Perspectives and Knowledge of Principals in Saudi Arabia Regarding Instructional Leadership in Special Education Programs in Their Schools

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PERSPECTIVES AND KNOWLEDGE OF PRINCIPALS IN SAUDI ARABIA REGARDING INSTRUCTIONAL LEADERSHIP IN SPECIAL EDUCATION PROGRAMS IN THEIR SCHOOLS

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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August, 2019
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Entitled: Perspectives and Knowledge of Principals in Saudi Arabia Regarding Instructional Leadership in Special Education Programs in Their Schools

has been approved as meeting the requirement for the Degree of Doctor of Philosophy in College of Education and Behavioral Sciences in the School of Special Education.

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The purpose of the study was to examine the perspectives of Saudi Arabian principals regarding their instructional leadership behaviors regarding special education programs in their schools. The researcher developed the Instructional Leadership Behaviors in Special Education Programs Survey (ILBSEP) to measure principals’ instructional leadership behaviors in the delivery of special education programs. The ILBSEP was developed based upon Weber’s instructional leadership model and was refined through expert review and a pilot study. The sample for the study was comprised of 122 elementary and middle public school principals over the 2018-2019 academic year whose schools have inclusion programs, in three major cities in Saudi Arabia: Riyadh, Jeddah, and Dammam.

The results for the first research question were that most of the respondents indicated they had obtained no college credits in the field of special education while pursuing their college educations, and that they had acquired no professional development training in the area of special education in the last three years. The results of the second research question revealed that the subject principals reported they had a moderate level of practice of instructional leadership in special education programs in two areas: (a) assessing instructional programs and creating a shared mission; and, (b)
promoting a positive learning climate. However, the principals reported they had low levels of practice in instructional leadership behaviors in special education programs in two areas: (a) observing and improving instruction; and, (b) managing curriculum and instruction.

The results of the MANOVA analysis of the third research hypothesis indicated no significant differences in the linear combination of the four dependent variables based on gender between the male and female principals. The results of the MANOVA analysis for the fourth research hypothesis found there were significant differences in the linear combination of the four dependent variables related to type of program in terms of the perceptions of elementary school principals and those of middle school principals. The significant MANOVA was followed up with Discriminant Function Analysis, which revealed one discriminant function and significantly differentiated middle school principals. The correlation between outcomes and discriminant function revealed that, in all four variables, elementary school principals practice instructional leadership in special education programs more than their middle school principal peers. This study has implications in the areas of practice, policy, and principal preparation. In terms of implications regarding practice, the study recommends: (a) the provision of ongoing professional development in special education for school leaders; and, (b) that principals spend more time observing special education classrooms in order to better ensure high-quality instruction in this setting. The study also recommends a major revision of Saudi Arabia’s Regulations of Special Education Programs and Institutes (RSEPI). Given that this research found that most respondents reported, among other issues, having obtained no college credits in the field of special education, and given similar findings by other
studies, it is also recommended that principal preparation programs be reworked to better prepare future principals to support all students, including those with disabilities.

*Keywords:* principals, school leaders, special education, instructional leadership, inclusion, Saudi Arabia, school leadership, students with disabilities
ACKNOWLEDGEMENTS

I would like to express my deep appreciation and gratitude to my advisor, Dr. Harvey Rude, for his graceful guidance on this research and for his encouraging remarks, feedback, and unconditional support throughout this journey. This dissertation could not have come into existence without his help. Additionally, my greatest thanks go to my mother, Norah Alsultan, and my father, Abdulaziz Alnasser, for their prayers and unconditional support over the past several years.

Additionally, I am more than grateful to my beloved wife, Sawsan Alajlan, who was the greatest of my supporters throughout the years. She has stood by me during difficult times. I could not have done all that I have accomplished without her support.
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CHAPTER I

INTRODUCTION

Background

During the past few decades, progress has been made in Saudi Arabia toward improving the quality of education for students with disabilities. According to Al-Mousa (2010), 93% of male students who have disabilities were educated in public schools and 73% of female Saudi students who have disabilities were included in public schools. Consequently, the number of special education programs in public schools has significantly increased in Saudi public schools. In the United States, laws such as the Individuals with Disabilities Education Act (IDEA) and the Elementary and Secondary Education Act (ESEA) of 1965, require that schools integrate students with disabilities into regular classrooms (Liu, 2004); this led to an increase in the number of students with disabilities in public schools. In United States, 96% of all children in special education receive instruction in standard general education school buildings; approximately 61% are being educated in general education classrooms within these buildings for more than 60% of the school day (U.S. Department of Education, 2014). These large percentages of integrated special education students mean that educators are faced with a different set of problems regarding the issue of implementing special education programs in public schools (Lynn, 2015).

The trends toward including students with disabilities in the public schools has remarkably altered the roles of school principals in providing special education services
This shift demands these administrators possess new knowledge and skills. Research reveals that the role of the school principal is now seen as that of an instructional leader by both general and special education (Lasky & Karge, 2006; Roberts & Guerra, 2017; Sisson, 2000). However, much research has shown that school principals lack of knowledge, training, and involvement in special education programs (Albagieh, 2018; Al-Herz, 2008; Billingsley, 2004; Lasky & Karge, 2006; Roberts & Guerra, 2017). Principals who have inadequate knowledge and training regarding special education are less likely to be able to be involved and lead special education services effectively (Billingsley, 2004). Therefore, school principals have major roles in promoting and sustaining the success of inclusive school programs. Consequently, the roles of school principals must be understood within the context of the school. In addition, it is important to describe and understand the leadership skills and practices that promote effective inclusive educational programs for students with disabilities.

One of the most important challenges in the educational field is to create an inclusive school program that supports learning for all children. Most research such as studies by Armstrong (2006), McLeskey and Waldron (2002), and Riehl (2000) shows that the practices of school principals have an impact on the outcomes of all students. An inclusive school program cannot be successful without the support of the principal (McLeskey & Waldron, 2015). The school principal can bring successful school improvement and have a major part in leading the special education programs (Riehl, 2000). School principals’ values and beliefs related to the inclusion of students with disabilities have also been found to be one of the most significant predictors of success in the delivery of special education (Goodland & Lovitt, 1993). Villa, Thousand, Meyers,
and Nevin (1996) studied 32 schools in the United States and Canada implementing special education programs for students with disabilities in full inclusion setting. The authors surveyed all the staff at every school, involving 690 respondents. The authors found that principals’ leadership was the strongest predictor of positive teacher perception of inclusion.

**Statement of the Problem**

In recent years, the number of students with disabilities attending general education schools has increased dramatically both in Saudi Arabia and USA (Al-Mousa, 2010, U.S. Department of Education, 2014). This shift toward including such students in public schools has significantly changed the role of school principals (Lasky & Karge, 2006). Traditionally, special education directors have been responsible for assuring daily compliance with education standards related to the delivery of services to students requiring special education (Patterson, Marshall, & Bowling, 2000). However, as services to these students expand and more enter inclusion programs, it falls to school principals to recognize their new responsibilities regarding students with disabilities and unfortunately, many are ill-prepared to effectively fulfill their new roles (Albagieh, 2018; Al-Herz, 2008; Klofenstine, 2002; Lasky & Karge, 2006). Research indicates some principals lack the skills and preparation in special education required to effectively fill these roles (Albrigi, 2018; Alharbi, 2016; Aljabri, 2017; Masoud, 2009). In a policy environment that expects accountability and results for all learners, principals are now seen as instructional leaders to both general and special educators (Klofenstine, 2002; Lasky & Karge, 2006).
The success or failure of inclusion programs depends in large part on the principal of the school (Sisson, 2000). However, school principals face challenges on these efforts because of the lack of preparation they are given regarding how to lead special education programs and services (Albrigi, 2018; Alharbi, 2016; Armstrong, 2006; Sisson, 2000). For example, researchers have found that school leaders do not necessarily feel inclusion is a priority (Al-Abduljabar, 1999; McLeskey, Waldron, Spooner, & Algozzine, 2014). In addition, principals may have limited knowledge of special education regulations and instructional practices (Albagieh, 2018; Alhabshi, 2015; Alharbi, 2016; Alkatheery, 2017). Therefore, it is important to examine what methods are most effective in providing educational services to children with disabilities so that such programs can be implemented as widely as possible given the increasing numbers of students with disabilities entering the school system. Problems also exist regarding retention of special education teachers where these educators frequently mention a perceived lack of administrator support, lack of collegial support, and too much paperwork as reasons for “burn out” (Armstrong, 2006; Klofenstine, 2002). On the other hand, school principals report they sometimes feel unqualified to offer the necessary support and supervision special education teachers require (Aljabri, 2017).

Previous research has provided evidence of the positive impact of school principals on teacher instruction and indirect effects on student achievement (Heckert, 2009; Robinson, Lloyd, & Rowe, 2008; Rowe, 2007). Limited studies implemented to address instructional leadership for special education (Bays & Crockett, 2007). However, there are only a few studies and articles that addressed principals’ instructional leadership practice regarding special education programs such as those by Klofenstine (2002),
Sisson (2000), and Durtschi (2005). There is limited research has been done regarding principals’ instructional leadership practice regarding special education programs in the context of Saudi schools. This study aims to fill the gap in the research in this area by investigating Saudi school principals’ attitudes about their instructional leadership practice in special education programs. There is a gap in empirical research, especially in Saudi Arabia, principals’ instructional leadership practice regarding special education programs indicating the need for further studies in the field to address the needs of all students, including those with disabilities. In addition, the previous studies located on this topic were found not to be generalizable to Saudi, which also led to the conception of the current study.

**Significance of the Study**

At present, the Saudi education system does not require that those preparing to be principals take any courses or training in special education (Ministry of Education, 2015). Accordingly, principals in Saudi Arabia have little knowledge of necessary or best practices related to special education in general and implementing successful special education programs in particular (Albagieh, 2018). Jacobs, Tonnsen, and Baker (2004) stated that it is essential school principals have a basic knowledge of special education to properly supervise special education programs. DiPaola and Walther-Thomas (2003) also stated:

> Research has demonstrated that principals who focus on instructional issues, demonstrate administrative support for special education, and provide high quality professional development for teachers produce enhanced outcomes for students with disabilities and for others at risk for school failure. (p. 9)

Few researchers have examined the perceptions of these administrators of their role regarding special education in their schools. The results of this study may provide
valuable information on identifying Saudi Arabian principals’ instructional leadership practice in special education programs in their schools from the perspective of the principals themselves. Moreover, this information may be shared with the Ministry of Education in Saudi Arabia to improve principals’ practices and policies. The Saudi Ministry of Education may also benefit from the findings of this study regarding how to better prepare school principals and how to determine the most appropriate and productive roles for school principals in schools.

Additionally, the results of the study may help Saudi school leaders better understand their roles in schools. Furthermore, it may aid Saudi leaders in creating a more effective school environment for their students by ensuring that all in the school receive a high-quality education. The findings of this study may also contribute to the knowledge base of Saudi Arabian principals regarding special education law, methods of instruction, and actual school practices related to special education services delivery.

Conceptual Framework

The conceptual framework for this study is grounded in the transformational leadership theory which was developed by Burns (1978). Burns distinguished two types of leadership, which he named transactional and transformational. Transactional leadership occurs when “a leadership act took place but it was not one that binds leader and follower together in a mutual and continuing pursuit of a higher purpose” (Burns, 1978, p. 133). According to Bass (1985), transactional leadership is defined as an exchange of rewards with subordinates for services provided that motivates followers through extrinsic rewards. Transactional leadership uses a managerial approach that supervises the environment for shortcomings and provides rewards for compliance
In contrast, transformational leaders inspire commitment and motivation to the development of vision, shared decision making, and collaboration (Burns, 1978). Therefore, according to Stewart (2006), a transformational leader motivates stakeholders, builds a team, and creates high expectations related to performance. Day, Harris, and Hadfield (2001) interviewed 36 principals and found that managerial tasks were classified as transactional whereas culture building leadership fell under transformational. Leithwood (1994) described six dimensions of transformational school leadership, including, “identifying and articulating a vision, fostering the acceptance of group goals, providing individualized support, intellectual stimulation, appropriate role modeling, and high performance expectations” (p. 499). Similarly, Northouse (2018) identified a transformational leader as having the following qualities: empowers staff to do what is best for the school; is a strong role model; listens to others to build a spirit of cooperation; creates a shared vision; acts as a change agent; and, helps the school by helping others. Furthermore, Leithwood, Harris, and Hopkins (2008) articulated four sets of practices for a transformational leader:

1. Builds vision and sets direction: Meaning the principal develops a shared vision and group goals. Uses the goals to inspire people, sets high expectations, monitors performance, and communicates effectively.

2. Understands and develops people/staff: Meaning the principal stimulates people, supports their individual needs, inspires commitment, and supports the improvement of their skills and abilities.

3. Redesigns the organization: Meaning the principal builds collaborative processes to harness collective capacities and manage conflict.
4. Managing the teaching and learning program: Meaning the principal fosters organizational stability, strengthening the school’s infrastructure staffing programs, providing teaching support, and monitoring school activity.

Additionally, the conceptual framework for this study is also grounded in the Instructional Leadership model proposed by Weber (1996). According to Daesh and Playko (1995), instructional leadership theory emphasizes student learning. The authors noted, “Instructional leadership consists of direct and indirect behaviors that affect teacher instruction and, as a result, student learning” (p. 33). Similarly, Bryk, Sebring, Allensworth, Luppescu, and Easton (2010) asserted that “principals as instructional leaders are expected to be experts in teaching and learning, to spend the majority of their time in classrooms, and, more generally, to support improvements in instruction” (p. 47).

Weber’s framework consists of five instructional leadership domains based on a review of the educational leadership literature. These domains are: (a) defining the school’s mission, (b) managing curriculum and instruction, (c) promoting a positive learning climate, (d) observing and improving instruction, and (e) assessing instructional programs. According to Weber (1987), the school principal should create a shared school vision and mission to be shared by staff, administrators, and teachers. Such a vision can provide clarity and energy for all school personnel (Ainscow, 2005; Waldron & Redd, 2011). It may also help build commitment to inclusive education amongst all school personnel and will provide a clear sense of direction for teaching personnel (Ainscow, 2005; Weber, 1996). School leaders, faculty, students, and stakeholders who share common values and beliefs work together more effectively (Spiro, 2010; Weber, 1996).
The principal’s management of the school curriculum and instruction should be aligned with the school’s vision and mission (Mizell, 2010; Weber, 1996). Principals should provide resources and ensure that teachers use evidence-based practices (EBPs) (Salisbury & McGregor, 2002; Waldron, McLeskey, & Redd, 2011; Weber, 1996). Principals must be knowledgeable about the best practices that have been shown to be effective in improving the learning outcomes of all students and about how to ensure that these instructional practices are implemented to best meet the needs of all students (Bays & Crockett, 2007; Cook & Smith, 2012; Salisbury & McGregor, 2002; Weber, 1996).

The third domain is promoting a positive learning climate. According to Weber (1996), this domain includes the attitudes and expectations of all school personnel and the school community. It also encompasses the beliefs and values of community members (Weber, 1996). Additionally, this domain requires that the leader communicate the instructional goals, protect instructional time, and recognize and provide rewards for improvement.

The fourth domain is observing and improving instruction. Effective instructional leaders spend more time in classrooms observing and monitoring instruction and learning (Benson, 1990; Lynch, 2012; Weber, 1996). Trust and respect help to establish healthy relationships between the principal and teachers (Weber, 1996). Weber also emphasized that professional development should be provided based on teachers’ needs. Professional development has a huge impact on teacher performance, which in turn impacts student performance (Waldron et al., 2011; Zapata, 2015).

The last dimension of Weber’s framework is assessing the instructional program. This domain requires the instructional leader participate in planning, designing,
administering, and analyzing assessments that evaluate the effectiveness of the instructional program. Weber stated that continued investigation enables school leaders to meet the needs of students effectively through persistent revision and refinement.

According to Weber (1996), instructional programs should be evaluated three times by the principal: (a) the first time should occur before the implementation of the new program; (b) the second evaluation should happen during the implementation of the program; and, (c) the final evaluation should occur after implementation of the program.

Table 1

*Weber’s Model of Instructional Leadership*

<table>
<thead>
<tr>
<th>Defining School’s Mission</th>
<th>Managing Curriculum and Instruction</th>
<th>Promoting a Positive Learning Environment</th>
<th>Observing and Improving Instruction</th>
<th>Assessing the Instructional Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>The instructional leader develops a shared vision for the school with stakeholders.</td>
<td>The instructional leader monitors the practices in the classroom, provides resources and support in the use of best practices, and provides support in the use of data to drive instruction.</td>
<td>The instructional leader promotes a positive learning climate by communicating goals, creating expectations, and forming an orderly learning environment.</td>
<td>The instructional leader observes and improves instruction by using classroom observation; provides professional development opportunities.</td>
<td>The instructional leader is involved in planning, designing, administering, and analyzing of assessments that evaluate the effectiveness of programs.</td>
</tr>
</tbody>
</table>

Both instructional leadership and transformational leadership would have the principal focus on: creating a shared sense of purpose in the school; developing a climate of high expectations and a school culture focused on the improvement of teaching and learning; shaping the reward structure of the school to reflect the goals set for staff and students; organizing and providing a wide range of activities aimed at intellectual stimulation and development of staff; and, being a visible presence in the school, and modelling the values that are being fostered in the school (Hallinger, 2010). Instructional
leaders attempt to change the outcomes for students by using different pedagogy and instructional strategies in schools (Hallinger, 2005; Leithwood, 2004). Using the lens of transformational leadership and instructional leadership, the researcher of the present study will seek to examine principals’ perceptions of their practice of these behaviors regarding special education programs. The conceptual framework for this study is aligned with the expectations for principals in Saudi Arabia. These expectations will be discussed more in the literature review section.

The transformational leadership theory and instructional leadership model upon which this study was based were used to enhance the current knowledge in the field by filling in the gaps regarding school principal preparation and training in Saudi Arabia. This Weber (1996) model was chosen for several reasons. First, it is easily applied to the field of education. Furthermore, over the past several years, there has been growing agreement that one of the major roles of the principal is to practice instructional leadership (Hallinger & Wang, 2015; Leithwood & Louis, 2011; Robinson, 2006). Moreover, the researcher of the present study did not find any instructional leadership model in the context of the Saudi educational system. Consequently, the researcher used Weber’s model of instructional leadership because the Regulations of Special Education Programs and Institutes (RSEPI) was modeled after the IDEA legislation of the United States. Also, Weber’s model of instructional leadership has been used in numerous countries including the United States, such as Kenya (Tomno, 2014), South Africa (Kgatla, 2013), Papua New Guinea (Lahui-Ako, 2001), Australia (Wildy & Dimmock, 1993), Singapore (Dong, Ng, & Pui, 2017), and the United Arab Emirates (Al-Husseini, 2016). Additionally, several studies have shown that the Weber model of instructional
leadership had a huge impact on outcomes for all students, teacher performance, and the promotion of a positive school culture and climate (Bays & Crockett, 2007; Heckert, 2009; Lynch, 2012; Robinson et al., 2008; Rowe, 2007; Waldron et al., 2011). For example, Robinson, Lloyd, and Rowe (2008) did a meta-analysis to investigate what type of leadership has the greatest effect on student learning. The authors analyzed 22 studies published between 1978 and 2006 and found the effect size of instructional leadership (effect size of 0.44) on student achievement was three to four times that of transformational leadership (effect size of 0.11). Consequently, it can be concluded that instructional leadership has a stronger impact on student outcomes than transformational leadership.

Similarly, Heckert (2009) implemented multiple case studies with five elementary school principals. The purpose of his research was to discover the perceptions and level of understanding of school principals regarding instructional strategies as measured by increased achievement among students with learning disabilities. The study found that the participants who had a greater understanding of effective instructional practices for students with learning disabilities were more knowledgeable of and engaged in instructional leadership practices that support effective instruction and outcomes for students with learning disabilities. Other such studies will be discussed in the literature review section.

Creswell (2008) stated that a researcher should use theory to help make an argument, initiate a discussion, provide a rationale, or explain phenomena. Therefore, this study will employ transformational leadership theory and instructional leadership to discuss and explain the actions of school principals toward special education programs.
The educational systems in numerous countries, including Saudi Arabia, have experienced issues related to practicing instructional leadership for school principals regarding special education programs. Studies from these other countries have revealed that school principals struggle to practice instructional leadership for special education programs because they lack knowledge, training, and preparation (Avissar, Reiter, & Leyser, 2003; Frost & Kersten, 2011; Irvine, Lupart, Loreman, & McGhie-Richmond, 2010; Kuyini & Desai, 2007). Because there is limited research on the practices of principals in regard to instructional leadership and special education programs in Saudi Arabia, the researcher cited studies from the United States and elsewhere. The results of these studies may be relevant to the Saudi educational system and therefore, may assist Saudi educators in helping the country’s system break out of its entrenched cultural norms. Yet, it is also crucial to consider that the Saudi educational system is still in the developmental stages regarding special education programs, leadership, and policies, compared to those in Western countries. This means that educators in Saudi Arabia can learn from the experiences of those countries, and adapt their experiences not just to improve the Saudi system but also to avoid the mistakes made elsewhere.

**Philosophical Foundations**

The philosophical worldview informing this study’s design is the post-positivism approach. Post-positivism originated in the early 19th century writing of Comte, Mill, Durkheim, Newton, and Locke (Creswell, 2008). Quantitative research is usually employed when the post-positivist worldview is being utilized (Creswell, 2008). Researchers employing the post-positivism lens develop knowledge through cautious observation and measurement of the objective reality occurring in the world (Creswell,
Therefore, it is significant for post-positivists to develop numeric measures of their observations to study the behavior of people. Post-positivism assumes that “knowledge is conjectural and that a finding of utter truth is not possible” (Creswell, 2008, p. 6). Post-positivists also consider that reality is subjective and holds numerous views (Crossan, 2003). According to Butin (2010), post-positivism aims to “uncover the right variables to determine the best outcome” (p. 59). The author also asserted, “most post-positivist education research is focused on explanations and predictions, so it needs to isolate one or more independent variables that are linked to a dependent variable” (Butin, 2010, p. 90).

Additionally, according to Creswell (2008), post-positivism assumes the following:

1. Knowledge is conjectural and absolute truth can never be found; thus, evidence established in research is imperfect and fallible.
2. Research is the process of making claims and then refining or abandoning some of them for other claims that are found to be more strongly warranted.
3. Data, evidence, and rational consideration shape knowledge. The researcher collects information using instruments and based on measures completed by the participants or observations recorded by the researcher.
4. Research seeks to develop relevant true statements — ones that can serve to explain the situation that is of concern or describe the causal relationships of interest.
5. Being objective is an essential aspect of competent inquiry; thus, researchers must examine methods and conclusions for bias. As an example, standards of validity and reliability are emphasized. (pp. 7-8)

Consequently, post-positivism was determined to be the worldview most philosophically suited for use with this study for the following reasons. First, because the present study uses numeric measurement to gauge the perceptions of school principals, consequently, the paradigm of post-positivism was appropriate. Additionally, because the present study depends on the attitudes of school principals to describe their perceptions of their instructional leadership practice in special education programs, the data were
restricted to the participants’ comprehension and interpretation of the instrument’s questions. Thus, school principals’ perceptions cannot be asserted as absolute truths. Instead, the present study will offer “data, evidence, and rational considerations” (Creswell, 2008, p. 7) that may help to inform our knowledge about principals’ practices in Saudi schools. Therefore, post-positivism provided an appropriate paradigm of inquiry. Lastly, this study used a scientific method approach. The researcher started with a theory (transformational and instructional leadership theories) and then collected data that examined the practices of school principals employing a theory lens. Therefore, the research design for the study reinforced the use of post-positivism as the chosen framework.

**Purpose of the Study**

The purpose of the study was to examine the perspectives of Saudi Arabian principals regarding their instructional leadership behaviors regarding special education programs in their schools. Secondly, this study aimed to identify the training Saudi school principals receive related to special education.

