiastic about the integration of students with learning disabilities. However, administrators and principals lack significant knowledge about different types of disabilities, and more importantly, implies the need for in-service programs on educational needs of children with special needs (Schmelkin, 1981; Siperstein & Bak, 1980; Mdikana, 2007). Robson (1981) made similar recommendations after examining the role of administrative behavior on service providers. He states the following:

If principals are to be expected to deal effectively with new role expectations, then it behooves them to do more than simply fight against incursions on their turf … If principals are to avoid the role of conflict that comes from expectations they cannot meet, then they must ultimately equip themselves to assume them. (p. 378)

Although administrators have significantly more positive attitudes than general and special education teachers, the latter have stronger positive attitudes toward integrating students with special needs than general educators. The problems of special and general education teachers are derived from regular education teachers and special education personnel’s apprehension and lack of comprehension of the duties of and necessary comprehension (Crisci, 1981, p. 175). Yet, while all these individuals hold significant positive attitudes toward the integration of students with disabilities, they represent a very specific context – that of an industrialized country. Is this also the case in
the nation of Saudi Arabia? In order to find out, the proposed study investigated Saudi relationships, roles, and attitudes toward students with LD. There are issues such as demographic factors which impact educators and influence their perspectives. These factors will be discussed later in this section.

**Teacher Willingness to Work with Students with Special Needs**

Current literature suggests teachers’ willingness to teach or work with students with special needs is a significant factor in education. Self-confidence, ability, and/or willingness to work with students with special needs are presumably key factors affecting regular classroom teachers’ attitudes. Stephens and Braun (1980) investigated teachers’ attitudes about integrating students with special needs into classrooms. More specifically, they analyzed the way teachers mentally accept this form of education for students with physical or emotional needs, or learning disabilities. Stephens and Braun’s (1980) findings suggest primary school teachers were more willing to integrate students with special needs into their classrooms than those teaching grades seven and eight.

Koutrouba (2006) reports there are three significant variables related to teachers’ willingness to accept students with disabilities: (a) teachers’ levels of confidence in their abilities to teach children with disabilities; (b) a belief that children with exceptionality are capable of becoming useful members of society; (c) and a belief that public schools should educate children with exceptionality. Koutrouba (2006) continues by saying that the willingness of regular classroom teachers to accommodate children with special needs in their classes has limitations, which are clearly listed in the literature. However,
teachers’ levels of self-confidence seem to be an essential factor in accepting students with learning disabilities, be they physical or emotional.

Teachers’ willingness to work with students with special needs and teachers’ attitudes toward integrating students into the regular classroom context are not clear-cut; there have always been gray areas. This could be because regular classroom teachers have viewed the integration of children with special needs in a numbers of ways. Some teachers see integration as a large mandate requiring blanket acceptance, while others think integration is disruptive to the educational process, particularly for students with higher abilities and levels of intelligence (Brophy & Good, 1974; Hamdan, 1980; Guskin & Spicker, 1968; Jordan, 1971; Sattler, 1977). At the heart of this investigation is a desire to know whether the Saudi special education system educators’ attitudes are more similar to the first or the second group. Saudi teachers are comparable to their colleagues in the United States and Europe with regard to their belief that children with LD will misbehave and disturb a classroom routine (Al-Mansour, 1983; Gottlieb & Many, 1979; Pernell, McIntyre & Bader, 1985; Perry, 1980). An element particular to Saudi classrooms is a system based on valuing very strict structures of discipline. However, there is an urgent need to develop the country’s special education and integration procedures. Moreover, an important question remains, Are regular classroom teachers prepared to integrate their typically developing students with students who have special needs? Since researchers suggest this level of preparedness is a significant factor in teachers’ willingness to work with students with special needs, it is clear that one needs to analyze where teachers stand on the issue. As indicated by many scholars such as Barngrover, 1971; Beez, 1970;
Tisdall, 2007 and Olson & Goldstein, 1997 when regular teachers are not prepared for integration, children with exceptionalities suffer and might eventually return to a special class.

Studies by Salvia and Munson (1985) suggested that general teachers’ willingness to integrate students with special needs into their classrooms is significantly related to the number of special education courses and workshops in which they have participated. Larrivee and Cook (1969) reported the successful integration of students with LD depends on teachers’ willingness to integrate students with special needs and depends upon the teachers’ background preparation and training in the area of special education. Thus, both general and special education teachers with excellent training are more likely to demonstrate confidence and cope better with the process of integration.

**Defining and Measuring Attitudes**

It is not easy to define attitudes because they are multidimensional in nature and tend to overlap with psychological concepts (Good & Brophy, 1978; Good & Brophy, 1980; Gottlieb, 1982; Halloran, 1967). Zimbardo and Ebbensen (1970) defended the concept of attitudes as “either mental readiness or implicit predispositions which exert some general and consistent influence on a fairly large class of evaluative responses” (p. 6). In a different study modifying their definition, the authors proposed that attitude perception is not an innate ability but is instead acquired (Biklen & Bogdan, 1986). Good (1973) expanded upon this definition by further stating attitudes are “the predisposition or tendency to react specifically toward an object, situation, or value” (p. 49). Likewise, this
study proposed to investigate both Saudi readiness as well as teachers’ attitudes with regard to the integration of students with LD in regular Saudi schools.

Structural Complexity of Teacher Attitudes

A great deal of research has been dedicated to the structure and complexity of attitudes, arguing that attitudes are linear/unidimensional or nonlinear/multidimensional in nature. Earlier investigations of teachers’ attitudes toward students with disabilities have often focused on attitudes of perception. Baker (1964) and Wilson, Beatty, and Frumkin (1967) are excellent cases of early studies which utilized various designs and methodologies seeking to describe unitary attitude concepts. However, as the literature on attitudes advanced, it was argued that the linear and unidimensional nature of attitudes causes major methodological limitations which are derived from the practicability of scales eliciting attitudes along the favorable/unfavorable continuum’s sole dimension (Gottlieb & Corman, 1975, p. 87). Evidently, early investigations of teachers’ attitudes toward students with disabilities were not clear given their complexity. Antonak (1980) articulated that researchers have been investigating linear attitudes ignoring the fact that attitudes have “multiple, interactive antecedents and that the behaviors they predispose the individual to display have multiple facets” (p. 232). Thus, literature on teachers’ attitudes has become a well-documented module in the literature known recently as “Cognitive-affective-contrive” (knowing-feeling-acting) attitudes analysis. Interestingly, although this module of attitude structure is famous, there have been few investigations of this concept. Seemingly, literature and researchers have focused on teachers’ attitudes toward students with learning disabilities, not on the methodological issues associated
with investigating the concept of attitudes. The following briefly describes the three modules of attitudes’ complex structures: (a) cognitive module, (b) affective module, and (c) contrive or behavioral module.

**Cognitive Module**

Beliefs, whether good or bad, appropriate or not, reflect the cognitive component of attitudes. Hannah and Pliner (1983) illustrated the cognitive module suggesting it bears categories of stimuli and the characteristics and opinions associated with each classification (p. 292). An example of this component is an investigation of the attitudes of the general population and teachers toward the integration of students with disabilities which employed the Attitudes Toward Disabled Persons (ATDP) scale. The scale measures teachers’ knowledge and biases in terms of the mental perceptions of typically developing students and students with special needs, as well as ways to treat them the same (Olson & Goldstein, 1997). The findings indicate both general and special education teachers respond negatively when responding to the ATDP scale measuring their perceptions about changing or adjusting class structures and curricula for students with special needs in general and in LD classrooms. Even though the question of whether to modify classroom instruction is a qualitative inquiry, the ATDP measurement is a quantitative checklist. The ATDP survey instrument has certain limitations in design which do not allow researchers to probe teachers’ perceptions.

Conversely, researchers using cognitive scales specified for children, research on students labeled with LD found teachers had positive attitudes (Badt, 1957; Baker & Gottlieb, 1980; Gottlieb, 1975). Favorable attitudes toward students with learning
disabilities were seemingly related to the fact these students appear to be developing like their peers in terms of their intellect and features (Gottlieb, 1975). Moreover, teachers may lack the training which would allow them to discriminate between mild and severe learning characteristics (Gottlieb, 1975). For instance, researchers (Green, Kappes, & Parrish, 1979; Panda et al., 1972) have stated teachers are cautious about teaching students with LDs, based on the results of studies where participants viewed a list of characteristics and checked those which applied to students with LD. Teachers who view students diagnosed with LD as having low achievement resist the students’ integration in general classrooms because they believe students with LD are unable to stay on task and lack the ability to work independently. When comparing this finding to the previously mentioned studies, the conflicting findings justify using mixed-methodology to further explore teachers’ attitudes.

Effective Module

The module of effective attitudes is the expression of emotional sensitivity toward an issue or an individual through verbal statements conveying likes and dislikes. For instance, teachers may express their attitudes toward students with special needs by saying they neither like nor dislike providing services to this group of students. Based upon the literature concerning teachers’ attitudes toward students with special needs, one will find this research utilized instruments and scales that semantically rate perceptions to extract teachers’ attitudes and perspectives toward students with special needs (Panda & Bartel, 1972). Other researchers (such as Green, Kappes, & Parrish, 1979; Panda et al., 1972) discovered teachers’ attitudes toward students with severe disabilities, such as
cognitive disabilities, are more negative than their attitudes toward students with learning disabilities (Alper & Relish, 1972; Shotel, Iano, & McGettigan, 1972). In other words, teachers had stronger negative attitudes toward integrating students in general classrooms when disabilities were more severe. Unfortunately, there is a lack of research concerning the Effective Module.

**Contrived/Behavioral Module**

Many scholars have stated that since attitudes are complex and related to covert behavior, attitudes have an “action tendency.” This is due to being able and ready to behave in a specific way associated with a particular feeling, yet at the same time, it does not cover the actual behavior itself (Gottlieb & Gottlieb, 1887; Hallorn, 1967). The Behavioral Preference Ranking (BPR) and Social Distances Scales (SDS) measure these types of attitudes. These two scales assume that participants will respond according to their intentions.

The SDS is a scale which investigates and explores the degrees to which an educator is willing to include students with disabilities in their classroom by asking teachers questions related to what they perceive as the best placement for students with particular types of disabilities (i.e., whether to place them in full-time or partial pullout programs in public schools). Morris and McCauley (1977) found that students with LD are rated more favorable by educators than other types of disabilities, and teachers were more willing to teach these students.

The BPR scale, on the other hand, aims to investigate relationships between teachers and negative attitudes concerning the integration of students with special needs
as determined by the above-mentioned SDS scale (Warren & Turner, 1966). When completing the BPR scale, participants reviewed a series of descriptions of children with handicaps and ranked them from the one they most preferred to the one they least preferred to teach. The results of these studies seem to be similar to those of participants using the SDS. Moreover, previous tests verified that the BPR is valid, reliable, and credible because all of the studies have found consistent relationships between teachers’ negative attitudes when rating their willingness to teach students with special needs. However, there is a lack of depth and richness in data collection methods previously used in these investigations which would benefit from additional qualitative inquiry (Panda et al., 1972).

Literature also concludes that developing a child’s academic achievement is a significant factor and is preferable from an educator’s perspective. Teachers prefer a hierarchical structure in which children with fully developing intelligence are higher on the order than children with disabilities. Teachers’ attitudes toward the integration of students with special needs have been investigated by asking questions via three different modules of attitudes in order to clarify the relationships of teachers’ perspectives. Hannah and Pliner (1983) articulated there is no correct research methodology for investigating teachers’ attitudes which manifest themselves in behaviors toward the integration of students with special needs and learning disabilities.

Teachers’ attitudes toward students with LDs and special education are likely multidimensional and may vary according to different types of LD conditions and according to teachers’ training on how to accommodate those conditions. According to
Gottlieb and Corman (1975), there are common themes and/or dimensions of teachers’ attitudes toward students with LDs. Literature proposed positive stereotypes, physical perceptions, intellectual responses to interactions, and the ability to work independently are all influential factors on teachers’ attitudes toward the integration of students with LD in regular public schools.

Recently researchers have recognized a greater need for international theoretical perspectives which could enrich the literature on the issue of attitudes of teachers in relation to integrating students with special needs and LDs. These investigations could assist researchers in developing methods of assessing comprehensive attitudes toward students with special needs. The theoretical and methodological contributions of researchers examining different global contexts in the area of special education are beneficial to teachers who work with students having special needs. A flexible research methodology to gain most favorable teachers’ perspectives toward students with special needs has been seldom utilized; this is crucial to improve our comprehension of the phenomenon of interest (Guskin, 1977, p. 3). Furthermore, it is significant to study teachers’ attitudes toward students with special needs utilizing multiple concepts. Investigations of teachers and administrators’ attitudes toward students with special needs imply teachers are more judgmental with regard to students with special needs, especially those with severe disabilities. There are several attitude measurement scales for both general education and special education. The following paragraphs explore attitude measurement techniques and scales.
Techniques for Measuring Attitudes

Social and behavioral research has developed very significant attitude measurement techniques which have influenced both theoretical and empirical dimensions. There are four major teacher attitude paper and pencil test measurement techniques: (a) Thurstone’s method of equal-appearing intervals, (b) Likert’s method of summated rating, (c) Cutman’s Scalogram, and (d) Osgood’s semantic differential. According to Zimbardo and Ebbensen (1970), there are some differences between these four methods, yet all of them make two assumptions:

- It is assumed that the subjective attitudes can be measured by a quantitative technique, so that each person’s opinion can be represented by some numerical score. Secondly, all of these methods assume that a particular test item has the same meaning for all respondents, and thus a given response will be scored identically for everyone taking it. Such assumptions may not always be justified, but as yet no measurement technique has been developed which does not include them. (p. 123)

The above attitude measurement techniques are general and measure all attitudes toward an issue. Thus, social and behavioral research developed module techniques which investigate attitudes of teachers and administrators in particular and designed the Teacher Rating (TR) scale.

Teacher Rating Scale

One of the evolving measurements of teachers’ attitudes in the social and behavioral sciences is the Teacher Rating scale, which is used to determine teachers’
perspectives about social adjustments at schools (i.e., how teachers feel about adapting and integrating students with LD in regular classrooms). The TR scale was developed in two stages. First, it was only concerned with teachers’ attitudes toward disabilities in general. Early studies such as Budoff & Gottlieb, 1976, Shotel, Iano & McGettigan (1972), Hollinger & Jones (1970) and Gresham (2002), reported teachers rated students with mental retardation more negatively than students with emotional disturbances or students with learning disabilities mainstreamed into regular classrooms. In addition, Blatt (1958) and Bacher (1965) found regular teachers rated the social adjustment of students with mental retardation in regular classrooms less favorably than did special education teachers. Gardner (1966) pointed out significant differences found in this research may be due to the different frames of reference of the special and regular classroom teachers. However, Tilley (1971) and Budoff and Gottlieb (1976) provided examples of more recent studies that found no differences concerning the social adjustment of children with mental retardation in special versus regular classes when researchers used teacher rating scales. This could be due to changes in teachers’ attitudes or due to recent laws mandating students be educated in the least restrictive environment.

The second stage in TR scale development (Fantuzzo, Grim, Mordell, McDermott, Miller, & Coolaham, 2003; Fantuzzo, Grim, Mordell, McDermott, Miller, & Coolaham, 2001) shifted more toward assessing teachers’ knowledge about a topic in general. Now, many scales use the basic rationale behind the TRs which are currently used.
Attitude Toward Integration Scales

Teachers’ attitudes influence both expectations for their students and their behavior toward them, which by default impacts both students’ self-image and academic performance (Alexander & Strain, 1978). Hannah and Pliner (1983) stated negative teacher attitudes toward students with special needs are key factors for failing to successfully integrate them. On the other hand, the significance of knowing teachers’ attitudes is valuable for program planning. Teachers’ attitudes could play a significant role in the effectiveness and improvement of procedures for integrating students with special needs.

Attitude assessment and attitude measurement can identify both teacher characteristics and program procedures for effective integration of students with LD. Additionally, results can help improve program design and the implementation of daily programming, in-service teacher training, and support services. Thus, it is important to acknowledge the need to study teachers’ attitudes toward integration internationally (Young & Chesson, 2006). Assessments and scales measuring the attitudes of teachers toward integration of students with LD in public schools are readily devised and utilized in the Western world. However, in other contexts such as Saudi Arabia, these investigations are more exploratory.

In this exploratory study, the Opinions Relative to Integration of Students with Disabilities (ORI) instrument, developed by Antonak and Larrivee (1995), is a scale which measures the attitudes a person holds toward the integration of children with disabilities into regular education classrooms. The ORI scale, originally called the
Opinions Relative to Mainstreaming (ORM) scale, was devised and further developed by Larrivee and several of his colleagues, with careful consideration to the evolving theories in the field of special education in 1995 (Antonak & Larrivee, 1995; Antonak, Mulick, Kobe, & Fieidler, 1995; Antonak & Livneh, 1988). Accordingly, revisions of the scale included changes in terminology to reflect views which are more current, changes to the item response format, and a deletion of five items. The researcher, with permission from the original author of the scale, Dr. Antonak, modified the questions and added additional questions relative to the issues of the current study. In Chapter IV, the researcher provides further details regarding these instruments and necessary modifications for the current investigation.

The Opinions Mainstreaming (OM) was designed by Larrivee and Cook in 1969. The OM addresses five dimensions of attitudes toward mainstreaming: (a) general philosophy of mainstreaming and teachers’ attitudes, (b) classroom behavior of special needs children, (c) classroom management issues, and (d) students with special needs academic ability development. Researchers considered the general philosophy of mainstreaming and of teachers’ attitudes the most significant aspect of the scale. Literature suggests the scale uncovered components of teachers’ attitudes toward mainstreaming and determined the causes of expressed attitudes.

In the previous section, scales which measured teachers’ attitudes toward the integration of students with special needs were discussed but do not account for specific exceptionalities such as learning disabilities (LD). Taking into consideration the limitations of the scales and measurements of teachers’ attitudes toward integration of
students with LD, new instruments are needed. The instrument should be directed to all three modules of attitudes (beliefs, feelings, and actions) and different attitude domains as well. Issues such as (a) the perceived ability of students with special needs to learn, (b) the appropriate educational placements for children with special needs, (c) necessary curriculum modifications, and (d) teachers’ willingness to work with students who have learning disabilities all need to be addressed.
CHAPTER 4: METHODOLOGY

This chapter provides detailed descriptions of the methods of data collection proposed for the present study, including discussion of the study population and sample, a description of the instrument, data collection procedures, and analysis of the data. These elements address issues associated with Saudi general and special education teachers' attitudes toward the integration of students with learning disabilities in Saudi public school settings. This examination revealed the importance of considering factors such as general and special education teachers’ attitudes in terms of their respective gender, age, number of years of teaching experience, and professional qualifications (Level of education, education major, teaching field, attendance in special education training program, family members or relative with learning disabilities and exposure to students with disabilities in the class).

This dissertation research is an investigative mixed-method study that will use a quantitative survey instrument as well as in-depth qualitative interviews. A random sample of Saudi general and special education teachers were surveyed and interviewed about their attitudes toward and perspectives on the integration of students with learning disabilities into general education classes. The primary goals for this study were: (a) to obtain teachers' perspectives and attitudes about educating students with learning disabilities in terms of student learning, working, and socializing abilities compared to their typically developing peers; (b) to add to the pool of special education research, enriching the field with data about special education specifically in the Kingdom of Saudi Arabia; and (c) to provide Saudi Arabia’s Ministry of Education with data on teachers'
perspectives regarding the integration of students with learning disabilities, given the recently implemented policy changes.

This study was designed to investigate Saudi general and special education teachers' attitudes toward the new amendment requiring integration of students who have learning disabilities into regular public schools. The following research questions were addressed and guided this study:

**Research Questions**

This study is designed to investigate Saudi general and special education teachers' attitudes toward the new amendment requiring integration of students with learning disabilities into regular public schools. The following research questions guided this study:

R1: What are the attitudes of Saudi general and special education teachers toward integration of students with learning disabilities into public schools?

R2: Are there differences between the attitudes of general and special education teachers working in the Saudi public schools? More specifically,

a. What are the points of agreement and disagreement among Saudi teachers regarding educating students with learning disabilities in public schools?

b. Are Saudi general and special education teachers' attitudes toward the integration of children with LD in public schools differentiated by factors including gender, age, degree held, years of teaching experience, fields of teaching experience, having family members with disabilities, extra training in special
education or experience with teaching students with disabilities in a regular classroom? Attitude and gender

Hypothesis: Do Saudi general and special education teachers’ perceptions of inclusive LD schooling differ significantly upon differences in their gender?

Null Hypothesis 1: Saudi general and special education teachers have the same attitudes toward the integration of children with LD according to their gender.

a) Attitude and Age

Hypothesis: Do Saudi general and special education teachers’ perceptions of inclusive LD schooling differ significantly upon differences in their age?

Null Hypothesis 2: Saudi general and special education have the same attitudes toward the integration of children with LD according to their age.

b) Attitude and type of degree held by the teachers

Hypothesis: Do Saudi general and special education teachers’ perceptions of inclusive LD schooling differ significantly upon differences in their type of degree held, Level of education?

Null Hypothesis 3: Saudi general and special education have the same attitudes toward the integration of children with LD according to their type of degree hold.

c) Attitude and number of teachers’ experiences
Hypothesis: Do Saudi general and special education teachers’ perceptions of inclusive LD schooling differ significantly upon differences in their years of experience in their job?

Null Hypothesis 4: Saudi general and special education have the same attitudes toward the integration of children with LD according to their number of teachers’ experiences

d) Attitude and status of having family and relatives with disabilities

Hypothesis: Do Saudi general and special education teachers’ perceptions of inclusive LD schooling differ significantly upon differences as a result of having a friend or relative with disabilities?

Null Hypothesis 5: Saudi general and special education have the same attitudes toward the integration of children with LD according to status of having family and relatives with disabilities

e) Attitude and different teaching field

f) Hypothesis: Do Saudi general and special education teachers’ perceptions of inclusive LD schooling differ significantly upon differences in their teaching field?

Null Hypothesis 6: Saudi general and special education have the same attitudes toward the integration of children with LD according to different teaching field

g) Attitude and Number of students with disabilities in the classroom
Hypothesis: Do Saudi general and special education teachers’ perceptions of inclusive LD schooling differ significantly upon differences as result of exposure to students with disabilities in the class?

Null Hypothesis 7: Saudi general and special education have the same attitudes toward the integration of children with LD according to the number of students with disabilities in the classroom.

I) Attitude and target teachers’ status of attending extra special education training

Hypothesis: Do Saudi general and special education teachers’ perceptions of inclusive LD schooling differ significantly upon differences as a result of attending extra special education training?

Null Hypothesis 8: Saudi general and special education have the same attitudes toward the integration of children with LD according to status of attending extra special education training.

R3: from the Saudi general and special education teachers' perception what are the specific benefits to the resources and training available to them, challenges and suggestions to improve the new amendment to create an excellent learning environment for students with learning disabilities?

Pilot Study

The main instrument was piloted to explore the feasibility, utility, and reliability of using the ORI (the Opinion Relative to Integration of Students with Disabilities) survey as a survey questionnaire with teachers in the Kingdom of Saudi Arabia. The
purpose of the pilot study was to determine whether the translation of the ORI into the Arabic language and the length of the survey was appropriate, as well as the clarity of the questions. The pilot study determined whether the Arabic versions of the ORI survey questions were ambiguous after translation. In addition, it examined the questions for cultural relevance.

Ten Saudi general and special education teachers at the elementary level were randomly selected from a list provided by the Saudi Ministry of Education to evaluate the effectiveness of the survey questioner. These ten teachers were excluded from the sample for the actual investigation. The participants expressed their confusion with the way they should utilize the survey, therefore an explanation and an example was added to section one and section two of the instrument. (See Appendix C).

Sample Size

In order to determine the sample size needed to conduct the current study, G*Power software provided the number of subjects needed to find a difference between two or more groups. To the best of the researcher’s knowledge, there are no previous studies that offer usable data to compute an effect size for this analysis. In the current investigation, four independent variables and one dependent variable were analyzed according to the research questions using one-way analysis of variance (ANOVA). A medium effect size, 0.25, as suggested by Cohen (1988), was chosen to determine sample size in this study. To achieve a power of 0.80, with alpha of 0.05, using an effect size of 0.25 (medium effect size), the total sample size required was 196 participants.
Identification of the Population

The population for this study consisted of all 37,343 elementary teachers employed in the public schools of the Makkah administrative area of Saudi Arabia during the 2008-2009 school years; the area includes the five cities of Makkah, Jeddah, Taif, Qunfozeh, and Allaith. The sampling frame included male, female, and general and special education teachers. This research focused on teachers in the Makkah area. Participants were randomly selected from the population of 37,343 teachers. Contact information for all teachers in the Mekkah area was provided by the Ministry of Education.

The area was picked because it is located near the researcher’s hometown and because it is the second most industrialized administrative area in the kingdom of Saudi Arabia where new laws, like the amendment currently being studied, are likely to be implemented rapidly. A total of 250 teachers were randomly selected from the total population to be surveyed.

Three sampling techniques were used to draw a representative sample for the study. The first technique a Stratified Random sampling technique was used to sort the administrative area by district based on the division of the administrative area by the Ministry of Education. Six strata were established for the schools, for female education and for male education: Makkah, Jeddah, Taif, Qunfozeh, Allaith and other. After sorting by region, the next decision involved the size of the sample.

In order to achieve appropriate statistical power, the researcher calculated that 62.5 (n = 63) participants were necessary from each group (male, female, general, special
education teachers). The total target sample was 250 teachers in the hope that at least 100 participants in each group would respond and return the questionnaire.

A systematic random sample was used to draw participants from the six stratified locations within the Makkah administrative area. A cluster random sample was used; the unit of sampling in cluster random is a group of individuals (e.g., schools) rather than the individual. Initially, the researcher planned to use individual unit sampling, conversely it was discovered that addresses and other demographic information (e.g., general education teachers with less than five years of experience, general education teachers with more than five years experiences, special education teachers with less than five years of experience, and special education teachers with more than five years of experience) are not available. Thus, the school was used as the unit of sampling.

From the six strata mentioned above, 24 schools that integrate students with learning disabilities were utilized; 12 schools for males and 12 schools for females. An average of 10 teachers in each school was invited to complete the survey. The researcher consulted with each schools' principals prior to randomly selecting teachers, to determine each teachers’ experience (more or less than 5 years teaching) and teaching assignment (general or special education) to ensure that each individual has the same opportunity to participate in the study, and to ensure teachers knew they had the full right not to particulate in the study.

Research Design and Approach

To answer the research questions the researcher probed the themes in the research questions via a quantitative questionnaire and followed up with qualitative interviews.
This mixed-method produced richer and more complex data to explore emerging themes in the field of special education (Creswell, 1998; Glaser, 1987; Hatch, 2002; Lincoln & Guba, 1985; Twycross, 2004; van der Werf, 2006; Yin, 1994). In addition to the general advantage gained from utilizing a mixed-method approach, there is much of interest to be learned by going beyond what is offered through quantitative analysis. Adding a qualitative, face-to-face research tool significantly reduced participants’ discomfort when disclosing their ideas. Through face-to-face interactions and open-ended questions the researcher had greater access to informants’ opinions and the opportunity to follow up, probe unclear themes and request further explanations of unexpected results that emerged from the quantitative study during the course of the fieldwork (Morsan, 2006). Both quantitative and qualitative approaches were used to triangulate the data.

Twycross (2004) articulated five different categories for explaining why mixed-methods offer significant insights: triangulation, complementarily, development, initiation, and expansion. Combining paradigms ensures maximum insight into, and understanding of teachers’ attitudes related to the integration of students with learning disabilities. (Gubrim & Holstein, 2000, Greswell, 2002; Marriam, 2000; Merriam, 1988)

Initiation was the first step of the inquiry. Through expansion and development, the researcher can “expand the breadth of the study and likely enlighten the more general debate” (Twycross, 2004, p. 3). In this case, the debate under investigation involved the recent educational policy amendment in Saudi Arabia as well as global debates about special education programs, politics, and policies. Since Saudi has committed to establishing an integrated program for students with learning disabilities (LD) in schools,
this was a fixed variable. Within this fixed framework, the challenge was to discover the factors that influence Saudi teachers' attitudes in relation to the identified variable. The current research employed qualitative interviews to expand upon initial survey findings. However, during the qualitative interviews the researcher identified additional considerations outside the scope of the factors explored through the survey instrument. Saudi teachers who express the most positive and negative attitudes toward integration of students with LD on their questionnaires were invited to participate in the follow-up interviews. The insights of special education teachers significantly benefitted the current study because Saudi teachers' positions are directly impacted by the amendment.

All Saudi teachers in the Makkah district were sent a copy of the questionnaire. To ensure confidentiality, all respondents were asked to return the completed questionnaires in the official envelopes that were addressed to the “Ministry Training Offices in Jeddah Educational Districts” either using school mail delivery carriers or by submitting the questionnaires to the researcher in person.

Collecting Data

There were three techniques for collecting data. They were (a) record reviews and observations, (b) quantitative surveys, and (c) in-depth qualitative interviews.

Record Reviews and Observations

National level data has been collected from several resources from census, public records, the Saudi Ministry of Education, and informal discussion and observation with lawmakers, teachers, and school superintendents. All these data were reported in the
earlier chapter as part of the literature review to help the reader understand the context of this study.

Quantitative Survey/ Operational Definition of the Variables

As mentioned above, this study had three independent variables, which were divided into nine sub-independent variables: gender, age, number of years of teaching experience, and professional qualifications (level of education, education major, teaching field, attendance in special education training program, family members or a relative with learning disabilities and exposure to students with disabilities in the class).

This study had one dependent variable: A survey instrument developed by the researcher will measure the dependent variable. The study’s dependent variable was the attitude of Saudi’s general and special education teachers toward integrating students with learning disabilities (LD) into regular classrooms. The study used items measured with a six-point Likert scale that ranged from ‘Disagree Very Much’ (-3) to ‘Agree Very Much’ (+3). Attitude items consisted of items 1-28 found in Section B of the survey instrument. For each item in this section, a score of one through three in a positive or a negative manner was assigned. “Strongly Agree” equals three points; “Agree” equals two points; “I Agree a Little” equals one point. Conversely, “Strongly Disagree” equals minus three points; “Disagree” equals minus two points; and “I Disagree a Little” equals minus one point.

Instrumentation

The questionnaire the Saudi teachers completed is adapted for students with learning from the Opinion Relative to Integration of Students with Disabilities or ORI
(Antonak & Larrivee, 1995). The researcher’s translation and adaptation is the first known Arabic version. The scale is a modified version of the ORM constructed by Larrivee and Cook in 1969. The ORI is a scale that measures the attitudes a person holds toward the integration of students with learning disabilities into regular education classrooms. Antonak & Larrivee, 1995 stated that “Questions deal with the benefits of inclusion, management issues when dealing with special students, teachers preparation to working with students with disabilities, as well as a global measure of attitudes about inclusion” (p.142). The original questionnaire covered four areas including demographics, training and experience, attitudes towards integration, and teachers' thoughts on the placement of students with LD. The researcher modified the survey after an extensive review of literature on teachers’ beliefs regarding the Saudi special education integration of students with LD and the students characteristics found in the literature.

Selection and Modification of Survey Instruments

The Opinion Relative to Integration of Student with Disabilities (ORI) was originally called the Opinions Relative to Mainstreaming (ORM) and was designed by Larrivee and Cook in 1969. It was projected to measure teacher attitudes toward the integration of students with disabilities into general classrooms. The original ORM asked participants to express their agreement with each statement on a 5-point Likert scale ranging from one (1) ‘Strongly Agree’ to five (5) ‘Strongly Disagree.’ There was also an intermediate category with the anchor ‘undecided’. ORM was designed so that 12 of its items were worded in such a way that an agree response represented a favorable attitude,
and 18 were worded so that disagree responses represented a favorable attitude. Accordingly, scores ranged from 30 to 150, with a higher score indicating a favorable view of integration. However, due to an analysis of the ORM data examining the construct validity of the scale by Larrivee and several of his colleagues, further development of the ORM scale was done with careful consideration paid to the evolving theories in the field of special education at the time (Antonak & Livneh, 1988; Antonak & Larrivee, 1995). Revisions included changes in terminology to reflect a more current view of special education, changes to the item response format, as well as deletion of some items. According to Antonak & Larrivee, 1995, changes to the ORM survey included the following: (a) "handicapped" and "special need" terminology was changed to “disabilities,” (b) the word “child” was changed to “student,” and the word “children” to “students,” and (c) the term "mainstreaming" was changed to “integration,” also (d) all items were then modified to use people-first language, and (e) the 6-point Likert scale ranged from ‘Disagree Very Much’ (-3) to ‘Agree Very Much’ (+3). Antonak & Larrivee, 1995 argue that "the change in the response format for the revised items… emphasized the difference between a disagree (negative) and an agree (positive) response, associated a stronger endorsement (whether positive or negative) with a larger rather than a smaller response value, and eliminated the non-informative middle value of the 5-point response continuum" (p. 249). The instrument’s name was then changed to the Opinion Relative to Integration of Students with Disabilities Scale (ORI).