**Research Questions and Hypotheses**

The present study addressed the following major research questions:

- **Q1** What types of training related to special education do elementary and middle school principals in the Kingdom of Saudi Arabia receive?

- **Q2** What instructional leadership behaviors do principals in the Kingdom of Saudi Arabia report as ones in which they are currently engaged with the special education programs in their schools?

- **Q3** Are there significant differences between male and female Saudi Arabian school principals’ perspectives regarding their level of practicing instructional leadership with special education programs in their schools in the areas of: (a) creating a shared mission and promoting a positive
learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?

H3 There are no significant differences between male and female Saudi Arabian school principals’ perspectives regarding their level of practicing instructional leadership with special education programs in their schools in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs.

Q4 Are there significant differences between Saudi Arabian elementary and middle school principals’ perspectives regarding their level of practicing instructional leadership regarding special education programs in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?

H4 There are no significant differences between Saudi Arabian elementary and middle school principals’ perspectives regarding their level of practicing instructional leadership regarding special education programs in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs.

Definitions and Terminology

**Elementary school.** Schools that include grades first through sixth.

**Gender.** For the purposes of this study, this was defined as either male or female and was noted by each participant in the demographic information section of the survey (Sasson, 2016).

**Inclusion.** The “practice of educating students with disabilities in regular education classrooms in neighborhood schools” (Wright & Wright, 2000, p. 355).

**Inclusive education.** The United Nations Educational, Scientific, and Cultural Organization [UNESCO] states:

Education is not simply about making schools available for those who are already able to access them. It is about being proactive in identifying the barriers and obstacles learners encounter in attempting to access opportunities for equality
education, as well as in removing those barriers and obstacles that lead to exclusion. (2012, para. 1)

**Instructional leadership.** Weber (1996) defined the five dimensions of instructional leadership as: (a) defining the school’s mission, (b) managing curriculum and instruction, (c) promoting a positive learning climate, (d) observing and improving instruction, and (e) assessing instructional programs.

**Middle school.** A school that includes grades seventh, eighth, and ninth.

**Principal.** The lead administrator in a school (Kraft, 2016).

**Principals’ involvement.** Direct participation or involvement in various tasks related to, for the purposes of this study, special education services, and the actions taken by school principals to fully integrate special education services into their schools.

**School culture.** As defined by Deal and Peterson (2009):

[School] culture is the underground stream of norms, values, beliefs, traditions, and rituals that builds up over time as people work together, solve problems, and confront challenges. This set of information, expectations, and values shapes how people think, feel, and act in schools. (p. 28)

**Special education.** Specially designed instruction based upon the individual needs of a student with disabilities including related services necessary to appropriately educate the student.

**Students with disabilities.** These are defined as those students with: Mental retardation, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance, orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities; and who, by reason thereof, needs special education and related services. (Individuals with Disabilities Education Improvement Act [IDEA], 2004).
Transactional leadership. According to Odumeru and Ogbonna (2013), transactional leadership defined as a type of leadership style that “focuses on the role of supervision, organization, and group performance; transactional leadership is a style of leadership in which the leader promotes compliance of his followers through both rewards and punishments” (p. 358).

Transformational leadership. Jantzi and Leithwood (1996) defined transformational leadership as that:

Leadership that moves individuals toward a level of commitment to achieve school goals by identifying and articulating a school vision, fostering the acceptance of group goals, providing individualized support, providing intellectual stimulation, providing an appropriate model, and having high performance expectations. (p. 56)

Organization of the Study

This quantitative study is presented in five chapters. Chapter 1 consists of an introduction to the topic, statement of the problem, research questions, significance of the study, and limitations of the study. The following chapter presents a review of the current literature on the history of the inclusion movement in the United States, attitudes and knowledge of principals toward including students with disabilities, the role of the principal in inclusion programs, the influence of leadership on school culture, perceptions of principal practice of instructional leadership in special education, and a brief description of education in Saudi Arabia. Chapter 3 will describe the methods and data collection procedures employed in this research; and, Chapter 4 will present an outline of the demographic information of the participants and the findings related to each research question. The fifth and final chapter will discuss the results and implications of the study, as well as provide recommendations for future research.
Summary

This chapter offered an overview of the study proposal. It also introduced the study, including: background of the research topic, statement of the problem, research questions, theoretical framework, and philosophical foundations of the study. A brief description of the organization of the research, significance, and the purpose of the study were also provided. This chapter concluded by describing the limitations of the research and defining the terms of the study.
CHAPTER II
REVIEW OF THE LITERATURE

This chapter will synthesize and analyze the research literature on principals’ instructional leadership practices in special education programs. It will cover three relevant areas. First, a brief review of the definition and history of inclusion will be provided. After this, the section will provide: a synthesis of the research, including: attitudes and knowledge of principals toward including students with disabilities, the role of the principal in inclusion programs, school cultures that are supportive of inclusive programs, and perceptions of principals’ instructional leadership practices and responsibilities in special education. The final section of this chapter will present a brief review of education in Saudi Arabia.

Search Procedures

Several online databases -- ERIC, PsycINFO, SAGE Journals Online, LexisNexis Academic, Summon, and Google Scholar -- were used to gather research studies related to the topic. Key terms used as search criteria included: instructional leadership in special education, principal’s role in inclusion, principals’ involvement, principals’ responsibilities in inclusion, principals, inclusion, leadership in special education, instructional leadership, instructional leadership in Saudi Arabia, leadership in Saudi Arabia, and principals’ perceptions. Only research studies published during or after 1985 were included in this synthesis review; this is a broader range of years than typically recommended because there is so little available research on the topic. For this same
reason, dissertations, practitioner articles, and books were not excluded from this synthesis review, to provide the widest possible investigation of the topic.

There are many different literary definitions of inclusion. However, there is not one agreed upon definition of the term. Ainscow (2005) believed that trying to define inclusive education is difficult because definitions may fail to consider a variety of context-dependent features. The term “inclusion” refers to the "process and practice of educating students with disabilities in the general education classroom of their neighborhood school . . . with the supports and accommodations needed" (Friedman & Martin, 1995, p. 3).

Inclusive education is seen as a whole-school concern and works to align special education with general education in a way that provides high quality education to all students (Forlin & Loreman, 2014). When inclusion represents as a disability issue and not as a whole school issue, inclusive education may work against inclusive practices for all students, working only with certain individuals and groups (Forlin & Loreman, 2014). The aim of inclusive education is to reduce the social exclusion of students that is a consequence of attitudes and responses to diversity in race, social class, ethnicity, religion, gender, and ability (Ainscow & Sandill, 2010). Ainscow (2005) mentioned four points that we should consider when implementing inclusive education. These four points are as follows:

1. Inclusion is a process. That is to say, inclusion should be seen as a never-ending search to find better ways of responding to diversity.
2. Inclusion is concerned with the identification and removal of barriers.
3. Inclusion is about the presence, participation, and achievement of all students.
4. Inclusion involves a particular emphasis on those groups of learners that may be at risk of marginalization, exclusion, or underachievement. (p. 9)
The History of Inclusion

The special education movement passed through three major phases: exclusion and isolation; access and inclusion; and, accountability and empowerment (Dray, 2009). Up until the mid-1960s and 1970s, people with disabilities were excluded from mainstream society (Dray, 2009). These people were viewed as abnormal and incapable of serving in society; therefore, they were generally isolated in institutions (McDonnell, 2014). The conditions in these institutions were often inhumane, reflecting society’s attitudes at the time that people with disabilities were a burden because they required special care, help, and services (Abberley, 1987). In the early 1900s, and as a result of parent advocacy groups, schools began to open their doors to individuals with disabilities (McDonnell, 2014).

The civil rights movement of the 1950s and 1960s also had a huge impact on attitudes toward people with disabilities (Mitchell, 2006). Inspired, parents formed advocacy groups to gain equal rights for individuals with disabilities through the implementation of access and inclusion policies (Mitchell, 2006). In 1954, the landmark U.S. Supreme Court decision of Brown v. Board of Education, determined that states could not segregate students by race and paved the way for disability activists to achieve similar protections for those with disabilities (Yell, 2012). In 1975, the U.S. Congress enacted the Education for All Handicapped Children Act (EAHCA), known as Public Law 94-142, which was signed by President Ford (Burgin, 2004). This law stated that all U.S. public schools that obtain funds from the federal government must offer equal access to education for children with disabilities (Burgin, 2004). The 1982 case, Board of Ed. of Hendrick Hudson Central School Dist. v. Rowley, was the first decision in a
special education case by the U.S. Supreme Court (A. Turnbull, Turnbull, Wehmeyer, & Shogren, 2013). Rowley was a deaf student whose school refused to provide a sign language interpreter because Rowley was an accomplished lip reader with slight residual hearing who was already outperforming the average student in her class (Dray, 2009). Her parents filed suit contending that this refusal was a violation of the Education of All Handicapped Children Act of 1975. Although two lower courts found in favor of the plaintiff, the Supreme Court decided that the EAHCA did not require that the school provide an interpreter as the student was already excelling. In the 1980s and 1990s, the focus turned toward creating a unified education system, and developing shared responsibility for students (Villa & Thousand, 2000).

On March 22, 2017, the Supreme Court of the United States (SCOTUS) issued its decision on Endrew F. v. Douglas County School District in favor of a high-level standard of learning for children with disabilities. This decision involved an interpretation of the IDEA as requiring a free, appropriate public education (FAPE). Endrew F. was a child with autism in the fourth grade. Because his parents believed Endrew was not showing enough improvement with his IEP, they removed him from his public school and placed him in a private school. Once in the private school, Endrew made significant academic and social progress. SCOTUS held that “to meet its substantive obligation under the IDEA, a school must offer an IEP reasonably calculated to enable a child to make progress appropriate in light of the child’s circumstances” (Endrew F. v. Douglas County School District, 2017, p. 15). The Court disapproved the merely more than de minimis test that the Tenth Circuit had used to define whether educational benefit was adequate for FAPE (Endrew F. v. Douglas County School District, 2017).
Over the years, these laws evolved into the Individuals with Disabilities Education Act, which was amended in 1997 (Dray, 2009). In 2004, IDEA was reauthorized, the amended legislation involved substantial changes, including: all teachers who teach students with disabilities are to be certified in special education; individualized education programs for students with disabilities must contain measurable annual goals; and, transition services moved from 14- to 16-years-old (Dray, 2009).

According to Dray (2009), the IDEA aimed to provide all pupils with access to the same curricula and to involve students with disabilities in general education programs. The era of accountability and empowerment began in the 1990s (Dray, 2009). The use of people-first language, education as a right ideology, and the mandate for accountability were some changes that occurred that positively impacted attitudes toward those with disabilities (McDonnell, 2014).

**Attitudes and Knowledge of Principals Toward Including Students With Disabilities**

The role of the school principal becomes more complex and potentially overwhelming when students with disabilities are included in general education classes as school leaders are reasonably responsible for the performance of all the students within their schools (Lasky & Karge, 2006). The attitudes and knowledge principals hold regarding inclusion are also considered key factors to successfully implementing inclusive school programs as they have a huge influence on inclusion (Praisner, 2003). This is because the decision to develop an inclusive school greatly relies upon the values and beliefs of the school’s leader (Williams-Lewis, 2015). Instructional leadership theory emphasizes the importance of the beliefs, attitudes, and knowledge of principals and how
each of these factors directs their behaviors, which in turn helps them be successful in leading their schools (Weber, 1996). However, much of the literature (Lasky & Karge, 2006; Roberts & Guerra, 2017; Schaaf, Williamson, & Novak, 2015) has underscored the reality that principals are not well prepared to address the needs of students with disabilities. Additionally, several studies have shown that principals’ attitudes influence practices, which in turn impact the achievement of students with disabilities (Barnett & Monda-Amaya, 1998; Ball & Green, 2014; Horrocks, White, & Roberts, 2008; Praisner, 2003). Therefore, this section will synthesize the research on principals’ attitudes, knowledge, and preparation regarding including students with disabilities.

Deal and Peterson (2009) stated that it is important for principals to hold positive attitudes toward all students, including those with disabilities, to create positive school culture and climate. McLeskey, Waldron, Spooner, and Algozzine (2014) found that developing inclusive programs and improving the performance of students with disabilities has often not been a priority for school leaders. On the other hand, the school principal’s support for inclusion has been found to be a significant determining factor in the creation of effective, inclusive settings (Irvine et al., 2010). The attitudes of principals toward inclusion have been found to affect the placement of students with disabilities in relationship to the individual student’s disability category. Consequently, Seltzer (2011) stated that the more formal training the principal has had in special education, the better prepared the principal will be to make appropriate placement decisions. Similarly, Patterson, Marshall, and Bowling (2000) recommended that special education classes be included in preparation programs for principals.
Boyle and Hernandez (2016) conducted a study to examine the attitudes of principals at Catholic schools toward the inclusion of students with disabilities that involved 54 school principals. Participant attitudes were measured by adapting the Principals and Inclusion Survey (Praisner, 2003), and the findings indicated that most of the surveyed principals reported having positive attitudes toward including students with disabilities. Stanovich and Jordan (1998) did a study that found principals’ attitudes and beliefs about inclusive classrooms were the strongest predictor of effective teaching practices in inclusive classrooms. Similarly, Praisner (2003) examined the relationship between attitudes toward inclusion and such variables as training and experience, and placement perceptions. Based on results of a survey of 408 elementary level principals from schools in Pennsylvania, Praisner (2003) found that only 20% held positive attitudes toward inclusion. In addition, Praisner (2003) noted that principals who have had positive experiences with students with disabilities have more positive attitudes toward inclusion and more potential to place such students in less restrictive settings. However, he emphasized that while positive attitudes are important, they may be insufficient. One of the limitations of the study was that the sample was comprised of only elementary school principals.

Likewise, in a different study involving 65 principals, most indicated they were not comfortable with inclusion and reported their teachers were not ready to implement inclusive practices (Barnett & Monda-Amaya, 1998). Horrocks, White, and Roberts (2008) surveyed 571 principals using the Principal’s Perspective Questionnaire to examine principals’ attitudes toward the inclusion of students with autism. The results showed that principals’ beliefs regarding children with autism were the most significant
factor in predicting both positive attitudes toward inclusion of children with disabilities and the possession of higher expectations of such children (Horrocks et al., 2008).

Using surveys and observations, Kuyini and Desai (2007), conducted a study investigating if principals’ and teachers’ attitudes toward and knowledge of inclusive education, as well as principals’ expectations of teachers regarding the implementation of inclusion, were predictors of their ability to apply effective teaching practices in their classrooms. Twenty principals and 108 teachers participated in this study, drawn from 20 primary schools in two districts in Ghana. The results revealed that while attitudes toward inclusion and knowledge of inclusion predicted effective teaching practices, principals’ expectations of teachers did not predict effective teaching practices (Kuyini & Desai, 2007).

Another study, conducted by Avissar, Reiter, and Leyser (2003), examined the school principal as the leading figure in implementing inclusion and attempted to describe the role of the principal as a change agent. The participants in this study were 110 elementary school principals in Israel. The researchers found that these principals felt the benefit to students with disabilities being included was in the area of greater social success rather than an overall improvement and benefit, including around academic success. The study also found that the severity of the student’s disability influenced the principals’ perceptions and expectations regarding their success (Avissar et al., 2003). Similarly, Ball and Green (2014) conducted a study to investigate principals’ attitudes toward inclusion of students with disabilities in the general education setting. The authors also used the Principals and Inclusion Survey to measure the participants’ attitudes. The sample for this study included 138 principals and assistant principals in a southeastern
U.S. public school district. The findings were that the study participants had negative attitudes toward inclusion. In addition, the participants reported they had received little training and had little experience related to special education and inclusive practices (Ball & Green, 2014).

According to Seltzer (2011), most school principals have not been professionally trained or prepared to deal with issues related to students with disabilities or to supervise special education programs. This is due to a lack of content in principal preparation programs specifically dealing with students with disabilities and special education (Pazey & Cole, 2013). In a sample of Kansas public school principals, Benson (1990) found that the principals were not seeking full responsibility for instructional leadership of the special education programs in their buildings. Similarly, Black (1990) found that special education teachers perceived there should be a higher level of instructional leadership from their principals. Again, using a survey format, Lasky and Karge (2006) investigated the formal training of 205 principals, most of whom were working in elementary schools, in a number of school districts in southern California. They found most of the principals in the sample reported their university coursework had lacked special education content. In addition, 72% of the sample reported they had little experience working with students with disabilities.

Roberts and Guerra (2017) conducted a mixed methods study to determine principals’ perceptions of their knowledge of special education and their suggestions regarding topics that should be included in the curriculum of principal preparation programs. The sample for their study consisted of 84 principals in southern Texas. The dominant theme from these principals was that they felt they required more knowledge
regarding how to design curriculum for students with disabilities; and, that principal 
preparation programs should include more content on special education law (e.g., Section 
504) and approaches, such as Response to Intervention. One significant limitation to the 
study was that only principals in southern Texas were included, which might limit 
transferability to schools in other states.

Using quantitative method, Schaaf, Williamson, and Novak (2015) investigated 
school administrators’ views regarding how well their leadership training programs had 
prepared them to manage and lead special education programs. The sample for this study 
was comprised of 174 school administrators in Ohio. Most of the participants reported 
they had not received sufficient preparation to support special education teachers with 
instructional methodologies, inclusive schedules, curriculum management, and/or 
appropriate budget allocations to accommodate the needs of students with disabilities 
(Schaaf et al., 2015). However, generalizability of the study results was limited since 
standards for school administrator licensing vary from state to state; and, some states may 
include more preparation than others in areas related to children with disabilities.

Patterson et al. (2000) revealed that preparation programs for principals have few 
or no classes on special education. Robicheau, Haar, and Palladino (2008) found that in 
eight programs, only one required a course in special education. Seltzer (2011) stated 
that, “the more formal special education course work and in-service training hours, the 
more favorable the principles were toward inclusion of students with disabilities” (p. 
131). Due to this lack of formal preparation through coursework, Bertrand, Roberts, and 
Dalton (2009) recommended that principals self-educate themselves by: reviewing their 
state’s plans for implementing IDEA; reviewing district policies for implementing IDEA;
meeting with their directors of special education regarding policy; and, meeting with special education staff and parents of children with disabilities to best understand the special education issues within their schools.

Hayward (1990) investigated the degree of responsibility principals assumed for special education compared to that assumed by directors of special education. The principals in this study felt that principals should be responsible for only four of the 17 areas of responsibility (Hayward, 1990). This finding highlighted the fact that these principals did not feel that they were responsible for all aspects of special education in their schools and that, as a result, the directors in their schools tended to be more in charge of special education delivery.

The results of these studies indicate that school principals’ attitudes toward inclusion and students with disabilities have a huge effect on the success of creating effective inclusive settings, predict effective teaching practices, and affect the placement of students with disabilities (Horrocks et al., 2008; Kuyini & Desai, 2007; McLeskey et al., 2014). Overall, few principals in these studies held positive attitudes toward inclusion and students with disabilities; such negative perceptions will impact the practices of school principals and the learning and other outcomes of students with disabilities (Avissar et al., 2003; Ball & Green, 2014; Horrocks et al., 2008; Praisner, 2003). Furthermore, several studies suggested that principals have insufficient preparation and knowledge to lead special education programs and that they need more training regarding students with disabilities and special education (Ball & Green, 2014; Praisner, 2003; Schaaf et al., 2015; Seltzer, 2011).
Principal’s Role Regarding Inclusion Programs

Despite the growing body of knowledge on the role of the school principal in developing and sustaining school culture, there is little research exploring the role of the school principal in developing inclusive school programs. Most of the literature on this issue involves recommendations; therefore, this section will cite studies, articles, and evidence-based examinations related to this topic. Much research has asserted the importance of the efforts of school leaders in establishing a positive tone for inclusion by advocating for students with disabilities and acting to ensure that all students have high-quality learning opportunities (Hehir & Katzman, 2012; McLeskey et al., 2014; Riehl, 2000). It is important that the school principal, as the leader of an inclusive school, creates and holds a vision that includes a common definition of inclusion, an authentic sense of belonging, a commitment to implementing change, and the presumption of the competence and potential of all students (McLeskey et al., 2014). Causton and Theoharis (2014) found that principals who are successful at leading fully inclusive schools do the following: set a vision; develop democratic implementation plans; use staff in systemic ways to create inclusive services delivery; create and develop teams that work collaboratively to meet the range of students’ needs; provide ongoing learning opportunities for staff; monitor and adjust service delivery each year; and, purposefully work to develop a climate of belonging for students and staff.

Muijs et al. (2010) explored the leadership issues related to the inclusion of students with disabilities through six case studies at six schools located in the United Kingdom. Using interviews and focus groups with students, staff, local authority officers, and families, the researchers found that principals who have been successful in
developing inclusive schools embrace the three following practices: sharing a vision, taking a strong position on expectations, and gradually releasing responsibility to develop shared leadership. Supporting these conclusions, Riehl (2000) highlighted three administrative tasks that support the creation of an inclusive school: fostering a new understanding of diversity; promoting an inclusive school culture and instructional programs by emphasizing the promotion of inclusive teaching and learning that enables a diversity of students to succeed; and, building relationships between schools and communities.

Likewise, Zapata (2015) examined principals’ actions and the skills that principals must have to develop, lead, and sustain inclusive education in their schools. Fourteen semi-structured interviews were conducted with the principals in this study; nine from elementary schools, four from middle schools, and one from a high school. The findings of this study were that vision, skills, incentives, resources, and action plans all play a major role in setting a solid foundation for inclusive education in any school. The researcher concluded that the necessary key components to establish an inclusive school were vision, skills, incentives, resources, and an action plan. One obvious limitation in this study was that only the perceptions of school principals were included; the research did not obtain the perspectives of other stakeholders such as teachers, students, and parents.

Additionally, Hoppey and McLeskey (2013) indicated that sharing or distributing leadership is the most important role of the principal in creating an effective school that includes all students, including those with disabilities. Hehir and Katzman (2012) made seven recommendations to school leaders for creating inclusive school: (a) establish a
strong inclusive vision; (b) practice the principle of distributed leadership; (c) establish structures that enable teachers to work together; (d) seek entrepreneurial opportunities; (e) establish strong relationships with parents and the community; (f) situate reforms in the instructional core; and, (g) support school-level universal design for learning at the school and classroom levels. Research has also revealed that school leaders who underscore instructional issues, provide administrative backup for special education, and offer high-level training for teachers, yield greater results for students with disabilities (Benz, Lindstrom, & Yovanoff, 2000; Gersten, Keating, Yovanoff, & Harniss, 2001; Klingner, Arguelles, Hughes, & Vaughn, 2001).

Barnett and McCormick (2003) emphasized the importance of principals sharing decision-making with their staff and leading by example. School principals need to know how to assess the impact of disabilities on student performance, monitor referral-to-placement procedures, provide different service delivery models, and facilitate student support teams (Garrison-Wade, 2005). Guzman (1997) proposed certain factors that are shared by successful inclusive school leaders and stated that principals should have the ability to: (a) establish a communications system that allows for rich dialogue; (b) be actively involved in the Individualized Education Program (IEP) process; (c) be personally involved with parents of students with disabilities; (d) collaboratively develop philosophies regarding inclusion; (e) articulate clear policies for addressing discipline issues; (f) implement professional development around inclusive practices; and, (g) demonstrate skill in data gathering and problem-solving. Similarly, using a qualitative study, Waldron and Redd (2011) investigated an inclusive elementary school that had effective, inclusive programs at Newberry Elementary School in Alachua, Florida. The
findings of the case study indicated that establishing a school vision that focused on meeting the needs of all students and providing professional development for teachers are essential requirements for effective inclusive practices in schools.

Mullick, Deppeler, and Sharma (2012) surveyed 79 teachers from 10 regular primary schools to find out from whom these teachers felt they received support in helping them with students who were having difficulties. The findings indicated that other teachers and parents without formal leadership positions were active in the success of implementing inclusive education for all students and that positional leaders also played a role. The authors concluded that distributed leadership was an essential aspect of the success of inclusive education and the effective supporting of inclusive practices.

This study showed the importance of school principals in practicing distributed leadership and giving the opportunity to all school personnel to be involved in decision-making. Waldron, McLeskey, and Redd (2011) conducted a case study at an elementary school to explore the role of the leader in the creation of an effective, inclusive school. The researchers collected data using interviews with teachers and administrators, observing in classrooms, and examining documents. The authors found that principals improved their schools by building a shared vision and setting direction for the school; developing people; redesigning the organization; managing the teaching and learning programs; improving teaching and learning; distributing leadership; and using data for decision-making.

Schmidt and Venet (2012) conducted a study to examine the perspectives of principals faced with the challenge of creating an inclusive school. Three school principals participated in the study, which used questionnaire, observation, and
interviews with principals to collect data. The researchers found that a transformational leadership style was the most effective way to support the implementation of inclusion successfully. Furthermore, they found the following factors were extremely influential in facilitating the inclusion of students with disabilities: the school size and environment, the teaching background of the principal, knowledge and attitudes of the principal toward inclusion, the prior culture of the school, and the personality of the principal.

Furthermore, in separate studies, Klofenstine (2002) and Lashley (2007) noted a significant connection between instructional leadership in the success of special education programs. Garrison-Wade, Sobel, and Fulmer (2007) noted that the following aid principals in being supportive of inclusion: (a) having enough knowledge about differentiation of instruction; (b) providing professional development opportunities for teachers; (c) providing coaching; (d) having teachers visit and observe one another; and, (e) fielding questions to allow parents and family to get answers. According to Seltzer (2011), principals should have knowledge about the Individual Education Program content and process including: the IEP planning process, referral and evaluation, the IEP meeting, the IEP document, placement decisions, and how the IEP is reviewed and revised.

Asmamaw (2010) found that inclusive leaders possess skills such as conflict management, data gathering, collaborative problem-solving, and reflection. DiPaola, Tschannen-Moran, and Walther-Thomas (2004), found that the principal’s role in providing effective special education programs involves the following five tasks: (a) promoting an inclusive school culture; (b) providing instructional leadership; (c)
modeling Collaborative Leadership; (d) managing and administering organizational processes; and, (e) building and maintaining effective working relationships (p. 93).

In conclusion, the recommendations regarding the role of school principals toward special education programs can be summarized as follows. First, the school principal should create a shared vision that includes a common definition of inclusion. Additionally, the school principal should establish a positive school culture and climate for all the students and teachers. Next, the principal should provide ongoing learning opportunities for staff and should practice instructional leadership. School principals also should have enough knowledge about differentiated instruction techniques to appropriately direct inclusive programs. One of the most important roles of the principal is distributed leadership. Finally, it is important for the principal to establish structures that allow teachers to work collaboratively.

**School Cultures That are Supportive of Inclusive Programs**

Weber (1996) asserted that one of the roles of the instructional leader is to establish a positive learning climate. However, few research studies have investigated the characteristics of school culture and climate that support inclusion. Most of the characteristics of school culture and climate identified as supporting inclusion cited in the literature come in the form of recommendations and proposals by the researchers. Hence, this chapter reviewed and cited studies, articles, and evidence-based practices related to this topic.

School culture and climate can be very supportive of students, or they can be a hindrance especially to students with disabilities (Zollers, Ramanathan, & Yu, 1999). School culture influences all aspects of the school as well as the feelings and actions of
the people within the school (Deal & Peterson, 1999). Although few empirical studies have specifically examined the link between school culture and inclusion, Booth and Ainscow (2002) noted the importance of school culture as the basis for developing inclusive practices, and they also emphasized the development of inclusive values to be shared by all personnel and all students in the school. Dyson, Howes, and Roberts (2002) proposed that when trying to develop an inclusive program, one should first pay attention to developing an inclusive culture after which it is then possible to move on to establishing inclusive values within the school community.

Zollers, Ramanathan, and Yu (1999) conducted a study to determine the relationship between school culture and inclusion. The authors used ethnography as the methodology for their qualitative study. The results found that inclusive culture consists of three characteristics: an inclusive leader, a broad vision of school community, and shared language and values. Furthermore, the results of the study suggested that when implementing an inclusive model, a school’s culture should be considered and understood. The researchers have also suggested that there is a link between successful inclusion and a positive school culture. In addition, Corbett (1999) similarly showed that successful inclusion was linked to the cultural values of inclusion of the school. Corbett also found that if the plan is to create an inclusive program, it is important to take into account the culture of the school. Similarly, Pearson (2000) suggested that when including students with disabilities in a general education classroom, the school’s culture should be considered and understood before implementing inclusion efforts.

Similarly, Fisher, Sax, and Grove (2000) conducted a three-year case study of an urban elementary school to explore how one school sustained inclusion in the face of
internal and external challenges and opportunities. During the study, the authors did 60 site visits, made 40 non-classroom observations, and conducted 14 interviews with school personnel. The researchers found that successful development and sustainability of inclusion at the school was possible because the teachers held a shared vision regarding inclusion, staff had available resources, professional development was provided, and these components led to the creation of an inclusive culture.

Dyson et al. (2002) defined school culture as the norms, values, and accepted ways of doing things in schools. Booth and Ainscow (2002) defined an inclusive school culture as:

The heart of school improvement. The progress of common inclusive values and collaborative interactions may lead to alterations in the other aspects. It is through inclusive school cultures that changes in policies and practices can be sustained by new staff and students. (p. 8)

They added that the Index for Inclusion model described the characteristics of inclusive culture as: everyone is welcome, students help each other, collaborations between staff, the school personnel and students share mutual respect, there is a good collaboration between school personnel and parents, and all necessary resources are present and available within the educational institution.

Kugelmass (2006) conducted ethnographic case study design in three schools located in the United States, United Kingdom, and Portugal to explore and identify how inclusive schools create and sustain inclusion. Data were gathered from observations, conversations, semi-structured interviews, and the investigation of artifacts and official documents. The author found that all three schools possessed a culture of inclusion. Kugelmass (2006) identified the following common features of the three schools: (a) an uncompromising commitment and belief in inclusion; (b) differences among students and
staff are perceived as resources; (c) teaming and collaborative interaction style among staff and children; (d) willingness of staff to work hard to sustain practice; (e) understanding inclusion as a social/political issue; and, (f) a commitment to inclusive ideas communicated across the school and into the community.

Similarly, Kluth (2010), identified characteristics of a school culture supportive of inclusive education including: (a) a school mission statement that supports inclusive education; (b) professional development opportunities that reflect an inclusive philosophy; (c) a school leadership team that promotes inclusion through written materials, staffing decisions, and building design; (d) students with disabilities attend their neighborhood school; (e) students are educated in classrooms with their same-age peers; (f) a range of curricular adaptations and modifications are offered to all learners; (g) students with disabilities have the same school day as those without disabilities; (h) students are transported via the same methods regardless of disability status; (i) students use the same/share school spaces (e.g., lockers, cafeteria) and schedules regardless of disability status; and, (j) all teachers promote self-determination (p. 63).

Dyson et al. (2002) did a systematic review of 27 studies that revealed that school leaders at schools that have an inclusive culture tend to be visible, committed to inclusive values, and have good connections with parents and their communities. This study also found that such attitudes and values are shared by staff and that the level of collaboration and mutual trust are both significant factors that contribute to inclusive culture (Dyson, Howes, & Roberts, 2002).

Salisbury and McGregor (2002) studied five elementary schools to examine the administrative climate and context of inclusive schools. Using survey, observation, and
interview, the researchers found that the principals of these inclusive elementary schools shared common characteristics such as: implemented instructional leadership, an equity focus, shared decision-making, leading by example, and support of core values related to inclusiveness and learning communities. Moreover, these principals fostered successful inclusion programs by being visible in their schools, establishing a clear vision where their schools reflected the diversity of the local community, and ensuring that all students received high quality teaching.

Another study that used a qualitative case study approach, explored the role of special education teachers’ leadership in guiding the development of inclusive education in two primary schools (Angelides, Savva, & Hajisoteriou, 2012). The researchers interviewed one of the principals, a special education teacher, and six other teachers. The study found that special education teachers are experts who play an important role in the success of inclusive programs. In addition, special education teachers who have inclusive values and beliefs may lead their schools in the promotion of inclusive education. The authors recommended that school principals provide the opportunity to all teachers, including special education teachers, to participate in the leadership of their schools; and, they concluded that when school principals share responsibility and practice distributed leadership by reinforcing the special education teachers' leadership roles, it may lead to creation of an inclusive culture.

Stockall and Gartin (2002) conducted a case study to explore the relationships and practices at a self-identified inclusive elementary school. The researchers collected data using interviews with students, administrators, and teachers; 40 hours of observations; and, examination of school documents. The results of the study showed the school had a
shared vision of inclusion that had created a unique school culture. Additionally, the school’s administrators established an inclusive learning community by ensuring all children were included and had the opportunity to interact socially with all their peers; the school was also found to have established an environment of caring and cooperation among all students.

Strategies that have been found to support the establishment of a more inclusive culture in schools are the Multi-Tiered System of Support (MTSS) and the School-Wide Positive Behavior Support (SWPBS) system (Williams-Lewis, 2015). Multi-tiered systems are aimed at improving student outcomes and behavior and include schoolwide screening, intervention, and progress monitoring (Billingsley, McLeskey, & Crockett, 2014). Using SWPBS or MTSS as a model for the entire school helps leaders create a safe and positive environment while also limiting or eliminating improper conduct. SWPBS is a positive, proactive, and preventative approach “based on a prevention perspective in which desired social behavior expectations and routines are taught directly and formally, actively supervised, and positively reinforced” (Sugai, O’Keefe, Homer, & Lewis, 2012, p. 304). The core values and assumptions of MTSS are consistent with the process of SWPBS. For example, both SWPBS and MTSS emphasize differentiated instruction, addressing student behavior, and attention to individualized student needs (Billingsley et al., 2014; Sugai et al., 2012).

A quasi-experimental (non-equivalent two-group, pretest-posttest) design was utilized over four years by Caldarella, Shatzer, Gray, K. R. Young, and Young (2011), to examine the effects of school-wide positive behavior support (SWPBS) on middle school culture and student outcomes. The SWPBS interference consisted of school-wide
instruction of social skills, compliment notes from teachers to students, posting of school rules, proactive checking of students at risk for emotional and behavioral disorders, and referrals of at-risk students for targeted intervention. Three hundred teachers and 10,000 students participated in the study located at two middle schools in the western United States. The results of the study indicated that the treatment school revealed statistically significant improvements in teacher ratings of school climate, whereas the control school tended to stay the same or worsen. The results of the study suggested a connection between SWPBS implementation and improvement of school culture. One of the limitations in the study was that the two schools were not randomly assigned, which may have influenced the results.

The findings of these studies suggest that schools that have supportive cultures for including students with disabilities are likely to have a shared school mission statement that supports inclusive education, possess a highly visible school leader, are committed to inclusive values, implement a shared decision-making process, implement MTSS or SWPBS, provide professional development, and ensure that all students have access to and receive high quality teaching.

**The Influence of Leadership on School Culture and Climate**

One of the most important challenges facing school principals is creating an inclusive school culture and climate that supports learning for all children. Much research, including studies by Armstrong (2006), McLeskey and Waldron (2002), and Riehl (2000), has shown that the practices of school principals have an impact on the outcomes achieved by all students. An inclusive school program cannot be successful without the support of the principal.
Leadership can either enable or inhibit the development of an inclusive environment (Angelides & Antoniou, 2012). If we are interested in developing inclusive schools, it is necessary that the leaders (principals) understand and create inclusive cultures in their schools. School leaders need to understand and build a supportive school culture and climate for their students and personnel. Culture impacts all aspects of school such as school effectiveness, productivity, collegiality, collaboration, and communication (Deal & Peterson, 2009).

According to Williams-Lewis (2015), the principals who will be most effective in creating inclusive schools are those that shape a positive culture and climate and who take responsibility for all students; the ones who consider any challenge affecting an individual student as a challenge for the entire school team. Conversely, if the principal does not accept responsibility for all students, those with and those without disabilities, teachers will struggle and inclusion efforts will not be successful.

Engles, Hotten, Devos, Bouckenooghe, and Aelterman (2008) conducted a mixed method study to compare the practices of principals in schools with positive school cultures versus those with problematic school cultures, from the perspective of both teachers and principals. The sample of the study included 46 elementary principals and 700 teachers where each of the 46 principals was also interviewed. Engles et al. found that the practices of the school principals influenced school culture. School principals who practice transformational leadership build transformational culture. Transformational leaders in this study created a shared vision, communicated clearly regarding their vision and expectations, valued teacher initiative, and provided professional development. Similarly, Mees (2008) investigated the relationship between the practice of leadership by
principals and the existence of a positive school culture. The sample of the study included 79 middle schools (grades 6 through 8) in the state of Missouri. The researcher used two instruments to measure teacher perceptions -- the Principal Leadership Questionnaire and the School Culture Survey. The author found that the perceived practices of the school principals positively impacted school culture. The researcher found there was a positive correlation between transformational leadership and school culture. One of the limitations of the study was that the researcher only collected data from the middle school teachers and did not include the perceptions regarding school culture of the principals and students in the schools examined in the study.

Another study, conducted by Waters, Marzano, and McNulty (2003), utilized meta-analysis to identify the leadership responsibilities significantly associated with student achievement over a 30-year period. The researchers reviewed 70 quantitative studies that met the criteria of the meta-analysis. One of the findings of this study was that building positive culture was the fifth, out of 21 identified, most important task of the principal in terms of effect size impact on learning.

**Defining Instructional Leadership**

While there are numerous definitions of instructional leadership, no single one of these is universally agreed upon. Leithwood (1994) defined instructional leadership as “a series of behaviors that was designed to affect classroom instruction” (p. 24). Likewise, Brewer (2001) noted that instructional leadership is primarily focused on improving teaching and learning processes. Similarly, King (2002) stated that instructional leadership is “anything that leaders do to improve teaching and learning in their schools and districts” (p. 62).
According to the National Association of Elementary School Principals (NAESP) (2008), it is important that principals no longer solely concentrate on the managerial tasks of operating a school. Principals should also be instructional leaders who facilitate the teaching and learning processes. Horng and Loeb (2010) described instructional leaders as school principals who provide opportunities for teacher growth. Additionally, Bryk et al. (2010) stated that “principals as instructional leaders are expected to be experts in teaching and learning, to spend the majority of their time in classrooms, and, more generally, to support improvements in instruction” (p. 47). The Council for Exceptional Children (2004) noted that “an effective instructional leader is essential to ensure that all children and their teachers receive the support and services they need to learn and develop” (p. 6). This report also noted that “it takes a strong instructional leader to create a positive learning climate that embodies a unifying philosophy of respect for all children and all stakeholders in the entire school community” (p. 6).

**Instructional Leadership Models**

There are several models of instructional leadership proposed by various articles and studies (Alig-Mielcarek & Hoy, 2005). Instructional leadership evolved from the effective schools movement of the late 1970s and early 1980s (Klump & Barton, 2007). The researchers Bossert, Dwyer, Rowan and Lee (1982) who started to conceptualize the concept of instructional leadership with their framework (Green, 2017). During the 1970s, Bossert et al. (1982) created a model named instructional management leadership after reviewing the literature on effective school and educational leadership. The Instructional Management framework is comprised of three principal roles: (a) instructional organization, (b) school climate, and (c) principal management behavior.
Bossert et al. impacted the development of the later models of instructional leadership such as those by Hallinger and Murphy (1985), Murphy (1990), and Weber (1996). Hallinger and Murphy (1985) identified three areas of instructional management. Five years later, Murphy (1990) expanded on the model to four dimensions. Subsequently, Weber (1996) proposed some alterations to the concept. These three models of instructional leadership are described below.

**Hallinger and Murphy (1985) model.** Hallinger and Murphy (1985) proposed a model of instructional leadership after examining elementary school principals’ instructional leadership behaviors and reviewing the literature on school effectiveness. The sample of the study included three district office supervisors, 10 principals, and 104 teachers at 10 elementary schools. The authors developed a questionnaire called the Principal Instructional Management Rating Scale (PIMRS). They collected data using observations and school documents. The results led the authors to develop a framework for instructional management consisting of three dimensions: (a) defining the mission of the school, (b) managing the instructional program, and (c) promoting positive school climate. The first dimension investigates how the principal communicates school goals and how he or she links these goals to daily practices. The second dimension examines how the school principal coordinates and manages the curriculum and instruction within the school through supervising and evaluating curriculum and monitoring student progress. The final dimension, the promotion of a positive school climate by the principal, includes the capacity of the administrator to protect instructional time, offer professional development, sustain high visibility, offer incentives to teachers and students, and have high academic standards.
Murphy (1990) model. Murphy (1990) revised the 1985 model of instructional leadership developed with Hallinger and proposed some changes after reviewing the literature on organizational change, teacher professional development, and school effectiveness (Alig-Mielcarek & Hoy, 2005). Murphy’s (1990) model was comprised of four dimensions: (a) developing the school mission and goals, (b) managing the educational production function, (c) creating a positive learning climate, and (d) promoting a supportive work environment. Murphy added more detail to the previous model developed with Hallinger regarding the dimension of managing the instructional program to contain the roles of the school principal in fostering quality instruction and allocating and protecting instructional time. Murphy also elaborated on the importance of promoting a positive school climate with two concepts: promoting an academic learning climate and developing a supportive work environment. The dimension of promoting an academic learning climate consists of the following: establishing positive expectations and standards, maintaining high visibility, providing incentives for teachers and students, and promoting professional development. The dimension of developing a supportive work environment includes: creating a safe and orderly learning environment, offering opportunities to involve students in the school, supporting collaboration amongst staff, finding outside resources to support school goals, and building links between home and school.

Weber (1996) model. Weber distinguished five instructional leadership areas derived from his review of educational leadership literature: defining the school mission, managing curriculum and instruction, promoting a positive learning climate, observing
and improving instruction, and assessing the instructional program. Weber’s model was more heavily focused on theoretical framework.

Tomno (2014) conducted a study to identify the instructional leadership practices of principals that influence students’ academic achievement. The sample of the study included 12 principals and 253 teachers in Baringo County, Kenya. The results of the study showed that teachers viewed their principals to be engaged in defining their schools’ missions, and developing a supportive working environment; however, they perceived that their principals had few engagements in managing instructional programs and promoting a positive school learning climate. Additionally, the results indicated that there was no statistically significant relationship between the principals’ attitudes of instructional leadership practices and student achievement. Kgatla (2013) implemented a qualitative study to explore the perceptions of principals of their instructional leadership practice in the improvement of literacy and numeracy. The researcher interviewed five elementary school principals in Limpopo, South Africa. The findings of the study revealed that principals in the sample did not have a solid understanding of the concept of instructional leadership and they did not know about their instructional leadership roles. Principals also said that they did not have enough training about instructional leadership. This study was limited because it involved only five elementary participants, which makes the results not easily generalizable to a wider population.

Dong, Ng, and Pui (2017) conducted a qualitative study to discover the instructional leadership practices in Singapore elementary schools. The researchers interviewed 30 principals and did 25 working-day observations of five principals. The researchers also used grounded theory to analyze the data. The results of the study
revealed that principals in the sample had a high level of implementing instructional leadership practice. Lahui-Ako (2001) conducted a similar study to examine the attitudes of principals and teachers toward the principals’ instructional leadership practice. The sample of the study included 23 teachers and five secondary principals in New Ireland, Papua New Guinea. The major finding of the study showed that principals in the sample did not provide enough instructional leadership in all variables defining and communicating the school mission; managing the curriculum and instruction; promoting a positive learning climate; observing and providing feedback; and assessing the instructional program. This study was limited because it involved only participants in one city, which makes the results not easily generalizable to a wider population. Al-Husseini (2016) did a study to investigate the impact of principals’ practice of instructional leadership and on teachers’ practice. The researcher surveyed 109 teachers and interviewed 10 principals in Dubai, United Arab Emirates. The results of the study showed that teachers reported that principals provided enough instructional support for them and principals had a high level of involvement in instructional leadership practice. Additionally, teachers reported that they perform better when they have highly qualified and experienced principals. One of the limitations of the study was that the selected schools were not randomly assigned, which may have influenced the results.

**Instructional Leadership and Special Education Programs**

Black (1990) conducted a study in Kansas schools to examine special education teachers’ perceptions regarding the level of instructional leadership they received. The study sample included 212 special education teachers. The researcher adapted the
Sources of Instructional Leadership Survey developed by Newburg and Glatthorn (1983) to collect data and measure instructional leadership. The findings showed that special education teachers reported they did not feel they had received as much instructional leadership as they wanted or needed. Special education teachers in Black’s sample also believe school principals should be the primary source of instructional leadership.

Farley (1991) conducted a study to identify principals’ behaviors related to effective supervision of programs for students with disabilities from the perspectives of school principals, general education teachers, and special education teachers. Participants in the study included 210 principals, 404 special education teachers, and 291 general education teachers in Virginia schools working in mainstreaming settings. The researcher created a survey based on a synthesis of the research literature to collect data. The findings of the study were that although all the groups reported that instructional supervision was important, special and general education teachers indicated that their school principals exhibited little understanding of effective instructional supervision. Furthermore, more special education teachers reported that they felt they were not receiving as much useful instructional supervision from principals in comparison to that received by their general education peers. Conversely, principals stated that they felt they were hindered by a lack of time from providing more effective instructional supervision to special education programs. Likewise, Heckert (2009) did a multiple case study to explore principals’ understanding and perception of instructional leadership related to improving achievement for students with learning disabilities. Five elementary school principals participated in the study. The results were that school principals who have a greater understanding of effective instructional practices regarding students with learning
disabilities were more engaged in the instructional leadership practices that tend to improve effective instruction for students with learning disabilities.

Frost and Kersten (2011) conducted a mixed methods study to explore principals’ perceptions of instructional leadership regarding supporting and retaining special education teachers. This study also aimed to explore the perceptions of school principals of their instructional leadership involvement with special education teachers. The sample of the study was 56 elementary school principals from pre-K to fourth grade in the state of Illinois. The researchers collected their data using a web-based survey and follow-up phone interviews with five of the survey respondents. Frost and Kersten (2011) found that principals who held a state special education certificate had greater involvement with special education teachers than those who had not acquired this certification. Furthermore, the researchers found that all the principals who participated in their study rated themselves lowest in involvement regarding the legal aspects of special education. One of the limitations of this study was that it did not include middle or high school principals. Another limitation was that the sample was relatively small. Therefore, it is difficult to generalize the results to other populations and/or settings.

Lynch (2012) explored how principals understand and practice instructional leadership in three middle schools in West Virginia that educate students with disabilities in general education classrooms. The researcher interviewed principals, special education teachers, and general education teachers to obtain thick and rich descriptions of instructional leadership. Using multiple case studies, the researcher found principals in the sample had an inadequate understanding of effective instructional leadership practices
and a limited understanding of effective instructional strategies for students with disabilities.

Bays and Crockett (2007) used grounded theory methods to examine how instructional leadership for special education happens in elementary schools. The study examined nine elementary schools in the southeastern United States. The sample for the study was comprised of 39 participants -- 27 teachers, nine principals, and three directors of special education. The researchers collected data using interviews and observations. The findings were that there was minimal interaction between principals and teachers regarding improving teaching and learning outcomes of special education students. When such connections did occur, they were usually focused on paperwork. Bays and Crockett (2007) asserted that these interactions are not enough to ensure positive learning outcomes for special education students. Additionally, the researchers found that the principals did not share responsibilities with staff. Finally, they did not observe systematic monitoring of instruction, evidence-based instruction, or accountability regarding teaching students with disabilities in the subject schools. The findings of this study indicated that principals need professional development regarding teaching students with disabilities.