The ORI survey contains 28 items, 13 positively and 15 negatively worded statement options rated on a six-point Likert scale. The items were randomized in the
survey. The rating instrument measures teachers’ attitudes toward the integration of students with learning disabilities into regular classroom settings by presenting statements such as “The integration of LD students will require significant changes in regular classroom procedures” and “The integration of LD students can be beneficial for regular students.” The sum of responses to the scale ranges from 0 to 150, with a higher score indicating a more favorable attitude (Antonak & Livneh, 1988). This instrument requests information about gender, level of education, total number of years of teaching experience, average number of students in the classroom, type of teacher (regular or special education), and the number of students with disabilities taught during the past three years if the teacher was a regular teacher. The questionnaire also asks for all categories of disabilities (Intellectual Disabilities, Physical Disabilities, Learning Disabilities, Emotional Problems, Deafness, or Blindness) the respondent has served over the years and the categories of learning disabilities she feels she could effectively accommodate, as well as teachers’ perceptions of other teachers’ attitudes toward integration.

The Arabic ORI is analogous to the English ORI; the questionnaire is divided into three sections. Section one is designed to obtain the participants’ demographics and teachers’ personal backgrounds such as gender, age, education and highest degree held; years of experience in the job; and whether they have experience teaching and previous coursework in special education. In addition, this section inquires whether teachers have a relative or friend with a disability, which affects their attitudes positively. The section also asks about academic environment and school and classroom size.
Section two addresses the degree of attitudes toward integration as well as teachers' thoughts on the placement of students with LD by utilizing a survey that includes 28 items constructed in statement format. A six-point Likert-type scale allows teachers to select their degree of agreement with the statements. Questions probe the willingness, particularly of teachers, to work with students with learning disabilities and ask for the respondents’ beliefs about appropriate educational placements for students with learning disabilities. This includes the respondents’ knowledge about students with learning disabilities, how to modify the curriculum to meet specific student needs, and how to assess students with learning disabilities. It also seeks to ascertain the respondent’s general knowledge about the causes of learning disabilities, incidence rates of learning disabilities, characteristics associated with learning disabilities, types of learning disabilities, and awareness of contributing or co-occurring disorders.

Section three includes open-ended related to teachers’ beliefs of the greatest benefits and challenges of having students with learning disabilities integrated in general education classrooms.

Validity

The validity of the ORI is assessed by means of expert panel evaluation, formal studies, and pilot testing. Content-related validity is defined as the extent to which the content and format of the instrument are consistent with the definition of the variable and the sample of subjects to be measured (Reynolds & Graco, 1980; Twycross, 2004). Face and content validity are two types of frequently assessed content-related validity. Face validity is the degree to which an instrument appears to be appropriate for its intended
participants in terms of clarity of directions, appropriateness of language, and clarity of printing (Ary, Jacobs, & Razavieh, 2002; Gay, 1996; Fraenkel & Wallen, 1996). It is also determined by expert judgments. A panel of experts was formed to determine the face and content validity of the ORI (Antonak and Larrivee, 1995). The panel members were selected based on their expertise in measurement or education, especially knowledge of special education and the Arabic language. Panelists included special education teachers who have experience with or who are currently working in an inclusive setting, as well as researchers and/or university faculty members who specialize in inclusive education or in developing instruments. The experts were asked to critique the instrument and to recommend changes regarding its clarity, wording, appearance, ease of use, and appropriateness of the content. With input from the panel of experts, the survey tool’s content-related validity was determined to be excellent; guaranteeing that it would measure what it is intended to measure.

Construct validity is the degree to which an instrument measures an intended hypothetical construct. In other words, construct validity focuses on theoretical constructs and the testing of hypotheses (Ary, Jacobs, & Razavieh, 2002; Fraenkel & Wallen, 1996; Gay, 1996). Construct validation involves a variety of procedures and evidence and assesses both content-related and criterion-related validity. Fraenkel and Wallen (1996) have suggested three methods for obtaining construct validity: (a) clearly defined variables, (b) theoretically based hypotheses, and (c) logically and empirically tested hypotheses. Antonak and Larrivee (1995) stated that investigation of the residual plot and apportioned statistical test indicate that regression was linear. Thus it could be inferred
that the residual was random, normally distributed, and independent of the predictor variables. The dissertation committee chair and the Ministry of Education were asked to evaluate construct validity by examining the definition of each variable and considering whether each section properly measures the attributes of the variable. This process resulted in some changes in wording.

There are two types of criterion-related validity: predictive and concurrent (Fraenkel & Wallen, 1996). Predictive validity refers to the degree to which an instrument can predict how well an individual will do in a future situation. Concurrent validity is the degree to which the scores on an instrument are related to the scores on another instrument administered at the same time (Gay, 1996). According to Antonak and Larrivee (1995) “A constant of 90 was added to this sum to eliminate negative score. Positional score could range from 0 to 180” as a result of this addition a higher score indicating a more favorable attitude.

*Criterion Validity or Content Validity*

*Construct related validity*

The dimensionality of the 28 items from the Saudi teacher attitude measure was analyzed using maximum likelihood factor analysis. Three criteria were used to determine the number of factors to rotate: the a priori hypothesis that the measure was uni-dimensional, the scree test, and the interpretability of the factor solution. The scree plot indicated that our initial hypothesis of uni-dimensionality was incorrect. Based on the plot, two factors were obviously rotated using a Varimax rotation procedure. The rotated solution, as shown in the following table, yielded two interpretable factors, factor
1 and factor 2. Factor 1 accounted for 21.3% of the item variance and Factor 2 accounted for 13.5% of the item variance. Four items loaded on neither factors. See Appendix E for Scree Plot (Figure 7) and Total Variance Demonstrated (Table 6).

**Instrument Reliability**

The reliability of the instrument was assessed using Cronbach’s alpha and Brown’s reliability coefficient (Antonak & Livneh, 1995). Reported psychometric characteristics for the ORI have been satisfactory (Antonak & Livneh, 1988); a split-half reliability as determined by the Spearman–Brown reliability coefficient of 0.92 was reported in 1979 and 1982. With the latest revision of this instrument in 1995, ORI was administered to 433 participants. The results as stated by Antonak & Livneh, 1995 were constant with all 433 respondents and resulted in satisfactory indices for reliabilities. The value of the Spearman–Brown corrected split-half reliability estimate was 0.82, and a Cronbach’s alpha coefficient of 0.88 was reported with a standard error of measurement of 5.98.

Antonak and Larrivee (1995) stated that a hierarchal multiple-regression analysis of the instrument against another well-validated instrument; titled the Scale of Attitudes Toward Disabled Persons (SADP) was used to investigate the validity of the instrument. The analysis took three stages. In the first stage, the socio-demographic variables were entered as block one. In the second stage, the experimental variables were the following block. The final stage was entering the SADP variables. Antonak and Larrivee (1995) reported the adjusted R2 for the six-predictor regression equation as 0.45, F(6, 369) = 52.91, P < 0.001, with an estimated standard error of 10.43. Shrinking for this equation
was less than 1%. The best predictor of attitudes toward people with disabilities, standard coefficient = 0.66, t(370) = 16.86, P < 0.01. They add that none of the other partial slopes were significantly different from zero. The results of a fixed-effects, least-squares analysis of variance of the ORI mean score for respondents in the five ethnic groups revealed no significant differences, F(4, 371) = 1.59, NS.

More specifically for the Arabic instrument reliability, item analyses were conducted on the 28 items hypothesized to assess attitudes toward integration of students with learning disabilities in regular classrooms. Initially, each of the 28 items was correlated with the total score except item 2, item 10, and item 19, which reveals negative correlations with the total score. Based on these results, item 2 was removed and items 10 and 19 were revised. The coefficient alpha for the revised scale was 0.73, indicating an acceptable level of reliability. Coefficient alphas were computed to obtain internal consistency estimates of reliability for the two constructs. The alphas for the factor 1 and factor 2 were 0.865 and 0.779, respectively. These values might be overestimates of the population alphas because the same sample was used to conduct the item analyses and to compute the reliability estimates.

Procedures

Once Ministry support and university IRB approval (Appendix G) was secured, a survey packet was sent to a total of 250 randomly selected general and special education teachers. The survey packet included three sections. It started with (a) written permission from both ministries of Education for both to implement the research (Appendix H), and (b) a cover letter describing the purpose of the study and explaining the rights of the
participants as well as the process for completing the questionnaire (Appendix ). It affirmed that the data collected from respondents would be confidential. The last part (c) was the actual ORI survey. Survey packets were distributed to the participants, and were collected via addressed, stamped return envelopes sent to the researcher. The entire package required about 20 minutes to complete. All responses were anonymous.

Prior to preparing the packet, the researcher received permission from the original author of the scale Dr. Richard Antonak to use the ORI. The scale was translated into Arabic and then translated back into English for accuracy and to modify or add questions as needed based on the specific context and research questions under investigation in this study. The purpose behind these modifications was to provide a clearer picture and overview of the issues under investigation in the context of the Saudi educational system.

Due to the significant of response rate in reducing any response bias, the researcher distributed more than the needed sample size. Thus, 300 survey packets were sent to randomly selected general and special education teachers in order to obtain the 250 responses needed. In the current study, the response rate was decent and satisfactory. The following table illustrates the response rate by gender.
Table 5

*Response Rate by Gender*

<table>
<thead>
<tr>
<th>Gender</th>
<th># distributed</th>
<th>returned usable surveys</th>
<th>return rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>150</td>
<td>126</td>
<td>84</td>
</tr>
<tr>
<td>Female</td>
<td>150</td>
<td>129</td>
<td>86</td>
</tr>
<tr>
<td>Missing</td>
<td>-</td>
<td>45</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>255</td>
<td>85</td>
</tr>
</tbody>
</table>

Quantitative Data Analysis

The data was coded into the latest version (13-16) of Statistical Package for the Social Sciences (Hull & Nie, 1981) for analysis. Participant demographics and variables in this study are described using measures of central tendency and dispersion appropriate for the level of measurement. Several analyses were conducted to identify possible differences between groups; frequencies, percentages, Pearson correlation, and Cronbach’s alpha, mean, standard deviation, and effect size. Before running the analysis, the specific assumptions of t-test and ANOVA were checked for any violations. Normality and homogeneity of variance were examined using Kolmogorov-Smirnov Z-statistic and Levene statistic, respectively. For research question #1, means and standard deviations were calculated for attitudes toward integration into regular classrooms. In addition, frequencies and percentages with regression analysis are presented for all responses.
For research question #2, a t-test for independent samples was performed to explore the differences in attitudes among regular and special education teachers. For research question #3, a series of one-way analyses of variance (ANOVA) was used to determine if there were group differences in attitudes toward integrating students with LD into regular class settings considering the variables of Academic Level and Years of Experience. In addition, independent t-tests were performed to find differences in attitudes toward integrating students with LD by gender of respondents.

Qualitative Interviews

Instead of collecting all data at the same time, a mixed-method researcher collects quantitative and qualitative information sequentially, in two phases. The survey was distributed first, and follow up semi-structured interviews were conducted with the following interviewees:

(a) Participants with ten general education teachers, male and female.

(b) Participants with ten special education teachers, male and female.

After the researcher administered the survey, the researcher began conducting semi-structured interviews with 10 teachers (e.g., general and special education). For the purposes of this research, qualitative semi-structured interviews assisted the researcher expand on the survey findings (Patton, 2002). Since there is little if anything written on special education in the Kingdom, qualitative interviews provided further insight into teachers' attitudes and perspectives and allowed the researcher opportunities to further probe issues of interest that arose during the data collection process (Mason, 2006; Merrian, 1998; 2002; Patton, 2005; Rubin & Rubin, 1995; 2005).
The information gained from qualitative interviews added to the credibility of the findings of the survey instrument. Using mixed-methods offered rich data that one cannot gain using only quantitative or qualitative methods. While the quantitative survey instrument measured factors identified in previous literature, the flexibility of the qualitative interview method allowed the researcher to explore areas and factors unique to the case of Saudi Arabia. There is a great deal of potential for this kind of data because so little has been written about the Kingdom in regard to special education (Vogel, 2001; Win, 1994).

In semi-structured interviews, the researcher had the opportunity to observe informants, particularly for non-verbal expressions or behaviors (Mason, 2006; Merrian, 1998; 2002). The researcher and interviewers, who shared the same culture as the interviewees, were attuned to notice cultural cues that suggest informants’ hesitation or discomfort about sharing information. The opportunity to make note of these instances added to the depth of information provided in the research (Mason, 2006; Merrian, 1998; 2002). However, the researcher observed that participants generally answered the questions freely and openly during the session. The researcher did not notice participants declining to respond to certain questions.

In Saudi public schools, the researcher chose to interview participants during their free time, in their offices, which provided an appropriate setting of security and privacy for the interviewee to share work-related information. The offices were typical of a teacher’s office.
To encourage interviewees to feel comfortable about disclosing their opinions, the researcher showed them the interview protocol ahead of time (see Appendix I for the interview protocol guide). Allowing time for participants to review questions provided them an opportunity to think about the topic before deciding to participate in the interview. If they decided they preferred not to answer certain questions, the researcher agreed to not ask those questions. None of the participants declined to answer any of the questions, possibly because of the wording of the interview protocol. Providing participants who agree to an interview the opportunity to refuse to answer questions is a professional courtesy that empowers them to feel comfortable disclosing information, even in cases where they may not otherwise do so.

The interviews began with background questions before proceeding to experiential questions about the teachers’ training and work experiences. Later questions probed teaching philosophies and opinions regarding legislation and the implementation of integration in schools and in classrooms. It is important to note that culturally, the researcher would not ask informants political questions requiring them to give their own opinion. Instead, the researcher did ask for their thoughts on others’ opinions and attitudes. When responding, it was understood that the answers reflected their own opinions. For instance, question #12 asks, “What are Saudi teachers' philosophies on special education and the new amendment integrating students with learning disabilities into general education classrooms?” (See Appendix I for the interview protocol guide).
Qualitative Data Collection

The researcher identified 20 (e.g., 10 general and 10 special education teachers) interviewees using a sampling frame of general and special education teachers who work with students with learning disabilities and who work in the Makkah Administrative area. This information is provided in a public document authored by the Ministry of Education. As mentioned previously, the researcher used a stratified random sampling method to identify potential informants (Gibb, Tunbridge, Chua, & Frederickson, 2007; Ronen, 2001; Leahey, 2007). The researcher found a sample from the list of LD instructors and general education teachers. This varied selection of teachers was important because the researcher wanted to compare teachers in order to compare experiential differences in relation to perception and attitudes.

The researcher contacted potential participants in person by visiting their schools. Culturally, this is the most appropriate and the most formal way to seek their assistance. It is also creates trust, raising the possibility for the participant to agree to the interview. For potential male informants, the researcher, according to custom, first contacted them at their workplace via phone or the school principal and explained the purpose of the study over the phone. If they seem interested in learning more about the study, the researcher went to their places of work to interview them. Potential interview informants were assured that their anonymity will be protected. Pseudonyms will be used to refer to the informants in the analysis stages of the research and in the writing of the research findings.
Even though the interviews will be flexible enough to cover any issue that emerges from the informant's reactions, interviewers as conducting the semi-structured interviews with general and special education teachers will be using a guide directing the flow of the discourses to ensure attending to the research questions. Each interview will last approximately forty-five minute. At the completion of each interview, the data collected are summarized for general lines and the interviewees are given the opportunity to instantaneously correct errors or confirm responses.

**Qualitative Data Recording**

Due to the nature of qualitative data in producing capacious data, it is essential to produce a cautious data recording-management system as well as develop a strategic plan for data analysis for a successful outcome of qualitative study (Bogdan & Biklen, 1986; Glaser, 1998; Glaser & Strauss, 1967; Mills, 1997; Wolcott, 1994). The current study's qualitative data was digitally recorded during the individual interviews using a digital recorder. In addition, the researcher kept field notes and memos of the interviews to capture any significant issue regarding the integration of students with LD in Saudi public Education.

**Data Management**

Glesne (1999) stated that field notes, memo writing, analytic files, elementary coding schemes, and monthly review are significant strategies for qualitative data management. Therefore, this research organized data using those techniques (field notes, memo writing, analytic files, and elementary coding schemes).
First, for the field notes, the researcher used a regular notebook divided in middle; the left side of the notebook was used to record notes, and the right side was set aside for the researcher’s interpretation of notes. The second technique for qualitative data management is memo, according to Patton (2002), due to the rationale of qualitative researcher responses to changes and emergent issues, also because "researchers analyze what is not said as well as what is said, memos enable them to note the unspoken while still in the field… [and] track one’s thinking, make one attentive to process, and give one ideas to make ideas cohere…” (Biklen & Bogdan, 1986, p. 99). Keeping the memo allows the researcher to remain as objective as possible by keeping her personal feelings, thoughts, and beliefs separate from raw data of the interview. In addition to the memo, a digital tape recorder was also used as a back-up source for raw data. The third technique used was analytic files, in which the raw data from each interview was saved in a computer folder and a paper folder. These folders contain the format of background information, informed consent, original interview, and interview’s transcription. Additionally, thematic analytical (elementary coding schemes) files were utilized as an early data analysis tool to extract information from interviews, memos, and field notes.

Qualitative Data Analysis

A unique characteristic of the qualitative inquiry is that data analysis “happens while data are being collected as well as after the evaluator has left the field” to facilitate the researcher re-focusing and re-directing the plethora of information (Biklen & Bogdan, 1986, p.98; Creswell, 2002; Goodwin & Goodwin, 1996). Thus, Glesne (1999) recommends two stages for qualitative data analysis:
1. Early data analysis: this stage will assist a researcher to focus and shape the incoming data by identifying the general meanings and themes and grouping them (Corbin & Strauss, 1998; Harasymiw, Horne & Lewis, 1976; Layder, 1982). In addition, Miles and Huberman (1994) stated that early data analysis will help with eliminating irrelevant data.

2. Later data analysis: this stage will enable a researcher to synthesize the raw data, to piece together the raw data and discover how the information fits together, as well as to synthesize the texture and structure in which the real meaning resides. (Biklen & Bogdan, 1986; Eaves, 2001; Foucault, 1983; Kirk, 1964; Rueda, 2005; Moustakas, 1994; Patton, 2002).

Patton (2002) stated that even though the general guidelines for qualitative data analysis are generally equivalent, the analytical procedures are unique to each study depending on the purpose of the study, its design, and the training. The qualitative data analysis for this study was adapted from Moustakas (1994, p.120) while keeping in mind Glesne's recommendation for qualitative data analysis. According to Moustakas, therefore, the researcher:

1. Listed and grouped primary data: each expression relevant to the main topic of integration of students with learning disabilities in Saudi public education from transcripts, field notes and memos were positioned and each explanation was given equal values to hold a meaning, which were grouped by themes and/or conceptual categories that contribute to the study’s findings.
2. Reduced and eliminated: in determining the invariant, two conditions have to be present in a statement for the researcher to utilize the broad horizons of the experience; (1) does it contain a moment of the experience that is necessary and sufficient, constituting understanding and, (2) is it possible to abstract and label it? Expressions that did not meet these conditions, as well as any overlapping, repetitive, and vague expressions were eliminated.

3. Clustered and themed the invariant constituents: after reducing and eliminating invariant constituents, the researcher clustered them into a thematic label.

4. Finalized themes and/or invariant constituents by application (validation): the searcher in this stage verified themes of invariant constituents against the complete record of each informant to find if any expression is expressed explicitly, or compatible with the responses. Invariant constituents or themes were eliminated.

5. The researcher developed a textual description followed by a structural description for each validated invariant constituents and themes.

6. The researcher synthesized a textural-structural description for each informant.

7. Finally, a composite textural-structural description of the meaning and essences of the phenomenon using the invariant constituents and themes were developed.

Summary of the Chapter

The methodology chapter discussed the research techniques used in this study. The chapter introduced the research design and the statistical tests utilized in this research. The variables of the study, the study population, sampling procedures,
instrumentation, data collection procedures, and data analysis procedures were all discussed in this chapter. Chapter 5 presents the findings of the study.
CHAPTER 5: RESULT OF THE STUDY

This chapter provides analysis and interpretation of the data and is divided into two sections. The first section includes the descriptive statistics, which present and interpret the demographics of the sample population and additional information about the participants’ academic background. The second section reports the result of the data analysis and answers the research questions. Throughout the sections, qualitative and quantitative results are incorporated. The use of a mixed methodology was fundamental for getting the breadth and depth of understanding of the attitudes of Saudi teachers toward the integration of students with learning disabilities (LD) in Saudi public schools.

Demographics

The data analysis revealed that, of 255 surveys distributed during the 2008-2009 school year to 24 schools in the Makkah administrative area, which includes the five cities of Makkah, Jeddah, Taif, Qunfozeh, and Allaith, 251 were functional for further statistical analysis. The following paragraphs will summarize the descriptive statistics of the sample of the 251 useable returned surveys. The sample is almost equal in terms of gender, with nine more female participants than male participants. Four cases were missing data on gender, according to the case summaries. To strengthen the study, these cases were kept in the data file and SPSS automatically excluded them from the analysis. Participants include 122 male teachers (48.6%) and 129 female teachers (50.6%).

Most of the teachers in the study (31.9%) were adults aged 31 to 40 years old, followed by adults under 30, as Table 6 illustrates.
### Table 6

*Frequency and Percentage of Teachers by Age*

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 30</td>
<td>77</td>
<td>30.7</td>
<td>30.8</td>
</tr>
<tr>
<td>31-40</td>
<td>80</td>
<td>31.9</td>
<td>62.8</td>
</tr>
<tr>
<td>41-50</td>
<td>43</td>
<td>17.1</td>
<td>80.0</td>
</tr>
<tr>
<td>51 and older</td>
<td>50</td>
<td>19.9</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>99.6</strong></td>
<td></td>
</tr>
<tr>
<td>Missing System</td>
<td>1</td>
<td>.4</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>251</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

* One case was missing, bringing the total to 250.

Table 6 shows the age distribution of participants. Seventy-seven teachers were under 30 years of age; 80 teachers were between 31 and 40; 43 teachers were between 41 and 50 years old, and 50 teachers were 51 and older. Participants were mainly Saudi Arabian teachers with bachelor’s degrees, followed by teachers with associate diplomas, as Table 7 shows.
Table 7

**Teachers’ Education Levels**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Bachelor's degree</td>
<td>197</td>
<td>78.5</td>
<td>78.5</td>
<td></td>
</tr>
<tr>
<td>Graduate degree</td>
<td>7</td>
<td>2.8</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>47</td>
<td>18.7</td>
<td>18.7</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>251</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Of the 251 respondents, 196 teachers had bachelor’s degrees (78.5%), seven had graduate degrees (2.7%), and 47 had other kinds of educational degrees (18.7%). This correlates with the overall population of Saudi, in which many more people have bachelor’s than graduate degrees. The table displays the distribution of the level of education achievement of the teachers; but because there are very few (n = 7) at the graduate level, conducting an appropriate statistical inference is not sound. For analysis purposes, these seven were included with the group who had a bachelors’ degree. Thus, the percentage becomes 81.3 percent of the total after combining fewer than half of the participants; 18.7% had “other” education levels, indicating the equivalent of a two-year degree from a community college in the United States. In the words of Saudi educators:

…”Most of us [special education teachers] have a bachelor’s degree. I can think of only one person with an M.A. in special education and it is a girl. She did it in the USA in general special education. Many of us who are special education with
many years of experience, though, you should know, did their training abroad…
King Saud University [has the only] program and we are all still fresh to the field...
[sigh].

… A university graduate with B.A.S in special education has to specialize in a
disabilities category, say learning disabilities. And I think you know up until now
[winter of 2008], in Saudi [we] only have King Saud University training for
special education teachers [all people in the kingdom who want to work in special
education train at that university]. But at the same time, you know, we have to
take a university general requirement: 33 hours in general education, then 51 in
general special education, then 15 in learning disabilities. In addition to 14 hours
in two minor areas, e.g., autism and hearing departments, many teachers prefer to
do mental retardation and gifted education. Thus, a total of 80 hours in special
education, in addition to 12 hours of field experiences… [Sigh and laughter] What
kind of rhetorical question is that? [The researcher of this study had asked, “What
about the MA program in special education?”]. LET us deal with what we have
right now and think about higher academic standing [graduate] later…

The researcher sought a high number of participants knowing that the new
amendment could be challenging for people to discuss, especially when asked to reveal
their attitudes. More special educators agreed to participate, likely because they are
considered “sole experts” on topics related to special education, resulting in 3% more
special educators than general educators in the study, as Table 8 shows.
Table 8

*Frequency and Percentage of Specialization and Primary Teaching Field*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special education</td>
<td>122</td>
<td>48.6</td>
</tr>
<tr>
<td>General education</td>
<td>113</td>
<td>45.0</td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
<td>6.4</td>
</tr>
<tr>
<td>Total</td>
<td>251</td>
<td>100.0</td>
</tr>
</tbody>
</table>

There were 122 teachers from the field of special education (48.6%) and 113 teachers from general education (45.0%). The remaining 6.4% were not in the field of education per se, but in arts and sciences areas related to education. The largest percentage of the distribution represented the category of 39.0% teachers majoring in other areas, which mainly consisted of religion, followed by 25.9% in language, 23.5% in sciences, and 10.0% in art.

In addition, it was observed that of the teachers in the area of “other” – 6.4% of the total – had a degree in religion. Among the specific subject areas of teaching, religion represented most, followed by language, sciences, and art. The category listed as “other” in tables 9 and 10 highlight a unique historical cultural role of schools in Saudi Arabia. As represented in Table 8, participants who did not have a graduate or bachelor’s degree frequently held either a two- or four-year degree in religion, which also permits them to teach. Thirty-nine percent of respondents indicated their primary teaching field as
“other,” which again signals religion. Earlier chapters described how religion has shaped the education system in Saudi Arabia.

Most participants, according to Table 9, had moderate teaching experience between one and five years (32.3%) and were followed by a group with significant teaching experience of more than 10 years, which doesn’t differ significantly from the three largest categories that reported 25.9% between six and 10 years of experience. Overall, 32.3% of the total participants had significant teaching experience (i.e., one to five years).

Table 9

<table>
<thead>
<tr>
<th>Frequency and Percentage of the Teachers’ Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

In addition, of the 251 participants, only 34.3% (n = 186) reported professional development training in special education after meeting their teacher training requirements, whereas 64.1% (n = 161) indicated they had none (see Appendix J).
Most (74.5%, n = 187) participants reported not having a family member or relative with a disability, while 25.1% (n = 63) responded affirmatively. However, even though one-quarter of the teachers indicated no family member or relative with a disability, 66.1% (n = 166) reported having a student in one or more of their classrooms, either now or in the past.

Table 10 presents the approximate percentage of students with special needs included in the regular education classroom for at least 79% of the school day (not included gifted).

Table 10

Percentage of Special Education Students Included for at Least 79% of Their School Day (Not Including Gifted)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5%</td>
<td>184</td>
</tr>
<tr>
<td>6-10%</td>
<td>44</td>
</tr>
<tr>
<td>11-20%</td>
<td>11</td>
</tr>
<tr>
<td>21-30%</td>
<td>6</td>
</tr>
<tr>
<td>31% +</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>248</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
</tr>
<tr>
<td>Total</td>
<td>251</td>
</tr>
</tbody>
</table>

* Three cases were missing data for a total of 248 cases
In terms of school size, of the 251 responding teachers, 6.8% teachers were in schools with less than 100 students; 9.2% were in schools with between 101 and 200 students; 30.7% were in schools with between 201 and 500 students; 33.5% were in schools with between 501 and 800; and 19.9% were in schools with more than 801 students. Moreover, of the 251 teachers consulted about types of special education programs in their building, 41.4% stated they have a self-contained program in the schools. Nearly 41% reported having a resource room program in their building, while 20.7% said they have pull-out programs. See Figure 8 for a visual representation of the distribution.

Figure 7

*Type of Special Education Programs in Schools*
In addition, the 251 teachers reported the programs in their building serve various disability categories: A little more than 60% have students with learning disabilities in their building; 11.6% of teachers have students with cognitive disabilities; 11.2% of teachers have students with hearing impairment; and 8.8% of teachers have students with Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder. See Figure 9. The teachers in the study were grouped according to eight variables which address issues associated with Saudi general and special education teachers' attitudes toward integration of students with learning disabilities in Saudi public school settings.

Figure 8

*Percentage of Students Present in Programs*
A general education teacher articulated

…. Listen, isn’t LD a life time disability? [Rhetorical question] Hear this, then. Special education teachers and… um… I am tittle-tattle here, seriously. Select students with the least needs, as they told me these students would benefit from the program in a short time, in one semester or at maximum one year. So they [special education teachers] would as a student finishes an IEP, exit the program and another student would be pulled out to the resources room from my class “er” whoever in the writing list, usually from the writing list, my assumption [is] they would take a different number too [each student in the Saudi system has a student ID by which they refer to the student with disabilities in the ministry and school]. Yah, you have to ask them [special education teachers]. Special education teachers, you know, would follow-up with students with the completed IEPs from time to time and provide services, especially when the general education teachers cooperate and tell them about the skill of the students…

The data reveals 66.4% of the Saudi teachers did have close classroom contact with a person with disabilities. A little more than one-third reported no experience in a classroom with an LD student. In addition, the data shows that many different disabilities categories other than learning disabilities are included in Saudi public schools and in classrooms (see Appendix J). The resulting analysis indicates that special education students (not including gifted) are included in a regular classroom for at least 79% of their day.
In terms of the classroom composition, 73.3% of respondents have less than 5% of students with IEPs, 17.5% have between 6% and 10% of students with IEPs, 4.4% of the teachers have between 11% and 20% of students with IEPs in their classrooms, 2.4% have between 21% and 30% of students with IEPs, and very few (1.2%) have over 31% of students with IEPs. However, when the researcher asked the same question but with a minor variation in the qualitative interviews for validity, the percentage changed, yet the results complimented each other. The results were 100 percent confirmed in the interviews.

In addition, the qualitative data verified that even though many teachers have close classroom contact with a person with disabilities in general, and a student with LD in particular, the notion of contact is not necessarily positive. One special education teacher expressed

…as I have been informed by many of my students, general education does not have any sensitivity to what the LD students go through [tears in her eyes].…

One student says, “Mrs. Such-and- Such does not allow me extra time to write and does not slow down in the spelling test.” … Another student says, “When I do not read, she will shout across the classroom, ‘Bad student, you are in the 6th grade and you can’t even read!’ Then my friends would snicker at me and call me names.”

A general education teacher said,

Thanks to God, there is no negative side…. The integration seems complicated then [initially]; but everything is hard at the beginning, isn’t it? The LD teachers
make the programs shine and encourage all of the students through gifts and prizes. As a consequence, students like the program ... parents like the program ... and I like the program because I do not have to deal with (these lazy students).

[It is as though the students are going to an extracurricular activity resource rooms]. This is the reputation of the program we have, thanks to God .... During the first years of the programs, there were parents who wanted their severely handicapped children – the one with physical handicaps, y’know; not LD ones, who have some sort of minor mental retardation. I have seen LD refuse to accept those students. If I included these students in the programs, students in the school would think the LD programs are for students who are weak, and he was right. If we accept those students, the reputation of the program would be not good.

A special education teacher said,

...as LD teachers have to provide the school personnel and community with complete information about the LD Program that many of us are not really confident with providing, due to the fact that the Ministry is focusing on better training for our male counterparts... I have heard it is coming from the USA along with the amendment they have mandated us with...

Saudi Teachers Attitudes Regarding the Integrations

The descriptive analysis of this study grouped participants according to eight variables addressing issues associated with Saudi general and special education teachers’ attitudes toward integration of students with learning disabilities in Saudi public school settings. This examination revealed the importance of considering such factors of
attitudes in terms of their respective gender, age, number of years of teaching experience, and professional qualifications (level of education, education major, teaching field, attendance in special education training programs, family members or relatives with learning disabilities, and exposure to students with disabilities in the class).

Thus, in order to fully capture the attitude of each group toward inclusion, the participants’ responses to a series of 27 statements presented in a questionnaire, was scaled on a six-point Likert scale, in which the level increased with a greater number from “strongly disagree” to “strongly agree.” This section reports the results in terms of responding to the research hypothesis of Saudi general and special education teachers’ attitudes toward the new amendment of integrating students with LDs in the regular public-school setting. The researcher was able to answer the research questions with inferential data emerging from the statistical information in earlier sections and supported the information through qualitative data, including the participants’ answers in response to the researcher’s open-ended questions.

Research question one asked: What are the attitudes of Saudi general and special education teachers toward the integration of students with learning disabilities in public schools?

Favorable Attitudes

Results indicate that the statements in which the respondents expressed the most agreement are as follows: number 21, followed by number 3 and 25, with a mean agreement of 5.08, 4.99, and 4.92, on a six-point scale (see Table in appendix J). This confirms that participants in the research study strongly believed that integration will
likely have a negative effect on the emotional development of the students with learning disabilities (item 21), and that integration offers mixed-group interaction which will foster understanding and acceptance of differences among students (item 3). In addition, the teachers strongly agreed that isolation in a special classroom has a beneficial effect on the social and emotional development of the students with a learning disability (item 25).

The participants believed that classroom integration will increase peer understanding, appreciation, and acceptance of individual differences over and above other social interactions and networks; however, the teachers indicated a strong preference for things such as resource rooms for the integration of students with LDs.

These responses reveal concern that regular classrooms and regular education teachers lack skills, materials, and the necessary resources to accommodate all students with LDs, as well as a doubt that typically-developing students are fully prepared for peers with a learning disability, without a detrimental effect on their own social and emotional development. One general education teacher said:

…Well, I am really concerned about our skills now as general education teachers to deal with the integration... I am terrified to do minor actions around these kids [students with LD]. I could cause them to hate school or affect them for life without knowing... To be honest, it’s to the point that I do not want to go to work anymore…

A general education teacher opposed to the previous one, clarifies:

Ta’d’reen [y'know], I was really hoping to get some extra training and go on in specialty. But I hear this Deputy for Education sadly prevents transfer of general
education to special education on .... Recently a month ago [winter 2008], as the rumors go, the Ministry of Higher Education forces [laugh] or I should say gives better opportunities than the Ministry of Education. Twenty percent of teachers’ scholarships go into special ed. But you know the Ministry of Higher education requires teachers to have a diploma in special education from King Saud University in order to apply for the scholarship.

A special education teacher for students with learning disabilities thought more support and training is needed for general education teachers:

I am so sure that teachers’ attitudes would poise to 100% positive, you know how we are so anxious of change, if the regular classrooms have materials and resources necessary to accommodate all students with LDs… and general extra in-service training could be another affect on attitude.

A general education teacher said:

… Oh! [Realization] I think it is prejudice due to the lack of awareness. Basically LD teachers should do their job and set up a plan for general education students on how to treat their handicapped LD peers, you know.

Another general education teacher said:

… I feel regretful and at the same time sorry for special education teachers, honestly, because they are the only skilled professionals in Saudi now for LD, y’know. I believe this is due to the fact of an absence of school psychologists, who are connoisseurs [and the special educations are acting as] psychologists, educators, evaluators…
In addition, the participants in this study argue that, due to the recent Saudi situations and lack of resources (especially human resources such as qualified special education interventions), the situation could and will prevent Saudi schools from maximizing the benefits of integrating students with disabilities with their typically developing peers. The articulated goal is that students with special needs should maximize their academic outcome and their whole potential by learning in the least restrictive areas (Cook, 2002). The least restrictive area stipulation essentially mandates that all students’ learning environments authentically reflect, to the extent possible, the community in which they will be productive, according to IDEA, 20 U.S.C., sec 1400 [c][1]):

Students with disabilities will be more likely to have equal opportunity and to achieve the national policy goals of equality of opportunity, full participation, independent living, and economic self-sufficiency if they participate in the general curriculum to the maximum extent appropriate for them. (As cited in Turnbull, 2004, p. 29)

Less Than Favorable Attitudes

On the other hand, the main areas in which participants show the least favorable attitudes are as follows: whether integration of students with learning disabilities will require significant change in regular classroom procedures (item 8); whether the classroom behavior of students with learning disabilities generally does not require more patience from the teachers (Statement 23); and whether increased freedom in the regular classroom would create too much confusion for students with learning disabilities
(Statement 9). Attitudes are indicated with average degrees of agreement calculated at 2.42, 2.68, and 2.84, respectively.

Thus, according the participants’ answers to the open-ended questions found in Appendix K, it could be concluded that respondents had negative attitudes toward the integration of students with LD in Saudi public schools, as integration possibly will change Saudi schools and classroom standards and regulations. Contributing factors to the attitudes are a natural tendency to resist change, particularly when it most affects a vulnerable population, in this case, children with exceptionalities. A second contributing factor is the speed that inclusion began after adoption of the 2005 amendment – public schools lacked enough capable, licensed, special education teachers. As one special education teacher said:

… I only think the negative attitudes of special and general education teachers could be due to a human tendency to refuse, and, or have concerns, that any new amendment could have direct, noticeable consequence on standards and regulations. Besides, the standards and regulatory changes affect youngsters and, particularly, children with exceptionalities.

A general education teacher attributed the negative attitudes to the Ministry’s speed in implementing the integration law:

In addition, the qualitative data confirms that there is no clear, comprehensible, articulated inventory of the Saudi amended standards and regulations that could assist teachers to carry out transformations. Consequently, Saudi teachers argued
that every teacher will set rules for their classes and students with LD that may create too much confusion for students with learning disabilities.

A special education teacher who has a master’s in special education from the USA reported:

I really understand somewhat how the situation is, because I have been working for four years now... But when I inform others about the amendment, it is extremely challenging. People [are] asking me all the time what this [new amendment] is all about and where it comes from. [As in] is not the Tagoeah Masa’eah [special tutorial after school program] becoming Tagoeah Saba’eah [special tutorial during the school day][laugh]. I would just explain my part of the job and I do not worry about the amendment regulations… I would not say anything about the regulations because truly it is not clear even about the definition of LD [hesitance].

Despite this, the participants appeared almost indifferent to the idea represented in Statement 16, which read: “It is not more difficult to maintain order in a regular classroom that contains students with a learning disability than in one that does not contain students with disabilities.” Teachers’ average rate of agreement on the item was 3.53. (See Appendix J for Table of degree of agreement; overall attitude items grouped by the degree of agreement, frequency, percentage, mean and rank and the Table for means and standard deviations for all items ranked from most positive to most negative).

Neutral Responses

Eight survey items fell in neither positive nor negative categories. Closely examining these survey items, it is apparent that five have an average mean of 3.53-3.82.
Thus, one could say that these survey items influence the teachers toward a more positive attitude. Statistically speaking, the outcomes (See Table 11, Figures 10 and 11, and Appendix J) means and standard deviations on all items for both regular and special education teachers show positive attitudes toward the integration of students with LD in public schools by both regular and special education teachers. More specifically, the special education teachers (n = 106) reported a mean = 108.8208, and a SD = 9.33789 while the general education teachers (n = 96) had a mean = 96.3437 and a SD = 13.80833.

There is a third group of participants whose major was listed as “other.” As mentioned before, this category provided a place for teachers who are specialized and/or majoring in another area, which mainly consisted of religion. The total participants of this group (n = 14) had a mean = 96.1429 and a SD = 15.47135. The last group was not subject to analysis because their training and preparation to work as teachers is substantially different from the other two groups. Accordingly, the data could indicate that both special education and general education teachers have positive attitudes, yet the special education teachers’ attitudes are even more positive about integration than the general education teachers. This confirms the previous literature that states special education teachers have more positive attitudes toward integration of students with [LD] than general education teachers, (Crisci, 1981; Mdikana, 2007; Robson, 1981; Tisdall, 2007)
Table 11

*Overall Mean, Standard Deviation T-value for Saudi Special and General Education Teachers*

<table>
<thead>
<tr>
<th>Major</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Education</td>
<td>Mean</td>
<td>108.8208</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>9.33789</td>
</tr>
<tr>
<td>General Education</td>
<td>Mean</td>
<td>96.3438</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>13.80833</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>Mean</td>
<td>96.1429</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>15.47135</td>
</tr>
</tbody>
</table>
Figure 9

*Histogram for Special Education Teachers’ Distribution*

Mean = 108.8208
Std. Dev. = 9.33789
N = 106
An examination of the differences between the attitudes of Saudi general and special education teachers, indicates that both groups lean toward a positive attitude of integration of students with LD (See Appendix J), even though there are points of agreement and disagreement among both groups of teachers regarding the issue of educating students with LD in regular classrooms specifically and the 2005 amendment in general.

For instance, looking at the mean, standard deviation T-value (see Appendix J), and comparisons for both Special and General Education Saudi teachers, it could be
stated that, regarding the Saudi special education teachers, there are 14 positive survey-items with a mean above four, and there are 10 negative survey-items with a mean less than four. (The mean value four was picked to reflect the midpoint value of the six-level Likert scale). Nevertheless, there are three items with a mean of at least 3.90, which makes these items almost fall in the range of positive attitudes. Likewise, looking at the Saudi general educators, there are eight positive survey items with a mean above four, and 10 survey items with a mean less than four; however, if the items with the lowest means representative of the Saudi Arabian General Education teachers’ negative attitudes, then there are nine survey items with a mean of two. This makes other survey items unrepresented at both positive and negative ranges because some of these items have means of 3.95 (such as Statement 17, which indicates that this items falls almost in the range of a positive attitude).

This circumstance was addressed in earlier paragraphs by taking different positions in discussing the apparent attitudes of Saudi Arabian general and special education teachers toward integration, which reflects Research Question 1. More specifically, the points and themes of agreement and disagreement among Saudi teachers regarding integration is dealt with in Question 2 of this study, which also provides the basis for more research in this area.

Examining the positive survey items teachers selected, it is clear that both special and general education teachers chose the same survey item which addresses issues of integration, but their selections took a different order. For example, the selected survey items for general education teachers ranked from the most to least positive attitude are
items 3, 1, 21, 25, 7, 28, 5, and 13. The special education teachers’ positive rank pattern is 21, 25, 28, 3, 5, 1, 7, 17, 12, and 14. Also, it is clear from the teachers’ selections that some survey items were picked by one group of teachers and not the other, such as item 13 for general education teachers and items 17, 12, and 14 for the special education teachers. Therefore, topics reflected in these items could suggest what each group sees as a constructive issue regarding the new amendment, which is discussed in details in the following paragraphs.

Results indicate that the items the general education teachers’ expressed the most agreement with are item 3, followed by items 1 and 21, with mean agreement of 4.89, 4.80, and 4.70, respectively, out of maximum of 6.

This indicates the general education teachers in this study strongly believed that integration of students with LD in Saudi schools will present mixed-group interaction and provide an excellent awareness system, fostering understanding and acceptance of differences among students (Statement 3), and that the integration of students with learning disabilities would motivate most of them to make an adequate attempt to complete their assignments (Statement 1). Nevertheless, the general education teachers positively believe that the integration would likely have a negative effect on the emotional development of the students with learning disabilities (Statement 21).

Disagreeing with the special education teachers, the general education teachers strongly believed that the students with a LD would probably develop academic skills more rapidly in a regular classroom than in special classrooms (Item 13).
According to the participants’ answers to the open-ended questions (See Appendix K), the benefit of integration could be as follows: giving students with LD their rights for educational opportunities in the least restrictive area; maximizing the potential of students with LD; students with LD will develop healthy communication skills and development needs through peer role models for academic, social, and behavior skills; increases in students’ self-value, self-esteem as well as self-confidence; those with LD in turn enriching the spirit of competition among students with LD and their peers; the interaction between the two groups raises the social awareness of the LD population; there will be high-quality classrooms and a good environment for learning, better than the existing ones; Saudi schools will develop sensitivity and tolerance toward limitations of individual differences that are lacking now. For example, they will be using the time/duration of the class adequately to teach students with special needs in regular classrooms.

On the other hand, the main areas in which special education participants had the strongest favorable attitudes were as follows: “Students with learning disabilities should be given every opportunity to function in regular classrooms when possible” (Statement 21). As Saudi special education teachers strongly believed that the isolation in a special classroom has a beneficial effect on the social and emotional development of the students with a LD (Statement 25), and as special education teachers would welcome students with learning disabilities in my class and work with them (Statement 27). Attitudes are indicated with the average degree of agreement being 5.47, 5.16, and 5.11, respectively.
In addition, there is a clear lack of consensus between the special education and general education teachers in certain issues that only one group saw as favorable and/or affecting integration. For example, even though the special education teachers strongly believed that students with LD would not monopolize the regular-classroom teacher’s time (Statement 17), they strongly believe that the behavior of students with learning disabilities would poorly [negatively] influence typically-developing peers (Statement 12). In addition, the Saudi special education teachers strongly believed that the integration of students with learning disabilities would not promote students’ with LD social independence (Item 14). Attitudes are indicated with their average degree of agreement being 4.36, 4.27, and 4.19, respectively.

A special education teacher said:

… There is no awareness of the new circumstances we have to provide…

[Hesitance] I guess there is, but not enough. So many general education teachers and the entire society expect us to do the awareness plan. As most of us [special education teachers] cannot, we simply do not have the time, we do everything from screening to teaching. The awareness program that the school anticipates me to do for the general education teachers, student, and parents was basically background information.

Another special education teacher discussed her role in teaching others about the inclusion program:

… We as LD teachers have to provide the school personnel and community with thorough information about the LD program that many of
us not are really confident with providing. I have heard it is coming from the USA…. As I explained to many of them what the LD program is, many simply argue with me and say it is the same old [after-school] enrichment program, it is just earlier in the day. So I had to explain that this program is different; this program is planned for those students who, due to innate deficit of the brain function, experience low academic achievements, preventing them from writing, reading, and doing math correctly… I do clarify to them it is not due to low intelligence, family problems, psychological problems, sensory problems, or environmental problems. [This] LD program is for those children who are average on all the content areas except one or two, and they try to work hard but they cannot for some reason get good grades. They have the incentive, but they could not achieve; hence, the LD program is accountable for providing the children who are diagnosed with a LD with the academic materials via different strategies and methods. But hard work and motivation are there. I say that if the student is not motivated, it means that he achieves low in more than one subject, even in easy subjects and this student cannot enter the program. I make it advantageous, not disadvantageous. I started the program like that. I say that this program is intended for those industrious students. I don't say the excellent student, but the hardworking student.

A general education who was trained overseas said:
… I was really taken aback by the new amendment; seriously, both way happy and disappointed. A country like ours should not implant IDEA in our schools. It just does not culturally translate satisfactorily; law makers should have taken the time to set a clear regulation plan that authentically fits our school system. I strongly believe the new amendment challenges the identity of Saudi because it comes from outside the country, while Saudi values its uniqueness. An example of that is the adapting of the LD discourse from the United States, the school does not have enough resource rooms, LD teachers, nor the culturally unbiased diagnostic testing… Can you believe that we have to integrate students with LD and we do not have the diagnostic tool yet? … It is not a cookie cutter… [The teacher continues]… Sorry, I have to stop interviewing for a minute. [He was so furious at that time.]

In measuring negative attitudes toward inclusion, it became apparent that, while general and special educators share common attitudes, the factors influencing their attitudes are different. Moreover, the negative attitudes present a wider difference of agreement between the two groups than do positive attitudes. General educators showed the most negativity about the sufficiency of their training to teach students with learning disabilities (Statement 20); special educators did not even recognize the statement as a negative.

Special educators, however, most disagreed with the idea that they are better at teaching students with learning disabilities than are general educators (Statement 24);
general educators disagreed as well, but although not to the same degree. Thus, even though special educators in Saudi have unique training to educate students with learning disabilities, this study shows, they believe general educators can teach students with learning disabilities just as well. At the same time, however, special educators disagreed that general educators “have the abilities necessary to work with students with disabilities” (Statement 10). This apparent conflict could indicate that special educators do not see their own training as adequate to teach students with disabilities.

As further explained by the respondents’ identification of challenges to integration in their answers to the open-ended questions, almost one-third of general and special educators believe they need better pre-service training and professional development. (See open-ended questions for challenges and benefits of integration, Appendix K).

An LD teacher reported:

… Frankly, when I screen and evaluate for eligibility of special educations services, I do not focus on the LD, necessarily. By any means, the medical sector says that LD is caused by problems in the central never system. Nevertheless, I believe that learning disabilities are an academic problem; it is a problem in information processing as having impenetrability with visual and auditory perception, and you know it is also due to the carelessness of general education teachers’ method of instruction. The memory problem and perception could be easily and equally secured by us LD teachers as well as the general education teachers.

Another LD teacher said:
… My personal feeling is that LD is not a disability. It does not cover what a disability is… I thus exclude it from disabilities, because disabilities are prominent and can be treated... Which makes it worthless to go through all these trainings and specializations in the time that both groups of teachers could just teach these students equally with a bit of change in instruction strategy…? So, it is learning differences instead of disabilities?

Both general and special educators expressed negative attitudes about classroom management issues as a result of inclusion. Statements 6, 8, and 23, all dealt with classroom management issues (See Appendix X), and revealed that respondents hold negative attitudes because respondents view the inclusion of students with LD as detrimental to typically-developing peers, necessitating significant classroom procedure changes, and adding to the difficulties of maintaining order in regular classrooms (See Table X, Appendix X).

A general education teacher articulated:

…I heard that LD is a mental defect… It targets the brain and makes the students unable to do academic tasks. Their low cognitive ability might cause some to think that with integrating these handicapped students it is absolute necessary to significantly change classroom procedures, but when I saw the LD students they are normal… Tell me why they say they have mental illness.

On a further note, all 251 participants (100%) disagreed that inclusion of students with learning disabilities will be detrimental to typically-developing peers (Statement 6, see Appendix 17), incurring a mean of 3.17 and a standard deviation 1.45. Two hundred
and forty nine (out of 251) participants answered negatively for both statements 8 and 23, which dealt with changes in classroom procedures and the need for teachers to show patience. The mean for item 23 was 2.68, with a standard deviation of 1.648; and the mean for statement number 8 was 2.47 and SD = 1.365. These negatively skewed responses, falling far from the middle, may reveal that participants wanted to convey a positive, idealistic outlook on inclusion. As stated in Chapter 1, one of the limitations of this study is that it relies on participants’ honesty in self-reporting; and due to the political climate, many Saudi educators are reluctant to share their perceptions. Still, such a finding is worth reporting and could be a foundation for more research.

Interestingly, both general and special educators, when answering open-ended questions and speaking with the researcher about the challenges of integration, 38% said that including students with learning disabilities in regular classrooms will cause behavioral problems in the school community, especially in classrooms with their typically developing peers. In the surveys, though, respondents answered neutrally on two statements dealing with that topic: Statement 4, “It is likely that students with learning disabilities will exhibit behavior problems in regular classrooms,” and Statement 12, “The behavior of students with learning disabilities will set a bad example for students without disabilities.” One reason for this could be the desire for Saudi teachers to express the ideals of education and maintain a politically correct image when asked a direct question. This is a cultural characteristic, further explained by a majority of teachers (51%) who reported that a major challenge of inclusion will be overcoming the
resistance to a major change in a conservative society, as inclusion is in Saudi. (See open-ended questions for challenges and benefits of integration, Appendix K.)

A general education teacher said:

… It is a thrilling experience for the country, but I do not think we are equipped yet. I say that because I have experiences in three different schools... We face the same problems over and over again in different schools... This school, for instance, has the LD program for four years now; however, school personnel seem to not understand what is intended with the LD category. LD students are not lazy or academically weak [attributed to students' own apathy or lack of motivation], thus it’s not contagious or influencing their typically-developing peers.

A special education teacher said:

… It is my fourth school that I work in as an LD teacher so far. Due to the lack of teachers, we move around to the area or school with the most numbers of students in need for the services. In every school that I go to, there is no resource room and I had to work extra hours the first two to three weeks of the school year to develop one. Many general education teachers, principals, and even some special education teachers are against the integration due to the fact that the handicapped students could set a bad role for the other students.... They run off classes because they do not want to be stigmatized as bad students with behavioral problems.

Another special education teacher disagreed with the above perspectives:

… Some students are referred from another school to this school just because we have LD programs. I mean, one of the students is coming to this school because of
the LD program. This is not the problem; it is that most students that come here are slow learners, developmentally delayed, but not students with LD…

In summary, unlike the data representing the special and general education teachers’ positive attitudes where the survey items with the highest means were similar, except they were placed in a different order by the teachers. Similar to the teachers’ positive attitudes data, special and general education teachers had selected similar survey-items that represented their negative attitudes but in a different order. Survey-items representing teachers’ negative attitudes were different and they picked survey-items and/or diverse issue that one group of teachers believed negatively effected the teachers attitude of educating students with learning disabilities in Saudi public schools. For instance, general education teachers selected items 23, 8, 9, 15, 27, 11, 6, 24, 18, and 20, respectively, to show their negative attitudes toward the integration of students with LD in regular public Saudi school, while special education teachers’ selected items 8, 22, 19, 10, 9, 23, 16, 27, 6, and 24 representing their negative attitude. Equally illustrating points of agreement and disagreement among both groups of teachers regarding the new amendment of educating students with LD into public schools in term of the positive attitudes items, the teachers’ negative attitudes will be discussed in the subsequent paragraphs.

More specifically, the main areas in which general education teachers’ participants had the least favorable attitudes were ten themes, which will be discussed here in terms of the areas with the lowest mean favorable attitudes and the areas where the greater favorable attitude average is lower than four. They were as follows: whether
the classroom behavior of students with learning disabilities generally does not require more patience from the teachers (Statement 23); whether integration of students with learning disabilities will require significant changes in regular classroom procedures (Statement 8); and whether increased freedom in the regular classroom creates too much confusion for students with learning disabilities (Statement 9). Attitudes are indicated with the average degree of agreement being 2.25, 2.29, and 2.55, respectively. Thus, it can be concluded that respondents disagree with the fact that this integration would change school standards and the regulations of the Saudi classrooms, as previously discussed.

The themes that had least favorable attitudes and averages lower than four: whether regular-classroom teachers have sufficient training to teach students with learning disabilities (Statement 20). The integration of students with learning disabilities can be beneficial for students without disabilities (Statement 18). Teaching students with learning disabilities is better done by special than by regular classroom teachers (Statement 24). Attitudes are indicated with their average degree of agreement being 3.07, 3.81, and 3.81, respectively.

By the same token, the main areas in which special education participants had the least favorable attitudes were as follows: whether integration of students with learning disabilities will require significant change in regular classroom procedures (Statement 8), and students with learning disabilities should be given every opportunity to function in regular classrooms when possible (Statement 22). Students with learning disabilities are likely to create confusion in regular classrooms (Statement 19). Attitudes are indicated
with their average degree of agreement being 2.70, 2.98, and 3.05, respectively. The themes that had least favorable attitudes and averages lower than four include: whether teaching students with learning disabilities is better done by special than by regular classroom teachers (Statement 24). The extra attention students with learning disabilities require will be to the detriment of the other students (Statement 6). The students with a learning disability will not be socially isolated in the regular classroom (Statement 27). Attitudes are indicated with their average degree of agreement being 3.64, 3.57, and 3.51, respectively. The following gives the reader further statistical information supporting the previously discussed issue.

The data also reveal that Saudi integration is defined as a pull-out program and extra help that students need; many teachers articulated these perceptions in their responses to open-ended questions (See open-ended questions for challenges and benefits of integration, Appendix K). Moreover, teachers believe integrating students with LD into standard classrooms is not going to change the teacher - student relationship, as there is no relationship between students and teachers in Saudi schools, outside of teachers delivering instruction in classrooms and students participating in the lesson plan. Time constraints and large classroom sizes (i.e., 30-35 students) impede teachers from having opportunities to develop relationships with students. Teachers complain that either classroom periods would need to be extended beyond 45 minutes or the size of classrooms would need to be reduced to accommodate more inclusion of LD students, who require more attention and instruction than their typically developing peers. As one general education teacher puts it:
… I, for example, have so many students to instruct and correct their assignments and… you know, how much homework we give to the students … How I can I look after these handicapped students? ... I think this change comes on us so fast; I do not want to be negative here, but what I am saying is that we [Saudi teachers] are not ready… I think we need to teach ourselves as teachers better techniques for the rigid curriculum we have, to better integrate the handicapped ones but not worry so far that they have their own classrooms.

As another teacher said:

Ya, Allah [Goodness]… I cannot say what LD is… This is my belief. I think we all have our own differences and certain abilities to perceive and understand the world around us; God blessed us with them, you know. I cannot say that it is a cognitive disability [deficit of the central nervous system]; I just can not, do not. You see them normal with their peers; the question is, what is it that’s making students fail to learn the essential skills? Because of teachers, carelessness, huge class sizes no other country but us has… Perhaps for some other reasons.

Another general teacher says:

I guess through individual teaching they’ll improve, and the good thing about LD resource rooms is providing the individualized attention they need… Yeah, I cannot focus on these handicapped students and give them this level of attention with 36 other students in my class. These handicapped students are missing a lot of fundamental skills. I need to go back and re-teach them those skills, sometimes I can and many other times I cannot... I think the primary room teachers should teach them well or they
even did not know how to... I am puzzled. This is the true story for a number of my students.

In addition, teachers believe that the increased freedom in the regular classroom, if integration took place, would not allow students with LD to have a longer duration of time for their class work and tests, would not create confusion as it is an issue in Saudi school now. Many teachers are arguing to either have more time with students in class or reduction in class sizes to better manage these challenges. However, teachers expressed the most disagreement whether the classroom behavior of students with learning disabilities generally does not require more patience from the teachers. For example, when making a graphic organizer for a story requiring that they read or write, LD students might have difficulty thinking in an orderly, logical way (cognitive disorganization), which might require more patience from the teachers while confusing their typically developing peers.

Section Two

Result of Testing the Hypotheses

A validity analysis was conducted to make sure that the data obtained was valid for statistical inference analysis. Item analyses were conducted on the 27 items hypothesized to assess attitudes toward integration of students with learning disabilities in regular classrooms. The coefficient alpha for the revised scale was 0.73, indicating an acceptable level of reliability. Coefficient alphas were computed to obtain internal consistency estimates of reliability for the Tow constructs. The alphas for factor 1 and factor 2 were 0.865 and 0.779, respectively. These values might be overestimates of the
population alphas because the same sample was used to conduct the item analyses and to compute the reliability estimates.

The researcher hypothesized that there are some factors such as gender, age, number of years of teaching experience, and professional qualifications (level of education, education major, teaching field, attendance in special education training programs, family members or relatives with learning disabilities, and exposure to students with disabilities in the class) that have some effect on the Saudi teachers’ attitudes toward the integrations of students with LD. Thus, the responses of participants were further analyzed under eight hypotheses (the eight factors previously mentioned) to determine significant factors that have an effect on the attitudes of the respondents toward the inclusion of students with disabilities.

A two-tailed t-test was used to compare two means and a one-way ANOVA analysis was performed for factors with more than two levels to arrive at the significance of the factor for various average responses of participants. The Tukey method for multiple comparisons was applied to control for Type I error. As mentioned previously, the level of education and the groups of teachers with a graduate degree were combined with the group of teachers who had a bachelor’s degree before the analysis (as there were only seven individuals), so as not to need to conduct a separate analysis. This was decided due to the fact that the sample was not numerous enough to make statistical inferences. Likewise, the group of teachers who had specialized, primary teaching certification in an area other than special or general education “other,” meaning the 6.3%.
majoring in religion was not numerous enough to make statistical inferences (see appendix J).

The statistical analysis of the average of total responses of teachers to the 27 items, with each of the eight independent variables, only two (gender, type of degree held) emerged as significant factors determining Saudi teachers’ attitudes toward the integration of students with LD; in-service/extra special education training emerged to be partially significant in determining Saudi teachers’ attitudes toward integrations of LD.

Interestingly, the significant factors in the study seem to have an effect only on general education teachers; the factors for general education teachers indicated a significant difference between groups across degree level with F [1, 94] = 9.547, p<0.01). Another interesting significant factor was gender for the general education teachers, F (1, 94) = 12.959, P=0.001. The results indicate that male teachers and female teachers are significantly different in their attitudes toward integration of students with LD. Male teachers were more positive (M=101.125, SD=11.286) in their attitudes toward integration than female teachers (M=91.562, SD=14.537).

Special education teachers justify that they have a more realistic point view of the issue than their colleagues in general education:

Eh, um…We do not face real objections to the new amendment but one should look at it from a pragmatically-realistic point of view. Sometimes there are some disagreements between us special education teachers and general ones; they are so … um… What should I call it? … optimistic of the situation, but not strong
disagreement. They say “try to admit this-or-that students to your LD program. And they are children with developmentally delay. ” I try to explain that the students have no LD but lower achievements. So it is in a friendly way, so I do not lose my job. Sometimes I tell them that when I have a spot I will admit the students into my LD program.

In other words, both general and special education teachers conveyed substantially positive attitudes toward inclusive schooling. Naturally, teachers educated in special education hold significantly more positive attitudes toward inclusion than those from general education. The analysis confirmed that gender and general education variables were had a more significant influence than the special education variable on teachers’ attitude. On the other hand, age, years of teaching experience, and professional qualifications (such as major, teaching field, presence of family members or relatives with learning disabilities, and exposure to students with disabilities) did not reach a level of statistical significance, at a level of p = 0.05.

Male and female teachers strongly differ in their attitudes toward integration of students with LD. The strength of relationship between the gender and the attitudes as assessed by eta square is 0.12, meaning that 12% of the variance of the dependent variable has been accounted for by the variable of gender.

For teachers (male and female teachers with bachelor’s degrees and male and female teachers with two-year diplomas), the study's analysis calculated well-known patterns of significant difference between groups across degree levels only in general
education. Those with undergraduate/graduate degrees were more positive toward inclusion than those with only a two-year diploma.

As mentioned in earlier chapters, studies by Salvia and Munson (1986) suggested that teachers’ willingness to integrate students with special needs into their classrooms is significantly related to the number of special education courses and workshops in which they have participated. Larrivee and Cook (1979) reported the successful integration of students with LD depends on teachers’ willingness to integrate students with special needs and depends upon the teachers’ background preparation and training in the area of special education. Thus, both general and special education teachers with more training are more likely to demonstrate confidence and cope better with the process of integration.

Another significant finding is the strength of relationship between degree level and attitudes as assessed by eta square = 0.092 meaning that 9.2% of the variance of the dependent variable has been accounted for by the variable degree level. The one-way ANOVA and t-test confirmed that teachers’ participation in extra training and their contact with students with LD were marginally significant variables, a bit over 0.05. Teachers had a less positive attitude toward inclusion, when compared to those who did not have such opportunities with in-service training or did not have students with LD in their classrooms.

Further analyses were conducted in order to understand the interaction between significant items; three analyses were conducted. The first one evaluated the effects of four age levels and gender on attitudes toward integration. For special education teachers, there was no significant interaction between age and gender. The gender main
effect revealed that male, not female; special education teachers show a more positive attitude toward integration. For general education teachers, the test indicated no significant correlation between age and gender, but a significant main effect for gender. After taking age into account, gender accounted for 5.4% of the variance in the dependent variable.

These two significant findings were supportive of the literature and provide the Saudi teachers’ perspective on special education. It confirmed the studies concluding that international males (Saudi) are more likely to have positive attitudes toward the integration of students with LD unlike Eastern literature that articulate female teachers tend to have more positive attitudes toward integration of students with disabilities. Further, unlike previous literature, this Saudi study shows that general education teachers have more positive attitudes of integration due to the fact that Saudi special education teachers tend to have more of a realistic attitude toward the amendment of 2005.

**Detailed Results of the Analysis of the Factors Related to the Attitude of Participants**

**Attitude and Gender**

Null Hypothesis 1: Saudi general and special education teachers have the same attitudes toward the integration of children with LD, regardless of their gender.

A one-way analysis of variance (see Table 12) was conducted to evaluate the relationships between attitudes of male and female Saudi general and special education teachers toward integration of students with LD in regular education schools. The independent variable, *gender*, included two levels: male and female. The dependent variable was the total (summed) score from the survey. For special education teachers,
the ANOVA was not significant, $F(1, 104) = .248$, $p = 0.620$. It indicates there is no significant difference between male teachers and female teachers in terms of their attitudes toward integration of students with LD. For the general education teachers, the ANOVA was significant, $F(1, 94) = 12.959$, $p = 0.001$. The results indicate that male and female teachers are significantly different in their attitudes toward integration of students with LD. Male teachers are more positive ($M = 101.125$, $SD = 11.286$) than female teachers ($M = 91.562$, $SD = 14.537$). The strength of relationship between the gender and the attitudes as assessed by eta square = 0.12, which means 12% of the variance of the dependent variable has been accounted for by the variable gender.
Table 12

ANOVA Between Mean Attitude and Gender

Special Education Teachers

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F. Value</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>56</td>
<td>108.39</td>
<td>8.77533</td>
<td>.248</td>
<td>.002</td>
<td>Not</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>109.30</td>
<td>9.99847</td>
<td></td>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

General Education Teachers

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F. Value</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>48</td>
<td>101.1250</td>
<td>11.28664</td>
<td>12.959</td>
<td>.121</td>
<td>Sig.</td>
</tr>
<tr>
<td>Female</td>
<td>48</td>
<td>109.30</td>
<td>14.53668</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attitude and Age

Null Hypothesis 2: Saudi general and special education have the same attitudes toward the integration of children with LD regardless of teachers’ age.