Several studies have recommended that principals must be strong instructional leaders for special education programs within their schools to be successful (Benson, 1990; Black, 1990; Klofenstine, 2002; Sisson, 2000). Sisson (2000) examined perceptions of the level of involvement and training of elementary school principals in special education. Sisson surveyed 133 elementary school principals, 13 special education directors, and 33 university faculty members. The results suggested that the
more training principals received regarding special education, the greater their involvement in special education in their schools. Furthermore, principals reported that they were more involved in special education services than was perceived by the special education directors with whom they worked and the university faculty. Special education directors reported that, from their perspective, principals need to increase their involvement in special education programs. Klofenstine (2002) examined the level of involvement of a sample of school principals in Georgia in special education services delivery at their schools. The study surveyed 133 elementary, middle, and high school principals as well as 96 special education teachers. The findings were that principals rated their own level of involvement in special education as significantly greater than did the special education teachers who were asked to rate their principals’ level of involvement. Interestingly, this study asserted that the level of involvement in special education services of the principals who participated in the study was not related to their knowledge of special education. The researcher also found a relationship between education level and principals’ level of involvement in special education services delivery. Specifically, principals with a master’s degree were more involved in providing special education services than those who held a bachelor’s degree only.

Fulton (2010) conducted a mixed methods study related to inclusion to identify leadership behaviors of elementary school principals who supervised special education programs. The researcher surveyed 23 principals and 23 special education teachers in a school district in southeastern North Carolina. Then, the researcher also interviewed two of the principals and two of the special education teachers. The author found that special education teachers rated the principals lower in nine areas than principals rated
themselves. These nine constructs were: (a) develops and communicates a shared vision; (b) facilitates IEP development; (c) assists with curriculum and instructional programs; (d) ensures appropriate inclusion opportunities; (e) develops positive behavior management programs; (f) monitors student progress and program effectiveness; (g) ensures appropriate staff development activities; (h) supports and involves all staff members; and, (i) evaluates staff using systematic procedures. In addition, the researcher found that both special education teachers and school principals who participated in the study rated principals “low” in the areas of providing significant opportunities for involvement to parents and community members and encouraging collaboration between special education and general education teachers.

Another study examined the perceptions of public school principals regarding their knowledge of and responsibilities toward special education programs (Broyles, 2004). The participants in the Broyles (2004) study were 109 principals in schools in Texas. The author found that a significant percentage of the principals in the study indicated they felt less responsible for items related to special education services in their schools. Specifically, the study found that:

- Thirty-two percent of participants did not assume they were responsible for leading IEP meetings;
- Twenty-nine percent of respondents did not think they were responsible for developing the curriculum taught in special education classes;
- Forty-nine percent did not feel they were responsible for evaluating related services staff;
• Thirty-four percent did not believe they were responsible for ensuring appropriate transportation for students with disabilities;

• Forty-three percent did not feel they were accountable for the special education budget in their schools; and,

• Fifty percent did not consider themselves responsible for obtaining grants for special education programs.

Broyles (2004) concluded that because the principals were not directly supervising the special education programs in their schools, they were uncertain of their responsibilities.

Stevenson (2002) did a quantitative study to investigate the perceptions of Illinois elementary and middle school principals on the competencies most needed to administer special education programs. The study sample was 150 Illinois elementary and middle school principals. Stevenson found that more than half of the participants (83) selected five competencies as the most necessary: (a) supervising the education of students with disabilities in the least restrictive environment; (b) collaborative instruction strategies; (c) family’s rights; (d) understanding laws and legislation; and (e) consensus building. The researcher also found that principals with special education certification allocated more time to duties associated with students with disabilities than did principals without special education certification. Additionally, Stevenson (2002) found that elementary school principals spent more time on tasks related to students with disabilities and evaluated their special education teachers more than did middle school principals.

A study conducted in New Jersey surveyed the perceptions of superintendents, principals, and directors of special education regarding the governance of building level special education programs in schools (Sullivan, 1996). The sample for the study
included 40 superintendents, 55 special education administrators, and 107 principals.

Sullivan’s (1996) findings revealed that all three groups perceived the special education
director as the primary person responsible for budgeting, staff development, program
evaluation, referral, and placement related to special education programs and services.

Klofenstine (2002) recommended directors of special education turn over such
administrative responsibilities to their principals in order to correct this situation, which
may lead to the operation of a "separate educational system" for special education
students within schools.

In an investigation of elementary school principals’ involvement in, preparation
for, and attitude toward special education, Durtschi (2005) examined 566 elementary
school principals in the state of Wisconsin. The researcher collected the data using a web-
based survey. The results showed that the Wisconsin school principals in the sample had
strongly positive attitudes toward students with disabilities. These principals were also
found to devote a lot of time to special education and activities related to students with
disabilities in their schools, felt they were prepared in the field of special education, and
worked to enhance collaboration between general and special education teachers. One of
the limitations to the Durtschi (2005) study was that the participants were limited to only
elementary school principals and also did not include teachers and special education
directors.

**Gender-Related Differences and Instructional Leadership**

Sasson (2016) conducted a mixed methods study to investigate principals’
perceptions of their instructional leadership behavior. The sample was 128 principals in
Jewish day schools in the United States. The researcher used the Principal Instructional
Management Rating Scale (PIMRS) to measure instructional leadership behaviors. The researcher then also interviewed 11 of the 128 participants. One finding suggested that female school principals had more involvement in instructional leadership overall, especially in the areas of maintaining high visibility, monitoring student progress, supervising and evaluating instruction, framing school goals, coordinating the curriculum, and promoting professional development. Similarly, Klofenstine (2002) found that women rated themselves higher on three dependent variables: curriculum, personnel, and program administration. Klofenstine’s (2002) study used a stratified random sample of principals in Georgia. Durtschi (2005) found a correlation between gender and percentage of Individualized Education Program (IEP) meetings attended, namely that the female principals attended more IEP meetings than male principals.

The above studies found that female principals are more likely to be involved in instructional leadership behaviors than male principals. However, Sisson (2000) found no significant difference between male and female principals regarding their level of involvement in special education programs. Likewise, Miller (2000) found that gender was not a predictor of the level of principal involvement in special education services delivery.

**Education in Saudi Arabia**

**Overview**

The Ministry of Education in Saudi Arabia has two main agencies: The Ministry of Education for public schools and the Ministry of Higher Education (Meemar, 2014). These two main agencies for education combined in 2015 to become one agency controlling both general education and higher education (Ministry of Education, 2015).
The Ministry of Education sets the goals, standards, and guidelines for all educational services in Saudi Arabia. The main goals of the Ministry of Education are to make sure that education becomes better able to meet the religious, economic, and social needs of the country, and to wipe out illiteracy among Saudi adults (Alsufyan, 2002). Education in Saudi Arabia is segregated by gender. The complete general education process in the country consists of kindergarten, six years of primary school, three years of intermediate school, and three years of high school to complete one’s education. All these levels are free of charge to students.

There are three level of direct school administration in Saudi Arabia: building, school district, and national (Meemar, 2014). According to Meemar (2014) school principals manage the day-to-day operation of schools at the building level. The district level is considered the link between individual schools and the Ministry of Education and ensures that all schools in a particular area belong to a district directorate. The Ministry of Education is the national level and oversees hiring staff, setting educational policy and curricula, allocating financial resources, choosing textbooks, and supervising and administrating the educational effort (Badawood, 2003).

Since Saudi schools are segregated by gender, males are assigned to lead boys’ schools and females are assigned to manage girls’ schools (Meemar, 2014). Furthermore, because the Saudi educational system is such a bureaucratic, centralized system, where the individual schools lack autonomy, Al-Shakhis (1984) noted that Saudi school principals often do not serve as leaders. Alsufyan (2002) also stated that, because of the traditional centralized system, the role of Saudi principals is more managerial than one of leadership and that principals lack the power to influence change. Additionally,
Almudarra (2017) noted that transactional leadership style is the one most frequently used by the Saudi school principals because of the hierarchical structure of the education system. Meemar (2014) found that Saudi school principals receive little or no leadership training before they take their positions as educational leaders. Finally, Al-Fahili (2009) found that the role of Saudi school principals regarding inclusion programs is poorly defined.

**Special Education in Saudi Arabia: A Historical Perspective**

The delivery of special education services in Saudi Arabia has evolved remarkably over the past 15 years (Alnahdi, 2014). The Saudi Ministry of Education provides free and appropriate education to all students, including those with disabilities. The Ministry of Education is also in charge of training programs for teachers and principals (Ministry of Education, 2008). At present, the Ministry of Labor and Social Development manages the social lives of persons with disabilities in the country and the Ministry of Education is responsible for their academic welfare (Almoghyrah, 2015).

Five categories of disability are covered to receive special education services in Saudi Arabia: visual impairment, hearing impairment, intellectual disability, autism, and multiple disabilities (Alnahdi, 2014). There are two educational placements for students with disabilities in the country. The first is the system of special education institutes that includes schools for students with visual impairment, schools for students with hearing impairment, and schools for students with intellectual disability (Al-Mousa, 2010). The second placement is to receive services in the regular schools through accommodations such as self-contained classroom programs, resource room programs, itinerant teacher programs, teacher consultant programs, and follow-up programs.
The first special education initiatives in Saudi Arabia started at the end of the 1950s with an individual effort through which a group of people with visual impairment were administered classes on the Braille system to learn how to read and write (Althabet, 2002). Formal special education services delivery to the visually impaired began in 1958 (Al-Mousa, 2010) when the Ministry of Education opened the first institution for such students in Riyadh (Althabet, 2002). Years later, the Ministry of Education established a General Directorate for Special Education (GDSE) in 1974 (Alnahdi, 2014). The GDSE was responsible for planning and improving special education programs in the country (Al-Ajmi, 2006).

**Code of Conduct and Attendance**

All schools in Saudi Arabia must implement the Ministry of Education’s Code of Conduct and Attendance. Furthermore, the Steering and Guidance Committee in a school can institute additional code of conduct policies. According to the Code of Conduct and Attendance, the school principal should work with staff to explain and clarify the expectations for students at the beginning of the school year.

The final portion of the guidelines of this code (Ministry of Education, 2018) outline 30 items that are considered “breaches.” The code has three categories of conduct: first level, second level (when it becomes apparent a problem exists), and third level (which recommends referring the student to a relevant department). Behavior disorders are similarly classified into four levels: (a) first degree behavior problems, which include behaviors problems such as not wearing the required school uniform or falling asleep during class; (b) second degree behavior problems, which include behaviors such as purposefully causing damage to another student’s property, fighting with colleagues,
skipping classes, bringing smart devices to school, and stealing other students’ property;
(c) third degree behavior problems, which include problems such as engaging in
dangerous games, signing on behalf of one’s guardian without the guardian’s knowledge,
bullying, skipping school, and indirect sexual harassment; and, (d) fourth degree behavior
problems, which involve such issues as direct sexual harassment, setting a fire on school
premises, possession of cigarettes and/or smoking, and carrying sharp tools in order to
threaten or assault a student.

Additionally, the Code also specifies that school administrators should also use
and refer to the regulations of child protection that are attached to the document for ease
of reference. These regulations of child protection consist of 25 sections. The main
provisions include definitions of the document’s terms and goals, and it also clarifies the
rights of children in Saudi Arabia. These regulations affirm the responsibility of
educators to protect children in Saudi Arabia from all forms of discrimination, violence,
and inequality. For example, article number 17/3 states that, “All parties are obligated to
protect the child from any discrimination based on the place of birth, gender, disability or
any other situation and to ensure de facto equality among children” (Regulations of Child
Protection of 2008, p. 17)

In addition, the Saudi Ministry of Education has implemented a state-wide
program called “Refq.” All schools in Saudi Arabia must implement this program, which
aims to reduce all forms of school violence, bullying, and discrimination. School Steering
and Guidance Committees are responsible for this program. Since the school principal is
the leader of this committee, that individual is responsible for monitoring and evaluating
the Refq program within the school.
One of the goals of the Code of Conduct and Attendance and the Refq program is to provide healthy school culture and climate for all students, including students with disabilities. This information also shows that principals in Saudi Arabia are responsible to do these tasks.

**Regulations of Special Education Programs and Institutes**

To provide support and improve the quality of special education services delivered in Saudi to students with disabilities, the division of Regulations of Special Education Programs and Institutes (RSEPI) was established in 2001 (Almoghyrah, 2015). Alquraini (2007) stated that the Ministry of Education established the RSEPI as a regulatory body to oversee how services and education are delivered to those with disabilities in Saudi Arabia; RSEPI was modeled after the IDEA legislation of the United States to achieve the following objectives: (a) identification of individuals needing special education services; (b) provision of appropriate placement services to the students identified; (c) provision of appropriate medical care and academic plans for the students; (d) provision of social awareness regarding disability issues; and (e) preparation of students for their future adult lives.

All students with disabilities are entitled to receive individualized education programs (IEPs) and should receive their educations in the least restrictive environment (LRE) possible. The RSEPI defines inclusion as educating students with disabilities in general education classrooms while providing special education services as needed. The RSEPI is comprised of 11 sections and the main provisions of it include definitions and responsibilities for teachers, school administrators, and other service providers. It also presents clarifications on the terms used to describe disabilities, least restrictive
environment (LRE), transition services, multidisciplinary team, individualized educational programs (IEPs), special education teacher, and resource room. This regulation affirms that public schools are the natural place in which students with disabilities should be educated. In general, the RSEPI describes the role of the school principal as: Being the primary source of authority, the principal is responsible for the educational programs and administrative management of the school. The principal should also attend to all educational and administrative issues and facilitate cooperation with the school committee in accordance with the regulations and instructions. S/he should provide a good example to staff members in terms of performance, behavior, and dedication to mission (RSEPI, 2001).

Qualifications for Saudi Arabian principals. Educators must meet several requirements and qualifications to be school leaders. The RSEPI (2016) clarified these qualifications and stated that teachers must have at least a bachelor’s degree in education, four years of experience as a teacher, and have worked as an assistant principal for two years. The qualifications for assistant principal are that teachers must have at least a bachelor’s degree in education and four years of experience as a teacher. Both the school leader and the assistant principal must be knowledgeable about instructional leadership, instructional strategies, and monitoring and evaluating instruction.

However, according to Karim (2014) and Mathis (2010), the Saudi Ministry of Education has been unable to fill all vacant school leader positions with appropriately qualified candidates (bachelor’s degree in education, four years of experience as a teacher, and having worked as an assistant principal for two years), in part because few qualified teachers have applied for these positions. Karim (2014) noted that teachers,
“may not have studied educational leadership in school, since not all Saudi universities include educational leadership or professional administration in bachelor’s programs” (p. 123). Meemar (2014) found that Saudi school principals receive little or no leadership training before they take their positions as educational leaders and Saudi principals have no voice in many crucial matters. For example, public school principals in Saudi Arabia have no say regarding the selection of teachers, transfer of staff members to or from their schools, curriculum development, or choice of textbooks.

The regulations of the RSEPI identify the school principals’ role and duties toward special education programs as being:

1. The general supervision of special education programs and the provision of all educational requirements for students with disabilities.

2. The creation of educational environments that enable students with special educational needs to learn and integrate with their peers in the classroom and in other activities.

3. To facilitate a co-operative relationship between parents of students with disabilities and the school and to make them welcome within schools so that they may view their children’s progress and academic achievement.

4. To provide specialized training for teachers based on needs assessment and by proposing appropriate programs for each individual staff member.

5. To follow established procedures regarding the transport of students with special needs between school and home.

6. The supervision and management of the support received from the Local Educational Authorities, which includes monthly remuneration for the families of
students with special needs to aid them in getting these children to school and helping them to accommodate them (RSEPI, 2001).

In 2016, several changes were made to the regulations of the RSEPI. First, the term “school leader” was used instead of “school manager.” Additionally, more responsibilities and duties were added to the description of school leaders regarding special education programs. For example, the RSEPI (2016) stated that school leaders have 46 official functions, for the purpose of the present study, the researcher will focus on transformational and instructional roles, including:

- Form and lead the School Council team, which should consist of teachers, parents, students, and the assistant principal. The tasks of the School Council team are: form the school’s vision and mission; write and evaluate the school action plan; and, participate in building school policies to improve the educational process.
- Lead instruction and learning practices that place students at the center of the learning process.
- Participate in the development and evaluation of the school’s teachers and ensure the implementation of proper evaluation and assessment of all existing employees.
- Visit classrooms to observe teachers and provide feedback.
- Follow up on educational decisions and instructions in the school, prepare an annual plan for the number of new teachers and classrooms, as well as follow up on the implementation of plans after adoption.
- Form and lead the IEP teams as necessary to meet the needs of students.
• Revise the curriculum based on comments received from teachers.

• Allocate tasks to all staff in the school at the beginning of the year.

• Oversee the evaluation of instructional materials including textbooks, computer programs, and library/media acquisitions.

• Provide the necessary time and resources for professional development to school staff.

• Coordinate and cooperate with educational supervisors and others who visit the school.

• Make temporary modifications to the duration of classes and recess to address educational and other needs.

• Add programs as needed to address students’ needs within the school.

• Increase the duration of study for groups of students to approximately a maximum of one hour per day.

• Reevaluate the student performance during the semester.

• Grant incentives to students.

• Honor outstanding students publicly within the school.

• Lead the Assessment and Diagnosis Team for students with disabilities.

• Evaluate school programs.

• Communicate with the Department of Education to obtain the necessary resources.

• Review and approve teachers’ weekly lesson plans.
• Form and lead the Steering and Guidance Committee, including ensuring that the committee and the school meet the requirements of the Ministry of Education’s Code of Conduct and Attendance.

Unfortunately, as noted by Al-Jadid (2013), these regulations are not well-implemented in Saudi schools; and, students with disabilities do not receive special education services as required by these regulations because there is a lack of understanding on the part of administrators of how to meet the requirements of these laws and regulations and the resources necessary to provide such services to students with disabilities. Alnahdi (2014) stated that even though special education services have increased significantly in the last 15 years, the quality of special education services in the country has not improved significantly. Furthermore, as Alquraini (2011) stated that “even though these laws were passed almost a decade ago, there are some regulations in the legislation that have not been practiced in actuality with students with disabilities” (p. 39). As a result, this has created a gap between the laws on what is required and the actual delivery of special education services. For example, Al-Herz (2008) also found that there is a tendency to have special education teachers alone be responsible for: the identification of students with disabilities, the assessment of these students’ weaknesses and strengths, and the setting of the annual goals of the IEP – meaning without the participation of any of the other IEP team members, including the school leader, general education teacher, parent, social worker, and student. Additionally, the RSEPI (2016) stated that students with disabilities should be educated in the general education setting to the greatest extent possible, however, there are many students still being educated in self-contained classrooms, including students with mild intellectual disabilities, students who
are deaf, and students with autism or autism spectrum disorder (Alquraini, 2011).

Another example of such issues is that even though the RSEPI (2016) stressed that students with disabilities should receive transition services at an early stage, frequently transition services for students with disabilities are not only not completely implemented but also not provided as early as recommended (Al-Hoshan, 2009; Almuqael, 2006; Almutairi, 2018; Alnahdi, 2014).

**Educational Leadership Studies in Saudi Arabia**

Albagieh (2018) examined elementary school principals’ attitudes about their level of knowledge regarding leading special education programs in Riyadh, Saudi Arabia. The sample of the study included 74 male and female elementary school principals. The results of the study showed that principals in the sample exhibited little knowledge about leading special education programs and about special education best practices. Additionally, the researcher found there were no differences in levels of principals’ special education leadership knowledge related to gender, experience, and educational qualification. One obvious limitation in this study was that only the perceptions of school principals were included; the research did not obtain the perspectives of other stakeholders such as teachers, students, and parents. Moreover, Alshareef (2005) conducted a quantitative study to identify the actual practices of instructional leadership by public school principals in Tabuk, Saudi Arabia. This study surveyed 131 principals and 160 educational supervisors and found that school principals rated themselves higher regarding their knowledge of such actual practices than educational supervisors rated the school principals’ knowledge of such actual practices. The t-test showed that there were statistical differences in the perceptions of principals
and educational supervisors regarding the practice of instructional leadership. Furthermore, the results showed that there was no statistical difference between principals’ attitudes toward practicing instructional leadership related to gender or experience. One limitation to the study was that only principals and supervisors were included, which might limit transferability to schools in other cities.

Albrigi (2018) implemented a study to investigate the obstacles that face public school leaders when they are implementing special education programs. The sample of the study included 380 participants, including leaders, teachers, special education directors, and assistant leaders, in Karg, Saudi Arabia. The results showed that most of the participants indicated that school principals did not have enough knowledge about students with disabilities or how to lead special education programs. Furthermore, most of the participants reported that school buildings are not physically accessible to students with disabilities. Additionally, the findings of the study revealed no statistical difference in participants’ attitudes related to experience and position.

Aljabri (2017) implemented a study to identify the training needs of school principals in schools with special education programs from the perspectives of principals and teachers. The researcher surveyed 29 principals and 172 teachers in Makkah, Saudi Arabia. The results of the study indicated that both principals and teachers reported that principals a in great need of training in all the dependent variables, including: managing special education classes, supporting special education teachers, special education curriculum, dealing with students with disabilities, and dealing with parents of students with disabilities. Additionally, there was no significant difference in the attitudes of the principals and those of the teachers. Aljabri (2017) recommended providing more
training for school principals in order to help them lead special education programs in the right direction. Alharbi (2016) conducted a study to identify the administrative and educational difficulties that face special education teachers in special education programs. The researcher used a survey to collect the data; the sample of the study included 200 special education teachers in the Qassim Region of Saudi Arabia. The results showed that most of the participants reported that they do not receive sufficient professional development regarding inclusion and that principals do not provide enough resources to make inclusion successful. Moreover, most of the special education teachers indicated that school administrators do not visit and monitor special education classes. Finally, the findings showed no statistical difference in teachers’ attitudes related to experience and educational qualification.

A recent study investigated the performance of elementary school principals from the perspective of special education teachers (Alkatheery, 2017). The researcher used a questionnaire to collect the data from 43 female special education teachers in Riyadh, Saudi Arabia. Alkatheery (2017) found that principals have little knowledge of the RSEPI and that they do not build a strong partnership with the parents of students with disabilities. Additionally, the results indicated that there was no statistical difference in special education teachers’ attitudes related to experience and educational level. Alkatheery’s study was limited to special education teachers’ attitudes, only. Abo Nian and Alamar (2015) conducted a study to examine the awareness of female school principals and special education teachers regarding the RSEPI and learning disabilities programs. The researchers surveyed 28 female principals and 70 female special education teachers in Riyadh, Saudi Arabia. The findings showed that both principals and teachers
in the sample had high awareness of the RSEPI regarding requirements for programs for students with learning disabilities and both groups reported that they were implementing the requirements as stated in the RSEPI. Additionally, the results showed that there was no statistical difference in the attitudes of special education teachers and principals toward implementing the RSEPI. One of the limitations of this study is that it was limited to just one large city in Saudi Arabia.