A one-way analysis of variance was conducted to evaluate the relationship between attitudes of Saudi general and special education teachers toward the integration of students with LD in regular education schools across age levels (See Table 13). The independent variable, age, included four levels: less than 30, between 30 and 40, between 41 and 50, and over 50. The dependent variable was the total (summed) score from the survey. For the special education teachers, the ANOVA was insignificant, F (3, 101) = 1.857, p = 0.142. The results indicate no significant difference between two groups across age levels. For the general education teachers, the ANOVA was also insignificant, F (3,
92) = 0.382, p = 0.767, meaning there is no significant difference between groups across age levels.

Table 13
ANOVA for Mean Attitude and Age
Special Education Teachers

<table>
<thead>
<tr>
<th>Age group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 30</td>
<td>45</td>
<td>107.3111</td>
<td>8.25949</td>
<td></td>
<td>Not</td>
</tr>
<tr>
<td>31-40</td>
<td>12</td>
<td>107.4167</td>
<td>10.82471</td>
<td></td>
<td>Sig.</td>
</tr>
<tr>
<td>41-50</td>
<td>13</td>
<td>106.8462</td>
<td>11.94324</td>
<td>0.052</td>
<td></td>
</tr>
<tr>
<td>51and more</td>
<td>35</td>
<td>111.7429</td>
<td>8.76270</td>
<td></td>
<td></td>
</tr>
<tr>
<td>less than 30</td>
<td>45</td>
<td>107.3111</td>
<td>8.25949</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Education Teachers

<table>
<thead>
<tr>
<th>Age group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30</td>
<td>15</td>
<td>99.5333</td>
<td>9.73115</td>
<td></td>
<td>Not</td>
</tr>
<tr>
<td>31-40</td>
<td>51</td>
<td>95.2353</td>
<td>15.71571</td>
<td></td>
<td>Sig.</td>
</tr>
<tr>
<td>41-50</td>
<td>24</td>
<td>96.8333</td>
<td>12.36639</td>
<td>0.012</td>
<td></td>
</tr>
<tr>
<td>51and more</td>
<td>6</td>
<td>95.8333</td>
<td>11.82230</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attitude and Type of Degree Held

Null Hypothesis 3: Saudi general and special education teachers have the same attitudes toward the integration of children with LD regardless of the type of degree held.
A one-way analysis of variance was conducted to evaluate the relationship between attitudes of Saudi general and special education teachers toward the integration of students with LD in regular education schools across degree levels. The independent variable *degree*, included two levels: one is a combination of bachelor’s and graduate degree holders, and the other is diploma (bachelor degree) holders. The dependent variable was the total (summed) score from the survey. For special education teachers, the ANOVA was insignificant, $F (1,104) = 0.583$, $p = 0.447$. The results indicate there was no significant difference between two groups across degree levels. For general education teachers, the ANOVA was significant, $F (1, 94) = 9.547$, $p < 0.01$. This indicates a significant difference between groups across degree levels. The strength of relationship between the degree level and the attitudes as assessed by eta square $= 0.092$, meaning that 9.2% of the variance of the dependent variable was accounted for by the variable *degree level*. 
Table 14

ANOVA for Mean Attitude and Type of Degree Held

Special Education

<table>
<thead>
<tr>
<th>Level of education</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F-Value</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor &amp; Grad.</td>
<td>98</td>
<td>108.6224</td>
<td>9.58254</td>
<td>.583</td>
<td>.006</td>
<td>Not Sig.</td>
</tr>
<tr>
<td>Diploma</td>
<td>8</td>
<td>111.2500</td>
<td>5.31171</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Education

<table>
<thead>
<tr>
<th>Level of education</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F-Value</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor &amp; Grad.</td>
<td>70</td>
<td>98.8857</td>
<td>11.99945</td>
<td>9.547</td>
<td>.092</td>
<td>Sig.</td>
</tr>
<tr>
<td>Diploma</td>
<td>26</td>
<td>89.5000</td>
<td>16.13506</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attitude and Years of Experience

Null Hypothesis 4: Saudi general and special education have the same attitudes toward the integration of children with LD regardless of their years of teaching experiences.

A one-way analysis of variance was conducted to evaluate the relationship between attitudes of Saudi general and special education teachers toward integration of students with LD in regular education schools and years of teaching experience (See Table 15). The independent variable of years of experience, included four levels: less than one year, between one and five, between six and ten, and over ten years. The dependent variable was the total (summed) score from the survey. For the special
education teachers, the ANOVA was insignificant, F (3,102) = 0.084, p = 0.968. The results indicate no significant difference between two groups in terms of years of teaching experience. For the general education teachers, the ANOVA was also insignificant, F (3, 92) = 0.0795, p = 0.5, meaning there was no significant difference between groups in terms of years of teaching.
Table 15

*ANOVA Between the Mean Attitude and Years of Experience*

Special Education Teachers

<table>
<thead>
<tr>
<th>Teaching Experience</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 1 year</td>
<td>13</td>
<td>108.3846</td>
<td>9.18820</td>
<td>Not</td>
<td></td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>108.6327</td>
<td>10.12360</td>
<td>.002</td>
<td>Sig.</td>
</tr>
<tr>
<td>1-5 years</td>
<td>37</td>
<td>108.9189</td>
<td>9.00117</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10 years</td>
<td>7</td>
<td>110.4286</td>
<td>6.87646</td>
<td></td>
<td></td>
</tr>
<tr>
<td>more than 10 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Education Teachers

<table>
<thead>
<tr>
<th>Teaching Experience</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 1 year</td>
<td>21</td>
<td>92.3810</td>
<td>14.47231</td>
<td>Not</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>97.0714</td>
<td>9.26087</td>
<td>.025</td>
<td>Sig.</td>
</tr>
<tr>
<td>1-5 years</td>
<td>17</td>
<td>96.3529</td>
<td>14.92457</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10 years</td>
<td>44</td>
<td>98.0000</td>
<td>14.29588</td>
<td></td>
<td></td>
</tr>
<tr>
<td>more than 10 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Null Hypothesis 5: Saudi general and special education have the same attitudes toward the integration of children with LD regardless of their status of having family and relatives with disabilities.

A one-way analysis of variance was conducted to evaluate the relationship between attitudes of Saudi general and special education teachers toward integration of students with LD in regular education schools and their status of having family and relatives with disabilities (See Table 16). The independent variable, having family and relatives with disabilities included two levels: yes and no. The dependent variable was the total (summed) score from the survey. For special education teachers, the ANOVA was insignificant, F (1,104) = 1.408, p = 0.238, p > 0.05. The results indicate no significant difference between two groups as a result of having a family and relative with disabilities. For the general education teachers, the ANOVA was also insignificant, F (1, 93) = 2.922, p = 0.091, p > 0.05. This shows no significant difference between groups as a result of having a family member or relative with disabilities.
Table 16

ANOVA for Mean Attitude Score and Having Family and Relatives with Disabilities

Special Education Teachers

<table>
<thead>
<tr>
<th>status of having family and relatives with disabilities</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F. Value</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>32</td>
<td>107.19</td>
<td>8.74896</td>
<td>1.408</td>
<td>.013</td>
<td>Not</td>
</tr>
<tr>
<td>no</td>
<td>74</td>
<td>109.53</td>
<td>9.55191</td>
<td></td>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

General teachers

<table>
<thead>
<tr>
<th>status of having Family and relatives with disabilities</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F. Value</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
<td>92.13</td>
<td>14.62967</td>
<td>2.922</td>
<td>.030</td>
<td>Not</td>
</tr>
<tr>
<td>no</td>
<td>71</td>
<td>97.66</td>
<td>13.40676</td>
<td></td>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

Attitude and Teaching Field

Null Hypothesis 6: Saudi general and special education have the same attitudes toward the integration of children with LD regardless of their teaching fields.

A one-way analysis of variance was conducted to evaluate the relationships between attitudes of Saudi general and special education teachers toward integration of students with LD in regular education schools across different teaching fields (See Table 17). The independent variable, teaching field included four levels: science, art, language,
and other. The dependent variable was the total (summed) score from the survey. For the special education teachers, the ANOVA was insignificant, $F (3,100) = 0.731$, $p > 0.05$. The results indicate no significant difference between the two groups across different teaching fields. For the general education teachers, the ANOVA was also insignificant, $F (3.91) = 1.571$, $p = 0.202$, $p > 0.05$. This shows there is no significant difference between groups across teaching fields.
Table 17

ANOVA for Mean Attitude and Teaching Field

Special Education Teachers

<table>
<thead>
<tr>
<th>Teaching Field</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Effect Size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>sciences</td>
<td>15</td>
<td>109.2000</td>
<td>8.43632</td>
<td>Not</td>
<td></td>
</tr>
<tr>
<td>art</td>
<td>11</td>
<td>112.4545</td>
<td>14.06672</td>
<td>Sig.</td>
<td></td>
</tr>
<tr>
<td>language</td>
<td>34</td>
<td>108.3235</td>
<td>8.54479</td>
<td>.021</td>
<td></td>
</tr>
<tr>
<td>other (specify)</td>
<td>44</td>
<td>107.8636</td>
<td>8.99765</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Education Teachers

<table>
<thead>
<tr>
<th>Teaching Field</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Effect Size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>sciences</td>
<td>33</td>
<td>99.2727</td>
<td>12.24049</td>
<td>Not</td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td>11</td>
<td>92.6364</td>
<td>14.24270</td>
<td>Sig.</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>20</td>
<td>97.9500</td>
<td>11.85649</td>
<td>.049</td>
<td></td>
</tr>
<tr>
<td>other (specify)</td>
<td>31</td>
<td>92.8065</td>
<td>15.57438</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Null Hypothesis 7: Saudi general and special education teachers have the same attitude toward the integration of children with LD regardless of the number of students with disabilities in the classroom.

A one-way analysis of variance was conducted to evaluate the relationship between the attitude of Saudi general and special education teachers toward the integration of students with LD in regular education schools and the number of students with disabilities in the classroom. The independent variable, number of students with disabilities, included two levels: yes and no. The dependent variable was the total (summed) score from the survey. For special education teachers, the ANOVA was insignificant, $F (1,104) = 1.782, p > 0.05$. The results indicate no significant difference between two groups as result of number of students with disabilities in the classroom. For the general education teachers, the ANOVA was insignificant, $F (1.93) = 0.935, p = .336, p > 0.05$. Therefore, there is no significant difference between groups as a result of numbers of students with disabilities in the classroom.
Table 18

ANOVA for Mean Attitude and Number of Students with Disabilities in the Classroom

Special Education Teachers

<table>
<thead>
<tr>
<th>Number of students with Disabilities</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F. Value</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>101</td>
<td>109.0891</td>
<td>9.20337</td>
<td>1.782</td>
<td>.017</td>
<td>Not</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>103.4000</td>
<td>11.52389</td>
<td></td>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

General Education

<table>
<thead>
<tr>
<th>Number of students with Disabilities</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F. Value</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>94.6154</td>
<td>15.23606</td>
<td>.935</td>
<td>.010</td>
<td>Not</td>
</tr>
<tr>
<td>No</td>
<td>56</td>
<td>97.4107</td>
<td>12.83005</td>
<td></td>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

Attitude and Extra Special Education Training

Null Hypothesis 8: Saudi general and special education have the same attitude toward the integration of children with LD regardless of having received extra special education training.
A one-way analysis of variance was conducted to evaluate the relationship between attitudes of Saudi general and special education teachers toward the integration of students with LD in regular education schools and teachers having received extra special education training. The independent variable, *extra training*, included two levels: yes and no. The dependent variable was the total (summed) score from the survey. For special education teachers, the ANOVA was insignificant, $F (1,102) = 0.718$, $p = 0.399$. The results indicate there is no significant difference between the two groups as result of having attended extra special education training. For general education teachers, the ANOVA was insignificant, $F (1, 94) = 3.431$, $p = 0.067$. Thus, there is a marginally significant difference of slightly more than 0.05 between groups as a result of having received extra training.
Table 19

*ANOVA for Mean Attitude and Extra Special Education Training*

**Special Education Teachers**

<table>
<thead>
<tr>
<th>status of attending extra special education training</th>
<th>N</th>
<th>Mean</th>
<th>Std.</th>
<th>F. Value</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>61</td>
<td>108.0656</td>
<td>8.94775</td>
<td>.718</td>
<td>.007</td>
<td>Not</td>
</tr>
<tr>
<td>No</td>
<td>43</td>
<td>109.6512</td>
<td>10.00210</td>
<td></td>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

**General Education Teachers**

<table>
<thead>
<tr>
<th>status of attending extra special education training</th>
<th>N</th>
<th>Mean</th>
<th>Std.</th>
<th>F. Value</th>
<th>Effect size</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>15</td>
<td>102.3333</td>
<td>16.15844</td>
<td>3.431</td>
<td>.035</td>
<td>Sig.</td>
</tr>
<tr>
<td>No</td>
<td>81</td>
<td>95.2346</td>
<td>13.14370</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further Analyses Conducted to Understand the Interaction between Significant Items

A two-way ANOVA was conducted to analyze the findings of the significant factors in this study, because it exposed new results concerning two particular variables, *gender* and *age*, in influencing teachers’ attitudes toward integration. In addition, the two-way ANOVA allowed for isolating variables that were correlated in previous studies to further justify findings in this study. The first analysis was conducted to evaluate the effects of four levels of *age* and *gender*, the first significant factor in the current study, on
attitudes toward integration. A second analysis was conducted to evaluate the effects of four teaching fields and *education levels*, which was the second significant factor in the current study. Finally, analysis was conducted to evaluate the effects of the respondents’ *field of study* and having *family members or relatives with learning disabilities* on attitudes toward integration. The findings will be explained throughout this section.

The Relationship between Age Levels and Gender

A $4 \times 2$ ANOVA was conducted to evaluate the effects of four *age* levels and *gender* on the attitudes of Saudi general education and special education teachers toward integrating students with learning disabilities in regular public schools. The means and standard deviations for attitudes as a function of the two factors are presented in Table 20. For special education teachers, the ANOVA indicated no significant interaction between age and gender, $F(1, 99) = 0.216, p = 0.643$, partial eta square = 0.002; but significant main effects for gender, $F(1, 99) = 5.776, P = 0.018$, partial eta square = 0.055, and age, $F(3, 99) = 3.678, P= 0.015$, partial eta square = 0.1. The gender main effect indicated that male special education teachers tend to have more positive attitudes towards integration than women. For general education teachers, (See Table 20), the ANOVA indicated no significant interaction between age and gender, $F(3, 88) = 0.294, P = 0.83$, partial eta square = 0.01, and no significant main effect for age, $F(3, 88) = 0.513$, $P = 0.674$, eta square = 0.17; but has a significant main effect for gender. $F(1, 88) = 4.991, P = 0.028$, eta square = 0.054, which means that after taking age into account, the variable *gender* accounts for 5.4% of the variance in the dependent variable.
Table 20

*ANOVA for Mean Attitude for Age and Gender*

<table>
<thead>
<tr>
<th>Source</th>
<th>Special education teachers</th>
<th>Regular education teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DF</td>
<td>Mean Square</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>474.698</td>
</tr>
<tr>
<td>Age</td>
<td>3</td>
<td>302.260</td>
</tr>
<tr>
<td>Gender * age</td>
<td>1</td>
<td>17.741</td>
</tr>
</tbody>
</table>

A general education teacher reported

… all my fear I am studying, going abroad, and spending all expenses for nothing… honestly terrified that I’m taking [a] risk… it is not solid ground yet, especially for us women… males could travel unreservedly and find a job [women in Saudi Arabia cannot travel unless there is a male with her even if it is for a job]… all my fear is that I will not find a job… [Despite her protestations, this woman soon after the interview figured out a way to leave the city to take a job in another city as an LD superintendent in one of the Saudi regions, which was a ten-hour drive and thousands and thousands of miles from her hometown. After she left, no one associated with her was able to give any details about her leaving. This proves that although the ideologies are very conservative, exceptions can be made that benefit the education system—but only rarely, and on a case-by-case basis.]

Other special education teachers added:

I think male teachers are more fortunate than us especially with the new education
Alteration [the inclusion of children with LD] they have a 35% raise in their incomes due to the fact that lawmakers pose [believe] our [female] monthly earnings is in better shape than the males…

A special education teacher rationalized the reason for why general education teachers have more positive attitudes than the female special education teachers. …teachers says there is no awareness of the new circumstances we have to provide that,… um [hastiness] I guess there is, but not enough so may general education teachers and the entire society expect us to do the consciousness plan as most of us [special education teachers] cannot. We simply do not have the time, we do everything from screening to teaching. The awareness program that the school anticipates me to do for the general education teachers, student, and parents was basically background information about the LD program…

Relationship Between Teaching Fields and Education Level

The second analysis that was carried out was a 4 x 3 ANOVA to evaluate the relationship between the four teaching fields and education level of the participants (See Table 21). For special education teachers, the test indicated no significant interaction between teaching fields and education levels. For general education teachers, no significant interaction emerged between content area and degree levels, nor for teaching levels, which means that after accounting for content area, degree levels accounted for 7% of the variance in the dependent variable.
Follow-up analyses were conducted to discover which education level of general education teachers held significantly different attitudes from the others. The following tests consisted of all pairs of comparisons among the three levels of education. The Tukey HSD procedure was used to control for Type I error across the pairs of comparisons. The results of this analysis indicate that the group with a bachelor’s degree held significantly different positive attitudes from the group holding two-year diplomas. There was no significant difference between the group holding a bachelor’s degree and the group holding a master’s degree, or between master’s degrees and the two-year diplomas.

Table 21

ANOVA for Mean Attitude for Relationship Between Teaching Fields and Education

<table>
<thead>
<tr>
<th>Source</th>
<th>Special education teachers</th>
<th>Regular education teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DF</td>
<td>Mean Square</td>
</tr>
<tr>
<td>Content</td>
<td>3</td>
<td>92.335</td>
</tr>
<tr>
<td>Degree level</td>
<td>2</td>
<td>149.850</td>
</tr>
<tr>
<td>Content area</td>
<td>3</td>
<td>63.273</td>
</tr>
</tbody>
</table>
The Relationship between Major and Presence of Family Members or Relatives with Learning Disabilities

A third 3 x 2 ANOVA analyses was conducted to evaluate the relationship between the respondents’ college major and having a family member or relative with learning disabilities on their attitudes toward integration. This analysis showed no significant relationship between the variables of major and presence of family members or relatives with learning disabilities, excluding the main effect for majors. Thus, after taking presence of a family member with a disability into account, college major accounts for 19.7% of the variance in the dependent variable.

Follow-up analyses were conducted to find out which major promoted significantly different attitudes from the others. The follow-up tests consisted of all pair-wise comparisons among the three levels of the education levels. The Tukey HSD procedure was used to control for Type I error across the pair-wise comparisons. The results of this analysis indicated that the special education group and general education group differed substantially from each other. The special education group had more positive attitudes toward integration than either the general education group or the ‘other’ group. There was no significant difference between the general education group and the ‘other’ group.
Table 22

3 x 2 ANOVA for Mean Attitude for Major and Presence of Family Members or Relatives with Learning Disabilities

<table>
<thead>
<tr>
<th>HSD</th>
<th>(I) Major</th>
<th>(J) Major</th>
<th>Mean Difference</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Special education</td>
<td>General education</td>
<td>12.5576(*)</td>
<td>1.67599</td>
<td>.000</td>
<td>8.6014, 16.5138</td>
</tr>
<tr>
<td></td>
<td>General education</td>
<td>Special education</td>
<td>-12.5576(*)</td>
<td>1.67599</td>
<td>.000</td>
<td>-16.5138, -8.6014</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>.1203</td>
<td>3.39606</td>
<td>.999</td>
<td>-7.8962, 8.1368</td>
<td></td>
</tr>
</tbody>
</table>
Summary

The data analysis revealed that, of 255 surveys distributed during the 2008-2009 school year to 24 schools in Makkah administrative area, 251 were found to be stable/useable for further statistical analysis. The sample was almost equal in terms of gender, with most of the teachers in the study under 40 years old.

Overall, both general and special education teachers had positive attitudes toward the integration of students with learning disabilities, however the special education teachers had a slightly more positive attitude. Teachers felt that integration would give students with LD the opportunity to function in the least restrictive area (regular classrooms), as it would offer mixed group interaction that fosters understanding and acceptance of differences among students. Through the integration, students with learning disabilities would not be socially isolated.

On the other hand, respondents expressed the most disagreement with statements regarding the integration of students with learning disabilities requiring significant changes in regular classroom procedures, due to the fact that students with learning disabilities generally require more patience from the teachers and that increased freedom in the regular classroom would create too much confusion for students with learning disabilities. The qualitative responses justified the latter.

Respondents disagreed with some issues regarding of the integration of students with LD in public schools, which negatively influenced their attitudes. First, integrating students with LD in general education settings will require a lot of changes in the Saudi curriculum. With regard to the regulation of classroom dynamics, successful integration
cannot realistically be implemented at the current time, due to their belief that the integration of students with LD will not involve a full inclusion program. Finally, teachers believe Saudi schools are not equipped to deal with a full inclusion program (e.g., lack of teachers, lack of teacher training, lack of properly equipped school buildings that can accommodate students with LD, lack of LD diagnostic tools, and lack of clearly articulated LD regulations).

Many teachers articulated that what currently exists is not inclusion, but rather, a pull-out program and extra help is provided to students in need. Moreover, teachers believed integrating students with LD into standard classrooms is not going to change the teacher-student relationships, as there is no relationship between students and teachers in Saudi schools, outside of teachers delivering instruction in classrooms and students participating in the lesson plan. Because students with LD require more attention and instruction than their typically developing peers, teachers suggested they need either longer classroom periods beyond forty-five minutes or the size of classrooms reduced to accommodate more inclusion.

Participant responses were further analyzed under eight hypotheses to determine significant factors contributing to the respondents’ attitudes toward the inclusion of students with disabilities. A statistical analysis of the average of total response of teachers to the 27 items, with each of the eight independent variables, gender and type of degree held emerged as significant factors determining elementary school teachers’ attitudes toward inclusion, while the variable extra training emerged to be marginally significant. On the other hand, age, years of teaching experience, and professional qualifications
(such as major, teaching field, presence of family members or relatives with learning
disabilities, and exposure to students with disabilities) were insignificant, at the level of
0.05.

Teachers with education in both general education and special education
conveyed substantially positive attitudes toward inclusive schooling. Naturally, teachers
educated in special education held significantly more positive attitudes toward inclusion
than those in general education. The analysis confirmed that the variables gender and
general education were significantly related.

Male and female teachers strongly differed in their attitudes toward integration of
students with LD. For male and female teachers with bachelor’s degrees and male and
female teachers with two-year diplomas, the study's analysis calculated well-known
patterns of significant difference between groups across degree levels only in general
education. Those with undergraduate/graduate degrees were more positive toward
inclusion than those with only a two-year diploma.

The one-way ANOVA and t test confirmed that teachers’ participation in extra
training and their contact with students with LD were marginally significant variables, a
bit over 0.05. Teachers had a less positive attitude toward inclusion, when compared to
those who did not have such opportunities within service-training or did not have
students with LD in their classrooms. Further analyses were conducted in order to
understand the interaction between significant items; three analyses were administered.

For special education teachers, no significant interaction between age and gender
existed. However, analysis shows that gender has a main effect on the teacher’s attitudes.
More interestingly, the gender main effect revealed that male, not female, special education teachers show a more positive attitude toward integration. For general education teachers, the test indicated no significant correlation between age and gender. Again akin to special education teachers’ results, general education teachers 4*2 ANOVA indicated a significant main effect for gender. After taking age into account, gender accounted for 5.4% of the variance in the dependent variable.

The second analysis carried out to evaluate the effects of four teaching fields and education levels. For both special and general education teachers, the test indicated no significant interaction between teaching fields and education levels. Follow-up analyses were conducted to discover which education level of general education teachers stood out as significantly different attitudes from the others. The results of this analysis indicated that the group with a Bachelor’s degree held significantly different positive attitudes from the group with two-year diploma. There was no significant difference between the group holding a Bachelor’s degree and the group holding a Master’s degree, or between Master’s degrees and the two-year diplomas.

The third analysis was conducted to evaluate the effects of the respondents’ college majors and their status of having a family member or relative with learning disabilities on their attitudes toward integration. This analysis showed no significant relationship between major and presence of family members or relatives with learning disabilities, excluding main effect for majors. Follow-up analyses were conducted comparisons among the three levels of the education to find out which major promoted different attitudes from the others. The results of this analysis indicated that the special
education group and general education group differ substantially from each other. The special education group has more positive attitudes toward integration than either general education groups or other specific groups. There was no significant difference between general education group and other specific groups.

This chapter has presented information about the factors influencing teachers’ attitudes toward integration of students with disabilities in regular classrooms. Chapter 6 will describe extraneous findings, how they contribute to the body of international research regarding perspectives and attitudes towards special education, and discuss implications, limitations, and possibilities for future research.
CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to gauge special and general education teachers’ attitudes towards the Ministry of Saudi Education’s new amendment of 2005 that was brought to public attention through the country’s fifth education strategic plan, which mandates the inclusion of students with learning disabilities (LD) in regular public classrooms. This study provides important insights for those in the education field, as well as officials guiding the implementation process.

In addition to providing one of the earliest data sets regarding the prevalence of inclusion, this study provides a historical background of learning disabilities dating back to the Foundation Era in the 1800s through the Emergent Era ending in the mid 1970s. Furthermore, this study includes an exclusive English review of the Saudi government’s role in providing resources to people with learning disabilities and disabilities in general.

All of this background is critical for any exploration of attitudes because many varying influences determine and lead to a change in attitudes (Hall, 1997; Halloran, 1967).

Teacher attitudes play a determining role in students’ educational achievements (Alexander & Strain, 1978; Dusek, 1975; Gottlieb, 1975) and therefore are a critical aspect of any new school program. Saudi Arabia at present is undergoing the first years of implementation of inclusion of students with LD in the regular classroom under the 2005 amendment, yet there is an alarming lack of literature on most aspects of inclusion. Even prior to the 2005 amendment, there was a lack of data overall regarding Middle Eastern special education perspectives, especially data on the prospect of “new/non
normative to Saudi system” disabilities categories in Saudi education, such as the LD category.

The effects of a lack of previous research became apparent throughout the course of the study, particularly because more than half the teachers reported in both open-ended survey questions and interviews that a major challenge of inclusion is the lack of a plan to develop an awareness of inclusion. They described how a lack of awareness adds to a resistance to change, particularly when it affects a vulnerable population (in this case, children with learning disabilities) in a conservative society. In addressing the lack of previous data and in order to justify and strengthen the information presented here, the researcher chose to utilize a mixed-methodology approach. This study was designed to collect data using two different methods of inquiry: first, a quantitative–questionnaire with open-ended questions at the end of the survey, and second, qualitative semi-structured interviews to further explain the quantitative findings. This approach supplied rich findings, particularly because it allowed the researcher to correlate results to the distinct historical and cultural perspective of Saudi Arabia (Gargiulo, 2006; Gottlieb, Alter, Gottlieb & Wishner, 2004; Green, Rock & Weisenstein, 1983), as discussed in previous chapters. These findings, as well as the implications, limitations, and possibilities for future research are all discussed in this chapter.

The findings from the triangulation of methods illustrated consistent themes, evident in both the findings from the questionnaires and the interviews. However one extraneous finding in this study, yet extremely imperative, contributes to the justification of the attitudes of many special and general education teachers in Saudi Arabia, if kept in
mind while reading this chapter. The finding can be explained and/or formulated by juxtaposing the two diverse terminologies, what in the American special education literature has been termed, “the 6- hour retarded child” and a student with learning disabilities (LD). These two distinct disability categories, the 6- hour retarded child and a student with LD, seem to define the Saudi attitude toward learning disabilities from 2005 through 2009.

Reiterating, the term learning disabilities (LD) is a generic term for a heterogeneous group of students who have been diagnosed with a central nervous system dysfunction manifested by delays in early development and/or difficulties in attention, memory, reasoning, coordination, communication, reading, writing, spelling, calculation, social competence and emotional maturation. In contrast, the “6- hour retarded child” is a specific term that refers to a group of students diagnosed as having development and/or difficulties in attention, memory, reasoning, coordination, communication, reading, writing, spelling, calculation, social competence and emotional maturation which makes them appear as having borderline mental retardation just during school hours and /or years, although these students function normally with family and peers outside of school. Many scholars (Mash & Barkley, 2003; Gottlieb & Buddoff, 1973; Gottwald, 1970; Greenbaum & Wang, 1965) have articulated the concept of the “6-hour retarded child.” The terminology is no longer used in the USA, partially because a number of scholars have argued that this phenomenon could be a manifestation of low-socioeconomic status or over/under diagnosis, which many times, is the case due to a lack of awareness.
However, this conception is useful for the understanding of many Saudi teachers’ attitudes towards children with learning disabilities.

According to the current investigation of the emerging themes regarding Saudi teachers’ attitudes towards the integration of students with LD into the public schools, the present research proposes a change of the terminology from LD to a more effective term that can better describe Saudi teachers’ attitudes (Harasymiw, 1971; Hartlage, 1965; Hertweck, 1986; Heshusius, 1989; Jaffe, 1966). From the results of the interviews, the researcher of this study noticed that 80% of the Saudi teachers hold a similar attitude towards both the “6-hour retarded child” and LD. Nevertheless, it must be explicitly stated that the particular concept of the “6-hour retarded child” died in the 70’s in the USA due to the negative stigma associated with the term. Nonetheless, the terminology is useful in this study because it signifies an attitude or perception similar to one that a Saudi educator might have towards someone with an LD. Because Saudi teachers generally agree with the principle of integration, but lack the resources to do so, they are unwilling to stigmatize a child by referring to a learning disability as permanent. Thus they intentionally underdiagnose children with learning disabilities by unconsciously perceiving them as “6 hour LD children” rather than as a child with disabilities. Moscovici (1984) articulates that the

…pre-established image and paradigm [of the two terminologies] that both determine the choice and restrict the range of reactions… emotional reactions, perceptions and rationalizations are not responses to an exterior stimulus as such
but to the category in which we classify such images, to the name we have given them. (p. 16)

Thus, it is suggested that a child with LD should be called the “6-hour LD child” and/or “system-identified child” when referring to the Saudi teachers’ actual attitudes as portrayed in their rational discussion of LD. Because of these terminologies developed by the previously mentioned researchers’ work and the information from both literature of the Saudis and USA determine our preconceptions, the researcher of this study suggests the use of the more functional term of the “6-hour LD child” and/or the “system-identified child” by scholars in the field of special education, based on the current empirical data.

As of 2009, the “6-hour LD” child and/or “system-identified child” in the kingdom of Saudi Arabia is perceived optimistically as a student classification by many Saudi teachers. The 6-hour LD child is generally described as

…a social phenomenon. Special education even refers to ‘systems-identification’ samples or people [Intellectual and specific innate-academic skill difficulties] who are identified through the school systems (as opposed to by parents or physicians). Others decry the phenomenon of the so called ‘6-hour [LD] child’ as the child who is considered to be [a mildly lazy student] while attending school, but not after school hours (or years). How system factors relate to [this phenomenon] is a difficult if not unresolvable issue. (Barkley & Mash, 2003, p. 489)
In essence, the major concepts underlying the “6-hour LD child” definition are the “social phenomenon, school systems (as opposed to by parents or physicians), and how system factors relate to [this phenomena], unresolvable, issue” (Barkley & Mash, 2003, p. 489) will serve as the outline for the following discussion.

**LD: The New Saudi Social Phenomenon Effecting Academics**

LD is a social phenomenon in Saudi Arabia denoted by the teachers’ perspectives of LD. To understand Saudi teachers’ attitudes toward the integration of students with LD, one must understand Saudi teachers’ personal, individual, and mental images of what the new disability category (LD) means to them. The previously-defined term of the “6-hour LD child” has evolved in Saudi Arabia due to the knowledge obtained by research, including research into the teachers’ perspectives of LD. The Saudi teachers’ perspectives of LD are a complex, intertwined concept to discuss. One way to discuss them is in terms of the teachers’ perceived mental concepts and images of children with LD, in terms of the factors that build multiple perspectives on education discourse, the nature of LD acting as a non-normative concept for Saudi, and the fact that the LD definition and concept has been borrowed from overseas institutions having their own unique academic operation systems.