Al-Abduljabar (1999) conducted a study to identify the attitudes of principals toward including students with disabilities in public schools. This researcher surveyed 78 principals who worked at private elementary schools in Riyadh, Saudi Arabia. The results revealed that most of the participants reported that they did not want to include students with disabilities in their schools. Additionally, the results indicated that there was no statistical difference in principals’ attitudes related to experience and gender. This study was limited because it involved only private elementary school principals in one city, which makes the results not easily generalizable to a wider population. Similarly, Masoud (2009) did a study to identify the attitudes of principals toward including students with intellectual disabilities in public schools. Masoud (2009) surveyed 67 male school principals from Riyadh, Karg, Majmah, and Madinah. The results indicated that most of the participants reported that including students with intellectual disabilities helped these students improve their academic achievement and social skills. Moreover, the principals in the study stated that students with intellectual disabilities should be educated in self-contained classrooms and disagreed with the RSEPI requirement of including them in the general education classroom. Furthermore, the results showed that there was no statistical difference in principals’ attitudes related to experience. One of the limitations of the
Another study examined the attitudes of elementary and middle school principals and teachers toward including students with disabilities in public schools (Algalmda, 2014). The researcher surveyed 30 school principals, 100 special education teachers, and 100 general education teachers in the Qassim Region of Saudi Arabia. Algalmda found that the principals, special education teachers, and general education teachers had positive attitudes toward including students with disabilities in public schools. In addition, the results showed no significant differences in the attitudes of principals, special education teachers, and general education teachers. Similarly, Alhabshi (2015) implemented a study to identify the attitudes of female general education teachers toward including students with disabilities in their schools. Alhabshi (2015) surveyed 59 female general education teachers in Albaha, Saudi Arabia. The results of the study indicated that these general education teachers stated they felt that the only benefit of inclusion to students with disabilities was in the area of their social skills and outcomes. Again, the results found no statistical difference in teachers’ attitudes related to experience and educational qualification.

Alradi (2017) implemented a case study at one girls-only elementary school in Saudi Arabia to examine existing leadership styles and the perception of shared leadership among school personnel. The researcher interviewed the principal, assistant principal, and two teachers. The results of the study found that the school principal and assistant principal had positive perceptions of shared leadership and they demonstrated that they valued implementing this model of leadership. School leaders provided shared
leadership when the teachers showed readiness. Also, they noted that teachers in their school needed to receive training on decision-making. Teachers in the study sample said that the practice of shared leadership enhanced collaboration and improved the school climate. This study was limited because it involved only four participants at one school, which makes the results not easily generalizable to a wider population. Abdullah and Aleteby (2013) conducted a study to examine the attitudes of principals practicing transformational leadership behaviors at girls’ elementary schools in Riyadh, Saudi Arabia. The sample of the study included 52 female principals and the authors created a survey to collect the data. The results showed that school principals in the sample practiced transformational leadership at a high level (based on the means and the standard deviations) and that there was no statistical difference between the principals’ attitudes toward practicing transformational leadership behaviors and their past experience and training.

Al-Wthinany (1998) conducted a study in the district of Mecca to explore whether the district used the same criteria and processes for selecting principals as recommended by Ministry of Education policy. The criteria for selecting principals as recommended by Ministry of Education policy are individuals must have at least a bachelor’s degree in education, four years of experience as a teacher, and have worked as an assistant principal for two years. The author found that the district used additional criteria and processes for selecting principals, in addition to the criteria required by Ministry of Education policy. These additional criteria and processes included: (a) the candidate should excel during the interview procedures, (b) the candidate should have outstanding communications skills, (c) the candidate should have excellent problem-solving skills, (d)
the candidate should have good leadership skills, and (e) the candidate should have consistent evaluation skills. The researcher concluded that the Ministry policy for selecting principals disregards the need of districts to have some flexibility in developing leadership criteria for hiring principals. One of the limitations of the study was that the selected participants were not randomly assigned, which may have influenced the results. Al-Kheshaiban (2002) conducted a similar study to examine differences among districts in Saudi Arabia in how they apply the principal selection policy. Al-Kheshaiban (2002) surveyed 165 school administration supervisors from all 42 districts. The results showed that there were variations in applying the Ministry policy among the districts. The researcher also found that some districts have added extra criteria and processes or overlooked some criteria and process steps of the Ministry policy. Large districts in the sample tended to implement further standards for selecting school principals that are not stated in the policy required by the Ministry of Education. These additional standards encompassed management skills, decision-making skills, interpersonal skills, knowledge of the role of the principal, and knowledge of district policy. The researcher concluded that the Ministry of Education Principal Selection Policy does not seem to meet the needs of large, urban school districts. Therefore, such districts should have more flexibility and independence in implementing this policy.

Shoeib (2013) conducted the only study on school climate in Saudi Arabia that included special education. His quantitative study investigated school climate as perceived by special education teachers in special education schools in Najran, Saudi Arabia. The findings were that special education teachers perceived a positive climate in their schools. Also, those who teach students with learning disabilities had a more
positive perception of their school’s climate than other teachers in the school. This study was limited to one city in Saudi Arabia and the researcher did not reveal what kind of measurement tool was used to determine the perception of school climate. Alotaibi (2007) studied the role of the prevailing school atmosphere on teacher performance in general education schools from the perspective of teachers. The result of the study showed that the teachers agreed that the school atmosphere was a powerful influence on their performance and also that, from teachers’ perspectives, the prevailing school atmosphere in Saudi schools was negative.

Alsalahi (2014) implemented a case study to explore the challenges of teacher leadership in Saudi schools. The researcher interviewed three male Saudi teachers for this study, which found that teachers viewed themselves as legitimate leaders and should have opportunities to be more involved in school leadership processes. However, teachers reported that school culture and top-down policy did not allow for opportunities where they could practice teacher leadership.

**Summary**

This review of the literature found that principals have an essential role in the creation of inclusive school programs. Several researchers including DiPaola, Tschannen-Moran, and Walther-Thomas (2004), Hoppey and McLeskey (2013), and Seltzer (2011), found that principals have a significant role in developing and sustaining effective inclusive programs. Such roles include: building vision and setting direction, understanding and developing people, redesigning the organization, and managing teaching and learning programs (McLeskey et al., 2014). However, the results of the literature review also show that school principals frequently lack the required skills to
shape positive school culture and climate for all students; hold negative attitudes toward students with disabilities and have low expectations and knowledge of them; and, exhibit low involvement in the special education programs within their schools. Numerous studies in this review showed that principals feel insufficiently prepared or qualified to run special education programs.

The research also states that part of the role of the school principal is to practice instructional leadership with both general and special education teachers. Additionally, it is crucial that school principals assume responsibility for special education programs to ensure program efficiency. In most of the studies cited in this review, teachers and special education directors stated that principals need to increase their instructional leadership practices in special education programs (Sisson, 2000). Furthermore, principals who had special education certification were more involved in providing special education services than those who did not possess such certification.

The final section of this chapter offered an overview of education in Saudi Arabia, including policy, research, and practice for special education and educational leadership. Meemar (2014) found that Saudi school principals receive little or no leadership training before they take their positions as educational leaders. Al-Jadid (2013) stated that special education regulations are not well-implemented in Saudi schools; and, students with disabilities do not receive special education services as required by these regulations because there is lack of understanding on the part of administrators of how to meet the requirements of these laws and regulations and the resources necessary to provide such services to students with disabilities. Albagieh (2018) and Albrigi (2018) found that principals exhibited little knowledge about leading special education programs and about
special education best practices. Aljabri (2017) found that both principals and teachers reported that principals are in great need of training in all the dependent variables, including: managing special education classes, supporting special education teachers, special education curriculum, dealing with students with disabilities, and dealing with parents of students with disabilities. Alharbi (2016) found that participants reported that they do not receive sufficient professional development regarding inclusion and that principals do not provide enough resources to make inclusion successful. Moreover, most of the special education teachers indicated that school administrators do not visit and monitor special education classes.
CHAPTER III

METHODOLOGY

The purpose of this study was to examine instructional leadership behaviors of the Saudi Arabian school principals in the delivery of special education services. This chapter delineates the design of the study, the participants, the instruments, data collection procedures, and data analysis procedures. This chapter concludes with a summary of the methodology.

Research Questions

The present study addressed the following major research questions:

Q1 What types of training related to special education do elementary and middle school principals in the Kingdom of Saudi Arabia receive?

Q2 What instructional leadership behaviors do principals in the Kingdom of Saudi Arabia report as ones in which they are currently engaged with the special education programs in their schools?

Q3 Are there significant differences between male and female Saudi Arabian school principals’ perspectives regarding their level of practicing instructional leadership with special education programs in their schools in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?

Q4 Are there significant differences between Saudi Arabian elementary and middle school principals’ perspectives regarding their level of practicing instructional leadership regarding special education programs in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?
Researcher Stance

The researcher is a doctoral student who has worked as a special education teacher, general education teacher, and administrator in the Saudi education system. The researcher has experience both as a student at this age and working with students this age in education. He has been employed in a school system or organization with low principal involvement and low practice of instructional leadership in special education programs.

Moreover, this researcher has a central belief that school principals may have a huge impact on special education programs and student outcome. The researcher’s background and experience give him a deep understanding of special education law, policy, procedures, and instruction from a unique perspective. By understanding the researcher’s stance, it may be easier to reach a deeper understanding of the possible limitations and issues of this study.

Research Design

A quantitative study “uses objective measurement in a controlled setting to gather numeric data that are used to answer questions or test predetermined hypotheses” (Ary, Jacobs, Sorensen, & Razavieh, 2010, p. 24). In descriptive research, researchers use instruments such as questionnaires to collect information from groups or individuals (Ary et al., 2010). Since this study does not involve the control of any variables or randomization, it is considered non-experimental research (Ary et al., 2010). Therefore, this study employed a quantitative non-experimental, descriptive research design based on survey research methods. According to Creswell (2014), “a survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by
studying a sample of that population (p. 255). The researcher uses a descriptive design when there is little to no input about the specific topic identified (Creswell, 2014). This method was chosen because currently there is no information regarding Saudi principals’ instructional leadership practices in the delivery of special education programs in Saudi Arabia. A cross-sectional design was used in this study to collect numerical data. Ary, Jacobs, Sorensen, and Razavieh (2010) stated that a, “cross-sectional survey studies a cross section of a population at a single point of time” (p. 404). Similarly, Creswell (2014) stated that researchers use cross-sectional design when they are accessing the study participants at one point in time. Cross-sectional design also allows the researcher to test current attitudes, beliefs, opinions, or practices (Creswell, 2014). In addition, cross-sectional design is helpful when investigating larger groups and the findings are more generalizable to other populations (Creswell, 2014).

**Measurement Instruments**

The researcher developed the Instructional Leadership Behaviors in Special Education Programs Survey (ILBSEP) to measure principals’ instructional practice in the delivery of special education in their schools (see Appendix A). The response options for the 27 survey items used a 4-point Likert-type scale: 1 = I do not do that; 2 = I rarely doing that; 3 = Sometimes I do that; and, 4 = I always do that. The ILBSEP was based upon Weber’s model of instructional leadership and upon a review of instructional leadership and special education literature (Benson, 1990; Hayward, 1990; Hallinger & Murphy, 1985; Leithwood, Day, Sammoms, Harris, & Hopkins, 2006; Loreman, Forlin, Chambers, Sharma, & Deppeler, 2014; Klofenstine, 2002; Mitchell, 2006; Miller, 2000; Poovatanakul, 1993; Sisson, 2000; Sullivan, 1996; Weber; 1996). Areas that were
mentioned in Weber’s model of instructional leadership creating a shared mission, promoting a positive learning climate, managing curriculum and instruction, observing and improving instruction, and assessing the instructional program were used when creating the survey for this study. In addition, the content of the survey was designed to be relevant within the context of Saudi Arabian schools. For example, because the Saudi educational system is highly bureaucratic, centralized, and lacking in school autonomy, principals in Saudi Arabia are not responsible for hiring teachers, issues related to funding, and choosing textbooks (Alsufyan, 2002; Badawood, 2003). Therefore, items related to these topics were excluded.

The survey was grouped into four factors based on the Weber Model of Instructional Leadership, including: (a) creating a shared mission and promoting a positive learning climate, (b) managing curriculum and instruction, (c) observing and improving instruction, and (d) assessing the instructional program. The first two items in the instrument were included because the role of the instructional leader includes the responsibility to form a shared mission for the school and to involve teachers in the process of decision-making (Bosser, Dwyer, Rowan, & Lee, 1982; Hallinger & Murphy, 1985; Murphy, 1990; Weber, 1996). Such a mission can provide clarity and energy for all school personnel (Ainscow, 2005; Waldron & Redd, 2011).

Much research and many organizations have emphasized the importance of instructional leaders sharing decision-making with staff and parents, and facilitating teachers working together (Barnett & McCormick, 2003; Mullick, Deppeler, & Sharma, 2012; NAESP, 2008; Salisbury & McGregor, 2002; Stevenson, 2002). Therefore, items 3, 4, and 6 were added. Additionally, protecting instructional time, and recognizing and
providing rewards for improvement are also a part of the role of instructional leaders to create a positive learning climate (Bossert et al., 1982; Elmore, 2004; Hallinger & Murphy, 1985; Murphy, 1990; Robinson et al., 2008; Weber, 1996). Consequently, items 7, 8, and 9 were added. Moreover, because school-wide policy contributes to promoting a positive learning climate (Booth, Ainscow, Black-Hawkins, Vaughan, & Shaw, 2002; Loreman et al., 2014), items 5, 10, 11, and 13 were included in the instrument.

Additionally, much research has indicated that instructional leaders should provide resources, support, and professional development for teachers to make inclusion more successful (Bays & Crockett, 2007; Black, 1990; Farley, 1991; Fulton, 2010; Horng & Loeb, 2010; Weber, 1996). Therefore, items 12, 15, and 18 were added. In addition, items 14 and 23 were added, because several research studies noted that principals must be knowledgeable about special education best practices and special education law in order to facilitate effective inclusion (Bays & Crockett, 2007; Cook & Smith, 2012; Frost & Kersten, 2011; Heckert, 2009; Klofenstine, 2002; Salisbury & McGregor, 2002; Stevenson, 2002; Weber, 1996). Moreover, research has found that effective instructional leaders are those who spend more time in classrooms observing and monitoring instruction and learning (Benson, 1990; Broyles, 2004; Bryk et al., 2010; Durtschi, 2005; Lynch, 2012; Sisson, 2000; Weber, 1996). Consequently, items 16, 17, 19, and 20 were added. Additionally, because studies have shown that principals tend not to assume full responsibility as instructional leaders for special education teachers and programs (Benson, 1990; Black, 1990; Broyles, 2004; Klofenstine, 2002; Lynch, 2012; Sisson, 2000), items 22, 24, 25, 26, and 27 were included. These items were valid and reliable for the major population groups in U.S. schools, but these items still need more and
sufficient evidence to support reliability in the context of Saudi schools. The survey was grouped into four factors, as defined below.

**Creating a shared mission and promoting a positive learning climate.** This factor describes the degree to which school leaders establish a shared mission, maintain collaborative relationships, and create a safe environment for all students and teachers (Weber, 1996). This factor includes the survey items related to how the leader communicates the instructional goals, protects instructional time, and recognizes and provides rewards for improvement (Weber, 1996). This also includes making sure that teachers work toward the common mission of the school. An example of an item measuring building a positive learning climate is: I set a mission statement that reflects the philosophy that all children can achieve. The factor of creating a shared mission and promoting a positive learning climate has 11 items. The mean scores of these item responses will be computed to represent creating a shared mission and promoting a positive learning climate for a possible score range of 1 to 4 (1 = I do not do that; 2 = I rarely do that; 3 = Sometimes I do that; and, 4 = I always do that).

**Managing curriculum and instruction.** This factor describes the degree to which school leaders are involved and work with teachers for the common good of students (Weber, 1996). It also describes the degree to which school leaders are involved in monitoring classroom practices and providing resources and support (Weber, 1996). An example of an item related to managing curriculum and instruction, which has six items, is: I provide support for teachers to make inclusion more successful. The mean scores of these item responses will be computed to represent managing curriculum and
instruction for a possible range of scores between 1 and 4 (1 = I do not do that; 2 = I rarely doing that; 3 = Sometimes I do that; and, 4 = I always do that).

**Observing and improving instruction.** This factor describes the degree to which school leaders are involved in observing and improving instruction through the use of classroom observation and providing professional development opportunities. An example of an item related to observing and improving instruction, which has four items, is: I nominate teachers to receive professional development that supports inclusion. The mean scores of these item responses will be computed to represent observing and improving instruction for a possible range of scores between 1 and 4 (1 = I do not do that; 2 = I rarely doing that; 3 = Sometimes I do that; and, 4 = I always do that).

**Assessing the instructional program.** This factor describes the degree to which school leaders are involved in evaluating special education teachers and special education programs. It is recommended that Saudi school leaders participate in planning, designing, administering, and analyzing assessments that evaluate the effectiveness of instructional programs. According to Weber (1996), such continuous/ongoing investigation enables school leaders to meet the needs of students effectively through persistent revision and refinement of programs. This factor is comprised of six items. An example of an item related to assessing the instructional program item is: I evaluate special education staff in my school. The mean scores of these item responses will be computed to represent assessing the instructional program with a possible score range of 1 to 4 (1 = I do not do that; 2 = I rarely doing that; 3 = Sometimes I do that; and, 4 = I always do that).

**Demographic characteristics.** A short demographic questionnaire was included with the ILBSEP. Respondents provided data concerning personal and professional
information consisting of: (a) gender; (b) total years of experience as a principal; (c) the number of professional development training hours specific to the area of special education the respondent has participated in over the last three years; (d) the number of special education university or college credits; (e) school level; and, (f) educational level.

There are four dependent variables related to the principals’ instructional leadership behaviors in special education programs: (a) creating a shared mission and promoting a positive learning climate, (b) managing curriculum and instruction, (c) observing and improving instruction, and (d) assessing the instructional program. These variables were measured by the Instructional Leadership Behaviors in Special Education Programs Survey (ILBSEP).

Translation Procedure to Arabic

To adapt the survey cross-culturally, the researcher created a translation team comprised of three individuals who were selected based on their proficiency in both Arabic and English. The team took the following steps: (a) decentering; (b) back translation; (c) cognitive interviewing; and, (d) expert review, which are described below.

Decentering. In the decentering method of translation, items and concepts are restated and translations are made independently for each language based on the paraphrased items (Mason, 2005). In this case, each item of the study’s ILBSEP was translated into Arabic in a way that ensured it held the same meaning as the original instrument. Two bilingual translators, competent in both English and Arabic, independently translated the source ILBSEP-English into Arabic. We agreed that we should attain conceptual equivalence. Two versions were created by the two translators;
once completed, Arabic Versions I and II were compared, differences were reconciled among the three translators, and the team then agreed on a single, revised version.

**Back translation.** The instrument was back-translated into English by a professional translator with a master’s degree in language and translation. Wang, Lee, and Fetzer (2006) recommended that for successful back translation, the translator be someone not familiar with the original version of the instrument. Therefore, the translator who performed the back-translation of the current survey was not familiar with the original version of the instrument. Once the back-translation was complete, we compared the two versions to identify discrepancies between the source and the target language.

**Conceptual and content equivalence.** Difficulties were noted in establishing conceptual and content equivalence. For example, Item No. 11 was, “I seek to admit all students from its locality” was translated into Arabic as, “I seek to accept all students who live in the neighborhood of the school, regardless of the degree of their disability.” We made this change because it would make no sense if we translated the sentence into Arabic literally.

In addition, there is no equivalent to the word “bullying” in Arabic, which was a term used in Item No. 6. First, the study author translated the word “bullying” into the Arabic phrase for “name-calling” and “domination among students.” However, the second translator translated “bullying” into the Arabic for “aggressive behaviors.” When the back-translation was completed, it stated “aggressive behaviors.” After the translation team reviewed all three versions, the members agreed to translate the word “bullying” into the Arabic for “name-calling” and “domination among students.”
The translation team also faced difficulty in translating the phrase, “advocacy activities” in Item No. 28. It was first translated into Arabic with the phrasing for “activities that support students with special needs.” Then, the translation was changed to, “activities that defend the rights of people with special needs.” The back-translation came back as, “activities that protect the rights of people with special needs.” After the translation team reviewed all three versions, the phrase for “activities that defend the rights of people with disabilities” was chosen.

**Cognitive interviews.** In addition to decentering and back translation, cognitive interviewing was also conducted. This technique helps to identify some of the problems in the survey before it is actually conducted (Haeger, Lambert, Kinzie, & Gieser, 2012). Such interviews also help to ensure that respondents understand the survey items (Weech-Maldonado, Weidmer, Morales, & Hays, 2001). The study author conducted cognitive interviews with three adult participants. The first cognitive interview was a face-to-face, approximately 40-minute interview with a female former principal during which the subject answered the survey items. The interviewer used a think-aloud strategy. After the former principal read each question, the interviewer asked her to talk through her process as she decided what the item meant and what the appropriate answer was for her. She stated that the words, items, and sentences in the survey were clear to her.

Additionally, a retrospective strategy was used for cognitive interviews with two current principals in Riyadh, Saudi Arabia. In the retrospective strategy, the interviewer asks questions about the survey process after the respondent has completed the survey (Weech-Maldonado et al., 2001). In this case, the interviewer asked the respondents to
paraphrase some of the survey questions; and, also asked them to provide feedback about
the survey and what changes they would suggest.

The following information was obtained from the cognitive interviews. All those
interviewed indicated that the 4-point Likert-type scale (1 = No Involvement; 2 = Low
Involvement; 3 = Moderate Involvement; and, 4 = High Involvement) did not make sense
to them. They stated that this is because the words of the scale (e.g., “No Involvement”)
are infrequently used by most Arabic speakers. Therefore, the translation team changed
the 4-point Likert-type scale to: (a) 1 = I do not do that; (b) 2 = I rarely doing that; (c) 3 =
Sometimes I do that; and, (d) 4 = I always do that. Furthermore, one of the principals did
not understand Item No. 14, “Attending most IEP meetings.” He said this was the first
time he had heard about IEP meetings. In response to this comment, we added more
explanation to the item, “I attend most Individualized Education Program meetings for
special needs.”

Pilot Study

The purpose of the pilot study was to examine the attitudes of Saudi Arabian
principals regarding their instructional leadership behaviors regarding special education
programs in their schools. The sample for the study was comprised of 40 elementary
school principals evenly divided by gender, 20 males and 20 females in the three Saudi
Arabian cities of Riyadh, Jeddah, and Dammam during the 2016–2017 academic years.
The selected participants in the pilot study were not included in the full-scale study. The
researcher chose these cities because they are the largest cities and have the largest
population in Saudi Arabia. The results of multivariate analysis of variance (MANOVA)
for the first research question indicated no significant difference in the linear combination
of the four dependent variables between male and female principals’ attitudes (Alnasser, 2018a). Using Wilks’ lambda, there were no significant gender differences found on the four dependent variables regarding principals’ perspective toward their practice of instructional leadership for special education programs \[ V = .944, F (4,35) = .517, p > .05 \]. Also principals in the sample reported that they had low practice of instructional leadership in special education in the area of managing curriculum and instruction (male: \( M = 2.3, SD = .56 \); female: \( M = 2.1, SD = .51 \)) and in the area of creating a shared mission and promoting a positive learning climate instruction (female: \( M = 2.7, SD = .49 \); male: \( M = 2.9, SD = .50 \)). However, in the area of assessing the instructional program, female principals \( (M = 3.1, SD = .50) \) and male principals \( (M = 3.2, SD = .57) \) had moderate practice of instructional leadership.

The results of the \( t \)-test for the second research question showed that principals in the sample who possessed a master’s degree practiced instructional leadership behaviors more than those principals who possessed a bachelor’s degree only in the four dependent variables of: creating a shared mission and promoting a positive learning climate \( (t (38) = -5.8, p < .05) \), managing curriculum and instruction \( (t (38) = -3.6, p < .05) \), observing and improving instruction \( (t (38) = -3.63, p < .05) \), and assessing the instructional program \( (t (38) = -2.27, p < .05) \). Several conclusions were made as a result of the findings of the study, including that the subject principals are not assuming full responsibility for special education in their schools and that principals in the sample do not have enough professional development training in special education.
Reliability of Scores from Instructional Leadership Behaviors in Special Education Programs Survey

A pilot study was conducted to determine the reliability of scores from the ILBSEP. Wiersma (2000) defined reliability as the “consistency of the research and the extent to which studies can be replicated” (p. 8). One popular way to measure reliability is by using Cronbach’s alpha (Ary et al., 2010). The pilot study examined the reliability of ILBSEP scores using Cronbach’s alpha to determine the reliability of scores on each factor in the assessment. The sample for the pilot test included 40 Saudi school principals. As a result of the pilot test, one item was deleted in the factor “observing and improving instruction” to increase the Cronbach’s alpha coefficient value. The alpha coefficient for “observing and improving instruction” had the highest coefficient (.82); “managing curriculum and instruction” had the lowest, with a .71 coefficient. All alpha coefficients are presented on Table 2.