This study indicates that one subgroup of Saudi general education teachers (six out of ten) believe that LD is limited to the academic domain and it is not a life-long condition. Additionally, general education teachers in this study did not attribute the disabilities to children’s innate difficulties of learning, but did strongly relate it to poor
schooling, poor life environment situations, or to students' own apathy or lack of motivation.

Another group of the teachers who were interviewed (10 of the 20; seven of the 10 special education teachers and four of the 10 general education teachers) perceived LD significantly different from the previous group who defined LD as a scientifically informed concept. These teachers' perspectives were shaped by the scientific definition of LD, which stated for the Saudi there is an innate difficulty within the student that results in disorder and/or obstacles in carrying out mental tasks such as, thinking, listening and talking, reading, writing, and mathematics, which are not due to mental disability, auditory, visual or other types of learning disabilities, nor conditions of family care. Nevertheless, this group of teachers was making an effort not to stigmatize students by their differences, other than attempting to reinforce the positive aspect of the whole situation, such as not highlighting typically-developing students versus students with learning disabilities. They just acknowledge the issue as individual differences. Furthermore, many special education teachers are making an effort to use the inclusion requirements for extra individualized tutoring for students at risk.

A third group of teachers shares a perspective solely based in special education. These teachers’ definitions of LD operate as a hallmark designation for other disabilities and language delays. They argue that many of the students in Saudi Arabia labeled as students with LD do not constitute the full entailment of the definition of LD. They believe many students with developmental delays, students from different ethnic groups and language backgrounds, have been diagnosed with LD even though they do not truly
match the official definition adopted by The Ministry of Education. It has been argued that this is due to two reasons. First, their training programs did not prepare them, as many practicing teachers only have a bachelor’s degree from a program that met the general requirements of a few courses in special education. Even if these teachers were specialized in an area with only one semester of student teaching, they argued, it is not enough preparation. Thus, the Saudi school system and teachers lack resources. They perceive special education as the only resource available for helping students who are not succeeding, even if such students are not identified as having LD. This leads to the second reason for students being misdiagnosed; many teachers articulated a compelling need for a non-culturally-biased diagnostic battery because they currently rely on tests prepared in the US designed for American contexts.

Finally, LD does not constitute a normative-disability category for many Saudi teachers who are still of the outdated mindset that disabilities must be identifiable by physical and/or behavioral abnormalities. Twelve of the 20 teachers did not recognize LD as a disability category. The teachers did not adopt this attitude overnight, rather it developed over an extended period of time as teachers gained knowledge of disabilities and became familiar with definitions of disabilities.

_A System Factor: “Teachers’ Attitudes” Towards the Phenomena of LD Discussion_

The current study found that teachers generally have a positive attitude toward inclusion, confirming results of similar studies conducted in other countries (Tisdall, 2007), although special educators express a somewhat more positive attitude than general educators.
Furthermore, this study identified how strongly both special and general educators agreed with various facets of inclusion, as indicated by Research Question Two of this study. While the teachers’ responses did not show substantial conflicts, the fervor of their attitudes differed. The strongest source of discord stems from how integration will affect acceptance between students with and without disabilities.

General educators felt the strongest agreement with the statement that “integration offers mixed group interaction that will foster understanding and acceptance of differences among students” (Statement 3). This shows that general education teachers value the social justice benefits of inclusion, and it is supported by eight percent of the participants who said in the open-ended question that one of the greatest benefits of inclusion is the raised social awareness spurred by the interaction of typically-developing students with their peers with LD.

Although special educators agreed that the mixed-group interaction would foster understanding and acceptance of differences among students (Statement 3), they expressed less certainty than the general educators. This could reflect a difference in values between the two groups; more specifically, it might reveal that the special educators, having close familiarity with all aspects of special education, have a more realistic perspective (Peters, 1977) of the support, resources, and abilities needed to bring about acceptance through inclusion.

A more relevant conflict for this study, however, is the question of who best teaches students with disabilities. General educators moderately disagreed that teaching students with learning disabilities is better done by special rather than by regular
classroom teachers (Statement 24). Special educators disagree strongly; furthermore, they disagree with this statement more than any other. Alone, this would indicate that special educators view regular classroom teachers as equally capable in teaching students with learning disabilities. However, special educators also disagreed that “regular classroom teachers have the abilities necessary to work with students with learning disabilities” (Statement 10). For special educators, this apparent discrepancy could reflect a Saudi Arabian tradition of humility when asked directly about one’s talents and abilities. It also could indicate that they simply feel more self-confident about working with students with learning disabilities, reflecting a theory by Koutrouba (2006). It also might indicate that the respondents reacted to the slightly different wording of the question, although both statements closely related beliefs about who is better overall and who has the abilities to teach students with disabilities. Because the special educators’ disagreement with Statement 10, on “whether classroom teachers have the abilities necessary to work with students with learning disabilities” was closer to neutral, it can be concluded that special educators don’t necessarily believe they are the best teachers for students with learning disabilities, while at the same time they are unsure that general educators have the abilities to work with students with learning disabilities.

This leads to another important finding from this study: the importance of administration’s role in the successful inclusion of students with learning disabilities in regular classrooms. Forty-six percent of teachers cited “inadequate curriculum resources, instructional methods, and aide support to fulfill the LD students’ needs” as one of the greatest challenges of inclusion in their responses to the open-ended interview questions.
This correlates with previous research by Gilman (2007), who suggested administrators are generally supportive of integrating students with special needs and Mdikiana (2007), who found that administrators’ ignorance of different types of disabilities underscores the need for programs regarding the educational needs of children with special needs. Although this study did not evaluate administrators’ attitudes, they are certainly critical for providing adequate resources.

This study also evaluated teachers’ attitudes toward classroom management associated with inclusion. Overall, the participants accepted the fact that teachers will have to significantly change their regular classroom procedures (Statement 8) and use more patience (Statement 23). Teachers are slightly concerned that increased freedom in the regular classroom could create too much confusion for students with learning disabilities (Statement 9). Attitudes here are indicated with their average degree of agreement as 2.42, 2.68, and 2.84 respectively. This could be justified by Saudis' unique cultural characteristics and the “iron-fisted” disciplinary relationship between teachers and students. Recent political changes may also be a major cause, for example bringing together two groups of people together, who have historically been separated, at least academically, in Saudia Arabia. An element particular to Saudi classrooms is a system based on valuing very strict structures of discipline.

Thus, it could be concluded that respondents had negative attitudes regarding the integration of students with LD in Saudi public schools as the integration may change Saudi school and classroom standards and regulations. This could be due to two factors – first, a human tendency to refuse and/or have concerns that any new amendment could
have direct, noticeable consequence on standards and regulations; moreover teachers do not feel prepared to accept inclusion due to the rapid timeline for implementation.

Secondly, the change of standards and regulations is evidently rapid due to the fact that in 2005, Saudi administrators amended the legislation to place students with LD into public schools before schools had enough licensed special education teachers who were capable (as shown through the interviews and open-ended questions in this research) of assisting these students. In addition, the results from the data confirm that there is no clear, comprehensible, articulated inventory of the Saudi amended standards and regulations to assist teachers to carry out transformations. Consequently, Saudi teachers argue that every teacher will set rules for their own classrooms and students with LD, which may create too much confusion for students with learning disabilities.

As mentioned at the midpoint of Chapter Five, one of the emerging themes of this study was the discrepancy between the teachers' responses in the surveys and their responses in the open-ended questions. In one case, teachers responded positively that "students with learning disabilities can best be served in regular classrooms," (Statement 5) but at the same time they were concerned about behavior issues for the wider school community (38%) and the inadequate curriculum resources, instructional methods, and aide support to fulfill the needs of students with LD (46%). There are multiple possibilities for explaining such discrepancies – does this represent an inner conflict teachers feel about inclusion? Perhaps it is indicative of teachers' desires to express their utmost optimism and idealism about education in Saudi Arabia and/or their aspirations of what their country could be. One reason for this could be the desire for Saudi teachers to
express their ideals of education and maintain a politically correct image when asked a direct question. This is a cultural characteristic, further explained by a majority of teachers (51%) in the open-ended questions, who reported that a major challenge of inclusion is overcoming the resistance to a major change in a conservative society, as is the case with inclusion in Saudi.

Implications

Is Saudia Arabia an extraordinary country dealing with an ordinary education crisis or is it vice versa? Disability concepts in the kingdom of Saudi Arabia have changed radically since 1950 from negative, and the stigma of disabilities, to positive, yet indecisive, with the introduction of the atypical disabilities category, Learning Disabilities (LD). The change in the Saudi system has been driven by the Saudi education officials’ goal to have all Saudi children be academically successful compared to their global peers; which conditioned Saudi academic lawmakers to provide more opportunities for all students, especially students with disabilities to maximize their academic and social potential compared to not just their local, but also their global peers. The kingdom’s new education circumstances have put a new milestone in the history of Saudi education; the most imperative aspect of the introduction is making the Saudi lawmakers and society reflect on and reevaluate their system. Nonetheless the interdiction raises several issues, based on the current study’s finding to improve the level and quality of education of children with LD in Saudi public schools.

The integration of students with LD in Saudi public schools necessitates the investment of resources. For Saudi this involves a major foundations change in
educational programs, training institutes, and methods. The academic environment needs to be adapted for children with all types of exceptionalities, especially for students with learning disabilities.

**Implications for Resources**

As mentioned earlier, the concept of disabilities has been in the country since the 50’s and its re-authorization amendment of 2005 has reinforced the Saudi desire to upgrade the educational system and to provide services to all their children. During the 2008-2009 academic year, the Saudi education system did upgrade, but they still lack a significant amount of practical data regarding the integration of students with learning disabilities into regular schools with their typically developing peers. Based on the current findings, Saudi Arabia needs to take this into greater consideration in order to improve the level of quality of education.

The Saudi Ministry of Education must take into consideration the imperative fact of providing the system in general, and teachers, in particular, with the documentation needed to facilitate the amendment. Yet we are dealing with the dilemma of the amendment. The Saudis should consider the long and short term outcomes in order to resolve the amendment.

A short term recommendation for resources is that the Saudi’s should pass a decree articulating the principle governing affairs within or among political units of the new amendment. For example the Ministry of Education should construct a legal document providing information explaining and facilitating the policy and include benchmarks for
this inclusive reform. This would at least put the teachers on the right path and guide them in the implementation process.

Another short term significantly substantial fix the Ministry of Education should consider is to provide statistical evidence regarding Saudi special education and existing service resources. Not just that, but even the country would benefit from such information, for instance, to determine what is needed and assess the status of special education in general. This would assist teachers in developing a better set of general and special education teachers’ policies and procedures according to the goals of the Ministry of Education. Moreover, this assessment would provide Saudi officials with a better understanding of the resources available in the Kingdom to help guide students with disabilities towards academic and social excellence.

The Saudi Arabian Ministry of Education should consider reviewing evidence-based practice on the Kingdom level, or at the school level to carefully or critically identify any difficulties that might exist that would impact a teacher’s motivation to work with students with learning disabilities. In addition the Ministry of Education should consider a decision-making process that integrates the best available research, utilizing data from the reviews the Ministry of Education in Saudi Arabia and/or Saudi schools create, to pinpoint their difficulties and try to develop solutions for them that may take the form of professional development for practicing teachers. In addition, the review/survey method would have beneficial implications for Saudi resources; it will raise authentic and important issues from the teachers’ perspectives.
The Ministry of Education in Saudi Arabia could then identify and develop new methods for motivating teachers to deal with students with disabilities, especially teachers with outdated training. In addition, this could help identify needs analysis and evaluations for LD and other type of disabilities. Finally, the Saudi Ministry should consider integrating new strategies and different educational resources for lesson planning other than the old fashion instruction/teaching methods.

On the other hand, there are long term implications for resources that the Ministry of Saudi Education should consider to improve the implementation of the integration of students with LD in regular Saudi classrooms. One long term need is for professional development for human and educational resources for general education to help with the new reform and help facilitate new training for those with outdated qualifications, teaching them new methods and strategies to cope with their new academic situations. Moreover, special education teachers are needed to aid and to create a bridge between theory and practice. The professional development should give Saudi schools, especially teachers, the educational foundation they need to address the changing academic situation at hand, especially at the early stages of change. This requires more attention from policy makers, and leads into specific implications for Saudi teachers.

**Implications for Teachers**

This current inquiry provides the Saudi Ministry of Education with preliminary data regarding teachers' level of support or resistance to the mandate to include students with disabilities in the general education classroom.
According to the teachers’ feedback regarding the recent legislation change, Saudi Arabia needs to open up more training/qualification higher education programs; one University training program is not enough for the whole Kingdom of Saudi Arabia. Moreover, the teachers indicated that current Saudi qualification programs are deficient in in-depth specialization courses that provide specialized practices for implementing the special education strategies in their classrooms as well as offering teaching strategies for how to bridge theory and practice. Education programs and the actual delivery of these programs should be developed in terms of curriculum modifications and adaptations that are appropriate for students with learning disabilities. In order to promote Saudi public school programs and special education services, Saudi special education officials transitioned the previous education system toward a system that now integrates children with exceptionality. Teachers suggest the need for the ministry and or the qualifications programs to provide them with scientific research to help indicate the kind of educational change and/or program needed in order to work with students with disabilities. This research should be translated into Arabic, so they would be able to judge the pros and cons of different strategies.

The findings from this study are significant, as the research indicates that any mainstreaming strategies of students with learning disabilities are only effective when teachers’ attitudes are positive toward the issue (Cook, 2002). Thus, the need for support from teachers throughout the process of inclusion is one of the most critical implications of this study.
Implications for Legislation

As Wikipedia refers, the definition of law by the Greek philosopher Aristotle, declared in 350 BC, "The rule of law is better than the rule of any individual." The Ministry should take what Aristotle says into consideration. Saudi teachers have been assigned the task of managing the implementation of the law, yet the law and its relevant issues and/or the amendment legislation itself are unknown to the teachers. Teachers’ thoughts are always prerequisites for any successful educational program, particularly special education programs (Larrivee & Cook, 1979). The cooperation and commitment of those directly involved in implementing mainstream polices are essential to the success of the new inclusive system, however it does not have to be “individual rule” it has to be “law rule” especially if it affects students with special needs. That is, the Saudi education system needs laws that define the new system, research to support and contextualize it, and the resources necessary for those who have to implement it, in order to maintain thoughtful and calculated consistency.

Thus, the Ministry should put the act’s policies to the public. More specifically the Ministry uses the terminology “inclusion,” but, as indicated in an earlier chapter, students with special needs are pulled out of mainstream classrooms and taken to “resources rooms.” Thus, urgently, Saudi Arabia should clearly define the term “integration and/or inclusion” of students with learning disabilities into regular schools. Saudi teachers understand the definition to be full inclusion; however, from this researcher’s reading, it is not even partial inclusion, as the policy proposes to pull students out of the general education program to receive special education services.
Future Research

Even though the provision of services to children with special needs is a complicated and involved task; the profitable key for providing it is holistic, interagency, and interdisciplinary interventions. The literature indicates that a significant obstacle for effective intervention for students with mild to moderate disabilities is poor communication and collaboration between school personnel, colleagues, and families (Turnbull & Turnbull, 2001). Accordingly there is a need for future research investigating the causes that facilitate and hinder the Saudi academic system’s cooperation and effective communication among teachers, administrators, lawmakers, and families. Furthermore, there is a need to investigate specific details about teacher attitudes as they relate to inclusion, student learning, and classroom management. It would have great value/implications for this body of research, to further investigate the emerging factors related to perceptions of how inclusion will affect behavior and the school environment.

The current study’s significant factors should also be further analyzed to determine the level of academic and emotional preparation and resources necessary to improve the education of students with disabilities. Furthermore, based on the unique needs of Saudi schools, there is a need for future research to see how Saudi teachers’ attitudes relate to specific types of LD and to obtain teachers’ suggestions and feelings about meeting the needs of students with learning disabilities.

Due to the relationship between Saudis and religion, as well as the fact that a number of participants in the current study were teachers who teach the content area of
“religion” there could be an interest to further investigate those teachers’ beliefs and perceptions about children’s disabilities.

Finally, it is highly recommended that in order to fully and appropriately capture the Saudi perspective, experiences, and voices, it is essential to utilize mixed-methodology. Second, there is an extremely significant need for future research that captures the dynamic dimensions of Saudi narratives to examine the contexts within which LD was introduced, and briefly explore how Saudi people conceptualize disability.
REFERENCES


Al-Dayil, A. S. (1979). A study to identify ways of increasing the enrollment of Saudi
male elementary school teachers in teacher training institutes and improving the quality of instruction in those institutes. *Dissertation Abstracts International, 40/04*, 1758 A.


International Conference for Impairment and Qualification.


and S. A. Richardson (Eds.), *The mentally retarded and society: A social science perspective*. Baltimore, MD: University Park Press.


Blatt, B. (1958). The physical, personality, and academic status of children who are mentally retarded attending special classes as compared with children who are mentally retarded attending regular classes. *American Journal of Mental Deficiency, 62*, 810-818.


Monograph No. 3., Public Health Service Bulletin No. 1415). Washington, D.C:


Commission on Excellence in Special Education. (2001). Revitalizing special
http://www.ed.gov/inits/commissionsboards/waspecialeducation

Observations on the expansion of medical categories. Social Problems, 47, 559-
582.

paradoxes, Disability and Society, 22, 44-51

Connor, D. J. (2007). The conflict within: Resistance to inclusion and other paradoxes
in special education. Disability, 22(1), 63.

Cook, B. (2002). Inclusive attitudes strengths, and weaknesses of pre-service general
educators enrolled in a curriculum infusion teacher preparation program. Teacher

S. Arlond & D. Levine (Eds.) Nebraska symposium on motivation (pp. 179-231).
Lincoln, NE: University of Nebraska Press.


Deleo, A. V. (1976). The attitude of public school administrators and teachers toward the integration of children with special needs into regular education programs. *Dissertation Abstracts, 37/02, 915 A.*


Fantuzzo, J.W., Grim, S., Mordell, M., McDermott, P., Miller, L., & Coolahan, K.


Guskin, S. L. (1977). Paradigms for research on attitudes toward the mentally


Michigan State University, MI.


Harth, R. (1971). Attitudes toward minority groups as a construct in assessing attitudes
toward the mentally retarded. *Education and Training of the Mentally Retarded*, 6, 142-47.


Reston, VA: Council for Exceptional Children.


behavior scale toward mental retardation. *American Journal of Mental Deficiency*, 76, 201-19.


Mason. (2006). Mixing methods in a qualitatively driven way. *Qualitative Research,*


Ronen, G. M. (2001). Health-related quality of life in childhood disorders: A modified focus group technique to involve children. *Quality of Life Research, 10*(1), 71-79


Preface

Planning is an important practical and scientific means. It aims at organizing the available human resources and abilities to achieve separations that are transient into actions that achieve the highest degree of excellence through the most effective use of time and costs. Thus, planning serves to achieve a desired and intended change based on existing proposals, the examination of the present situation, and the prediction of the trends to meet social and economic needs.

Educational planning is also an organized scientific process which aims at facilitating change in human beings' nature and development by activating the social and economical roles, by directing his education, and by taking advantage of resources and institutions towards measured future goals that fulfill his needs and those of society at the lowest possible costs and the highest quality of excellence in the shortest period of time.

The selection of a planning style and its methods is not less important than the planning process itself. Hence, a clear and specific planning philosophy will constitute an essential prerequisite to achieve its success, and it will provide the basis for institutional work and the direction of educational decisions. Saudi Arabia, like other nations, has practiced the planning process to meet the requirements for successful comprehensive development, and to answer the needs of individuals and society in all fields. Through it, the Kingdom has achieved—through Allah’s assistance—a deep physical structure and civilized experience with distinguished standards and international measures of high degrees of excellence.

In the last decades, the Kingdom has rapidly moved towards the achievement of a major degree of success and educational development. Important financial resources have been assigned for the establishment of educational outlets with characteristics that meet the Kingdom’s objectives. For different phases of change and development as well as the economic and social prosperity.

Despite the high degree of excellence achieved in the last decades, it is not an easy task to evaluate the usefulness of the existing educational system and its institutions to meet society’s future needs in view of the present social, economical, and technological changes; the society of the coming era—i.e., the post-industrial society, the intervention of variables, and their speed, which require a more in-depth scientific methodology in the planning process.

The Ministry of Education has successfully completed educational planning during the past years through the effective actions of its loyal specialist. It has achieved many important goals that are characterized by quantitative descriptions and that require selective and qualitative efforts to face society’s challenges and changes and to control their influence on the culture and culture to satisfy the needs of its individuals and institutions.

The present ten-year plan takes into consideration factors that reflect society’s present and future needs, and it aims at ensuring the continuation of the past successful path towards excellence. The following are the most important factors:

1. The increase of the number of students and the subsequent demand for education in the year 1432 H (2011), the age segment ranging from 0-15 in the total population of the Kingdom will be 14.9%.
2. The industrial and technological changes that have resulted in the transformation of society’s needs and the nature of the labor market.
3. The social and economic change and growth which has resulted in an increase in the demand for education, both quantitatively and qualitatively.
4. The intervention of variables in the educational and instructional process which has resulted in an increase in the need for reform and innovation in view of future needs and the variety of educational forms.
5. The gap between educational and comprehensive development planning as well as the necessity to correlate educational plans in general with the educational process in particular, where the latter functionally integrates with the government’s comprehensive plans.
6. The urgent need to provide symmetrical educational opportunities with a high degree of quality for all citizens in various environments and areas of the Kingdom.

Finally, I express my deepest gratitude to all those who participated in this project with their effort and advice, acted as part of the Ministry personnel or outside the Ministry, as well as to all experts and specialists who have been part of the project development through their views and remarks for their positive cooperation that has resulted in the successful completion of this project. May Allah reward all with the best, and may He assist us to work for our religion and country’s strength. He is the Most Generous.

Minister of Education
<table>
<thead>
<tr>
<th>Contents</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>Plan determinants</td>
<td>5</td>
</tr>
<tr>
<td>strategies</td>
<td>6</td>
</tr>
<tr>
<td>The Ministry of Education Ten-Year Plan in the K.S. A</td>
<td>7</td>
</tr>
<tr>
<td>The Ministry of Education vision for the next ten years</td>
<td>12</td>
</tr>
<tr>
<td>Goals and objectives</td>
<td>13</td>
</tr>
<tr>
<td>Distribution of goals and objectives</td>
<td>19</td>
</tr>
<tr>
<td>Goals and Objectives Quantity Distribution</td>
<td>20</td>
</tr>
<tr>
<td>Distribution of Ministry’s Vision Goals, Objectives, Programs for the Next 10 Years</td>
<td>21</td>
</tr>
<tr>
<td>Sample Aims and Their Programs</td>
<td>22</td>
</tr>
</tbody>
</table>
Introduction

The political leadership in the Kingdom has realized that the basis for its strength and success lies in the thinking and creative minds capable of making change and achieving development through the growth of the knowledge they possess. In order to achieve this goal, the Kingdom is seeking to develop, upgrade, and improve its educational system and its outcome. Hence, it is necessary to materialize such objectives and to translate them into national plans and specialized work programs. Moreover, to realize such goals, an academic educational system is required. This system should be able to provide internationally-competitive training through achievements that meet all current and expected needs. It is, therefore, required to adopt an effective planning approach that will warrant the successful accomplishment of the described goals and vision.

Reasons of setting a ten year plan

- Planning is a strategic option with which the Kingdom cannot dispense and it is considered to be a model tool to analyze and characterize the existing human and material resources to invest them in the least possible time and at the most effective cost to successfully achieve goals. Moreover, it is an intellectual and technological tool that guides educational decisions and supports and enhances productivity, taking into consideration obstacles and difficulties facing the planning process and the adoption of a scientific approach.

- The creation of a comprehensive plan for educational development is considered to be a practical and essential requirement to achieve the Kingdom's strategic goals for general development.

Education is considered to be the main source for the formation of the human capital which constitutes the essential element in all aspects of economic development, particularly in the achievement of high developmental economic rates. This implies that the educational process is not just a service provided to answer society's demands, but it is also an investment aimed at the improvement of the individual's standard of living and the achievement of the social and economic development of the community. Thus, it is imperative to correlate educational planning with the state's comprehensive plan.

- The treatment of our educational problems by the adoption of the scientific approach aims at raising the internal competence rates and the performance level of male and female teachers through the creation of programs for professional training and development and through the revision of course syllabi and content assessment. In addition, it is important to evaluate teaching methodologies and its approaches. There is also need to provide school buildings with appropriate educational conditions, and to achieve correspondence between educational outcomes and labor markets' needs. The accomplishment of these goals will result in the excellence of our education, which will bring us closer—Allah willing—to the international area of competition.

- Finally, the plan will achieve the growing increase in the number of students, both male and female, and the demand to face this need and to grant equal educational opportunities with a high degree of excellence for all citizens in the Kingdom in various areas and regions.
Plan Determinants

Challenges that education faces in the Kingdom

The Ministry ten-year plan has been developed to face several challenges that affect the nature and mission of the educational system in the Kingdom. Therefore, the planning team has been keen on examining the most important attitudes and challenges as the springboard to define a vision and to establish goals for the plan. The results of the team’s study and its conclusions are presented as follows:

1. The growing number of students:

Studies indicate that the next decade will witness an increase in the number of students in the Kingdom as a result of population growth. This will translate into an increase in the demand for education at various stages and the need to accommodate children from the age of six onwards by improving admission at the primary level and by providing these students with a suitable education.

This issue is considered to be a basic aim in itself and requires the expansion of the educational system and its programs. Consequently, the government will be forced to face additional financial burdens, which will entail the search for and application of various financing sources for education within the frame of resource conservation.

2. Development Requirements:

The entire indicators in the seventh state development plan show that education has achieved great success in achieving its established goals throughout these years. Moreover, the indicators and the eighth ambitious plan features indicate that the responsibility of education lies in its role in preparing human resources that are capable of creating and achieving comprehensive social development for the community in the various aspects of its social and economic life. That implies that development requires a highly skilled workforce, and, thus, it is necessary to provide individuals with effective education that will realize this societal need.

3. International Fluctuating Changes:

The effects of international fluctuating changes are reflected on all aspects of the economic, social, technological, and educational life of the Kingdom, and they impose various challenges on the educational system in order to successfully face international competition.

This situation points to the need to improve education so that learners will be able to compete with their international counterparts and will be capable of positive interaction. Studies indicate that the next decade will see an increase in the need for effective strategies to improve the system’s ability to face the international changes while maintaining the Kingdom’s traditional values.

The global economy’s tendency towards free trade will result in the liberalization of service worldwide, including educational services which will strain education and learning as no longer restricted to formal educational state systems, but rather as subject to privatization and to the private sector’s participation. Therefore, the success of education will be evaluated in terms of investment projects in it. This means that the educational and learning services sector will face a great challenge in the presence of strong international, private competitors. Hence, it is imperative for the ten-year plan to raise the standards of education and to ensure the improvement of its outcomes, so that it can compete with other international systems in the field.

4. Knowledge Blast:

The knowledge blast that has resulted from the development of technology requires the improvement of the educational system to meet its challenges. That is, it has become imperative to revise the existing syllabus, and to organize knowledge, experiences, and skills to prepare learners for the successful
application of technology. Thus, the educational system should be developed to face technological challenges, and to implement it in various aspects of education.

5. The cultural invasion and its results:
The development and widespread of unrestricted mass media communication and the reduction of its costs constitute a challenge and a threat to the Kingdom’s national identity and culture. This issue requires a balanced approach that will allow students to enjoy the benefits of modern technology (which, in turn, will benefit the community) while maintaining the Kingdom’s values and faith, and that is able to protect them from the risks that might harm them as individuals and groups and that might negatively affect Muslim society.
The Ministry Ten-year Plan Approach Measures

According to the nature of the goals and tasks of the educational planning, the general administration has been commissioned to establish the planning processes, and develop a ten year plan and the follow-up of its execution. The planning processes are therefore characterized by continuity and connection. The main stages have been specified to show the nature of each process and its dimensions, and the connections that the location and time frame for each stage. The planning processes have begun and a schedule has been set as per the following stages:

First Stage: Preparation

This step includes the assessment of existing attempts (plans) to fully verify the different aspects which can result in the success or failure of the endeavor and to diagnose the current situation and the factors affecting it negatively or positively, and finally to conduct detailed studies of the existing educational system and the requirements for its development and its quantitative and qualitative growth. These diagnostic processes have been conducted through:

1. An analytical study:

The study and analysis of the available scientific sources on work policies, plans, reports, studies, and future visions related to the educational plans of the Kingdom of Saudi Arabia, in addition to the perusal of some of the regional and international experiences in the field and their future vision and goals. The study and revision processes have concentrated mostly on a set of educational documents, studies, and reports, such as the following:

   Education policy in the Kingdom of Saudi Arabia.
   - Development plans and their operational plans (boys, girls).
   - Population characteristics of the people in the Kingdom of Saudi Arabia (1412 H).
   - Annual statistics reports (boys, girls) (1417-1421 H).
   - Comprehensive assessment of education in the Kingdom of Saudi Arabia (1421 H).
   - Assessment of literacy and adults’ education in the Kingdom of Saudi Arabia 1422 H.
   - Education financing and private sector’s support and activities in the Kingdom of Saudi Arabia (1419 H).

2. Projection study:

Future projections constitute one of the basic requirements of planning processes to determine the rates of expected growth in the number of students and to estimate the needs to accommodate them. A projection quantitative study on education in the Kingdom of Saudi Arabia in the next ten years has been conducted to oversee the future as a pivot to construct the plan’s vision and goals.

3. Field studies:

A. Study of the educational reality of education administrations:

The study aimed at obtaining quantitative and qualitative data about the status of education at educational areas and governorates (boys, girls) to examine the level of their internal competence. A special instrument was developed to collect such data, and it was then sent to different education administrations.
Once the data collection process had been completed, the data were analyzed to determine the required scientific course of action to establish the Ministry's plan.

**B. Field studies:**

To provide a comprehensive report about the reality of educational fields, it was necessary to establish a direct contact with those executives involved in the educational process to have in-depth knowledge of their views. This was achieved through a number of interviews about field problems and real needs. A sample study was selected from the education administration to represent the Kingdom's various areas (boys, girls). The sample categories included the general director of education, his assistants, educational supervisors, schools principals, their deputies, teachers, students, and attorneys. The data collected in the interviews provided information about these professionals' general attitudes and needs. In addition to this study, five hundred questionnaires were distributed to samples of people working in the educational field, students, and attorneys at all education administrations (boys, girls) to investigate their views about the educational reality for the future, and their suggestions to face the existing problems.

**These efforts resulted with the following first-stage conclusions:**

- To determine the material, human abilities, and specific needs, requirements, and admission percentages as well as growth rate in each stage and the education administrations in the Kingdom.
- Statistical predictions of expected population growth to estimate the future burden on education.
- Estimation of qualitative and quantitative needs for the successful execution of the plan during the next ten years.
- To study the changes that may occur in the future and their possible effect on education, and to predict future attitudes resulting from such changes as well as their depth and range.
- An accurate and comprehensive survey of the educational system and its capabilities to accommodate the estimated number of students, teachers, classes, etc. during the plan's period.

Such studies have provided a comprehensive and detailed view of the reality facing the planning process, together with a number of indications and standards to guide the plan's vision and goals.

**Second Stage: Vision and goal specification:**

This stage entailed the specification of the basis for the plan within the frame of the Saudi Community, Islamic faith, and political, economic, and social attitudes. After the efficient examination of the educational system, and its status diagnosis, a group of governing and guiding strategies were established to direct education in the Kingdom. The plan's foundation was guided by a vision resulting from the information gathered in the studies. After ensuring the suitability and appropriateness of the plan's vision, the team established general and detailed goals for the ten-year plan. While specifying the goals, the team verified that they be scientifically accurate. Moreover, they also specified the methodology to be adopted to realize the plan's vision. The following matters were taken into consideration:

- Saudi society's distinguished nature and its Islamic and social privacy.
- Focus on the student, as a pivot for the educational process and
his active, positive role in it.
• Determination of correspondences between abilities and aspirations while specifying detailed goals.
• The vision's flexibility and its ability to cope with future changes and innovations.

The vision and goals were revised in several meetings with the scientific team and then they were presented to a consultant team which was composed of representatives from society. The vision and goals were sent for consultation to the Ministry's officials headed by His Excellency The Minister in addition to about forty officials in the Educational Work Leadership (male, female) who represent the party that makes educational decisions to achieve goals and objectives. In addition, the vision and goals were submitted to a group of specialists for further analysis and suggestions, to enrich the project, and to determine connections between the specializations by pursuing them. Once the research main team had collected these views, they proceeded to carefully examine them to extract fundamental remarks from them, and to modify the original project in view of the new information gathered.