Several authors have stated that a Cronbach’s alpha coefficient score of more than 0.7 is considered acceptable (A. Aron & Aron, 1999; Hair, Black, Babin, Anderson, & Tatham 2006; Loewenthal, 1996; Nunnally, 1987; Robinson, Shaver, & Wrightsman, 1991). Similarly, DeVellis (2017) noted that a Cronbach’s alpha coefficient value range of between .70 to .95 is perfectly adequate for a scale being used in a study to compare between groups. DeVellis (2017) emphasized that individual assessments or diagnostics that are used to make important decisions regarding such matters as educational placement should have a higher Cronbach’s alpha score of .90 or more; DeVellis (2017) also stated that a coefficient alpha score of .70 is acceptable for new scales. Consequently, according to these references, the coefficient alpha scores of the survey to
be used for this study were considered acceptable. Additionally, the reliability coefficients for each item in the instrument are provided in Appendix D.

Table 2

<table>
<thead>
<tr>
<th>Factor</th>
<th>Cronbach's Alpha Coefficients</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating a Shared Mission and Promoting A Positive Learning Climate</td>
<td>.74</td>
<td>11</td>
</tr>
<tr>
<td>Managing Curriculum and Instruction</td>
<td>.71</td>
<td>6</td>
</tr>
<tr>
<td>Observing and Improving Instruction</td>
<td>.82</td>
<td>4</td>
</tr>
<tr>
<td>Assessing the Instructional Program</td>
<td>.80</td>
<td>6</td>
</tr>
</tbody>
</table>

Expert review. Validation of the instrument was established by a panel of eight experts. The panel consisted of one special education professor, five leadership professors, and two school principals from Saudi schools (see Appendix C). The instrument and feedback were sent via email. The experts were asked to rate each item regarding appropriateness to the task as well as to instructional leadership theory. The following codes were used to rate the items:

1. A = Acceptable;
2. B = Acceptable but needs adjustment; and,
3. C = Unacceptable.

The experts were also asked to provide suggestions on comprehensiveness, clarity, and cohesiveness. The reviewers stated that the instrument was comprehensive, clearly written, and interconnected by topic. Based on review of the panel's comments, two changes were made. For example, regarding Item No. 18, “I provide staff
development that supports inclusion,” the experts suggested changing the word “provide” to “nominate,” because in the Saudi educational system, the principal usually nominates teachers to receive professional development. Therefore, the item was change to, “I nominate teachers to receive professional development that supports inclusion.” The second change was in Item No. 9 where three examples were added to clarify the meaning of protecting instructional time. These examples were: (a) students are not called to the office during instructional time, (b) class time is not interrupted for announcements, and (c) ensure tardy and truant learners suffer specific consequences for missing lesson time.

Participants

The target population of the study was all elementary and middle school principals in the most popular urban areas in Saudi Arabia. The accessible population of the study included all the elementary and middle public school principals during the 2018-2019 academic year whose schools have inclusion programs in three major cities in Saudi Arabia: Riyadh, Jeddah, and Dammam.

According to the Ministry of Education in Saudi Arabia, there are 87 elementary and middle public schools for boys that have inclusion programs in Riyadh; 53 of these are elementary schools and 34 are middle schools. Additionally, there are 85 elementary and middle public schools for girls that have inclusion programs in the city; 53 of these are elementary schools and 32 are middle schools. The elementary and middle public schools with inclusion programs in Jeddah total 144. Of these, 33 are girls’ elementary schools and 62 are elementary schools for boys while 35 are middle schools for boys and 14 are girls’ middle schools.
In Dammam, there are a total of 65 public schools that have inclusion programs; of these, 18 elementary schools and 11 middle schools are boys’ schools and 20 are elementary schools and 16 are middle schools for girls. By choosing Riyadh, Jeddah, and Dammam, a self-selected sample of cities as participants for the study was readily available. This sample method was also fast, inexpensive, and straightforward (Ary et al., 2010).

According to Sullivan and Feinn (2012), before starting the research endeavor, a researcher needs to estimate the effect size in order to calculate the number of participants. This will help to avoid a Type II, or b, error and ensure that the study has acceptable power to support the null hypothesis. Therefore, the researcher of the current study utilized G*Power software to examine and analyze the study sample. G*Power software uses Cohen (1988) effect size measures for an independent sample t-test and proposes three categorizations: (a) small = 0.2, (b) medium = 0.5, and (c) large effect size = 0.8. Cohen (1988) suggested that medium effect size should denote the average effect observed for a given research area. Additionally, Dybå, Kampenes, and Sjoberg (2006) recommended that when there is no information about the population’s standardized effect size, the researcher should use a medium effect size, as defined by Cohen (1988). Consequently, the author of the present study used a medium effect size to determine the sample of the study.

The study’s participant sample was expected to include 127 elementary and middle school principals from schools with inclusion programs in the three cities. Participation in the study was voluntary. The participants and the schools at which they are employed were not identified by name to maintain confidentiality. All participants are
adult professionals of at least 21 years of age or older. However, the final sample for the study was comprised of 122 school principals.

**Response Rate**

First, 443 surveys were sent out to all the schools that have special education programs in the three cities of Riyadh, Jeddah, and Dammam. Initially, only 44 questionnaires were completed in the three weeks after the first emailing. Since less than 60% responded to this first contact, a second emailing, accompanied by a personal follow-up phone call, was implemented. During this stage, each of the potential respondents was directly asked to participate and was also asked whether or not s/he planned to participate but had merely not had time to respond. As a result of this second stage of recruitment, 80 additional surveys were completed. This established the final pool of 56 female school principals and 66 male school principals. This means that an overall response rate of 27% was achieved.

**Sample Characteristics**

Participants were recruited using the Instructional Leadership Behaviors in Special Education Programs Survey (ILBSEP) that was distributed online to elementary and middle school leaders in three cities of Saudi Arabia: Riyadh, Jeddah, and Dammam. A short demographic questionnaire was included with the ILBSEP. Respondents provided data concerning personal and professional information consisting of: (a) gender; (b) total years of experience as a principal; (c) the number of professional development training hours specific to the area of special education the respondent has participated in over the last three years; (d) the number of special education university or college credits; (e) school level; and, (f) educational level.
The final sample for the study was comprised of 122 school principals, of whom 54% were male school leaders (n = 66) and 46% were female (n = 56). Table 3 shows a frequency distribution of gender. Table 4 shows the geographical locations of the different respondent school leaders: (a) 63 were from schools in Riyadh; (b) 35 were from schools in Jeddah; and, (c) 24 were from schools in Dammam.

Table 3

**Gender of Respondents**

<table>
<thead>
<tr>
<th>Gender</th>
<th>f</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>66</td>
<td>54.1</td>
<td>54.1</td>
<td>54.1</td>
</tr>
<tr>
<td>Female</td>
<td>56</td>
<td>45.9</td>
<td>45.9</td>
<td>100.00</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4

**School Location**

<table>
<thead>
<tr>
<th>City</th>
<th>f</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riyadh</td>
<td>63</td>
<td>51.6</td>
<td>51.6</td>
<td>51.6</td>
</tr>
<tr>
<td>Jeddah</td>
<td>35</td>
<td>28.7</td>
<td>28.7</td>
<td>80.3</td>
</tr>
<tr>
<td>Dammam</td>
<td>24</td>
<td>19.7</td>
<td>19.7</td>
<td>100.00</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Additionally, Table 5 shows that 55.7% of the participants were school leaders at elementary schools (n = 68) and 44.3% of the participants in the study were working in middle schools (n = 54). Furthermore, most of the participants had a bachelor’s degree 95% (n = 116), while only 5% of the participants held a master’s degree (n = 6) (see Table 6).
Table 5

**Type of School**

<table>
<thead>
<tr>
<th>Type of School</th>
<th>f</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School</td>
<td>68</td>
<td>55.7</td>
<td>55.7</td>
<td>55.7</td>
</tr>
<tr>
<td>Middle School</td>
<td>54</td>
<td>44.3</td>
<td>44.3</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>122</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 6

**Highest Degree Obtained**

<table>
<thead>
<tr>
<th>Degree</th>
<th>f</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s degree</td>
<td>116</td>
<td>95.1</td>
<td>95.1</td>
<td>95.1</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>6</td>
<td>4.9</td>
<td>4.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Doctorate</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>122</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 7 contains a frequency distribution of the respondents’ years of experience as a school principal. The majority of the respondents (35.2%, n = 43) had between six and ten years of experience. Twenty-seven of the respondents (22.1%) had more than 16 years of experience. Twenty-five of the respondents (20.5%) had less than five years of experience and 24 participants had 11-15 years’ experience as a principal.
Table 7

*Total Years as a Principal*

<table>
<thead>
<tr>
<th>Years as a Principal</th>
<th>f</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5</td>
<td>25</td>
<td>20.5</td>
<td>21.0</td>
<td>21.0</td>
</tr>
<tr>
<td>6 – 10</td>
<td>43</td>
<td>35.2</td>
<td>36.1</td>
<td>57.1</td>
</tr>
<tr>
<td>11 – 15</td>
<td>24</td>
<td>19.7</td>
<td>20.2</td>
<td>77.3</td>
</tr>
<tr>
<td>16+</td>
<td>27</td>
<td>22.1</td>
<td>22.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Non-respondent</td>
<td>3</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>122</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Eligibility Criteria for Study Participants**

Specific criteria were used in the selection process. To be qualified to participate in the study, participants must be: (a) male or female principals working in elementary or middle schools; and, (b) have special education programs in their schools. The exclusion criteria for the participants are: (a) assistant principals, (b) general and special education teachers, and, (c) principals at secondary (high) schools.

The inclusion criteria for the schools are: (a) schools that are located in Riyadh, Jeddah, or Dammam, Saudi Arabia; (b) schools that have special education programs; and, (c) elementary and middle schools. The exclusion criterion for the schools was being a private, elementary, middle, or secondary school. Secondary schools were excluded from the sample because, as the research suggests, implementing inclusion in secondary schools is more challenging than in primary schools and teachers face more difficulties regarding utilizing differentiated instruction with the curriculum (Department of Education, Science, and Training [DEST], 2002; Pearce, Gray, & Campbell-Evans, 2010; Shaddock, Smyth King, & Giorcelli, 2007; Vinson, 2002).
Data Collection Procedures

The survey was administered to the study participants who were adult principals. The collection of the data was done online using Qualtrics survey software. To maintain confidentiality, all data collection was free of any participant names or identifiers. All data was stored on a password-protected USB that was kept safe on the researcher’s home computer for the duration of the project. All results were reported in aggregate form, per the recommendation for maximizing confidentiality. At the end of the study, all email addresses will be discarded.

Before the collection of data, the researcher obtained approval from the university’s Institutional Review Board (IRB) (see Appendix E). In December of 2018, principals at all elementary and middle schools that have inclusion programs in the three cities of Riyadh, Jeddah, and Dammam, were sent an email with a link to the on-line questionnaire, hosted by Qualtrics survey software. The email also included information on the purpose of the study and a consent form. The email addresses and phone numbers for contacting the schools were obtained from the Saudi Arabian Ministry of Education’s website.

The survey took approximately 10-15 minutes for the subjects to complete. Participation in the study was voluntary. Respondents were allowed to choose not to respond to any questions they did not wish to answer. Social desirability effect can impact results and lead to inaccuracies in findings when subjects feel uncomfortable providing sincere answers that they feel might show them in an unfavorable light. To reduce the possibility of social desirability effect, the researcher included a
confidentiality clause with the survey, guaranteeing that all answers would remain completely confidential.

Several methods were used to ensure maximum response rate, including follow-up strategy. To begin, the researcher sent an email to the principals reminding them to participate in the survey. Then, four weeks after the initial survey invitation had been sent out, a telephone follow-up was done with all the principals to again ask and encourage them to participate. The author avoided official/unofficial holidays and school closures/breaks in Saudi Arabia, such as Saudi National Day (Eid al-Fitr), and other such vacation days to ensure maximum response rate. These efforts helped to increase the response return rate of the survey (Creswell, 2008).

**Data Analysis Procedures**

First, the researcher examined the reliability of the instrument scores using Cronbach’s alpha to determine the reliability of the scores on each factor in the instrument. Both descriptive and inferential statistics also were calculated to provide evidence to support the research hypotheses. For the descriptive statistics, the mean scores and the standard deviations from the ILBSEP were calculated and comparisons were made between the responses of the male and female principals, and the elementary and middle schools principals in the four areas of: (a) creating a shared mission and promoting a positive learning climate, (b) managing curriculum and instruction, (c) observing and improving instruction, and (d) assessing the instructional program.

First, descriptive statistics were used to answer the first and the second research questions. To address the first research question, the researcher implemented frequency distribution to investigate whether principals have received training related to special
education. The means and standard deviations were computed to answer the second research question. To address the third and fourth research questions, inferential statistics were utilized to test each hypothesis. MANOVA (multivariate analysis of variance) was utilized to determine whether there were differences between the linear combinations of scores from the four factors of male and female principals for the third research question, and elementary and middle school principals for the fourth research question. MANOVA is used when group differences are measured on two or more dependent variables that are related to one another in the real world (Chatfield & Collins, 2013). The level of significance applied was $p < .05$. If the author found a statistically significant MANOVA, descriptive discriminant analysis was used to determine which of the dependent variables appeared to be most responsible for the differences.

Statistical test options must meet assumptions in order to reach reliable conclusions (Field, 2009). Field stated that “different statistical models assume different things, and if these models are going to reflect reality accurately, then these assumptions need to be true” (2009, p. 132). The assumptions of MANOVA include the following: data cases should be statistically independent, the dependent variables have multivariate normality within groups, and homogeneity of covariance matrices (Field, 2009). The homogeneity of covariance matrices was tested by using a Box's M Test of Equality of Covariance Matrices. This study utilized the Statistical Package for Social Sciences (SPSS) software 23.0 to compute the data collected from the survey. SPSS is a statistical analysis software program that provides several options for statistical analysis (Alreck & Settle, 2004).
Summary

The present study uses a non-experimental, correlational research design based on survey research methods. The researcher developed the ILBSEP to measure principals’ instructional leadership behaviors in the delivery of special education programs. The ILBSEP was developed based upon Weber’s instructional leadership model and a review of principals’ instructional leadership in special education literature (Benson, 1990; Hayward, 1990; Klofenstine, 2002; Miller, 2000; Sisson, 2000; Sullivan, 1996). The ILBSEP was refined through expert review and a pilot study. To obtain the study sample, all elementary and middle school principals at schools with inclusion programs in the Saudi cities of Riyadh, Jeddah, and Dammam received an email with a link to the online questionnaire, hosted by Qualtrics Survey, in December 2018. Descriptive statistics and MANOVA were used to analyze the data.
CHAPTER IV

RESULTS

This chapter presents the findings of the quantitative data collected and analyzed for this study. The purpose of the study was to investigate the perspective of Saudi Arabian principals regarding their instructional leadership toward special education programs in their schools. Additionally, this study aimed to determine the training Saudi school principals receive related to special education. The research questions that guided this study were:

Q1 What types of training related to special education do elementary and middle school principals in the Kingdom of Saudi Arabia receive?

Q2 What instructional leadership behaviors do principals in the Kingdom of Saudi Arabia report as ones in which they are currently engaged with the special education programs in their schools?

Q3 Are there significant differences between male and female Saudi Arabian school principals’ perspectives regarding their level of practicing instructional leadership with special education programs in their schools in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?

Q4 Are there significant differences between Saudi Arabian elementary and middle school principals’ perspectives regarding their level of practicing instructional leadership regarding special education programs in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?

In order to answer these questions, the researcher developed the Instructional Leadership Behaviors in Special Education Programs Survey (ILBSEP) to measure
principals’ instructional practices in the delivery of special education at their schools. Participants were recruited using the ILBSEP Survey, which was distributed online to elementary and middle school leaders in the three Saudi Arabian cities of Riyadh, Jeddah, and Dammam. The final sample for the study was comprised of 122 school principals.

**Principal Components Analysis**

The purpose of Principal Components Analysis (PCA) is to extract variance from the data set of each component (Tabachnick & Fidell, 2007). Matsunaga (2010) stated that "PCA is used to summarize the information available from a given set of variables and reduce it into a fewer number of components" (p. 98). According to Tabachnick and Fidell (2007), when a researcher wants an empirical summary of the data set, PCA is a good way to examine the information. Consequently, PCA was conducted on the 27 items with varimax rotation from the ILBSEP of the sample of 122 principals. Varimax rotation aims “to simplify factors by maximizing the variance of the loadings within factors, across variables” (Tabachnick & Fidell, 2007, p. 644). This leads to high factor loadings for a fewer number of variables, low factor loadings for the rest, and all the remaining components have eigenvalues more than one (Stevens, 1996). This method makes the interpretation of the factors more comprehensible. Mertler and Vannatta (2004) suggested using varimax rotation because the goal of factor analysis is to capture unrelated factors. Varimax rotation is not appropriate when it is expected a general factor contributed to all variables.

**Factorability**

Factorability is one of the assumptions of PCA and assumes that there are some correlations among the variables and that then coherent factors can be recognized.
(Tabachnick & Fidell, 2007). The correlation matrix was examined to determine factorability. Tabachnick and Fidell (2007) stated that correlations above .30 among items indicate that the items share at least 10% of the variance, suggesting reasonable factorability. Most items had moderate correlation with several other items (.30 - .60), suggesting reasonable factorability (Tabachnick & Fidell, 2007). Additionally, factorability of the data was examined by using Keiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett’s Test of Sphericity. Several authors recommended using these tests to examine the adequacy of the sample and the suitability of the respondent data for PCA (Taherdoost, Sahibuddin, & Jalaliyoon, 2014; Williams, Onsman, Brown, 2010; Yong & Pearce, 2013). KMO provides information about the grouping of survey items. Therefore, “grouping items into a set of interpretable factors can better explain the constructs under investigation” (Taherdoost et al., 2014, p. 377). KMO also evaluates how highly an item is correlated with other items in the correlation matrix. Bartlett’s test of Sphericity offers a chi-square output that should be significant ($p < .05$) to demonstrate that the item correlation matrix is not an identity matrix. Thus, the data is suitable for factor analysis. According to Tabachnick and Fidell (2007), the value of the KMO test should be greater than 0.6, and Bartlett’s Test of Sphericity needs to be significant. The Kaiser Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = .93. Furthermore, the Bartlett’s Test of Sphericity was significant [$x^2(351) = 4148.536, p < .0001$], which indicates that the data was suitable for factor analysis (Tabachnick & Fidell, 2007; Williams, Brown, & Onsman, 2010).
**Factor Extraction and Retention**

Factor extraction is one of the procedures in PCA. It contains the process for determining the smallest number of components to retain that can best represent the interrelations amongst the groups of variables (Asnawi, Gravell, & Wills, 2012; Matsunaga, 2010). Therefore, PCA was used in the present study as the extraction method. Henson and Roberts (2006) recommended researchers use several criteria when they make decisions regarding factor extraction and retention. Consequently, the researcher used several methods of extraction to determine how many factors and items should be extracted and retained. First, factors with an eigenvalue greater than 1.00, were retained, as Kaiser (1960) recommended retaining all factors with an eigenvalue greater than 1.00, which is the default in the Statistical Package for Social Sciences (SPSS) software. Eigenvalue is the sum of squared loadings for a factor and it represents that amount of variance accounted for by a factor (Field, 2018). Thus, the eigenvalue indicates how well the factor correlates with each of the factors. The second criterion was the examination of scree plot. A scree plot is a graphical illustration of the size of each eigenvalue plotted compared to the number of factors (Mertler & Vannatta, 2004).

The third criterion was that factors loading with .32 and above were retained. Tabachnick and Fidell (2007) suggested minimum factor loadings of .32 of three to five variables for each factor; they also suggested minimum factor loadings of .32 and above because these items share at least 10% of the variance with other items in that factor which may be considered a pure measure of the factor. Factor loadings more than .71 are excellent, around .45 are fair, and loadings below .32 are poor (Comrey & Lee, 1992). The last criterion was to have a minimum of three items per factor to provide the best
theoretical fit with all the models tested (MacCallum, Widaman, Zhang, & Hong, 1999; Raubenheimer, 2004). Tabachnick and Fidell (2007) clarified that the purpose of applying PCA is to obtain an empirical summary of the data set. Accordingly, the researcher of the present study selected minimum factor loadings of .32 for some items because one of the purposes of implementing PCA was to obtain an empirical summary of the data set.

The final results show that four factors had eigenvalues over 1.0, the first factor explaining 28.6% of the variance, second factor for 22.5% of the variance, third factor for 16.9%, and fourth for 11.5% of the variance. Table 8 shows the specific eigenvalues for the first four factors using PCA extraction method. Figure 1 displays the scree plot of the final PCA analysis. The scree plot suggests that four factors should be retained. Scree test includes the visual examination of a graphical illustration of the eigenvalues for breaks (Field, 2018). The number of points above the break, and not including the break itself, designates the number of factors to be retained (see Figure 1). Field (2018) indicated that one of the limitations in interpreting the scree’s plot is subjectivity because it relies on the researcher’s own judgement. Based on the four criteria described above, it was determined that four factors were extracted. These factors are: (a) “creating a shared mission promoting a positive learning climate,” items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11; (b) “managing curriculum and instruction,” items 12, 13, 14, 15, 16, and 17; (c) “observing and improving instruction,” items 18, 19, 20, and 21; and, (d) “assessing instructional programs,” items 22, 23, 24, 25, 26, and 27. Table 9 provides the final results of the four-factor PCA after varimax rotation, including the items, factors, and factor loadings.
Figure 1. Scree Plot for Initial Factor Analysis Examination

![Scree Plot](image)

Table 8

Eigenvalues: Total Variance Explained, First Four Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Initial Eigenvalues</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>15.876</td>
<td>58.800</td>
</tr>
<tr>
<td>2</td>
<td>2.786</td>
<td>10.317</td>
</tr>
<tr>
<td>3</td>
<td>1.605</td>
<td>5.945</td>
</tr>
<tr>
<td>4</td>
<td>1.217</td>
<td>4.506</td>
</tr>
</tbody>
</table>
### Table 9

**Factor Loading of the Final Four Factors After Varimax Rotation**

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Factors and Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I set a mission statement that reflects the philosophy that ALL children can achieve.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2. The faculty was involved in creating the mission.</td>
<td>.72</td>
</tr>
<tr>
<td>3. Teachers are involved in the decision-making process.</td>
<td>.78</td>
</tr>
<tr>
<td>4. I facilitate teachers working together.</td>
<td>.683</td>
</tr>
<tr>
<td>5. I set an anti-bullying policy.</td>
<td>.441</td>
</tr>
<tr>
<td>6. I encourage families to participate in decision making and advocacy activities in the school.</td>
<td>.452</td>
</tr>
<tr>
<td>7. I recognize students who do superior academic work with formal rewards such as an honor roll or mention in the principal's newsletter.</td>
<td>.424</td>
</tr>
<tr>
<td>8. I recognize superior student achievement or improvement by seeing students in the office with their work.</td>
<td>.422</td>
</tr>
<tr>
<td>9. I ensure that instructional time is protected. For example, students are not called to the office during instructional time, class time is not interrupted for announcements, and I ensure tardy and truant learners suffer specific consequences for missing lesson time.</td>
<td>.362</td>
</tr>
<tr>
<td>10. I seek to admit all students from this locality.</td>
<td>.483</td>
</tr>
<tr>
<td>11. I set a policy to minimize discrimination.</td>
<td>.524</td>
</tr>
<tr>
<td>12. I provide support for teachers to make inclusion more successful.</td>
<td>.607</td>
</tr>
<tr>
<td>13. I set a policy to make adjustments in exams and assessment procedures to reduce the barriers to learning and support the participation of all students.</td>
<td>.524</td>
</tr>
<tr>
<td>14. I have basic knowledge of special education and special education laws necessary to facilitate effective inclusion.</td>
<td>.617</td>
</tr>
<tr>
<td>15. I provide resources that support inclusion.</td>
<td>.546</td>
</tr>
<tr>
<td>16. I review curriculum development for special education programs in my school.</td>
<td>.624</td>
</tr>
<tr>
<td>17. I attend most IEP meetings.</td>
<td>.368</td>
</tr>
<tr>
<td>18. I nominate teachers to receive professional development that supports inclusion.</td>
<td>.332</td>
</tr>
<tr>
<td>19. I visit classrooms to monitor instructional program, curriculum implementation, and the quality of instructional practice.</td>
<td>.845</td>
</tr>
<tr>
<td>20. I monitor the achievement of students with disabilities.</td>
<td>.836</td>
</tr>
<tr>
<td>21. I encourage social activities that promote interactions with regular students during the school day.</td>
<td>.364</td>
</tr>
<tr>
<td>22. I evaluate special education staff in my school.</td>
<td>.721</td>
</tr>
<tr>
<td>23. I ensure that all educators are aware of special education’s legal requirements and procedures.</td>
<td>.712</td>
</tr>
<tr>
<td>24. I meet with special education staff to talk about their needs, concerns, or curriculum issues on a regular basis.</td>
<td>.505</td>
</tr>
<tr>
<td>25. I approve placements for students with disabilities in my school.</td>
<td>.823</td>
</tr>
<tr>
<td>26. I approve student referrals for comprehensive special education evaluations.</td>
<td>.821</td>
</tr>
<tr>
<td>27. I review the student referrals for comprehensive special education evaluations.</td>
<td>.562</td>
</tr>
</tbody>
</table>
The Reliability of Scores from the Instructional Leadership Behaviors in Special Education Programs Survey

This study examined the reliability of the ILBSEP scores using Cronbach’s alpha to determine the reliability of the scores on each factor in the assessment. The sample was 122 school principals. Several authors have stated that a Cronbach’s alpha coefficient score of more than 0.7 is considered acceptable (A. Aron & Aron, 1999; Hair et al., 2006; Loewenthal, 1996; Nunnally, 1987; Robinson, Shaver, & Wrightsman, 1991). Similarly, DeVellis (2017) noted that a Cronbach’s alpha coefficient value range of between .70 to .95 is perfectly adequate for a scale being used in a study to compare between groups. However, there are some limitations of using Cronbach’s alpha coefficient score. First, the number of items may influence the alpha coefficient score. Low numbers of test items tend to have a lower reliability score. Consequently, it is likely to have a large value of alpha score because there are a large number of items on the scale, and not because the scale is reliable (Field, 2018). Additionally, it is not recommended to use alpha as a measure of unidimensionality. In other words, if several factors exist, then alpha should be applied separately to these factors rather than for the entire instrument. Furthermore, the sample size may influence the results of alpha for better or worse. Therefore, the interpretation of alpha cannot simply be as an index for the internal consistency of a test (Tavakol & Dennick, 2011).

The alpha coefficients for the factors “creating a shared mission and promoting a positive learning climate” and “assessing the instructional program” had the highest coefficient (.94); “observing and improving instruction” had the lowest, with a .89 coefficient. All alpha coefficients are presented on Table 10. Consequently, according to
these references, the coefficient alpha scores of the survey that was used for this study are considered acceptable.

Table 10

Reliability of Scores from Instructional Leadership Behaviors in Special Education Programs Survey

<table>
<thead>
<tr>
<th>Factor</th>
<th>Cronbach’s Alpha Coefficients</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating a Shared Mission and Promoting A Positive Learning Climate</td>
<td>0.94</td>
<td>11</td>
</tr>
<tr>
<td>Managing Curriculum and Instruction</td>
<td>0.92</td>
<td>6</td>
</tr>
<tr>
<td>Observing and Improving Instruction</td>
<td>0.89</td>
<td>4</td>
</tr>
<tr>
<td>Assessing the Instructional Program</td>
<td>0.94</td>
<td>6</td>
</tr>
</tbody>
</table>

Results

Results for Research Question One

Q1 What types of training related to special education do elementary and middle school principals in the Kingdom of Saudi Arabia receive?

Only three elementary school principals out of 68 respondents indicated that they had obtained college credits in the field of special education during their college educations (see Tables 11 and 12). Similarly, only five elementary school principals out of 68 reported that they had professional development training in the last three years in the area of special education. Moreover, all middle school principals who participated in the study (n = 54) indicated they had earned no college credits in the field of special education during their college careers and that they had received no professional development training in the last three years in the area of special education.
Table 11

Participants with College Credit in the Field of Special Education

<table>
<thead>
<tr>
<th>Educational Level</th>
<th># of Credits Taken</th>
<th>f</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School</td>
<td>Principals (N = 68)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>65</td>
<td>65</td>
<td>95.6</td>
<td>95.6</td>
<td>95.6</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>1</td>
<td>1.5</td>
<td>1.5</td>
<td>97.1</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>1</td>
<td>1.5</td>
<td>1.5</td>
<td>100.0</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1.5</td>
<td>1.5</td>
<td>98.5</td>
</tr>
<tr>
<td>Middle School Principals (N = 54)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>54</td>
<td>54</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 12

Participants with Professional Development in Special Education in the Last Three Years

<table>
<thead>
<tr>
<th>Educational Level</th>
<th># w/Professional Development</th>
<th>f</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School</td>
<td>Principals N = 68</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>63</td>
<td>63</td>
<td>92.6</td>
<td>92.6</td>
<td>92.6</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>4</td>
<td>5.9</td>
<td>5.9</td>
<td>98.5</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1.5</td>
<td>1.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Middle School Principals N = 54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>100</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Results for Research Question Two

Q2 What instructional leadership behaviors do principals in the Kingdom of Saudi Arabia report as ones in which they are currently engaged with the special education programs in their schools?

To answer Research Question #2, participants were asked to respond to 27 statements using a 4-point Likert scale consisting of: 1 = I never do this; 2 = I rarely do this; 3 = I sometimes do this; and, 4 = I always do this. The mean and the standard deviation were calculated for each item. To interpret the scores in each item, the mean score was classified as: 1 to 1.49 (out of 4) = No practice of instructional leadership; 1.5
to 2.49 = Low practice of instructional leadership; 2.5 to 3.49 = Moderate practice of instructional leadership; and, 3.5 to 4 = High practice of instructional leadership.

Table 13

<table>
<thead>
<tr>
<th>Factors</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating a Shared Mission and Promoting a Positive Learning Climate</td>
<td>2.68</td>
<td>.78</td>
</tr>
<tr>
<td>Managing Curriculum and Instruction</td>
<td>2.32</td>
<td>.84</td>
</tr>
<tr>
<td>Observing and Improving Instruction</td>
<td>2.31</td>
<td>.91</td>
</tr>
<tr>
<td>Assessing the Instructional Program</td>
<td>2.94</td>
<td>.87</td>
</tr>
</tbody>
</table>

Overall, the results indicated that principals reported that they had low level of practice of instructional leadership behaviors in special education programs in two areas: “observing and improving instruction” ($M = 2.31$, $SD = .91$); and, “managing curriculum and instruction” ($M = 2.32$, $SD = .84$). Additionally, the results showed that principals reported they had moderate level of practice of instructional leadership behaviors in special education programs in two areas: “assessing instructional programs” ($M = 2.94$, $SD = .87$); and, “creating a shared mission and promoting a positive learning climate” ($M = 2.68$, $SD = .78$). These data are presented on Table 13.

Principals reported that their highest perceived level of practice of instructional leadership behaviors in special education programs in all the items was in three items in the area of “assessing instructional programs,” items 26, 22, and 25. Principals reported that they had moderate practice in item number 26, “approving the student referrals for comprehensive special education evaluations” ($M = 3.20$, $SD = .91$). For Item No. 22, 46% of respondents believed that they always “evaluate special education teachers in
their school.” The mean of this item was 3.17 and the standard deviation was .96.

Principals in the sample reported that they had moderate practice in Item No. 25, “approving placements for students with disabilities in school” \( (M = 3.14, SD = .92) \).

Table 1 displays the mean and standard deviation of each item.

Principals reported that their lowest level of practice of instructional leadership behaviors in special education programs in all items in two items in the area of “managing curriculum and instruction.” These were items 14 and 17. In Item No. 14, 48.4% of respondents stated they believe they do not have the basic knowledge of special education and special education law necessary to facilitate effective inclusion, with overall \( M = 1.86 \) and an \( SD \) of 1.00. In Item No. 17, principals reported that they had low practice in “attending Individualized Education Program (IEP) meeting” \( (M = 1.92, SD = 1.03) \). Additionally, 45% of the participants indicated that they do not attend IEP meetings. It was also found that principals indicated low level of practice in “reviewing curriculum development for special education programs” \( (M = 2.00, SD = 1.07) \) and in “setting a policy to make adjustments in exams and assessment procedures to reduce the barriers to learning and support the participation of all students.” Furthermore, in the area of “managing curriculum and instruction,” the mean of the principals who participated in the study showed they have moderate practice of instructional leadership in the following two items: Item No. 12, “providing support for teachers to make inclusion more successful” \( (M = 3.09, SD = .89) \); and, Item No. 15, “providing resources that support inclusion” \( (M = 3.02, SD = .99) \).

Moreover, in the area of “observing and improving instruction,” principals reported that they had low level of practice in "visiting special education classrooms to
monitor instructional programs” ($M = 1.98, SD = 1.09$) and with monitoring the achievement of students with disabilities ($M = 2.01, SD = 1.06$). The mean of the principals for this area shows that they had moderate practice in “encouraging social activities that promote interactions with general education students” ($M = 2.65, SD = .97$), and in “nominating teachers to receive professional development that supports inclusion” ($M = 2.63, SD = 1.06$).

In the area of “creating a shared mission and promoting a positive learning climate,” principals reported they had moderate practice of instructional leadership behaviors in special education programs in the following seven items: (a) “setting a mission statement that reflects the philosophy that ALL children can achieve” ($M = 3.10, SD = .85$); (b) “involving faculty in creating the mission” ($M = 3.04, SD = .84$); (c) “facilitating teachers working together” ($M = 3.02, SD = .92$); (d) “involving teachers in the decision-making process” ($M = 3.02, SD = .84$); (e) "seeking to admit all students from this locality” ($M = 2.98, SD = .98$); (f) “setting a policy to minimize discrimination” ($M = 2.96, SD = 1.01$); and, (g) “encouraging families to participate in decision making and advocacy activities in the school” ($M = 2.53, SD = 1.04$). However, participants reported they had low level of practice in protecting instructional time ($M = 2.12, SD = 1.06$); recognizing superior achievement by students with disabilities ($M = 2.14, SD = 1.05$); and, encouraging families to participate in decision making and advocacy activities ($M = 2.41, SD = 1.01$).
Table 14

**Descriptive Statistics for Individual Survey Items**

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Principals ((N = 122))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(M)</td>
</tr>
<tr>
<td>26. I approve the student referrals for comprehensive special education evaluations.</td>
<td>3.20</td>
</tr>
<tr>
<td>22. I evaluate special education staff in my school.</td>
<td>3.17</td>
</tr>
<tr>
<td>25. I approve placements for students with disabilities in my school.</td>
<td>3.14</td>
</tr>
<tr>
<td>1. I set a mission statement that reflects the philosophy that ALL children can achieve.</td>
<td>3.10</td>
</tr>
<tr>
<td>12. I provide support for teachers to make inclusion more successful.</td>
<td>3.09</td>
</tr>
<tr>
<td>2. The faculty was involved in creating the mission.</td>
<td>3.04</td>
</tr>
<tr>
<td>15. I provide resources that support inclusion.</td>
<td>3.02</td>
</tr>
<tr>
<td>4. I facilitate teachers working together.</td>
<td>3.02</td>
</tr>
<tr>
<td>3. Teachers are involved in the decision-making process.</td>
<td>3.02</td>
</tr>
<tr>
<td>10. I seek to admit all students from this locality.</td>
<td>2.98</td>
</tr>
<tr>
<td>11. I set a policy to minimize discrimination.</td>
<td>2.96</td>
</tr>
<tr>
<td>23. I ensure that all educators are aware of special education’s legal requirements and procedures.</td>
<td>2.84</td>
</tr>
<tr>
<td>24. I meet with special education staff to talk about their needs, concerns, or curriculum issues on a regular basis.</td>
<td>2.71</td>
</tr>
<tr>
<td>21. I encourage social activities that promote interactions with regular students during the school day.</td>
<td>2.65</td>
</tr>
<tr>
<td>18. I nominate teachers to receive professional development that supports inclusion.</td>
<td>2.63</td>
</tr>
<tr>
<td>27. I review the student referrals for comprehensive special education evaluations.</td>
<td>2.59</td>
</tr>
<tr>
<td>6. I encourage families to participate in decision making and advocacy activities in the school.</td>
<td>2.53</td>
</tr>
<tr>
<td>5. I set an anti-bullying policy.</td>
<td>2.41</td>
</tr>
<tr>
<td>7. I recognize students who do superior academic work with formal rewards such as an honor roll or mention in the principal's newsletter.</td>
<td>2.19</td>
</tr>
<tr>
<td>8. I recognize superior student achievement or improvement by seeing students in the office with their work.</td>
<td>2.14</td>
</tr>
<tr>
<td>9. I ensure that instructional time is protected. For example, students are not called to the office during instructional time, class time is not interrupted for announcements, and I ensure tardy and truant learners suffer specific consequences for missing lesson time.</td>
<td>2.12</td>
</tr>
<tr>
<td>13. I set a policy to make adjustments in exams and assessment procedures to reduce the barriers to learning and support the participation of all students.</td>
<td>2.04</td>
</tr>
<tr>
<td>20. I monitor the achievement of students with disabilities.</td>
<td>2.01</td>
</tr>
<tr>
<td>16. I review curriculum development for special education programs in my school.</td>
<td>2.00</td>
</tr>
<tr>
<td>19. I visit classrooms to monitor instructional program, curriculum implementation, and the quality of instructional practice.</td>
<td>1.98</td>
</tr>
<tr>
<td>17. I attend most IEP meetings.</td>
<td>1.92</td>
</tr>
<tr>
<td>14. I have the basic knowledge of special education and special education laws necessary to facilitate effective inclusion.</td>
<td>1.86</td>
</tr>
</tbody>
</table>
Results for Research Question Three

Q3 Are there significant differences between male and female Saudi Arabian school principals’ perspectives regarding their level of practicing instructional leadership with special education programs in their schools in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?

H3: There are no significant differences between Saudi Arabian elementary and middle school principals’ perspectives regarding their level of practicing instructional leadership regarding special education programs in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs.

In support of the third research question, Table 15 shows that the lowest level of practice of instructional leadership in special education for the principals was in the area of “managing curriculum and instruction.” The mean for male principals was 2.28 with an $SD = .76$; for female principals, the mean was 2.36 and the $SD = .93$, in this area. In the area of “observing and improving instruction,” both female ($M = 2.32$, $SD = .98$) and male ($M = 2.30$, $SD = .85$) principals in the study reported that they had low practice of instructional leadership in special education in this area. However, in the area of “assessing instructional programs,” female principals ($M = 2.97$, $SD = .94$) and male principals ($M = 2.92$, $SD = .81$) had moderate practice of instructional leadership in special education. Table 15 displays the mean and standard deviation for male and female principals in the four dependent variables.
Table 15

*Mean and Standard Deviation for Male and Female Principals in the Four Dependent Variables*

<table>
<thead>
<tr>
<th>Gender</th>
<th>M of Creating A Shared Mission and Promoting A Positive Learning Climate</th>
<th>M of Managing Curriculum and Instruction</th>
<th>M of Observing and Improving Instruction</th>
<th>M of Assessing Instructional Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>M</td>
<td>2.63</td>
<td>2.28</td>
<td>2.30</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>.71</td>
<td>.76</td>
<td>.85</td>
</tr>
<tr>
<td>Female</td>
<td>M</td>
<td>2.74</td>
<td>2.36</td>
<td>2.32</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>.86</td>
<td>.98</td>
<td>.98</td>
</tr>
</tbody>
</table>

The Results of Multivariate Analysis of Variance

One assumption of a multivariate analysis of variance (MANOVA) is homogeneity of covariance, which is tested using a Box's M Test of Equality of Covariance Matrices. Box’s M test is often used to test the assumption of homogeneity of variances and covariances in MANOVA and discriminant analysis (Tabachnik & Fidel, 2007). Box’s M test is very sensitive for small sample size (Stevens, 2009). When group sample sizes are equal, Box’s M test can be ignored because some of MANOVA test statistics are robust to violation of this assumption. However, if group sample sizes are not equal, Box’s M test should be checked (Field, 2018). Box's M test was not significant in the current study [Box’s $M = 17.811, F(10,64732.81) = 1.716, p = .071$], suggesting that the covariance matrices of the dependent variables were equal across the groups. These results are presented on Table 16.
Table 16

Results of Box’s M Test of Equality of Covariance Matrices

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Box's M</strong></td>
<td><strong>17.811</strong></td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>1.716</td>
</tr>
<tr>
<td><strong>df.1</strong></td>
<td>10</td>
</tr>
<tr>
<td><strong>df.2</strong></td>
<td>64732.81</td>
</tr>
<tr>
<td><strong>Sig.</strong></td>
<td>.071</td>
</tr>
</tbody>
</table>

The multivariate tests table (see Table 17) shows the results of the MANOVA. If the p-value for this statistic is less than .05, then the two groups (male principals and female principals) differ significantly with respect to the linear combination of dependent variables. Pillai’s trace was used to conduct the multivariate test of whether differences exist between the two groups. Pillai’s trace is one of numerous test statistics used in MANOVA and it is a positive-valued statistic. With unequal group sample sizes, Field (2018) and Stevens (2009) recommended using Pillai’s trace statistic because it is the most robust statistic. Additionally, it has been demonstrated that Pillai’s trace is more robust with respect to Type I error control when the MANOVA assumptions of homogeneity of variance-covariance and multivariate normality are violated (Finch & French, 2013; Olson, 1974). Furthermore, when the analysis of group differences involves two or more discriminant functions, Pillai’s trace is preferred (Stevens, 2009).

The results of the MANOVA analysis indicated no significant differences in the linear combination of the four dependent variables between male and female principals. Using Pillai's trace, no significant gender differences were found related to the four dependent variables regarding principals’ perspectives toward their practice of
instructional leadership in special education programs \[ V = .012, \ F (4,117) = .364, p = .834 > .05 \]. These results are presented on Table 17.

**Table 17**

**Multivariate Tests Results**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>( F )</th>
<th>( df ) of Hypothesis</th>
<th>Error ( df )</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Pillai’s Trace</td>
<td>.012</td>
<td>.364</td>
<td>4.000</td>
<td>117.00</td>
</tr>
</tbody>
</table>

**Research Question Four**

**Q4** Are there significant differences between Saudi Arabian elementary and middle school principals’ perspectives regarding their level of practicing instructional leadership regarding special education programs in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?

**H4** There are no significant differences between Saudi Arabian elementary and middle school principals’ perspectives regarding their level of practicing instructional leadership regarding special education programs in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs.

In support of the fourth research question, Table 18 shows that, in all areas, the mean of principals of elementary schools was higher than the mean of principals in middle schools. This may indicate that principals in elementary schools practice instructional leadership in special education more than principals in middle schools.

Principals in elementary schools reported they had a moderate level of practice of instructional leadership in special education in all the areas: “creating a shared mission and promoting a positive learning climate” \( (M = 2.96, SD = .66) \), “managing curriculum and instruction” \( (M = 2.64, SD = .72) \), “observing and improving instruction” \( (M = 2.61, SD = .80) \), and, “assessing instructional programs” \( (M = 3.25, SD = .66) \). However,
principals in middle schools reported that they had low practice of instructional leadership in special education programs in three areas: “creating a shared mission and promoting a positive learning climate” \((M = 2.33, SD = .79)\); “managing curriculum and instruction” \((M = 1.91, SD = .82)\); and, “observing and improving instruction” \((M = 1.94, SD = .92)\).

Table 1

Participants’ \(M\) and \(SD\) in the Four Dependent Variables

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>(M) of Creating a Shared Mission and Promoting a Positive Learning Climate</th>
<th>(M) of Managing Curriculum and Instruction</th>
<th>(M) of Observing and Improving Instruction</th>
<th>(M) of Assessing Instructional Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School Principals</td>
<td>(N = 68)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(M) 2.96</td>
<td>(2.64)</td>
<td>(2.61)</td>
<td>(3.25)</td>
</tr>
<tr>
<td></td>
<td>(SD) .66</td>
<td>(.72)</td>
<td>(.80)</td>
<td>(.66)</td>
</tr>
<tr>
<td>Middle School Principals</td>
<td>(N = 54)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(M) 2.33</td>
<td>(1.91)</td>
<td>(1.94)</td>
<td>(2.54)</td>
</tr>
<tr>
<td></td>
<td>(SD) .79</td>
<td>(.82)</td>
<td>(.92)</td>
<td>(.95)</td>
</tr>
</tbody>
</table>

The Results of Multivariate Testing

One assumption of MANOVA is homogeneity of covariance, which is tested using a Box’s M Test of Equality of Covariance Matrices. Box's M test was not significant in the current study [Box’s \(M = 18.477, F(10,61145.969) = 1.780, p = .058\)], suggesting that the covariance matrices of the dependent variables were equal across the groups. These results are presented on Table 19.
Table 19

Results of Box’s M Test of Equality of Covariance Matrices

<table>
<thead>
<tr>
<th>Box's M</th>
<th>18.477</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>1.780</td>
</tr>
<tr>
<td>df.1</td>
<td>10</td>
</tr>
<tr>
<td>df.2</td>
<td>61145.969</td>
</tr>
<tr>
<td>Sig.</td>
<td>.058</td>
</tr>
</tbody>
</table>

The multivariate tests table (see Table 20) shows the results of the MANOVA. If the p-value for this statistic is less than .05, then the two groups (elementary school principals and middle school principals) differ significantly with respect to the linear combination of dependent variables. Pillai’s trace was used to conduct the multivariate test of whether differences exist between the two groups.

The results of the MANOVA analysis showed there were significant differences in the linear combination of the four dependent variables between the perceptions of elementary school principals and those of middle school principals. Using Pillai’s trace, there was significant effect found on the dependent variables regarding principals’ perspectives toward their practice of instructional leadership in special education programs \( [V = .209, F (4,117) = 7.725, p = .0001 < .05] \).

Table 20

Multivariate Tests Results

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>df of Hypothesis</th>
<th>Error df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Level</td>
<td>Pillai’s Trace</td>
<td>.209</td>
<td>7.725</td>
<td>4.000</td>
<td>117.00</td>
</tr>
</tbody>
</table>
Field (2009) and Tabachnick and Fidell (2007), recommended the use of Discriminant Function Analysis (DFA) as a follow up to significant MANOVA because a univariate post-hoc procedure does not take the correlations between dependent variables into account. Accordingly, DFA was implemented as follow up to the significant MANOVA.

Table 21

\[
\begin{array}{cccccc}
\text{Test of Function} & \text{Wilks’ Lambda} & \text{Chi-square} & df & \text{Error df} & \text{Sig.} \\
1 & .791 & 27.656 & 4 & 117.00 & .0001 \\
\end{array}
\]

The initial statistics from DFA (see Table 21) show there was only one variate and this variate was highly significant (p = .0001). Consequently, the group differences revealed by MANOVA can be explained in terms of one underlying dimension.