Third Stage: Setting an action plan
At this stage, the vision and goals were translated into objectives presented in digital images and indicators of the goals to be achieved. Then, detailed work programs and projects were established and organized according to priority. In addition, at this stage, the achievement of co-ordination and integration between the programs and the projects were taken into consideration, as well as the specification of time to execute the programs, their costs, funding sources, possible changes, and suggested alternatives to face them. All these processes were completed in workshops attended by every sector in the Ministry of which the members of the main team and the consulting team formed part.

Fourth Stage: Sending the plan to sectors:
• The Ministry's approval of the plan's goals and programs was followed by a comprehensive co-ordination process and by the specification of the basic and supporting bodies to execute the plan's programs and projects, to determine specific roles and tasks, and to estimate the supply of human resources and the financial requirements for the execution of such programs and projects in the plan's ten-year period.
• The results (i.e., the indicators and features of achievement for each specific program or project) were determined by a team who established achievement measures.

In the planning processes, the following aspects of the plan's commitment were taken into consideration:
1. Extending participation to embrace all those people who would benefit from the plan's outcome.
2. To benefit from the results from previous experiences, innovations in the educational future, labor market's needs and the relationship among them.
3. Co-ordination with authorities of various types and levels to secure the vision's development and plan's requirements.
4. Establishing the vision in view of the achievement of reactions between the outcome of general education and the beneficiary parties on one side, and the educational institutions that may serve the community's needs on the other.
5. To allow for flexibility to accommodate continuous changes and innovations in order to meet the persistent needs of educational development.
**Fifth Stage: Introducing the plan to the experts**

At this stage, the plan was submitted to experts inside and outside the Kingdom (a group of experts from Arab countries and other international experts) for consideration in order to secure the validity of its scientific structure. The vast majority of the experts agreed with the plan’s perfect scientific nature, which they deemed actualize the concept of strategic planning. In addition, they expressed their approval of the new methods adopted in setting plans for the development of the educational system. The plan’s team applied the experts’ remarks to improve its assessment and to guarantee its quality.

**Sixth Stage: Estimating the financial requirements for the plan’s execution stage.**

At this stage, the cost of the program was estimated and the project received from the Ministry sectors was revised by a team formed particularly for this purpose. The team was composed of the General Director of Education Budget (for the male sector), the Budget’s General Assistant Director (for the female sector), the Director of Educational Planning, and the Director of Administration Planning. In estimating the cost of the plan’s programs, the team was guided by rationality and practicality. In addition, it created a list indicating every requirement for the programs and projects to be completed in the plan’s ten years.

**Seventh Stage: Approval, dissemination, and execution of the plan.**

This stage entailed the delivery of the ten-year plan and of its attached studies (the projection study, the quantitative and qualitative studies, and the failure and dropout study) to the Minister of Education, as well as the plan’s guide with its terminology, course for its execution, and follow up measures.

The Minister of education’s decision no.1381/1/5 dated 17-3-1424H approved the ten-year plan. The decision stated that the application of the plan be effective in the year 1425H to coincide with the state’s eighth development plan.

The decision commissioned the Educational Planning General Administration the comprehensive preparation of the first year of the plan, and it stated that the education administrations in all areas and governorates in the male and female sectors should establish their executive plans for the first year in accordance to the Ministry’s comprehensive plan and supported by the experiences of the general administration of educational planning, whose responsibility also included the publication and distribution of the plan to the concerned parties and the design of a computer program through the Ministry’s net, and to be placed in the Ministry’s site for the plan’s follow up.
The Ministry of Education’s vision for the next ten years

By Allah’s will, at the end of year 1435H, the Ministry of Education’s vision will be realized in:

The graduation of male and female students with Islamic values and the appropriate knowledge and practice. These students will have acquired practical knowledge, skills, and attitudes; they will be able to positively react to and face modern changes; they will be able to apply advanced technologies with efficiency and flexibility and to deal with international competition in scientific and practical fields. Their positive participation in an efficient educational system will allow them to develop appropriate abilities and attitudes and to spread the positive spirit of work at school environments that encourage learning and social education.
# Goals and Objectives of the Ministry of Education’s Vision for the Next Ten Years

<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| 1. The education of 4-6-year-old children and the constitution of kindergartens as an independent stage in terms of its buildings and syllabus from other education stages. | 1. To accommodate 4-6-year-old children (kindergarten stage) at a rate of 40% by the end of the plan.  
2. To update the programs and activities on which early childhood education is based.  
3. To supply kindergartens with specialized cadres to meet such stage classes at a rate of 10%.  
4. To develop the programs and tools to measure children’s preparedness for the pre-school stage.  
5. To develop a personnel preparation and qualification program at the kindergarten stage. |
| 2. Accommodation of all age categories from 6-18-year-olds at various stages of education. | 1. To make basic education compulsory.  
2. To improve admission rates to an annual rate of 2% and to achieve accommodation of all male and female students by the end of the plan.  
3. To secure government’s school buildings to accommodate the expected student population’s growth to reach the rate of 90%.  
4. To increase the number of male and female teachers at an annual rate of 3% according to the expected needs estimates. |
| 3. Deepening the spirit of loyalty and pride of the country through intellectual awareness based on recognizing issues of the country. | 1. Enlightening students with the challenges that face their country through scientific and objective view.  
2. Fixation the concept of temperance (modesty) other’s respect, objective argumentation, and rejecting extreme views (stereotyped).  
3. Enhancing teacher’s role in achieving the concept of national loyalty. |
| 4. To prepare students academically and culturally at a local and international level to be able to achieve advanced posts internationally in the fields of maths and sciences for the various age categories, taking into account international tests’ standards. | 1. To enhance co-operation and exchange in cultural and educational fields between the Ministry and its international correspondents and establish the proper communication and administrative channels for such endeavors.  
2. To enrich the participation of the Ministry of Education in educational and cultural activities.  
3. To enhance the benefits of programs and projects by international and local educational organizations.  
4. To ensure the inclusion of international standard levels for students’ academic (scientific) performance and test knowledge assessment.  
5. To promote and facilitate students’ participation in international Math and science tests. |
<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. To organize girls’ technical education.</td>
<td>1. To update the regulations and related systems in girls’ vocational education and training.</td>
</tr>
<tr>
<td></td>
<td>2. To increase the girls’ education and vocational training by accommodating students at an annual rate of 30% in girls’ technical education.</td>
</tr>
<tr>
<td>6. To develop the educational system for students with special needs</td>
<td>1. To develop educational programs for gifted male and female students in scientific and creative fields.</td>
</tr>
<tr>
<td></td>
<td>2. To develop special education systems to correspond with contemporary international aspirations and standards.</td>
</tr>
<tr>
<td></td>
<td>3. To develop special education programs for students with disabilities.</td>
</tr>
<tr>
<td></td>
<td>4. To secure the materials and proper educational environment for students with special needs.</td>
</tr>
<tr>
<td></td>
<td>5. To increase teachers’ vocational development to fully prepare them to work effectively with students with special needs.</td>
</tr>
<tr>
<td></td>
<td>6. To increase the opportunities for the development of the special categories of education shared with the private sector.</td>
</tr>
<tr>
<td></td>
<td>7. To expand society’s participation in protecting the rights of children with special needs.</td>
</tr>
<tr>
<td>7. Development and growth of the Ministry’s personnel educational and administrative training</td>
<td>1. To develop the planning methodology for the educational and administrative training of the Ministry’s personnel and its execution in compliance with modern international trends.</td>
</tr>
<tr>
<td></td>
<td>2. To develop training and assessment in the educational system.</td>
</tr>
<tr>
<td></td>
<td>3. To train personnel in the educational field at an annual rate of 25%.</td>
</tr>
<tr>
<td>Goals</td>
<td>Objectives</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
</tr>
<tr>
<td>1. To reduce the failure rate to 5% in the elementary stage, 7% in the intermediate stage, and to 8% in the secondary stage.</td>
<td>1. To develop syllabi that will ensure the development of the Muslim learner’s personality to make him proud of his faith and to be loyal to his country in practice and conduct.</td>
</tr>
<tr>
<td>2. To develop classroom patterns of learning and teaching (individual learning) to achieve better results according to students’ needs.</td>
<td>2. To develop syllabi in accordance with contemporary international trends according to Islamic values.</td>
</tr>
<tr>
<td>3. To reduce the drop-out rates to a general rate of 1% in all stages.</td>
<td>3. To concentrate on students’ acquisition of the skills of thinking, analysis, and communication.</td>
</tr>
<tr>
<td>4. To diversify the standards of academic acquisition tests and their technologies.</td>
<td>4. The syllabi are to include new useful issues and to secure flexibility in dealing with the expected changes in knowledge and technology.</td>
</tr>
<tr>
<td>5. To secure a safe school environment.</td>
<td>5. To provide students with the skills required for various social situations.</td>
</tr>
<tr>
<td>6. To improve the rate of success.</td>
<td>6. To develop self-education and life-long educational skills.</td>
</tr>
<tr>
<td>7. To improve the average number of teachers per student to that of 1 to 20 in the various educational fields by the end of the plan.</td>
<td>7. To provide students with the necessary skills to deal with advanced information and knowledge.</td>
</tr>
<tr>
<td>8. To improve the average number of administration employees per number of educational job occupants to a rate of 1 to 20.</td>
<td>8. To achieve the educational process through the employment of computer programs and education technologies and resources.</td>
</tr>
<tr>
<td>9. To improve financial resources conservatively in order to reduce rates of resource waste.</td>
<td>9. To increase the students’ share in summer and non-summer activities to achieve practice at a rate of three hours per week.</td>
</tr>
<tr>
<td>10. To improve the quality of male and female secondary education for university study.</td>
<td>10. To enable students to acquire the skills to invent their lessons time appropriately.</td>
</tr>
<tr>
<td>11. To provide male and female students with the appropriate and necessary skills to enter the labor market.</td>
<td>11. To provide male and female students with the required skills to practice their roles in forming a Muslim family.</td>
</tr>
<tr>
<td>12. To adopt a system of comprehensive quality in education.</td>
<td></td>
</tr>
<tr>
<td>Goals</td>
<td>Objectives</td>
</tr>
<tr>
<td>-------</td>
<td>------------</td>
</tr>
</tbody>
</table>
| 1. To develop education and teaching methodologies.  
2. To develop the educational supervision methodologies in accordance with the aimed development of the educational system.  
3. To increase the acceptance rate at teacher colleges of male and female students specializing in Arabic, Maths, Science, English and Computer Science at a rate of 20%.  
4. To adopt a renewal system for male and female teachers to work for two years and to grant career practice licenses.  
5. To develop and periodically administer integrated standard tests to male and female teachers.  
6. To modify the work system to allow for the maintenance of distinguished professionals at schools.  
7. To develop a wages and rewards system that will prevent the loss of distinguished teaching professionals.  
8. To build and develop specific standards for male and female teachers’ performance based on an accountability system.  
9. To realize a rate of 65% in of Sanitization in all stages of education and jobs. |
| 1. To replace the government’s school buildings with modernly equipped ones at an annual rate of 10% for mixed buildings.  
2. To develop the school buildings’ facilities in view of the vision and schools’ future.  
3. To secure and improve the required sources of education technologies in school buildings.  
4. To increase sport facilities to allow students to get real practice of sport activities at an average of 3 hours per each student.  
5. To increase male and female students’ share in cultural, social, and scientific activities.  
6. To link population movements and attitudes to the distribution of schools and buildings.  
7. To secure efficient financial resources for school construction and renovation. |
| 1. To establish an integrated system for the application of information technology.  
2. To establish an integrated system for the application of communication technology in education.  
3. To enhance the integration between machine and human knowledge. |
<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| 13. To develop male and female adults’ education and to eradicate illiteracy. | 1. To increase the flexibility of the educational system to allow for easy exit and return to it (flawage).  
2. To provide parallel educational channels to accommodate the educational system’s external students.  
3. To develop long-distance learning and the application of mechanisms in education to a suitable extent for the Saudi environment.  
4. To expand the current scopes of male and female adults’ education and to adopt flexible systems through advanced contents suitable for male and female adults’ needs and circumstances.  
5. To support the services of male and female adults’ education, the acceleration of literacy, and the location of the focus of their needs.  
6. To improve the quality of male and female adults’ education in the classrooms. |
| 14. The Ministry’s comprehensive administrative development.          | 1. To improve administrative procedures inside the educational system.  
2. To build a geometric frame and system to facilitate the achievement of the ten-year plan’s related goals.  
3. To develop and improve the system of appointment, selection, and promotion in the educational system.  
4. To raise the rate of professionals with higher qualifications required in the educational system.  
5. To grant more powers, to reduce communication in the Ministry of Education’s administrations and schools, and to enhance educational leaderships to be efficient in the development of the educational system.  
6. To develop and enhance schools’ administration to reach a modified form of school self-administration. |
| 15. Expansion of social participation in education                    | 1. To patronize the social forces qualified to participate in literacy programs.  
2. National education’s functional expansion with the support of the Ministry’s supervisor to reach a participation rate of 25% in the total number of students.  
3. To increase attorneys’ participation in schools’ administration.  
4. The effective participation of attorneys and other social groups in the development of educational processes.  
5. To adopt a modern technological system to activate the communication process between the school and the rest of the institutions in society.  
6. The preparation of students and teachers for their participation in international scientific forums and conferences. |
<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| 16. To establish integrated systems for accountability. | 1. To apply national tests to assess the quality of academic acquisition in the basic academic courses every four years.  
2. The application of comprehensive school assessment every four years.  
3. The application of educational reliance in all national schools.  
4. To assess and improve the Ministry’s educational and supporting programs. |
Goals and Objectives Quantity Distribution

Chart Showing the Quantity Distribution of the Ministry of Education Vision General Goals in the Next Ten years

- [4-6] Children aged preparation
- Age category accommodation
- Student’s Preparation
- Evolution of girls’ technical education
- Students with special needs’ education Evolution
- Development and growth of educational training
- Improving educational system sufficiency system
- Syllabus development
- Teachers’ quality competence Improving
- Developing educational environment
- Developing information infrastructure
- Developing Male and female adults education and illiteracy eradication
- The Ministry comprehensive administrative development
- Expansion of society participation
- Establishing accountability integral system
## Distribution of Goals and Objectives

Schedule stating the distribution of goals and objectives in the Ministry's vision for the next ten years.

<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 4.5 aged children's preparation</td>
<td>5</td>
</tr>
<tr>
<td>2. Accommodation according to age category</td>
<td>4</td>
</tr>
<tr>
<td>3. Deepening the spirit of loyalty and pride of the country through intellectual awareness based on recognizing issues of the country.</td>
<td>3</td>
</tr>
<tr>
<td>4. Preparation of students for educational reaction</td>
<td>5</td>
</tr>
<tr>
<td>5. Evolution of girls' technical education</td>
<td>2</td>
</tr>
<tr>
<td>6. Evolution of education for students with special needs</td>
<td>7</td>
</tr>
<tr>
<td>7. Development and growth of educational training</td>
<td>3</td>
</tr>
<tr>
<td>8. Improvement of internal and external sufficiency of the educational system</td>
<td>12</td>
</tr>
<tr>
<td>9. Improvement of teachers' competence</td>
<td>9</td>
</tr>
<tr>
<td>10. Syllabi development</td>
<td>11</td>
</tr>
<tr>
<td>11. Development of educational environment</td>
<td>7</td>
</tr>
<tr>
<td>12. Development of information infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>13. Male and female adults' education and illiteracy eradication and development</td>
<td>6</td>
</tr>
<tr>
<td>14. The Ministry's comprehensive administrative development</td>
<td>6</td>
</tr>
<tr>
<td>15. Expansion of society's participation</td>
<td>6</td>
</tr>
<tr>
<td>16. Establishment of an integral accountability system</td>
<td>4</td>
</tr>
<tr>
<td>S. No.</td>
<td>Goals</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>4-6 aged children’s preparation</td>
</tr>
<tr>
<td>2</td>
<td>Accommodation according to age category</td>
</tr>
<tr>
<td>3</td>
<td>Deepening the spirit of loyalty and pride of the country through intellectual awareness based on recognizing issues of the country.</td>
</tr>
<tr>
<td>4</td>
<td>Students’ preparation</td>
</tr>
<tr>
<td>5</td>
<td>Evolution of girls’ technical education</td>
</tr>
<tr>
<td>6</td>
<td>Evaluation of special needs education</td>
</tr>
<tr>
<td>7</td>
<td>Educational training, development, &amp; growth</td>
</tr>
<tr>
<td>8</td>
<td>Educational system’s sufficiency and improvement</td>
</tr>
<tr>
<td>9</td>
<td>Syllabi development</td>
</tr>
</tbody>
</table>
### Distribution of the Ministry’s Vision Goals, Objectives, and Programs for the Next Ten Years

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Goals</th>
<th>Objectives</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>Programs Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Teachers’ competence quality improvement</td>
<td>9</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>13</td>
<td></td>
<td></td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Development of educational environment</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Developing information infra-structure</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Male &amp; Female education and eradication development</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Ministry’s comprehensive administrative development</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Society’s participation expansion</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Establishing accountability of integral system</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Total: 487
## Sample Goals and Their Programs

**Goal:** To prepare 4-6-year-old children by considering the kindergarten stage as independent, in its buildings and syllabus, from the general educational stages.

**Objectives:** Accommodation of children aged 4-6 years old, kindergarten stage children, at a rate of 40% at the end of the plan.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Programs</th>
<th>Duration</th>
<th>Requirements</th>
<th>Party in charge</th>
<th>External support</th>
<th>Objective’s achievement indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Setting childhood national strategy</td>
<td>One year</td>
<td>Employment of qualified personnel Financial support</td>
<td>Ministry Childhood National committee</td>
<td>All specialized circles - Teachers’ colleges - Universities</td>
<td>Universities - Ministry of Labour</td>
</tr>
<tr>
<td>2</td>
<td>Updating and developing kindergarten-related sales &amp; regulations to achieve an increasing rate of accommodation</td>
<td>One year</td>
<td>Specified experts - Studies and research Financial support</td>
<td>Kindergarten program administration</td>
<td>Education policy supreme committee’s approval - Teachers’ colleges</td>
<td>Universities international organizations</td>
</tr>
<tr>
<td>3</td>
<td>Private sector’s support and encouragement to participate in establishing and managing kindergarten schools at an annual rate of 1%</td>
<td>Continuous</td>
<td>Developing the private sector’s participation in rules and regulations</td>
<td>National education</td>
<td>Education economics - Kindergarten program administration</td>
<td>Ministry of Labor - Chambers of Commerce - Ministry of Commerce - Ministry of Child Service</td>
</tr>
</tbody>
</table>

- Increase rate of the stage’s admitted children by an annual rate of 4%.
- Increase the kindergarten’s school number annually.
- Increase the private sector’s participation in the establishment and managing of the kindergarten stage. Expanding of admission base at the early childhood stage.
### Goal: Male & Female Education and Illiteracy Eradication

**Objectives:**
1. To increase the educational system flexibility to allow easy exit and return to it (flow age)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Programs</th>
<th>Duration</th>
<th>Requirements</th>
<th>Party in charge</th>
<th>External support</th>
<th>Objective’s achievement indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Developing the executive regulation of male &amp; female adult education to increase flexibility to join and exit the educational system</td>
<td>3 months</td>
<td>Study of the current regulation and its subsequent development</td>
<td>Main: Admit education</td>
<td>Education Administration</td>
<td>✧ Issuing of main regulations and systems allow leaving &amp; reentering the educational system according to specific terms.</td>
</tr>
<tr>
<td>2</td>
<td>Setting rules that encourage students (boys &amp; girls) to select the skills, knowledge, and suitable activities and to take exams on them without considering a fixed period</td>
<td>3 months</td>
<td>Specialised work teams: Financial support – seats for higher study - workshops</td>
<td>Main: Admit education</td>
<td>- Educational supervision</td>
<td>✧ - Regression of admission rate under the shadow of flowage of educational system.</td>
</tr>
<tr>
<td>3</td>
<td>Developing standards of academic ability</td>
<td>Four Years</td>
<td>- Survey study - Establishment of Specialized Committees - Questions bank - Financial support - Systems &amp; requirements</td>
<td>Main: Calibrating and assessment</td>
<td>Main: Admit education - Teacher’s college</td>
<td>✧ - Reduction of illiteracy rate.</td>
</tr>
</tbody>
</table>
APPENDIX B: POLICIES AND REQUIREMENTS RELATED TO SPECIAL EDUCATION IN SAUDI ARABIA

The guidelines for the new policies were established by a superintendent educator of LD in the special education department, Suleiman bin Abdul Aziz Abd Latif in 2005. They were then reviewed and approved by a specialized consulting group, Learning Disabilities Consulting Group, followed by a second review from Secretariat of Special Education Yasser a Habib Ben Ahmed and a third review by Mohammad Bin Abdul Rahman Salem, who supervises the department of educators of people with learning disabilities. Lastly, the information has been translated from Arabic into English by the researcher; the following paragraphs are explanations of these guiding principles.

The Department of Learning Disabilities (Responsibilities)

1) Develop LD plans and programs necessary to ensure the upbringing and education of students with LD in the least restrictive area;
2) Develop regulations, policy, and guidelines for LD education;
3) Identify the needs of LD programs and students with LD;
4) Provide any necessary requirements, materials, resources, and financial support for educating students with LD;
5) Prepare plans for training and emission in the field of special education, in coordination with the competent authorities;
6) Work on the preparation of curricula and develop necessary programs for people with special educational needs, and take any necessary actions to align the students with LD curriculum with their typically developing peers curriculum;
7) Provide technical supervision on the implementation of programs;
8) Prepare and submit an annual report on the achievements and the activities to the special education ministry secretariat, maintain records of implementation of plans and programs, address obstacles faced by the Special Education Ministry secretariat that year, and evaluate how the secretariat proposed appropriate solutions to obstacles;
9) Examine the annual reports of the regions and localities and utilize their propositions, upgrading and developing the schooling process;
10) Evaluate functions of LD education and methods of functioning of the institutes and programs in the regions and counties;
11) Pursue understanding of the causes of disabilities, methods of prevention, and appropriate methods of dealing with students with LD;
12) Preparation of annual budget;
13) Identify monetary advances and financial allocations for items needed annually for all institutes and the programs, and to inform the regions and governorates;
14) Participate in the exchanging of programs, teachers and institutes of faculty and staff between regions and provinces according to need and the controls for LD organization;
15) Collaborate with the government sectors and bodies, institutions and programs in order to provide the best educational services to students with LD; and
17 - Participating in relevant seminars, conferences and meetings locally, regionally and internationally.

The Department of the Learning Disabilities developed a program designed to increase the effectiveness of educating students with learning disabilities in Saudia Arabia and outlined the following objectives:

**Objectives of the Learning Disabilities Program**

The program aims to increase the effectiveness of education, providing better services to students with learning disabilities in Saudi Arabia by:

1 – providing educational services for students who have learning disabilities after identifying and diagnosing them;

2 – developing awareness programs for school administrators, teachers, parents, and students themselves;

3 – establishing counseling programs for educators to assist them in teaching students with LD who receive education in the regular classroom; and

4 – providing guidance to parents of pupils who receive service programs to assist them in dealing with their children at home.

**Eligibility Requirements for Student Enrollment in the Program**

1 – A clear discrepancy between the ability level and academic achievement level collected in one of the following aspects: listening, thinking, speaking, reading, writing, spelling, or doing mathematical calculations, in addition to perceptual disabilities such as: memory, attention, thinking and perception;

2 – The LD must not result from a cognitive disability or physical reason such as visual, hearing impairments and/or other reasons related to inadequate learning conditions or family care.

3 – Evidence that general educational services is inappropriate or ineffective for the student, and special educational services is required;

4 – Diagnosis by a specialized team; and

5 – Approval of the Special Committee accepted classification of students with learning disabilities, leading by the principle or a principles’ representative.

**The Most Important Tasks of the LD Teacher**

1 – Participate with the diagnosis and evaluation team at the beginning of each academic year to develop a plan for the early identification of any students with learning disabilities;

2 – Participate with the team to identify students showing characteristics of learning disabilities;

3 – Participate in establishing IEP which are adapted to individual characteristics and needs of each students with LD in coordination with the Commission on Learning Disabilities at school;

4 – Provide educational services for students with learning disabilities depending on the nature of their needs throughout the program;
5 – Exchanging recommendations/suggestions with general education teachers in matters concerning a student with learning disabilities, such as:
   A. Teaching methods,                       B. Methods of dealing with the student,
   C. Testing alternatives,                     D. Establishment of follow-up program for a student,
6 – Bringing any issues regarding students with learning disabilities and their representation to administrators in the school board meeting;
7 – Cooperation and coordination with the team in the preparation of school schedules for each school students who are using the resource room;
8 – Assistance and cooperation with parents of students with learning disabilities to overcome difficulties facing their children in school;
9 – Spreading awareness among teachers as well as information about the characteristics of the school management with learning difficulties, and how they provide the quality of service that can be provided to them within the school team;
10 – Participate in the studies, research, courses, symposiums and conferences in the area of competence; and
11 - Carry out any other work that assists and benefits students with LD.

*The Role of a School Principal with LD Programs*

1 – To be familiar with the program objectives and tasks of LD teacher;
2 – Supervise LD program by meeting the needs, requirements, and configuration of use of the programs;
3 – Participate actively with the LD program at school;
4 – Build an effective relationship with LD and general education teachers as well as the parents of students;
5 - To correct any stereotypes about LD program for school personnel, parents and visitors;
6 - The development of LD programs through experiences reported by the field director and use recordings to highlight the positive aspects, and to clarify the requirements for professional teachers and referral to the special education department power;
7 – To facilitate the transition of students with LD from the classroom to a resource room;
8 – Follow up to start activities in the resources room at the right time, and facilitates the accommodation and modification plans of students with learning difficulties, as well as involving students with learning disabilities with typically developing peers in school activities;
9 – Directs LD program and observes the teacher in the resources room;
10 – Cooperates with superintendents and others who require the nature of their visit program and facilitates their mission, following up on the implementation of their recommendations, and guidance, noting the invitation of the supervisor concerned when necessary; and
11 - Participate in meetings and in-services training provided via Secretariat of Special Education or the Education Department.
Tasks of Superintendent of Learning Disabilities Program

1 – Prepare annual plans for guidance and counseling program of students with learning difficulties in the context of the overall plan for a distract direction and guidance;
2 – Follow-up with learning disabilities cases and provide addition services to them;
3 – Identify students with learning disabilities and take the means and procedures to better address their needs in collaboration with LD teacher;
4 – Investigate family conditions and needs of students with learning disabilities and to assist those in need;
5 – The study of individual cases of students who show signs of serious behavior issues and understanding their problems;
6 – Forging closer ties between home and school and keeping parents abreast of child’s progress;
7 – Communicate and cooperate with the teacher program with the Internal Committee of the inclusive school in order to collect information on the student for correspondence with family or to study students’ case;
8 – Lead the school community direction and guidance goals, set program objectives and plans, following these goals and objectives compatible to the field and the student’s actual progress; and
9 – To participate in research studies, courses, in-services and conferences in the field of work, and in the field of learning disabilities.
### APPENDIX C: SURVEY

**Survey**

**Saudi Teachers Attitudes toward Integrating Student with Learning Disabilities,**
adapted from *Opinion Relative to Integration of Students with Disabilities* questionnaire

Section I: general information

**Directions:** The following information will be only used to describe the population being studied. Please circle your response to each item.

- Example: Gender
  - □ Male  X Female

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender:</td>
<td>□ Male  □ Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age:</td>
<td>□ &lt; 30  □ 31-40  □ 41-50  □ 51+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Educational level:</td>
<td>□ Bachelor's degree  □ Graduate degree  □ other (specify)…….</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Education Area:</td>
<td>□ Special education  □ General education  □ other (specify)…….</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Check your dominant teaching Field</td>
<td>□ sciences  □ Art  □ language  □ other (specify)…….</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Teaching experiences</td>
<td>□ less than 1 year  □ 1-5 year  □ 6-10 year  □ more than 10 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Did you attend any training program in special education</td>
<td>□ Yes  □ No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Do you have any family member or close relative with Learning disabilities?</td>
<td>□ Yes  □ No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Have you had a student in class with a disability?</td>
<td>□ Yes  □ No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Approximately how many special education students (with IEPs) in your building that are included in regular education classroom for at least 79% of their school day (do not include gifted)</td>
<td>□ 0-5%  □ 6-10%  □ 11-20%  □ 21-30%  □ 31%+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Approximately how many students in your building</td>
<td>Less than 100  101-200  201-500  501-800  801+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Special education program(s) in your building:</td>
<td>□ Content mastery  □ Behavior unit  □ Life skills  □ Co-teaching  □ Self-contained  □ Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ d  □ e  □ f  □ g  □ h  □ i</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Which of the following disabilities are represented in your building?</td>
<td>□ Learning disabilities  □ Emotionally disturbed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section II: Attitudes Scale

Directions: Please place a check mark in the square that best describe your agreement or disagreement with the statement. There are no correct answers: the best answers are those that honestly reflect your feelings. There is no time limit, but you should work as quickly as you can.

Please respond to every statement

KEY
-3: I disagree very much
-2: I disagree pretty much
-1: I disagree a little
1: I agree very much
2: I agree pretty much
3: I agree a little

Example:

<table>
<thead>
<tr>
<th>#</th>
<th>Statement</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Most students with learning disabilities will make an adequate attempt to complete their assignments.</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Statement</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Most students with learning disabilities will make an adequate attempt to complete their assignments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Integration of students with learning disabilities will necessitate extensive retraining of regular-classroom teachers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Integration offers mixed group interaction that will foster understanding and acceptance of differences among students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>It is likely that students with learning disabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Students with learning disabilities will exhibit behavior problems in regular classrooms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Students with learning disabilities can best be served in regular classrooms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The extra attention students with learning disabilities require will be to the detriment of the other students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The challenge of being in a regular classroom will promote the academic growth of students with learning disabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Integration of students with learning disabilities will require significant change in regular classroom procedures.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Increased freedom in the regular classroom creates too much confusion for students with learning disabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Regular classroom teachers have the abilities necessary to work with students with learning disabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>The presence of students with learning disabilities will not promote acceptance of differences on the part of students without disabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>The behavior of students with learning disabilities will set a bad example for students without disabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>The students with a learning disability will probably develop academic skills more rapidly in a regular classroom than in special classrooms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Integration of students with learning disabilities will not promote his or her social independence.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>It is not more difficult to maintain order in a regular classroom that contains students with a learning disability than in one that does not contain students with disabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Students with learning disabilities will not monopolize the regular-classroom teacher’s time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>The integration of students with learning disabilities can be beneficial for students without disabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Students with learning disabilities are likely to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Regular-classroom teachers have sufficient training to teach students with learning disabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Integration will likely have a negative effect on the emotional development of the students with learning disabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Students with learning disabilities should be given every opportunity to function in regular classrooms when possible.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>The classroom behavior of students with learning disabilities generally does not require more patience from the teachers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Teaching students with learning disabilities is better done by special than by regular classroom teachers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Isolation in a special classroom has a beneficial effect on the social and emotional development of the students with a learning disability.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>The students with a learning disability will not be socially isolated in the regular classroom.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Assignments should not be modifying for students with learning disabilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Modification of coursework for students with learning disabilities would be difficult to justify to other students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>I would welcome students with learning disabilities in my class and working with them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section III: Experts Opinion

1. Please list what you believe to be the greatest benefits of having students with learning disabilities integrated in general education classrooms.

   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
2. Please list what you believe to be the greatest challenges of having students with learning disabilities integrated in general education classrooms

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

3-Please write any additional comments that have not been addressed concerning the integration students with learning disabilities in Saudi public schools.
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
APPENDIX D: SCREEN PLOT DIMENSION OF ITEMS AND TOTAL VARIANCE

DEMONSTRATED

Figure 7. Dimension of items
Table 6
Total Variance Demonstrated

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>2</td>
<td>3.781</td>
<td>13.505</td>
</tr>
<tr>
<td>3</td>
<td>1.716</td>
<td>6.129</td>
</tr>
<tr>
<td>4</td>
<td>1.608</td>
<td>5.744</td>
</tr>
<tr>
<td>5</td>
<td>1.374</td>
<td>4.906</td>
</tr>
<tr>
<td>6</td>
<td>1.091</td>
<td>3.896</td>
</tr>
<tr>
<td>7</td>
<td>1.025</td>
<td>3.662</td>
</tr>
<tr>
<td>8</td>
<td>.978</td>
<td>3.492</td>
</tr>
<tr>
<td>9</td>
<td>.876</td>
<td>3.127</td>
</tr>
<tr>
<td>10</td>
<td>.778</td>
<td>2.778</td>
</tr>
<tr>
<td>11</td>
<td>.772</td>
<td>2.759</td>
</tr>
<tr>
<td>12</td>
<td>.737</td>
<td>2.631</td>
</tr>
<tr>
<td>13</td>
<td>.709</td>
<td>2.532</td>
</tr>
<tr>
<td>14</td>
<td>.655</td>
<td>2.340</td>
</tr>
<tr>
<td>15</td>
<td>.613</td>
<td>2.191</td>
</tr>
<tr>
<td>16</td>
<td>.589</td>
<td>2.104</td>
</tr>
<tr>
<td>17</td>
<td>.566</td>
<td>2.021</td>
</tr>
<tr>
<td>18</td>
<td>.532</td>
<td>1.900</td>
</tr>
<tr>
<td>19</td>
<td>.486</td>
<td>1.736</td>
</tr>
<tr>
<td>20</td>
<td>.470</td>
<td>1.680</td>
</tr>
<tr>
<td>21</td>
<td>.434</td>
<td>1.548</td>
</tr>
<tr>
<td>22</td>
<td>.385</td>
<td>1.377</td>
</tr>
<tr>
<td>23</td>
<td>.372</td>
<td>1.329</td>
</tr>
<tr>
<td>24</td>
<td>.339</td>
<td>1.212</td>
</tr>
<tr>
<td>25</td>
<td>.335</td>
<td>1.196</td>
</tr>
<tr>
<td>26</td>
<td>.286</td>
<td>1.023</td>
</tr>
<tr>
<td>27</td>
<td>.280</td>
<td>1.000</td>
</tr>
<tr>
<td>28</td>
<td>.243</td>
<td>.868</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
<table>
<thead>
<tr>
<th>Items</th>
<th>Factors</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>Definition of the Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q4</td>
<td>It is likely that students with learning disabilities will exhibit behavior problems in regular classrooms.</td>
<td>.596</td>
<td>.091</td>
</tr>
<tr>
<td>q6</td>
<td>The extra attention students with learning disabilities require will be to the detriment of the other students.</td>
<td>.521</td>
<td>-.266</td>
</tr>
<tr>
<td>q8</td>
<td>Integration of students with learning disabilities will require significant change in regular classroom procedures</td>
<td>.326</td>
<td>-.032</td>
</tr>
<tr>
<td>q9</td>
<td>Increased freedom in the regular classroom creates too much confusion for students with learning disabilities.</td>
<td>.610</td>
<td>-.064</td>
</tr>
<tr>
<td>q11</td>
<td>The presence of students with learning disabilities will not promote acceptance of differences on the part of students without disabilities.</td>
<td>.667</td>
<td>-.015</td>
</tr>
<tr>
<td>q12</td>
<td>The behavior of students with learning disabilities will set a bad example for students without disabilities.</td>
<td>.655</td>
<td>.031</td>
</tr>
<tr>
<td>q14</td>
<td>Integration of students with learning disabilities will not promote his or her social independence</td>
<td>.558</td>
<td>.008</td>
</tr>
<tr>
<td>q15</td>
<td>It is not more difficult to maintain order in a regular classroom that contains students with a learning disability than in one that does not contain students with disabilities.</td>
<td>.592</td>
<td>.132</td>
</tr>
<tr>
<td>q18</td>
<td>Students with learning disabilities are likely to</td>
<td>.667</td>
<td>.212</td>
</tr>
<tr>
<td>Question</td>
<td>Statement</td>
<td>Factor 1</td>
<td>Factor 2</td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>q20</td>
<td>Integration will likely have a negative effect on the emotional development of the students with learning disabilities.</td>
<td>0.705</td>
<td>0.242</td>
</tr>
<tr>
<td>q23</td>
<td>Teaching students with learning disabilities is better done by special than by regular classroom teachers.</td>
<td>0.497</td>
<td>0.106</td>
</tr>
<tr>
<td>q24</td>
<td>Isolation in a special classroom has a beneficial effect on the social and emotional development of the students with a learning disability.</td>
<td>0.442</td>
<td>0.073</td>
</tr>
<tr>
<td>q26</td>
<td>Assignments should not be modifying for students with learning disabilities.</td>
<td>0.395</td>
<td>-0.245</td>
</tr>
<tr>
<td>q27</td>
<td>Modification of coursework for students with learning disabilities would be difficult to justify to other students.</td>
<td>0.580</td>
<td>-0.041</td>
</tr>
</tbody>
</table>

**Factor 2: Definition of the Variables**

<table>
<thead>
<tr>
<th>Question</th>
<th>Statement</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>q1</td>
<td>Most students with learning disabilities will make an adequate attempt to complete their assignments.</td>
<td>-0.138</td>
<td>0.489</td>
</tr>
<tr>
<td>q3</td>
<td>Integration offers mixed group interaction that will foster understanding and acceptance of differences among students.</td>
<td>0.032</td>
<td>0.632</td>
</tr>
<tr>
<td>q5</td>
<td>Students with learning disabilities can best be served in regular classrooms.</td>
<td>0.105</td>
<td>0.419</td>
</tr>
<tr>
<td>q7</td>
<td>The challenge of being in a regular classroom will promote the academic growth of students with learning disabilities.</td>
<td>-0.192</td>
<td>0.637</td>
</tr>
<tr>
<td>q10</td>
<td>Regular classroom teachers have the abilities necessary to work with students with learning disabilities.</td>
<td>-.400</td>
<td>.154</td>
</tr>
<tr>
<td>q13</td>
<td>The students with a learning disability will probably develop academic skills more rapidly in a regular classroom than in special classrooms</td>
<td>-.189</td>
<td>.539</td>
</tr>
<tr>
<td>q16</td>
<td>Students with learning disabilities will not monopolize the regular-classroom teacher’s time.</td>
<td>-.329</td>
<td>.306</td>
</tr>
<tr>
<td>q17</td>
<td>The integration of students with learning disabilities can be beneficial for students without disabilities.</td>
<td>-.078</td>
<td>.556</td>
</tr>
<tr>
<td>q19</td>
<td>Regular-classroom teachers have sufficient training to teach students with learning disabilities.</td>
<td>-.449</td>
<td>.128</td>
</tr>
<tr>
<td>q21</td>
<td>Students with learning disabilities should be given every opportunity to function in regular classrooms when possible.</td>
<td>.192</td>
<td>.433</td>
</tr>
<tr>
<td>q22</td>
<td>The classroom behavior of students with learning disabilities generally does not require more patience from the teachers.</td>
<td>-.406</td>
<td>.119</td>
</tr>
<tr>
<td>q25</td>
<td>The students with a learning disability will not be socially isolated in the regular classroom.</td>
<td>.080</td>
<td>.470</td>
</tr>
<tr>
<td>q28</td>
<td>I would welcome students with learning disabilities in my class and working with them.</td>
<td>.044</td>
<td>.568</td>
</tr>
</tbody>
</table>

*Complexity Determined items q2
APPENDIX E: UNIVERSITY IRB APPROVAL

A determination has been made that the following research study is exempt from IRB review because it involves:

Category 2 - research involving the use of educational tests, survey procedures, interview procedures or observation of public behavior

Project Title: Teachers' Perspective and Attitudes toward Integrating Students with Learning Disabilities in Saudi Public Schools

Project Director: Nareen Al-Ahmadi

Department: Teacher Education

Advisor: Dianne Gu

Robin Stack, C.L.P., Human Subjects Research Coordinator
Office of Research Compliance

The proposal remains in effect provided the study is conducted exactly as described in your application for review. Any additions or modifications to the project may be approved by the IRB upon amendment prior to implementation.
APPENDIX F: THE MINISTRY OF SAUDI EDUCATION PERMISSION LETTER TO DO THE STUDY IN ALL BOYS’ SCHOOL AND THE MINISTRY OF SAUDI EDUCATION PERMISSION LETTER TO DO THE STUDY IN ALL GIRLS’ SCHOOL
اسم الباحث: نسيب عبد الحميد عبد الكريم أحمد
ملاحظات: نص نشر متعلق بالبحث.

التاريخ: 1436/3/15
ملاحظات: تعليلات في الاستعدادات الخاصة / نووي الصوبه التعليم

المؤلف: د. ابراهيم بن محمد

المحتوى:

سعادة مدير إدارة التربية الخاصة

السلام عليكم ورحمة الله وبركاتكم، وبعد:

بناءً على خطاب عدد سابقة ودورة ومواعيد تدريبات التدريس، آل
مساءة الباحثة على تدريس أداء بحثها، ما بين ذلك ما يمكن تطبيقا، خلصنا
المؤلفة للثبات بحثها.

وتقديما تحياتي،

مدير إدارة التربية والتعليم بمحافظة مكة المكرمة

الأهداد بن أحمد الغفاري
قال تعالى:
إن الله يحب الركع في الأميال.
وله أخلاقان عينة علمنا.

المكرمة / مديرة المدرسة

السلام عليكم ورحمة الله وبركاته، وبعد

بناء على اعتماد سعادة مدير عام تعليم البنات بمنطقة مكة المكرمة / جدة.

لاستمتاع قضاء أداة البحث المقدمة من:

الباحث / محمد بن أحمد الهمداني

برقم: 577/18/1997 وتاريخ 10/10/89

ل موضوع بحث:

يرجى الانتباه إلى توثيق البحث، وكتابة ملخصه، وذكاء التدريس والبحث،...

لتلبيئة على مبادرة مكونة من بتروالمة، ضمان الملخص إذا ما الوضوء...

على تأمل تساؤل مهمة البحث.

شكراً قسمين حسن تعاونكم، والله الموافق:

مستشار الإدارة العامة للمرأة، التربية، التعليم

[توقيع: صناعات علي فهيم]
بسم الله الرحمن الرحيم

زميلائي وزميلاتي الأفضل:

السلام عليكم ورحمة الله وبركاته

أفضلكم إminent طالب دراسات عليا في جامعتي أوهايو بالولايات المتحدة الأمريكية وأقوم حاليا بعمل بحوث في التربية الخاصة، أريد منكم أنكم ستطبعوا التغريدات الخاصة في المدارس، وتحديث العدد الأولي التي تجمع بعض المعلومات الخفيفة حول الطبعاتكم وأراكم وكذلك شعوركم حول هذا الموضوع.

أواد ممكن لكم وتفصيلا لا أتمنى أن تستطعوا جزءا من وقتكم التمرين في تعنيه هذا الاستيبان وكي أمل أن تبخلوا بربيوا الإلكتروني أو باقتراحاتكم وإضافاتكم على خلاف الاستيبان وذلك عن طريق مشارستي في أي وقت على حياء أنه لا داعي لكلمة اسم الاستيبان وسوف تبقى كل أراكم كتابة في الخانة المرفقة بأخر الاستيبان ومقرحاتكم فيه طي الكتمان.

الأهداف الأولية لدراسة هي:
(1) جمع قدام المعلومات و لمعرفة من المعلمين السعوديين الذين يعملون مباشرة مع الطلاب في المدارس الاعدادية فيما يتعلق بأهميتهم وتعليم ذوي الاحتياجات الخاصة وخصوصا ذوي صعوبات التعلم، (2) وصف وجهات نظر ومعافطف المعلمين تجاه تعليم الطلبة ذوي صعوبات التعلم، (3) لمعرفة ما إذا كانت هناك اختلافات بين المعلمين السعوديين تجاه دمج الطلاب ذوي الاحتياجات الخاصة وخصوصا ذوي صعوبات التعلم، (4) تقييم فعالية برامج صعوبات التعلم ذوي الاحتياجات الخاصة فضلا عن غيرها من البرامج، مثل تلك التي تدرى المعلمين على تعليم الطلاب ذوي الاحتياجات الخاصة/ ذوي صعوبات التعلم.

هذا البحث سوف يساعده على المساعدة في معرفة في مجال التعليم الخاص، وخصوصا المملكة العربية السعودية، (2) دراسة (1):

لم تحدد 3 ممكن صعوبات التعليم الخاصة في البيانات الأكاديمية العالية (قلأل البيانات تقييدا)، (1) بعض المشكلات التي سوف تواجه وزارة التربية والتعليم السعودية إذا ما أدمج ذوي صعوبات التعليم، (2) استكشاف وجهات النظر والمعاففت الفتيئة من المعلمين المتعلقة بمعايير و فئات التربية الخاصة، (3) حيث مساهمة المعلمين. والجهة التربوية والتعليم السعودية في وضع وسن القوانين خاصة برامج ذوي الاحتياجات الخاصة وخصوصا ذوي صعوبات التعلم، (4) تحديد الاحتياجات التعليمية المعلمين والمشرفين الذين قد يعلمون مع الطلبة ذوي صعوبات التعلم، (5) الاحتفال والمشرفين الذين قد يعلمون مع الطلبة ذوي صعوبات التعلم.

واعتقد أعتقادا جازما بأن جهودهم ستوفر في البيانات التي ستكون مفيدة جدا لوزارة المملكة العربية السعودية لتربية والتعليم في التطهير المستقبلي من أجل الانضباط الناجح للتعليمات ذو الأحذات الخاصة وخصوصا ذوي صعوبات التعليم في المدارس الحكومية العامة. مع الاحترام، إنني أشجعكم على دعم السيدة نسرين عبد الحميد الأحمدي بحث جدول الأعمال ومنحها إذا شعرت عند القيام بهذه المهمة والبحث في الوقت المناسب.

مع عzac المحتوى وماهتناي لمساعدكم

أخت多余的: نسرين الأحمدي

جامعة أوهايو

( na301997@ohio.edu)
APPENDIX H: INTERVIEW PROTOCOL

Interview Guide

Educators interview Protocol

1. Tell me about yourself and your professional background?
   - Years teaching
   - Subject area
   - Schools
   - Number of students with learning disabilities
   - Nature of training or preparation to work with students with learning disabilities

2. What are your experiences of working with children? What is your experience of working with children with special needs and their families?

3. What does “learning disabilities “mean? And what does it mean to you?

4. How do you decide a student has learning disabilities? How do you decide a child with learning difficulty needs special education services? How do you think LD affects a child?

5. Tell me about the referral process in your school? Could you tell me how the placement? (IEP) decisions are made in your school? Did your team follow these procedures when evaluating and placing students? If not, why?

6. Who was involved in the evaluation and decision-making process? How were they involved? Why?

7. What are your beliefs / perceptions/ attitudes about working with students with special needs especially those with LD? What is the school and Saudi educators’ philosophy in general about the new amendment of integrating student with LD in regular public schools?
اتجاهات المعلمين تجاه دمج الطلاب ذوي الاحتياجات الخاصة/ذوي صعوبات التعليم في المدارس الحكومية في المملكة العربية السعودية

اسم المدرسة.................................

لكم جزيل الشكر والتقدير على المشاركة القيمة في الاستبيان علما بأنه ستراعي سريه الإجابات ويتكون الاستبيان من ثلاثة أسئلة والراجع قراءة التعليمات جيدا قبل البدا في الإجابه هذا وقد تم اعتبار مثال على كل قسم.

عملا إن المقصود من صعوبات التعليم في هذه الدراسة هو تعريف صعوبات التعليم

الواقع أن هناك العديد من التعارف لصعوبات التعليم، ومن أشهرها أنها الحالات التي يظهر صاحبها طرائب في واحدة أو أكثر من العمليات النفسية الأساسية التي تتضمن فهم واستخدام اللغة المكتوبة أو اللغة المنطوقة والتي تبدو في طرائب الاستماع والتفكير والكلام، والقراءة، والكتابة (الإملاء، السمعي أو البصري أو غيرها من التعبير، الخط) و الرياضيات و التي لا تعود إلى أسباب تتعلق با لعوق العقلي أو أنواع العوق أو ظروف التعليم أو الرعاية الأسرية.

بمعنى أوضح

فصعوبات التعليم تعني وجود مشكلة في التحصيل الأكاديمي (الدراسي) في مواد القراءة / الكتابة / الحساب، وغالبًا يسبق ذلك مؤشرات، مثل صعوبات في تعلم اللغة العربية (المحكية)، فظهطر الطفل تأخرًا في اكتساب اللغة، وغالبًا يكون ذلك متضافراً بشكل نفقي، وينتج ذلك عن صعوبات في التعامل مع الرموز، حيث إن اللغة هي مجموعة من الرموز (من أصوات كلمات) وعند ذلك تعرف الباحثة (المستقبل)، فخض هذا المستقبل هذه الرموز، ويفهم المراد ما معنى أو قرأ، فإذا حدث خلل أو صعوبة في فهم الرسالة بدون وجود سبب لذلك (مثل مشاكل سمعية أو انخفاض في القدرات الذهنية)، فإن ذلك يتم إرجاعه إلى كونه صعوبة في تعلم هذه الرموز، وهو ما نطلق عليه صعوبات التعليم

APPENDIX I: SCHOOL CONSENT FORM
APPENDIX J: SPSS OUTPUT: ANALYSIS OF VARIANCE OUTPUT

Table 1
Frequency and Percentage of the Teachers’ gender

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>122</td>
<td>48.6</td>
</tr>
<tr>
<td>Female</td>
<td>129</td>
<td>50.6</td>
</tr>
<tr>
<td>Total</td>
<td>255</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 2
dominant teaching field Teachers’ specialization

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sciences</td>
<td>59</td>
<td>23.5</td>
</tr>
<tr>
<td>art</td>
<td>25</td>
<td>10.0</td>
</tr>
<tr>
<td>language</td>
<td>65</td>
<td>25.9</td>
</tr>
<tr>
<td>other(specify)</td>
<td>98</td>
<td>39.0</td>
</tr>
<tr>
<td>Total System</td>
<td>247</td>
<td>98.4</td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
<td>1.6</td>
</tr>
<tr>
<td>Total</td>
<td>251</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* That there were four cases missing for that total is 247 cases
Table 3
Frequency and Percentage of the special education training

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Yes</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>161</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>247</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>251</td>
</tr>
</tbody>
</table>

* That there were four cases missing for that total is 247 cases
Table 4
Frequency and Percentage of presences of family member and/or relative with disabilities and
Presences of students with disabilities in class.

Presences of family member and/or relative with disabilities

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>63</td>
<td>25.1</td>
</tr>
<tr>
<td>No</td>
<td>187</td>
<td>74.5</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>99.6</td>
</tr>
<tr>
<td>System</td>
<td>1</td>
<td>.4</td>
</tr>
<tr>
<td>Total</td>
<td>251</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* That there was one case missing for that total is 250 cases

Presences of students with disabilities in class.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>166</td>
<td>66.1</td>
</tr>
<tr>
<td>No</td>
<td>83</td>
<td>33.1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>.4</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>99.6</td>
</tr>
<tr>
<td>System</td>
<td>1</td>
<td>.4</td>
</tr>
<tr>
<td>Total</td>
<td>251</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* That there was one case missing for that total is 250 cases
Table 5
Approximate percentage of special education students (with IEPs) in teachers’ schools that are included in regular education classroom for at least 79% of their school day (not included gifted, include pull-out services for< 2% of the day.)

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>0-10%</td>
<td>165</td>
</tr>
<tr>
<td></td>
<td>11-20%</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>21-40%</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>41-60%</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>61% +</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>247</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>251</td>
</tr>
</tbody>
</table>

*That there were four cases missing for that total is 247 cases

Table 6
Frequency and Percentage of number of the students’ number presences in the target teachers’ schools

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Less than 100</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>101-200</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>201-500</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>501-800</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>801+</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>251</td>
</tr>
</tbody>
</table>
Table 7: Degree of Agreement: Overall attitude items grouped by the degree of agreement, frequency, percentage, mean and rank

<table>
<thead>
<tr>
<th>No. of Stats</th>
<th>Strongly disagree</th>
<th>disagree</th>
<th>pretty much</th>
<th>disagree a little</th>
<th>Agree a little</th>
<th>agree pretty much</th>
<th>strongly agree</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FQ %</td>
<td>FQ %</td>
<td>FQ %</td>
<td>FQ %</td>
<td>FQ %</td>
<td>FQ %</td>
<td>FQ %</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>6 2.4</td>
<td>11 4.4</td>
<td>15 6.0</td>
<td>57 22.7</td>
<td>97 38.6</td>
<td>63 25.1</td>
<td>4.67 5</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3 1.2</td>
<td>12 4.8</td>
<td>14 5.6</td>
<td>38 15.1</td>
<td>72 28.8</td>
<td>111 44.2</td>
<td>4.99 2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>18 7.2</td>
<td>46 18.3</td>
<td>47 18.7</td>
<td>51 20.3</td>
<td>63 25.1</td>
<td>24 9.6</td>
<td>3.67 12</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1 0.4</td>
<td>23 9.2</td>
<td>35 13.9</td>
<td>34 13.5</td>
<td>62 24.7</td>
<td>93 37.1</td>
<td>4.66 6</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>27 10.8</td>
<td>80 31.9</td>
<td>47 18.7</td>
<td>36 14.3</td>
<td>43 17.1</td>
<td>18 7.2</td>
<td>3.17 23</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>12 4.8</td>
<td>19 7.6</td>
<td>19 7.6</td>
<td>46 18.3</td>
<td>92 36.7</td>
<td>63 25.1</td>
<td>4.50 7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>66 26.3</td>
<td>89 35</td>
<td>42 16.7</td>
<td>20 8.0</td>
<td>26 10.4</td>
<td>6 2.4</td>
<td>2.47 27</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>37 14.7</td>
<td>85 33.9</td>
<td>55 21.9</td>
<td>32 12.7</td>
<td>26 10.4</td>
<td>12 4.8</td>
<td>2.84 25</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>8 3.2</td>
<td>54 21.5</td>
<td>86 34.3</td>
<td>50 19.9</td>
<td>36 14.3</td>
<td>17 6.8</td>
<td>3.41 16</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>34 13.5</td>
<td>50 19.9</td>
<td>48 19.1</td>
<td>47 18.7</td>
<td>50 19.5</td>
<td>21 8.4</td>
<td>3.37 18</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>15 6.0</td>
<td>37 14.7</td>
<td>39 15.5</td>
<td>73 29.1</td>
<td>58 23.1</td>
<td>28 11.2</td>
<td>3.82 10</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>10 4.0</td>
<td>36 14.3</td>
<td>47 18.7</td>
<td>45 17.9</td>
<td>66 26.3</td>
<td>45 17.9</td>
<td>4.03 9</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>18 7.2</td>
<td>43 17.1</td>
<td>40 15.9</td>
<td>68 27.1</td>
<td>60 23.9</td>
<td>17 6.8</td>
<td>3.65 13</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>40 15.9</td>
<td>46 18.3</td>
<td>49 19.5</td>
<td>50 19.9</td>
<td>46 18.3</td>
<td>20 8.0</td>
<td>3.30 19</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>20 8.0</td>
<td>43 17.1</td>
<td>68 27.1</td>
<td>47 18.7</td>
<td>47 18.7</td>
<td>25 10.0</td>
<td>3.53 15</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>9 3.6</td>
<td>30 12.0</td>
<td>42 16.7</td>
<td>55 21.9</td>
<td>66 26.3</td>
<td>49 19.5</td>
<td>4.14 8</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>35 13.9</td>
<td>41 16.3</td>
<td>57 22.7</td>
<td>48 19.1</td>
<td>48 19.1</td>
<td>22 8.8</td>
<td>3.39 17</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>14 5.6</td>
<td>51 20.3</td>
<td>108 43.0</td>
<td>38 15.1</td>
<td>16 6.4</td>
<td>22 8.8</td>
<td>3.23 20</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>23 9.2</td>
<td>44 17.5</td>
<td>51 20.3</td>
<td>56 22.3</td>
<td>47 18.7</td>
<td>29 11.6</td>
<td>3.59 14</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>4 1.6</td>
<td>10 4.0</td>
<td>10 4.0</td>
<td>32 12.7</td>
<td>74 29.5</td>
<td>119 47.4</td>
<td>5.08 1</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>12 4.8</td>
<td>59 23.5</td>
<td>109 43.4</td>
<td>25 10.0</td>
<td>23 9.2</td>
<td>19 7.6</td>
<td>3.18 22</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>86 34.3</td>
<td>50 19.9</td>
<td>34 13.5</td>
<td>32 12.7</td>
<td>30 12.0</td>
<td>17 6.8</td>
<td>2.68 26</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>43 17.1</td>
<td>44 17.5</td>
<td>41 16.3</td>
<td>70 27.9</td>
<td>38 15.1</td>
<td>13 5.2</td>
<td>3.22 21</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>7 2.8</td>
<td>7 2.8</td>
<td>15 6</td>
<td>34 13.5</td>
<td>95 37.8</td>
<td>93 37.1</td>
<td>4.92 3</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>22 8.8</td>
<td>30 12.0</td>
<td>33 13.1</td>
<td>78 31.1</td>
<td>60 23.9</td>
<td>27 10.8</td>
<td>3.82 11</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>43 17.1</td>
<td>55 21.9</td>
<td>56 22.3</td>
<td>37 14.7</td>
<td>42 16.7</td>
<td>15 6.0</td>
<td>3.10 24</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>7 2.8</td>
<td>15 6.0</td>
<td>26 10.4</td>
<td>34 13.5</td>
<td>59 23.5</td>
<td>110 43.8</td>
<td>4.80 4</td>
<td></td>
</tr>
</tbody>
</table>

*Mean=3.7286
Table 8: Means and standard deviations for all items ranked from most positive to the most negative

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>q21</td>
<td>249</td>
<td>1</td>
<td>6</td>
<td>5.08</td>
<td>1.176</td>
</tr>
<tr>
<td>q3</td>
<td>250</td>
<td>1</td>
<td>6</td>
<td>4.99</td>
<td>1.204</td>
</tr>
<tr>
<td>q25</td>
<td>251</td>
<td>1</td>
<td>6</td>
<td>4.92</td>
<td>1.201</td>
</tr>
<tr>
<td>q28</td>
<td>251</td>
<td>1</td>
<td>6</td>
<td>4.80</td>
<td>1.393</td>
</tr>
<tr>
<td>q1</td>
<td>249</td>
<td>1</td>
<td>6</td>
<td>4.67</td>
<td>1.186</td>
</tr>
<tr>
<td>q5</td>
<td>248</td>
<td>1</td>
<td>6</td>
<td>4.66</td>
<td>1.367</td>
</tr>
<tr>
<td>q7</td>
<td>251</td>
<td>1</td>
<td>6</td>
<td>4.50</td>
<td>1.392</td>
</tr>
<tr>
<td>q17</td>
<td>251</td>
<td>1</td>
<td>6</td>
<td>4.14</td>
<td>1.414</td>
</tr>
<tr>
<td>q13</td>
<td>249</td>
<td>1</td>
<td>6</td>
<td>4.03</td>
<td>1.457</td>
</tr>
<tr>
<td>q12</td>
<td>250</td>
<td>1</td>
<td>6</td>
<td>3.82</td>
<td>1.395</td>
</tr>
<tr>
<td>q26</td>
<td>250</td>
<td>1</td>
<td>6</td>
<td>3.82</td>
<td>1.432</td>
</tr>
<tr>
<td>q4</td>
<td>249</td>
<td>1</td>
<td>6</td>
<td>3.67</td>
<td>1.455</td>
</tr>
<tr>
<td>q14</td>
<td>246</td>
<td>1</td>
<td>6</td>
<td>3.65</td>
<td>1.388</td>
</tr>
<tr>
<td>q20</td>
<td>250</td>
<td>1</td>
<td>6</td>
<td>3.59</td>
<td>1.492</td>
</tr>
<tr>
<td>q16</td>
<td>250</td>
<td>1</td>
<td>6</td>
<td>3.53</td>
<td>1.434</td>
</tr>
<tr>
<td>q10</td>
<td>251</td>
<td>1</td>
<td>6</td>
<td>3.41</td>
<td>1.250</td>
</tr>
<tr>
<td>q18</td>
<td>251</td>
<td>1</td>
<td>6</td>
<td>3.39</td>
<td>1.523</td>
</tr>
<tr>
<td>q11</td>
<td>250</td>
<td>1</td>
<td>6</td>
<td>3.37</td>
<td>1.537</td>
</tr>
<tr>
<td>q15</td>
<td>251</td>
<td>1</td>
<td>6</td>
<td>3.30</td>
<td>1.545</td>
</tr>
<tr>
<td>q19</td>
<td>249</td>
<td>1</td>
<td>6</td>
<td>3.23</td>
<td>1.260</td>
</tr>
<tr>
<td>q24</td>
<td>249</td>
<td>1</td>
<td>6</td>
<td>3.22</td>
<td>1.479</td>
</tr>
<tr>
<td>q22</td>
<td>247</td>
<td>1</td>
<td>6</td>
<td>3.18</td>
<td>1.254</td>
</tr>
<tr>
<td>q6</td>
<td>251</td>
<td>1</td>
<td>6</td>
<td>3.17</td>
<td>1.485</td>
</tr>
<tr>
<td>q27</td>
<td>248</td>
<td>1</td>
<td>6</td>
<td>3.10</td>
<td>1.512</td>
</tr>
<tr>
<td>q9</td>
<td>247</td>
<td>1</td>
<td>6</td>
<td>2.84</td>
<td>1.383</td>
</tr>
<tr>
<td>q23</td>
<td>249</td>
<td>1</td>
<td>6</td>
<td>2.68</td>
<td>1.648</td>
</tr>
<tr>
<td>q8</td>
<td>249</td>
<td>1</td>
<td>6</td>
<td>2.47</td>
<td>1.365</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td></td>
<td></td>
<td></td>
<td>216</td>
<td></td>
</tr>
</tbody>
</table>
Table 9: Mean standard deviation T-value comparisons for both special and general education teachers

<table>
<thead>
<tr>
<th>item</th>
<th>Mean regular teacher</th>
<th>Standard deviation mean regular teacher</th>
<th>Mean special education teacher</th>
<th>Standard deviation special education teacher</th>
<th>T-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>q1</td>
<td>4.80</td>
<td>1.062</td>
<td>4.59</td>
<td>1.220</td>
<td>-1.363</td>
<td>.174</td>
</tr>
<tr>
<td>q2</td>
<td>4.89</td>
<td>1.256</td>
<td>5.08</td>
<td>1.144</td>
<td>1.203</td>
<td>.230</td>
</tr>
<tr>
<td>q3</td>
<td>3.15</td>
<td>1.459</td>
<td>4.12</td>
<td>1.269</td>
<td>5.437</td>
<td>.000</td>
</tr>
<tr>
<td>q4</td>
<td>4.38</td>
<td>1.371</td>
<td>4.90</td>
<td>1.313</td>
<td>2.940</td>
<td>.004</td>
</tr>
<tr>
<td>q5</td>
<td>2.80</td>
<td>1.255</td>
<td>3.57</td>
<td>1.553</td>
<td>4.155</td>
<td>.000</td>
</tr>
<tr>
<td>q6</td>
<td>4.53</td>
<td>1.254</td>
<td>4.46</td>
<td>1.522</td>
<td>-3.394</td>
<td>.694</td>
</tr>
<tr>
<td>q7</td>
<td>2.29</td>
<td>1.324</td>
<td>2.70</td>
<td>1.401</td>
<td>2.328</td>
<td>.021</td>
</tr>
<tr>
<td>q8</td>
<td>2.55</td>
<td>1.340</td>
<td>3.17</td>
<td>1.374</td>
<td>3.450</td>
<td>.001</td>
</tr>
<tr>
<td>q9</td>
<td>3.62</td>
<td>1.183</td>
<td>3.09</td>
<td>1.164</td>
<td>3.456</td>
<td>.001</td>
</tr>
<tr>
<td>q10</td>
<td>2.77</td>
<td>1.362</td>
<td>3.98</td>
<td>1.420</td>
<td>6.671</td>
<td>.000</td>
</tr>
<tr>
<td>q11</td>
<td>3.45</td>
<td>1.445</td>
<td>4.27</td>
<td>1.186</td>
<td>4.785</td>
<td>.000</td>
</tr>
<tr>
<td>q12</td>
<td>4.18</td>
<td>1.318</td>
<td>3.90</td>
<td>1.569</td>
<td>-1.455</td>
<td>.147</td>
</tr>
<tr>
<td>q13</td>
<td>3.16</td>
<td>1.392</td>
<td>4.19</td>
<td>1.152</td>
<td>6.137</td>
<td>.000</td>
</tr>
<tr>
<td>q14</td>
<td>2.68</td>
<td>1.478</td>
<td>3.93</td>
<td>1.297</td>
<td>6.921</td>
<td>.000</td>
</tr>
<tr>
<td>q15</td>
<td>3.68</td>
<td>1.337</td>
<td>3.39</td>
<td>1.508</td>
<td>-1.525</td>
<td>.129</td>
</tr>
<tr>
<td>q16</td>
<td>3.95</td>
<td>1.432</td>
<td>4.36</td>
<td>1.349</td>
<td>2.281</td>
<td>.023</td>
</tr>
<tr>
<td>q17</td>
<td>2.81</td>
<td>1.473</td>
<td>4.02</td>
<td>1.279</td>
<td>6.693</td>
<td>.000</td>
</tr>
<tr>
<td>q18</td>
<td>3.38</td>
<td>1.342</td>
<td>3.05</td>
<td>1.127</td>
<td>-2.034</td>
<td>.043</td>
</tr>
<tr>
<td>q19</td>
<td>3.07</td>
<td>1.419</td>
<td>4.13</td>
<td>1.335</td>
<td>5.896</td>
<td>.000</td>
</tr>
<tr>
<td>q20</td>
<td>4.70</td>
<td>1.286</td>
<td>5.47</td>
<td>.949</td>
<td>5.256</td>
<td>.000</td>
</tr>
<tr>
<td>q21</td>
<td>3.31</td>
<td>1.315</td>
<td>2.98</td>
<td>1.172</td>
<td>-2.012</td>
<td>.045</td>
</tr>
<tr>
<td>q22</td>
<td>2.25</td>
<td>1.430</td>
<td>3.19</td>
<td>1.757</td>
<td>4.457</td>
<td>.000</td>
</tr>
<tr>
<td>q23</td>
<td>2.81</td>
<td>1.491</td>
<td>3.64</td>
<td>1.365</td>
<td>4.447</td>
<td>.000</td>
</tr>
<tr>
<td>q24</td>
<td>4.67</td>
<td>1.278</td>
<td>5.16</td>
<td>1.116</td>
<td>3.145</td>
<td>.002</td>
</tr>
<tr>
<td>q25</td>
<td>3.54</td>
<td>1.451</td>
<td>4.16</td>
<td>4.16</td>
<td>3.442</td>
<td>.001</td>
</tr>
<tr>
<td>q26</td>
<td>2.70</td>
<td>1.399</td>
<td>3.51</td>
<td>1.534</td>
<td>4.189</td>
<td>.000</td>
</tr>
<tr>
<td>q27</td>
<td>4.43</td>
<td>1.413</td>
<td>5.11</td>
<td>1.341</td>
<td>3.745</td>
<td>.000</td>
</tr>
</tbody>
</table>
Table 10: group Statistics for Mean and standard deviation for both special and general education teachers by questions.

<table>
<thead>
<tr>
<th>Major</th>
<th>Major</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>q1</td>
<td>1 Special education</td>
<td>120</td>
<td>4.59</td>
<td>1.220</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>113</td>
<td>4.80</td>
<td>1.062</td>
</tr>
<tr>
<td>q3</td>
<td>1 Special education</td>
<td>121</td>
<td>5.08</td>
<td>1.144</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>113</td>
<td>4.89</td>
<td>1.256</td>
</tr>
<tr>
<td>q4</td>
<td>1 Special education</td>
<td>121</td>
<td>4.12</td>
<td>1.269</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>112</td>
<td>3.15</td>
<td>1.459</td>
</tr>
<tr>
<td>q5</td>
<td>1 Special education</td>
<td>121</td>
<td>4.90</td>
<td>1.313</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>112</td>
<td>4.38</td>
<td>1.371</td>
</tr>
<tr>
<td>q6</td>
<td>1 Special education</td>
<td>122</td>
<td>3.57</td>
<td>1.553</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>113</td>
<td>2.80</td>
<td>1.255</td>
</tr>
<tr>
<td>q7</td>
<td>1 Special education</td>
<td>122</td>
<td>4.46</td>
<td>1.522</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>113</td>
<td>4.53</td>
<td>1.254</td>
</tr>
<tr>
<td>q8</td>
<td>1 Special education</td>
<td>122</td>
<td>2.70</td>
<td>1.401</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>111</td>
<td>2.29</td>
<td>1.324</td>
</tr>
<tr>
<td>q9</td>
<td>1 Special education</td>
<td>121</td>
<td>3.17</td>
<td>1.374</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>111</td>
<td>2.55</td>
<td>1.340</td>
</tr>
<tr>
<td>q10</td>
<td>1 Special education</td>
<td>122</td>
<td>3.09</td>
<td>1.164</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>113</td>
<td>3.62</td>
<td>1.183</td>
</tr>
<tr>
<td>q11</td>
<td>1 Special education</td>
<td>122</td>
<td>3.98</td>
<td>1.420</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>112</td>
<td>2.77</td>
<td>1.362</td>
</tr>
<tr>
<td>q12</td>
<td>Special education</td>
<td>122</td>
<td>4.27</td>
<td>1.186</td>
</tr>
<tr>
<td>q13</td>
<td>Special education</td>
<td>120</td>
<td>3.90</td>
<td>1.569</td>
</tr>
<tr>
<td>q14</td>
<td>Special education</td>
<td>119</td>
<td>4.19</td>
<td>1.152</td>
</tr>
<tr>
<td>q15</td>
<td>Special education</td>
<td>122</td>
<td>3.93</td>
<td>1.297</td>
</tr>
<tr>
<td>q16</td>
<td>Special education</td>
<td>122</td>
<td>3.39</td>
<td>1.508</td>
</tr>
<tr>
<td>q17</td>
<td>Special education</td>
<td>122</td>
<td>4.36</td>
<td>1.349</td>
</tr>
<tr>
<td>q18</td>
<td>Special education</td>
<td>122</td>
<td>4.02</td>
<td>1.279</td>
</tr>
<tr>
<td>q19</td>
<td>Special education</td>
<td>122</td>
<td>3.05</td>
<td>1.127</td>
</tr>
<tr>
<td>q20</td>
<td>Special education</td>
<td>121</td>
<td>4.13</td>
<td>1.335</td>
</tr>
<tr>
<td>q21</td>
<td>Special education</td>
<td>121</td>
<td>5.47</td>
<td>0.949</td>
</tr>
<tr>
<td>q22</td>
<td>Special education</td>
<td>119</td>
<td>2.98</td>
<td>1.172</td>
</tr>
<tr>
<td>q23</td>
<td>1 Special education</td>
<td>121</td>
<td>3.19</td>
<td>1.757</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>112</td>
<td>2.25</td>
<td>1.430</td>
</tr>
<tr>
<td>q24</td>
<td>1 Special education</td>
<td>121</td>
<td>3.64</td>
<td>1.365</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>113</td>
<td>2.81</td>
<td>1.491</td>
</tr>
<tr>
<td>q25</td>
<td>1 Special education</td>
<td>122</td>
<td>5.16</td>
<td>1.116</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>113</td>
<td>4.67</td>
<td>1.278</td>
</tr>
<tr>
<td>q26</td>
<td>1 Special education</td>
<td>122</td>
<td>4.16</td>
<td>1.301</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>112</td>
<td>3.54</td>
<td>1.451</td>
</tr>
<tr>
<td>q27</td>
<td>1 Special education</td>
<td>121</td>
<td>3.51</td>
<td>1.534</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>111</td>
<td>2.70</td>
<td>1.399</td>
</tr>
<tr>
<td>q28</td>
<td>1 Special education</td>
<td>122</td>
<td>5.11</td>
<td>1.341</td>
</tr>
<tr>
<td></td>
<td>2 General education</td>
<td>113</td>
<td>4.43</td>
<td>1.413</td>
</tr>
</tbody>
</table>
Table 11 gives readers group Statistics information for Mean and standard deviation for and the number of the participant in each of groups, special and general education teachers answering the survey. This table was used to compare and contrast different question by group of participants.

Table 21: Independent Samples Test by questions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Equal variances assumed</th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>q1</td>
<td>Equal variances assumed</td>
<td>-1.363</td>
<td>231</td>
<td>.174</td>
</tr>
<tr>
<td>q2</td>
<td>Equal variances assumed</td>
<td>1.203</td>
<td>232</td>
<td>.230</td>
</tr>
<tr>
<td>q3</td>
<td>Equal variances assumed</td>
<td>5.437</td>
<td>231</td>
<td>.000</td>
</tr>
<tr>
<td>q4</td>
<td>Equal variances assumed</td>
<td>2.940</td>
<td>231</td>
<td>.004</td>
</tr>
<tr>
<td>q5</td>
<td>Equal variances assumed</td>
<td>4.155</td>
<td>233</td>
<td>.000</td>
</tr>
<tr>
<td>q6</td>
<td>Equal variances assumed</td>
<td>-0.394</td>
<td>233</td>
<td>.694</td>
</tr>
<tr>
<td>q7</td>
<td>Equal variances assumed</td>
<td>2.328</td>
<td>231</td>
<td>.021</td>
</tr>
<tr>
<td>q8</td>
<td>Equal variances assumed</td>
<td>3.450</td>
<td>230</td>
<td>.001</td>
</tr>
<tr>
<td>q9</td>
<td>Equal variances assumed</td>
<td>-3.456</td>
<td>233</td>
<td>.001</td>
</tr>
<tr>
<td>q10</td>
<td>Equal variances assumed</td>
<td>6.671</td>
<td>232</td>
<td>.000</td>
</tr>
<tr>
<td>q11</td>
<td>Equal variances assumed</td>
<td>4.785</td>
<td>232</td>
<td>.000</td>
</tr>
<tr>
<td>q12</td>
<td>Equal variances assumed</td>
<td>-1.455</td>
<td>231</td>
<td>.147</td>
</tr>
<tr>
<td>q13</td>
<td>Equal variances assumed</td>
<td>6.137</td>
<td>228</td>
<td>.000</td>
</tr>
<tr>
<td>q14</td>
<td>Equal variances assumed</td>
<td>6.921</td>
<td>233</td>
<td>.000</td>
</tr>
<tr>
<td>q15</td>
<td>Equal variances assumed</td>
<td>-1.525</td>
<td>232</td>
<td>.129</td>
</tr>
<tr>
<td>q16</td>
<td>Equal variances assumed</td>
<td>2.281</td>
<td>233</td>
<td>.023</td>
</tr>
<tr>
<td>q17</td>
<td>Equal variances assumed</td>
<td>6.693</td>
<td>233</td>
<td>.000</td>
</tr>
<tr>
<td>q18</td>
<td>Equal variances assumed</td>
<td>-2.034</td>
<td>231</td>
<td>.043</td>
</tr>
<tr>
<td>q20</td>
<td>Equal variances assumed</td>
<td>5.896</td>
<td>232</td>
<td>.000</td>
</tr>
<tr>
<td>q21</td>
<td>Equal variances assumed</td>
<td>5.256</td>
<td>231</td>
<td>.000</td>
</tr>
<tr>
<td>q22</td>
<td>Equal variances assumed</td>
<td>-2.012</td>
<td>229</td>
<td>.045</td>
</tr>
<tr>
<td>q23</td>
<td>Equal variances assumed</td>
<td>4.457</td>
<td>231</td>
<td>.000</td>
</tr>
<tr>
<td>q24</td>
<td>Equal variances assumed</td>
<td>4.447</td>
<td>232</td>
<td>.000</td>
</tr>
<tr>
<td>q25</td>
<td>Equal variances assumed</td>
<td>3.145</td>
<td>233</td>
<td>.002</td>
</tr>
<tr>
<td>q26</td>
<td>Equal variances assumed</td>
<td>3.442</td>
<td>232</td>
<td>.001</td>
</tr>
<tr>
<td>q27</td>
<td>Equal variances assumed</td>
<td>4.189</td>
<td>230</td>
<td>.000</td>
</tr>
<tr>
<td>q28</td>
<td>Equal variances assumed</td>
<td>3.745</td>
<td>233</td>
<td>.000</td>
</tr>
</tbody>
</table>

ANOVA
The result of testing the hypothesizes of this study were arranged under nine heading, according to each hypothesis based on one-way ANOVA and two-way ANOVA analysis and Schaffe Method of Multiple comparison for significant factor in the ANOVA result.
One –way ANOVA Analysis
All the tables are in the chapter 5
Two-way ANOVA Analysis
Table 12
Effects of four age levels and gender on the attitudes of Saudi special education teachers toward integrating students with learning disabilities in regular public schools

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>951.845(a)</td>
<td>5</td>
<td>190.369</td>
<td>2.316</td>
<td>.049</td>
<td>.105</td>
</tr>
<tr>
<td>Intercept</td>
<td>740333.537</td>
<td>1</td>
<td>740333.537</td>
<td>9008.248</td>
<td>.000</td>
<td>.989</td>
</tr>
<tr>
<td>Gender</td>
<td>474.698</td>
<td>1</td>
<td>474.698</td>
<td>5.776</td>
<td>.018</td>
<td>.055</td>
</tr>
<tr>
<td>age</td>
<td>906.780</td>
<td>3</td>
<td>302.260</td>
<td>3.678</td>
<td>.015</td>
<td>.100</td>
</tr>
<tr>
<td>Gender * age</td>
<td>17.741</td>
<td>1</td>
<td>17.741</td>
<td>.216</td>
<td>.643</td>
<td>.002</td>
</tr>
<tr>
<td>Error</td>
<td>8136.213</td>
<td>99</td>
<td>82.184</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1250714.000</td>
<td>105</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>9088.057</td>
<td>104</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 13
Effects of four age levels and gender on the attitudes of Saudi special education teachers toward integrating students with learning disabilities in regular public schools

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>2659.481(a)</td>
<td>7</td>
<td>379.926</td>
<td>2.163</td>
<td>.045</td>
<td>.147</td>
</tr>
<tr>
<td>Intercept</td>
<td>344184.970</td>
<td>1</td>
<td>344184.970</td>
<td>1959.877</td>
<td>.000</td>
<td>.957</td>
</tr>
<tr>
<td>Gender</td>
<td>876.441</td>
<td>1</td>
<td>876.441</td>
<td>4.991</td>
<td>.028</td>
<td>.054</td>
</tr>
<tr>
<td>age</td>
<td>270.371</td>
<td>3</td>
<td>90.124</td>
<td>.513</td>
<td>.674</td>
<td>.017</td>
</tr>
<tr>
<td>Gender * age</td>
<td>154.875</td>
<td>3</td>
<td>51.625</td>
<td>.294</td>
<td>.830</td>
<td>.010</td>
</tr>
<tr>
<td>Error</td>
<td>15454.176</td>
<td>88</td>
<td>175.616</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Corrected</td>
<td>909197.000</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Corrected</td>
<td>18113.656</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 14
Effects of four teaching fields and education levels on the attitudes of Saudi general education and special education teachers toward integrating students with learning disabilities in regular public schools

<table>
<thead>
<tr>
<th>tea field</th>
<th>Ed level</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>sciences</td>
<td>Bachelor's degree</td>
<td>108.500</td>
<td>8.57586</td>
<td>12</td>
</tr>
<tr>
<td>sciences</td>
<td>other (specify)</td>
<td>112.000</td>
<td>8.88819</td>
<td>3</td>
</tr>
<tr>
<td>sciences</td>
<td>Total</td>
<td>109.200</td>
<td>8.43632</td>
<td>15</td>
</tr>
<tr>
<td>art</td>
<td>Bachelor's degree</td>
<td>112.454</td>
<td>14.06672</td>
<td>11</td>
</tr>
<tr>
<td>art</td>
<td>Total</td>
<td>112.454</td>
<td>14.06672</td>
<td>11</td>
</tr>
<tr>
<td>language</td>
<td>Bachelor's degree</td>
<td>108.100</td>
<td>9.04910</td>
<td>30</td>
</tr>
<tr>
<td>language</td>
<td>Graduate degree</td>
<td>109.000</td>
<td>0.00000</td>
<td>2</td>
</tr>
<tr>
<td>language</td>
<td>other (specify)</td>
<td>111.000</td>
<td>4.24264</td>
<td>2</td>
</tr>
<tr>
<td>language</td>
<td>Total</td>
<td>108.323</td>
<td>8.54479</td>
<td>34</td>
</tr>
<tr>
<td>other (specify)</td>
<td>Bachelor's degree</td>
<td>106.923</td>
<td>8.88933</td>
<td>39</td>
</tr>
<tr>
<td>other (specify)</td>
<td>Graduate degree</td>
<td>122.000</td>
<td>1.41421</td>
<td>2</td>
</tr>
<tr>
<td>other (specify)</td>
<td>other (specify)</td>
<td>110.666</td>
<td>3.05505</td>
<td>3</td>
</tr>
<tr>
<td>other (specify)</td>
<td>Total</td>
<td>107.863</td>
<td>8.99765</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>Bachelor's degree</td>
<td>108.173</td>
<td>9.62438</td>
<td>92</td>
</tr>
<tr>
<td>Total</td>
<td>Graduate degree</td>
<td>115.500</td>
<td>7.54983</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>other (specify)</td>
<td>111.250</td>
<td>5.31171</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
<td>108.692</td>
<td>9.37884</td>
<td>104</td>
</tr>
</tbody>
</table>

a Major = Special education
### Descriptive Statistics(a)

**Dependent Variable: total**

<table>
<thead>
<tr>
<th>tea_field</th>
<th>Ed_level</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>sciences</td>
<td>Bachelor's degree</td>
<td>101.346</td>
<td>12.18176</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Graduate degree</td>
<td>102.000</td>
<td>.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>other( specify)</td>
<td>89.8333</td>
<td>9.28260</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>99.2727</td>
<td>12.24049</td>
<td>33</td>
</tr>
<tr>
<td>art</td>
<td>Bachelor's degree</td>
<td>94.6000</td>
<td>13.35165</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>other( specify)</td>
<td>73.0000</td>
<td>.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>92.6364</td>
<td>14.24270</td>
<td>11</td>
</tr>
<tr>
<td>language</td>
<td>Bachelor's degree</td>
<td>97.1333</td>
<td>12.16474</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Graduate degree</td>
<td>98.0000</td>
<td>.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>other( specify)</td>
<td>101.000</td>
<td>13.56466</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>97.9500</td>
<td>11.85649</td>
<td>20</td>
</tr>
<tr>
<td>other( specify)</td>
<td>Bachelor's degree</td>
<td>99.0588</td>
<td>11.59456</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>other( specify)</td>
<td>85.2143</td>
<td>16.76617</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>92.8065</td>
<td>15.57438</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>Bachelor's degree</td>
<td>98.8529</td>
<td>12.17076</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Graduate degree</td>
<td>100.000</td>
<td>2.82843</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>other( specify)</td>
<td>88.3600</td>
<td>15.36197</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>96.1158</td>
<td>13.69878</td>
<td>95</td>
</tr>
</tbody>
</table>

a Major = General education

### Tests of Between-Subjects Effects(b)

**Dependent Variable: total**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>698.291(a)</td>
<td>8</td>
<td>87.286</td>
<td>.992</td>
<td>.448</td>
<td>.077</td>
</tr>
<tr>
<td>Intercept</td>
<td>323463.856</td>
<td>1</td>
<td>323463.856</td>
<td>3674.907</td>
<td>.000</td>
<td>.975</td>
</tr>
<tr>
<td></td>
<td>277.004</td>
<td>3</td>
<td>92.335</td>
<td>1.049</td>
<td>.375</td>
<td>.032</td>
</tr>
</tbody>
</table>
### Tests of Between-Subjects Effects

**Dependent Variable: total**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>3465.577(a)</td>
<td>9</td>
<td>385.064</td>
<td>2.309</td>
<td>.022</td>
<td>.196</td>
</tr>
<tr>
<td>Intercept</td>
<td>151604.724</td>
<td>1</td>
<td>151604.724</td>
<td>909.148</td>
<td>.000</td>
<td>.914</td>
</tr>
<tr>
<td>tea_field</td>
<td>823.718</td>
<td>3</td>
<td>274.573</td>
<td>1.647</td>
<td>.185</td>
<td>.055</td>
</tr>
<tr>
<td>Ed_level</td>
<td>1060.874</td>
<td>2</td>
<td>530.437</td>
<td>3.181</td>
<td>.047</td>
<td>.070</td>
</tr>
<tr>
<td>tea_field * Ed_level</td>
<td>857.679</td>
<td>4</td>
<td>214.420</td>
<td>1.286</td>
<td>.282</td>
<td>.057</td>
</tr>
<tr>
<td>Error</td>
<td>14174.150</td>
<td>85</td>
<td>166.755</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>895273.000</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Corrected Total** 17639.726 94

- **a** R Squared = .077 (Adjusted R Squared = -.001)
- **b** Major = Special education

---

### Multiple Comparisons

**Dependent Variable: total**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>3465.577(a)</td>
<td>9</td>
<td>385.064</td>
<td>2.309</td>
<td>.022</td>
<td>.196</td>
</tr>
<tr>
<td>Intercept</td>
<td>151604.724</td>
<td>1</td>
<td>151604.724</td>
<td>909.148</td>
<td>.000</td>
<td>.914</td>
</tr>
<tr>
<td>tea_field</td>
<td>823.718</td>
<td>3</td>
<td>274.573</td>
<td>1.647</td>
<td>.185</td>
<td>.055</td>
</tr>
<tr>
<td>Ed_level</td>
<td>1060.874</td>
<td>2</td>
<td>530.437</td>
<td>3.181</td>
<td>.047</td>
<td>.070</td>
</tr>
<tr>
<td>tea_field * Ed_level</td>
<td>857.679</td>
<td>4</td>
<td>214.420</td>
<td>1.286</td>
<td>.282</td>
<td>.057</td>
</tr>
<tr>
<td>Error</td>
<td>14174.150</td>
<td>85</td>
<td>166.755</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>895273.000</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Corrected Total** 17639.726 94

- **a** R Squared = .196 (Adjusted R Squared = .111)
- **b** Major = General education

---
Dependent Variable: total
Tukey HSD

<table>
<thead>
<tr>
<th>(I) Ed level</th>
<th>(J) Ed level</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's degree</td>
<td>Graduate degree</td>
<td>-1.1471</td>
<td>9.26443</td>
<td>.992</td>
<td>-23.2469, 20.9528</td>
</tr>
<tr>
<td></td>
<td>other( specify)</td>
<td>10.4929(*)</td>
<td>3.02034</td>
<td>.002</td>
<td>3.2881, 17.6978</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>Bachelor's degree</td>
<td>1.1471</td>
<td>9.26443</td>
<td>.992</td>
<td>-20.9528, 23.2469</td>
</tr>
<tr>
<td></td>
<td>other( specify)</td>
<td>11.6400</td>
<td>9.48934</td>
<td>.441</td>
<td>-10.9964, 34.2764</td>
</tr>
<tr>
<td>other( specify)</td>
<td>Bachelor's degree</td>
<td>-10.4929(*)</td>
<td>3.02034</td>
<td>.002</td>
<td>-17.6978, -3.2881</td>
</tr>
<tr>
<td></td>
<td>Graduate degree</td>
<td>-11.6400</td>
<td>9.48934</td>
<td>.441</td>
<td>-34.2764, 10.9964</td>
</tr>
</tbody>
</table>

Based on observed means.

* The mean difference is significant at the .05 level.

a Major = General education
Table 15
Effects of major and status of having family members or relatives with learning disabilities on the attitudes of Saudi general education and special education teachers toward integrating students with learning disabilities in regular public schools

**Descriptive Statistics**

Dependent Variable: total

<table>
<thead>
<tr>
<th>Major</th>
<th>family member or relative with special need</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special education</td>
<td>Yes</td>
<td>107.187</td>
<td>8.74896</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>109.527</td>
<td>9.55191</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>108.820</td>
<td>9.33789</td>
<td>106</td>
</tr>
<tr>
<td>General education</td>
<td>Yes</td>
<td>92.1250</td>
<td>14.62967</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>97.6620</td>
<td>13.40676</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>96.2632</td>
<td>13.85887</td>
<td>95</td>
</tr>
<tr>
<td>other(specify)</td>
<td>Yes</td>
<td>111.000</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>95.0000</td>
<td>15.47579</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>96.1429</td>
<td>15.47135</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>Yes</td>
<td>100.912</td>
<td>13.69995</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>103.000</td>
<td>13.38409</td>
<td>158</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>102.446</td>
<td>13.46805</td>
<td>215</td>
</tr>
</tbody>
</table>

**Tests of Between-Subjects Effects**

Dependent Variable: total

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>9405.302(a)</td>
<td>5</td>
<td>1881.060</td>
<td>13.367</td>
<td>.000</td>
<td>.242</td>
</tr>
<tr>
<td>Intercept</td>
<td>318622.43</td>
<td>4</td>
<td>318622.434</td>
<td>2264.12</td>
<td>.000</td>
<td>.915</td>
</tr>
<tr>
<td>Major</td>
<td>7215.285</td>
<td>2</td>
<td>3607.642</td>
<td>25.636</td>
<td>.000</td>
<td>.197</td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
<td>---</td>
<td>----------</td>
<td>--------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>F_M_R_LD</td>
<td>56.047</td>
<td>1</td>
<td>56.047</td>
<td>.398</td>
<td>.529</td>
<td>.002</td>
</tr>
<tr>
<td>Major *</td>
<td>456.235</td>
<td>2</td>
<td>228.118</td>
<td>1.621</td>
<td>.200</td>
<td>.015</td>
</tr>
<tr>
<td>F_M_R_LD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>29411.833</td>
<td>209</td>
<td>140.726</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2295304.0</td>
<td>215</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>38817.135</td>
<td>214</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a  R Squared = .242 (Adjusted R Squared = .224)

**Multiple Comparisons**

<table>
<thead>
<tr>
<th>(I) Major</th>
<th>(J) Major</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tukey HSD</td>
<td>Special education</td>
<td>General education other( specify)</td>
<td>12.5576(*)</td>
<td>1.67599</td>
<td>.000</td>
<td>8.6014</td>
<td>16.5138</td>
</tr>
<tr>
<td></td>
<td>General education</td>
<td>Special education other( specify)</td>
<td>12.6779(*)</td>
<td>3.37335</td>
<td>.001</td>
<td>4.7150</td>
<td>20.6408</td>
</tr>
<tr>
<td></td>
<td>other( specify)</td>
<td>Special education General education</td>
<td>-12.5576(*)</td>
<td>1.67599</td>
<td>.000</td>
<td>-16.5138</td>
<td>-8.6014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.1203</td>
<td>3.39606</td>
<td>.999</td>
<td>-7.8962</td>
<td>8.1368</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-12.6779(*)</td>
<td>3.37335</td>
<td>.001</td>
<td>-20.6408</td>
<td>-4.7150</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-.1203</td>
<td>3.39606</td>
<td>.999</td>
<td>-8.1368</td>
<td>7.8962</td>
</tr>
</tbody>
</table>

Based on observed means.
* The mean difference is significant at the .05 level.
APPENDIX J: OPEN-ENDED QUESTIONS ANSWER

The participants in this study were asked two open-ended questions: to list the three greatest benefits of having students with learning disabilities integrated in Saudi general public education classrooms and/or schools, and to list the three greatest challenges of having students with learning disabilities integrated in general public education classrooms and/or schools. Frequencies and percentages for these are listed in order of responses with low frequency and percentage. With respect to those who did not respond to the question in part three of the questionnaire, or wrote irrelevant responses to the study, their cases were considered invalid and therefore were not calculated. The results are summarized in the following table. Responding to the question,

### Table 36 The greatest benefits

<table>
<thead>
<tr>
<th>#</th>
<th>The greatest benefits of having students with learning disabilities integrated in general educated classrooms, according to the beliefs of the teachers:</th>
<th>Freq.</th>
<th>The total numbers of teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There are no integration benefits in regular classrooms whatsoever.</td>
<td>20</td>
<td>251</td>
<td>7.9 %</td>
</tr>
<tr>
<td>2</td>
<td>The new programs will benefit training teachers and students in their trainings to meet the needs of the requirements.</td>
<td>115</td>
<td>251</td>
<td>45 %</td>
</tr>
<tr>
<td>3</td>
<td>New benchmarks will raise the expectations for teachers' qualifications and preparations.</td>
<td>220</td>
<td>251</td>
<td>87 %</td>
</tr>
<tr>
<td>4</td>
<td>Saudi teachers will strengthen their character by developing fundamental skills that they are lacking, such as enhancing accountability, adaptation, and accommodation skills, especially because they have been obliged to one curricula fit-all and they have been using minimal strategies</td>
<td>48</td>
<td>251</td>
<td>19 %</td>
</tr>
<tr>
<td>5</td>
<td>Give this population their rights for educational opportunities in the least restrictive area</td>
<td>20</td>
<td>251</td>
<td>7.9%</td>
</tr>
<tr>
<td>6</td>
<td>Provide sense of contentment to the family of children with disabilities for accepting affirmations of individuality</td>
<td>3</td>
<td>251</td>
<td>1 %</td>
</tr>
<tr>
<td>7</td>
<td>Maximizing students with LD potentials; students with LD will developed healthy communication skills and development needs through peer role models for academic, social and behavior skills</td>
<td>48</td>
<td>251</td>
<td>19 %</td>
</tr>
<tr>
<td>8</td>
<td>Increases students’ self-value, self-esteem as</td>
<td>100</td>
<td>251</td>
<td>39 %</td>
</tr>
</tbody>
</table>
well as self-confidence; those with LD in turn enriching the spirit of competition among students with LD their peers.

<table>
<thead>
<tr>
<th></th>
<th>The interaction between the two groups raises the social awareness of the LD population.</th>
<th>22</th>
<th>251</th>
<th>8 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>There will be high-quality classrooms and a good environment for learning, better than the existing ones</td>
<td>28</td>
<td>251</td>
<td>11 %</td>
</tr>
<tr>
<td>A</td>
<td>Saudi schools will develop sensitivity and tolerance toward limitations of individual differences that are lacking now. For example, they will be using the time/duration of the class adequately to teach students with special needs in regular classrooms.</td>
<td>B</td>
<td>The will be a better used of learning and teaching strategies as well as the learning environment.</td>
<td></td>
</tr>
</tbody>
</table>

**Table 37** Greatest challenge

<table>
<thead>
<tr>
<th>#</th>
<th>The greatest challenge of having students with learning disabilities integrated in general educated classroom believed by the participants are:</th>
<th>Freq.</th>
<th>The total numbers of teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No suggestion or recommendations</td>
<td>28</td>
<td>251</td>
<td>11 %</td>
</tr>
<tr>
<td>2</td>
<td>The human nature of fear/resistance to such a swift and bold change, especially in conservative society, as the integration is going to change the socio-political norms of Saudi, especially when there is no particular awareness plan for population who are effected by that amendment.</td>
<td>130</td>
<td>251</td>
<td>51 %</td>
</tr>
<tr>
<td>3</td>
<td>Teachers feelings of vulnerability, teacher resistance to the notion of integration due to the outweighing issue of their awareness of the resources available to them, even when most agree with the philosophical notion of the integration</td>
<td>27</td>
<td>251</td>
<td>10 %</td>
</tr>
<tr>
<td>4</td>
<td>Due to the rapid implementations without any previous grounding of the amendment, Saudi teachers – especially the general education ones – perceive a lack of competence to make this amendment successful. There are a lack of prepared teachers and a minimal of inadequate pre-service training and professional development programs for the teachers, who already work in the system, and even if they want</td>
<td>73</td>
<td>251</td>
<td>29 %</td>
</tr>
<tr>
<td>5</td>
<td>Regular education teachers might challenge having students with LD in their classrooms due to management issue in viewing the fact that Saudi has large class sizes, as it is the norm of Saudi regular education to have 30-40 students in a homeroom.</td>
<td>19</td>
<td>251</td>
<td>7 %</td>
</tr>
<tr>
<td>6</td>
<td>Inadequate curriculum resources, instructional methods, and aide support to fulfill the LD students needs</td>
<td>117</td>
<td>251</td>
<td>46 %</td>
</tr>
<tr>
<td>7</td>
<td>The belief there will be an impact of behavioral issues on wider school community, especially typically developing peers</td>
<td>96</td>
<td>251</td>
<td>38 %</td>
</tr>
<tr>
<td>8</td>
<td>Teachers' feelings of vulnerability due to reduced teacher efficacy due to main issue related to the integration (one of which is the paperwork that they are not fully experienced in filling properly).</td>
<td>24</td>
<td>251</td>
<td>9 %</td>
</tr>
<tr>
<td>9</td>
<td>Time demands; regular and special education teachers might challenge having students with LD in their classroom, because of some of the strict and punitive grade-skill indicators that have to be met at a certain time and grade level</td>
<td>53</td>
<td>251</td>
<td>21 %</td>
</tr>
<tr>
<td>10</td>
<td>Lack of team work; no collaboration among doctor, social workers, psychologists, parents and teachers</td>
<td>48</td>
<td>251</td>
<td>19 %</td>
</tr>
<tr>
<td>11</td>
<td>The lack of unbiased, cultural, and linguistically adequate methods and tools for diagnosing</td>
<td>29</td>
<td>251</td>
<td>11 %</td>
</tr>
<tr>
<td>12</td>
<td>The lack of a propriety academic environment as most schools are conducted in buildings is not designed especially for school</td>
<td>97</td>
<td>251</td>
<td>38 %</td>
</tr>
<tr>
<td>13</td>
<td>The Act does not cover all schools and does not provide full services to all schools due to the overwhelming numbers of schools; but it selects schools to be inclusive settings; and they prioritize to provide them with services and sources.</td>
<td>4</td>
<td>251</td>
<td>1 %</td>
</tr>
</tbody>
</table>