Table 22 shows the standardized discriminant function coefficient, which indicates the relative contribution of each variable to the variate (Field, 2018). The standardized canonical discriminant function coefficients “are the coefficients that apply to the discriminating variables after they have been standardized by the pooled within-group covariance” (StataCorp, 2007, p. 261). The standardized coefficients serve the same purpose as beta weights in multiple regression and allow the researcher to compare variables measured on different scales. The standardized coefficients are used to compare the relative importance of the independent variables in predicting the dependent. As can be noted on Table 22, “managing curriculum and instruction” (.674) and “assessing the instructional program” (.386) had the greatest contribution to the variate. Also, “managing curriculum and instruction,” “assessing the instructional program,” and
“creating a shared mission and promoting a positive learning climate” had positive weights, whereas “observing and improving instruction” had a negative weight. This proposes that group differences are explained by the difference between “observing and improving instruction” and the other areas of instructional leadership in special education. Furthermore, this suggests that the first variate differentiates groups on some dimension that affects “managing curriculum and instruction,” “assessing the instructional program,” “creating a shared mission and promoting a positive learning climate,” and “observing and improving instruction,” differently.

Table 22

*Standardized Canonical Discriminant Function Coefficients*

<table>
<thead>
<tr>
<th>Function</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Creating a Shared Mission and Promoting A Positive Learning Climate</td>
<td>.263</td>
</tr>
<tr>
<td>Managing Curriculum and Instruction</td>
<td>.674</td>
</tr>
<tr>
<td>Observing and Improving Instruction</td>
<td>-.229</td>
</tr>
<tr>
<td>Assessing the Instructional Program</td>
<td>.386</td>
</tr>
</tbody>
</table>

Table 23

*Functions at Group Centroids*

<table>
<thead>
<tr>
<th>Group</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School Principals</td>
<td>.454</td>
</tr>
<tr>
<td>Middle School Principals</td>
<td>-.572</td>
</tr>
</tbody>
</table>

Functions at group centroids are the mean discriminant scores of each group of the dependent variable for each of the discriminant function (Poulsen & French, 2008).
Centroids are the mean value for discriminant score for each group. Table 23 displays the variate centroids for both groups (elementary and middle school principals) and shows that variate 1 discriminates the middle school principals from the second group because middle school principals had a negative coefficient and elementary school principals had a positive one (Field, 2018). Additionally, the mean of the elementary school principals (.454) is higher than that of the middle school principals (-.572), indicating that this discriminant function distinguishes middle school principals from elementary school principals.

Table 24

**Structure Matrix**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing Curriculum and Instruction</td>
<td>.926</td>
</tr>
<tr>
<td>Assessing the Instructional Program</td>
<td>.853</td>
</tr>
<tr>
<td>Creating a Shared Mission and Promoting a Positive Learning Climate</td>
<td>.835</td>
</tr>
<tr>
<td>Observing and Improving Instruction</td>
<td>.757</td>
</tr>
</tbody>
</table>

*Note.* Pooled within-group correlations between discriminating variables and standardized canonical discriminant functions.

Discriminant functions are interpreted by means of standardized coefficients and the structure matrix (Poulsen & French, 2008). The structure matrix in Table 24 presents correlations between predictors and discriminant functions. According to Tabachnick and Fidell (2007), correlations above .33 may be considered “qualified” whereas lower ones are not because these items share at least 10% of the variance with other items in that factor. Table 24 indicates that the best predictors for distinguishing middle school
principals from elementary school principals are: “managing curriculum and instruction” \( (r = .926) \), “assessing the instructional program” \( (r = .853) \), “creating a shared mission and promoting a positive learning climate” \( (r = .835) \), and “observing and improving instruction” \( (r = .757) \).

To summarize, the significant MANOVA was followed up with Discriminant Function Analysis, which revealed one discriminant function, which explained 100.0% of the variance, canonical \( r^2 = .20 \). This Discriminant Function significantly differentiated middle school principals \( [x = .791x^2, (4) = 27.656, p = .0001] \). The correlation between outcomes and discriminant function revealed that all variables were loaded highly on the discriminant function: “managing curriculum and instruction” \( (r = .926) \), “assessing the instructional program” \( (r = .853) \), “creating a shared mission and promoting a positive learning climate” \( (r = .835) \), and “observing and improving instruction” \( (r = .757) \).

Therefore, the mean, significant statistic (MANOVA), and DFA indicate that elementary school principals practice instructional leadership in special education programs more than middle school principals in all four variables.

**Summary**

The purpose of this chapter was to provide in detail the results of the statistical tests used to analyze the four research questions. The data were collected from elementary and middle school principals by using the ILBSEP to measure their instructional leadership practice in special education programs. The ILBSEP has been demonstrated as a reliable and valid tool in the present study. The results of the first research question showed that most of the respondents indicated that they had obtained no college credits in the field of special education during their college educations and that
they had no professional development training in the last three years in the area of special education. Regarding the second research question, principals reported the highest level of practice of instructional leadership behaviors in special education programs in three items -- 26, 22, and 25. Principals reported the lowest level of practice of instructional leadership behaviors in special education programs in two items -- 14 and 15 -- in the area of “managing curriculum and instruction.”

The results of the MANOVA analysis for the third research hypothesis indicated no significant difference in the linear combination of the four dependent variables between male and female principals. The results of the MANOVA analysis for the fourth research hypothesis showed there were significant differences in the linear combination of the four dependent variables between the perceptions of elementary school principals and those of middle school principals. The significant MANOVA was followed up with Discriminant Function Analysis, which revealed one discriminant function and significantly differentiated middle school principals. The correlation between outcomes and discriminant function revealed that all variables were loaded highly on the discriminant function: “managing curriculum and instruction,” “assessing the instructional program,” “creating a shared mission and promoting a positive learning climate,” and “observing and improving instruction.”
CHAPTER V

DISCUSSION AND RECOMMENDATIONS

The purpose of this study was to investigate the perspectives of Saudi Arabian principals regarding their instructional leadership behaviors in special education programs in their schools. This study also aimed to identify the training Saudi school principals receive related to special education. This chapter is organized into four sections: summary of the findings, discussion, implications, and recommendations for future research. The research questions guiding the study were:

Q1 What types of training related to special education do elementary and middle school principals in the Kingdom of Saudi Arabia receive?

Q2 What instructional leadership behaviors do principals in the Kingdom of Saudi Arabia report as ones in which they are currently engaged with the special education programs in their schools?

Q3 Are there significant differences between male and female Saudi Arabian school principals’ perspectives regarding their level of practicing instructional leadership with special education programs in their schools in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?

Q4 Are there significant differences between Saudi Arabian elementary and middle school principals’ perspectives regarding their level of practicing instructional leadership regarding special education programs in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?

To address these research questions, the researcher developed the Instructional Leadership Behaviors in Special Education Programs Survey (ILBSEP). Respondents
completed the survey online and the data were loaded into the Statistical Package for Social Sciences (SPSS) software for analysis. The sample of participants in the study was comprised of 122 school principals in schools with inclusion programs in three major cities in Saudi Arabia (Riyadh, Jeddah, and Dammam).

**Results of the Research Questions**

**Results for Research Question One**

Q1 What types of training related to special education do elementary and middle school principals in the Kingdom of Saudi Arabia receive?

To address the first research question, frequency distribution was implemented to investigate whether principals have received training related to special education. The results of the findings from the first research question showed that most of the respondents indicated that they had obtained no college credits in the field of special education during their college educations and had no professional development training in the last three years in the area of special education.

Only three elementary school principals out of 68 respondents indicated that they had college credits in the field of special education during their college careers. Furthermore, only five elementary school principals out of 68 reported that they had professional development training in the last three years in the area of special education. Similarly, all middle school principals who participated in the study (N = 54) indicated that they had obtained no college credits in the field of special education during their college careers and had no professional development training in the last three years in the area of special education.

Consistent with these findings, Alharbi (2016) made a similar finding that principals do not receive sufficient professional development regarding inclusion.
Moreover, similar results were obtained in a study done by Aljabri (2017), where both principals and teachers reported that principals were in great need of training in the following areas: managing special education classrooms, supporting special education teachers, developing special education curriculum, working with students with special needs, and working with parents of students with disabilities. Additionally, the results of the current study were in line with those of Albrigi (2018) and Albagieh (2018), where school principals were found as having little knowledge on leading special education programs and about special education best practices. The instructional leadership model proposed by Weber (1996) indicated that instructional leaders must be knowledgeable about best practices that have been shown to be effective in improving the learning outcomes of all students.

**Results for Research Question Two**

Q2 What instructional leadership behaviors do principals in the Kingdom of Saudi Arabia report as ones in which they are currently engaged with the special education programs in their schools?

Participants were asked to respond to 27 statements regarding instructional leadership practices in special education programs by indicating whether they: never do the item; rarely do the item; sometimes do the item; or, always do the item. The mean and standard deviation were computed for each item to answer the second research question. The mean score was classified as: 1 to 1.49 (out of 4) = No practice of instructional leadership; 1.5 to 2.49 = Low practice of instructional leadership; 2.5 to 3.49 = Moderate practice of instructional leadership; and, 3.5 to 4 = High practice of instructional leadership.
Regarding the mean score in each factor, principals reported they had moderate level of practice of instructional leadership in special education programs in two areas: “assessing instructional programs” ($M = 2.94, SD = .87$) and “creating a shared mission and promoting a positive learning climate” ($M = 2.68, SD = .78$). However, principals reported that they had low level of practice of instructional leadership behaviors in special education programs in two areas: “observing and improving instruction” ($M = 2.31, SD = .91$); and, “managing curriculum and instruction” ($M = 2.32, SD = .84$).

**Creating a shared mission and promoting a positive learning climate.** In the area of “creating a shared mission and promoting a positive learning climate,” principals reported they had moderate practice of instructional leadership behaviors in special education programs in the following seven items: (a) “setting a mission statement that reflects the philosophy that ALL children can achieve” ($M = 3.10, SD = .85$); (b) “involving faculty in creating the mission” ($M = 3.04, SD = .84$); (c) “facilitating teachers working together” ($M = 3.02, SD = .92$); (d) “involving teachers in the decision-making process” ($M = 3.02, SD = .84$); (e) “seeking to admit all students from this locality” ($M = 2.98, SD = .98$); (f) “setting a policy to minimize discrimination” ($M = 2.96, SD = 1.01$); and, (g) “encouraging families to participate in decision making and advocacy activities in the school” ($M = 2.53, SD = 1.04$). To some extent, these results were consistent with the instructional leadership model proposed by Weber (1996).

However, participants reported they had low level of practice in “protecting instructional time” ($M = 2.12, SD = 1.06$); “recognizing superior achievement by students with disabilities” ($M = 2.14, SD = 1.05$); and, “setting anti-bullying policy” ($M = 2.41, SD = 1.01$). These results are not consistent with the instructional leadership model.
proposed by Weber (1996), which stated instructional leaders should protect instructional time, recognize and provide rewards for improvement, and promote a positive learning climate.

Overall, the mean score in this factor (creating a shared mission and promoting a positive learning climate) was $M = 2.68$ ($SD = .78$), which is considered a moderate level of practice of instructional leadership in special education programs. In comparison to this finding, Shoeib (2013) found different results, namely that special education teachers perceive that there is a positive climate in their schools. However, this result was consistent with those of Alnasser (2018b), where special education teachers were found to perceive school principals as lacking the skills and knowledge necessary to shape a positive school culture and climate in their schools, specifically for special education programs. The Alnasser (2018b) study involved 170 participants consisting of 85 special education teachers and 85 general education teachers from 10 elementary public schools in Riyadh, Saudi Arabia.

Managing curriculum and instruction. Principals reported their lowest level of practice of instructional leadership behaviors in special education programs amongst all items in the area of “managing curriculum and instruction.” The specific items were numbers 14 and 17. In item number 14, 48.4% of respondents reported they believe they do not have basic knowledge of special education and special education law, with an overall mean of 1.86 and a standard deviation of 1.00. This finding was consistent with the findings of Albrigi (2018), Albagieh (2018), and Alkatheery (2017), where school principals were found as not possessing adequate knowledge of students with disabilities, special education best practices, and special education law. Additionally, this result is not
consistent with the instructional leadership model proposed by Weber (1996), where principals must be knowledgeable about the best practices that have been shown to be effective in improving the learning outcomes of all students.

Principals also indicated that they had low level of practice in attending IEP meetings \( (M = 1.92, SD = 1.03) \); reviewing curriculum development for special education programs \( (M = 2.00, SD = 1.07) \); and, setting a policy to make adjustments in exams and assessment procedures to reduce the barriers to learning and to support the participation of all students \( (M = 2.04, SD = 1.01) \). The results of these items supported the findings of Al-Herz (2008), which stated there is a tendency to have special education teachers alone be responsible for students with disabilities without the participation of any of the other IEP team members, including the school leader, general education teacher, parent(s), social worker, and/or student.

Additionally, the principals who participated in the study showed a moderate practice of instructional leadership in the following two items: item number 12, “providing support for teachers to make inclusion more successful” \( (M = 3.09, SD = .89) \); and, item number 15, “providing resources that support inclusion” \( (M = 3.02, SD = .99) \).

To some extent, these results were consistent with the instructional leadership model proposed by Weber (1996), which stated that the instructional leader should provide resources and support, including the use of the student’s data, to drive instruction. In comparison to this finding, Alharbi (2016) found that principals do not provide enough resources to make inclusion successful.

**Observing and improving instruction.** Additionally, principals reported that they had low level of practice in visiting special education classrooms to monitor
instructional programs \((M = 1.98, SD = 1.09)\) and in monitoring the achievement of students with disabilities \((M = 2.01, SD = 1.06)\). In this area, Weber’s model of instructional leadership emphasizes the importance of the instructional leader observing and improving instruction through classroom observation and by monitoring students’ achievement. By comparison, Alharbi (2016) found similar results, that special education teachers indicated that school administrators do not visit and monitor special education classes.

Moreover, the participants exhibited moderate practice of instructional leadership in special education in the following two items: item number 18, “I nominate teachers to receive professional development that supports inclusion” \((M = 2.63, SD = 1.06)\); and, item number 21, “I encourage social activities that promote interactions with regular students during the school day” \((M = 2.65, SD = .97)\). These findings may correspond to some extent with Weber’s model of instructional leadership, which states the instructional leader should provide professional development opportunities and improve instruction.

**Assessing instructional programs.** Principals reported that their three highest levels of practice of instructional leadership behaviors in special education programs were in items 26, 22, and 25. These three items were in the area of “assessing instructional programs” and all these practices are considered to be managerial responsibilities. Accordingly, these results were consistent with what was found in the review of the literature: that principals are often more involved with managerial duties than in leadership roles (Al-Shakhis, 1984; Alsufyan, 2002; Meemar, 2014). Likewise, the principals who participated showed they have moderate practice of instructional
leadership in special education in items 23, 24, and 27. These findings were consistent with Weber’s model of instructional leadership, where the instructional leader should be involved in planning, designing, administering, and analyzing assessments that evaluate the effectiveness of programs.

**Results for Research Question Three**

Q3  Are there significant differences between male and female Saudi Arabian school principals’ perspectives regarding their level of practicing instructional leadership with special education programs in their schools in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs?

H3  There are no significant differences between male and female Saudi Arabian school principals’ perspectives regarding their level of practicing instructional leadership with special education programs in their schools in the areas of: (a) creating a shared mission and promoting a positive learning climate; (b) managing curriculum and instruction; (c) observing and improving instruction; and, (d) assessing instructional programs.

To address the third research question, multivariate analysis of variance (MANOVA) was performed to examine whether there are differences between the linear combinations of scores from the four factors of male and female principals’ perspectives. The level of significance applied was $p < .05$. If the author found a statistically significant MANOVA, descriptive discriminant analysis was used to determine which of the dependent variables appeared to be most responsible for the differences.

According to data collected from the principals, the mean of the female principals was higher than those of the male principals in all four dependent variables. However, no significant differences were found between male and female principals in the linear combinations of the four dependent variables of: (a) “creating a shared mission and promoting a positive learning climate;” (b) “managing curriculum and instruction;” (c)
“observing and improving instruction;” and, (d) “assessing instructional programs.”

Using Pillai's trace, there was no significant difference found based on gender related to the four dependent variables regarding principals’ perspectives toward their practice of instructional leadership in special education programs \( [V = .012, F (4,117) = .364, p = .834 > .05] \).

The results of the current study may support the findings of Albagieh (2018), which found no significant differences in levels of principals' special education leadership knowledge related to gender. Additionally, in comparison to this finding, Alshareef (2005) found similar results of no statistical difference between principals’ attitudes toward practicing instructional leadership related to gender. The lack of differences in perception might be attributed to the fact that the Saudi Arabian Ministry of Education mandates the same special education coursework for all administrators regardless of gender.

This finding is also confirmed by studies conducted in the context of schools in the United States. For example, Sisson (2000) found similar results of no significant difference between male and female elementary principals in regard to their level of involvement in special education programs in a southwestern U.S. state. Similar results also were obtained in a study done by Miller (2000), where gender was not a predictor of the principals' level of involvement in special education services delivery. However, the results of the current study were not consistent with the findings of Klofenstine (2002), where female principals were found to be more likely to be involved in instructional leadership behaviors than their male peers in three dependent variables of curriculum, personnel, and program administration. The results of the current study also were not
consistent with the findings of Sasson (2016), where female school principals were found
to have more involvement in instructional leadership overall, especially in the areas of
maintaining high visibility, monitoring student progress, supervising and evaluating
instruction, framing school goals, coordinating the curriculum, and promoting
professional development.

**Results for Research Question Four**

Q4 Are there significant differences between Saudi Arabian elementary and
middle school principals’ perspectives regarding their level of practicing
instructional leadership regarding special education programs in the areas
of: (a) creating a shared mission and promoting a positive learning
climate; (b) managing curriculum and instruction; (c) observing and
improving instruction; and, (d) assessing instructional programs?

H4 There are no significant differences between Saudi Arabian elementary
and middle school principals’ perspectives regarding their level of
practicing instructional leadership regarding special education programs in
the areas of: (a) creating a shared mission and promoting a positive
learning climate; (b) managing curriculum and instruction; (c) observing
and improving instruction; and, (d) assessing instructional programs.

To address the fourth research question, MANOVA was performed to examine
whether there are differences between the linear combinations of scores from the four
factors of elementary and middle school principals’ perspectives. The level of
significance applied was \( p < .05 \). If the author found a statistically significant MANOVA,
descriptive discriminant analysis was used to determine which of the dependent variables
appeared to be most responsible for the differences.

The results of the MANOVA analysis showed there were significant differences
in the linear combination of the four dependent variables between the perceptions of
elementary school principals and middle school principals. Using Pillai’s trace, there was
significant effect found on the dependent variables regarding principals’ perspectives
toward their practice of instructional leadership in the special education programs [\( V = .209, F(4,117) = 7.725, p = .0001 < .05 \)]. The significant MANOVA was followed up with Discriminant Function Analysis, which revealed one discriminant function that explained 100.0% of the variance, canonical \( r^2 = .20 \). This Discriminant Function significantly differentiated middle school principals, \( [x = .791x^2, (4) = 27.656, p = .0001] \). The correlation between outcomes and discriminant function revealed that all variables were loaded highly on the discriminant function: “managing curriculum and instruction” \( (r = .926) \), “assessing the instructional program” \( (r = .853) \); “creating a shared mission and promoting a positive learning climate” \( (r = .835) \); and, “observing and improving instruction” \( (r = .757) \).

Therefore, the mean and significant statistic (MANOVA) indicate that elementary school principals practice instructional leadership in special education programs more than middle school principals in all four variables. The results of the fourth research hypothesis were consistent with the findings of Stevenson (2002), where elementary school principals were found to spend more time on tasks related to students with disabilities and with evaluating special education teachers more than their middle school principal peers.

Louis, Leithwood, Wahlstrom, and Anderson (2010) attributed the differences in performance of instructional leadership between elementary and middle school principals to middle school principals not having the time to meet all their responsibilities. Therefore, these middle school principals may delegate these responsibilities to assistant principals or special education directors. Stevenson (2002) stated that middle school principals may not have expertise in all the subject areas of their schools’ curriculum, and
therefore are less involved in instructional leadership practice in middle schools. Additionally, Goldring et al. (2015) indicated that these differences may be due to a lack of knowledge in special education instruction.

**Discussion of Overall Findings**

The data from the present study suggest that principals in the sample exhibit moderate to low practice of instructional leadership in special education programs, which is not to the degree prescribed by the instructional leadership model proposed by Weber (1996) or the literature in general (Bays & Crockett, 2007; Durtschi, 2005; Klofenstine, 2002; Sisson, 2000). A review of the related literature found that school principals must be strong instructional leaders in order for special education programs to succeed. However, it appears that special education programs in Saudi Arabia currently lack such strong professional instructional leadership in special education. Therefore, these results indicate that Saudi Arabian special education teachers are more isolated in their classrooms and do not receive adequate support from their principals. Furthermore, the current study found that principals are not adhering to the recommendations of the literature.

Professional development for school staff is crucial to the success of inclusive programs (Kluth, 2010; Waldron et al., 2011; Waldron & Redd, 2011). Weber’s model of instructional leadership also emphasized that professional development should be provided based on principals’ and teachers’ needs. Professional development has a huge influence on the attitudes and practices of school principals (Mizell, 2010; Weber, 1996). However, most of the principals in the sample of the present study reported that they did not have training in special education. Moreover, most participants reported they had not
earned college credits in the field of special education during their college careers. Consequently, it is clear that Saudi Arabian principals need to receive training in special education. There is also a need for instruction in other areas related to special education, as 48.4% of respondents reported that they did not have basic knowledge of special education in general and special education law in particular. Klofenstine (2002) found that knowledge of special education was the strongest predictor of practice of instructional leadership in special education programs. Sisson (2000) indicated that principals may delegate special education duties because they lack knowledge of special education services. Stevenson (2002) stated that due to such an absence of knowledge in special education, principals may put a higher priority on managerial duties. Accordingly, the findings of the present study show that principals in the sample reported giving more attention to their managerial duties. This result is consistent with what was found in the review of the literature, that principals often serve more in managerial than in leadership roles regarding special education (Al-Shakhis, 1984; Alsufyan, 2002; Meemar, 2014).

Additionally, the Regulations of Special Education Programs and Institutes (RSEPI) established that the principal is responsible for the educational programs and administrative management of the school. Furthermore, the RSEPI states that both the school leader and the assistant principal must be knowledgeable about instructional leadership, instructional strategies, and how to monitor and evaluate instruction. However, the results of the present study show that the principals in the sample do not practice instructional leadership adequately, as mandated by the RSEPI. For example, most of the principals in the study indicated that they had low practice with: reviewing
curriculum development for special education programs; monitoring the achievement of students with disabilities; protecting instructional time; and, visiting classrooms to monitor special education instruction. This result was consistent with the findings of Al-Jadid (2013), that these regulations are not well-implemented in Saudi schools because there is lack of understanding on the part of administrators regarding how to meet the requirements of these laws and regulations.

All schools in Saudi Arabia should implement the Ministry of Education’s Code of Conduct and Attendance and a state-wide program called “Refq,” which aim to provide a healthy school culture and climate for all students, including those with disabilities. However, the findings of the current study revealed that these regulations are not well-implemented. For example, principals reported they had low practice in setting an anti-bullying policy in their schools and setting a policy to make adjustments in exams and assessment procedures to reduce the barriers to learning. Similarly, they reported only moderate level of practice in setting a policy to minimize discrimination.

Furthermore, the current policy regarding accountability in Saudi schools is not effectively being implemented by school leaders (Alkharaf, 2008; Almajal, 2009). Almannie (2015) stated that accountability is not fully embedded in the Saudi educational system. School leaders should be held accountable for their performance. In addition, there are deficiencies in the current Saudi evaluation model for school leaders (Alajlan, 2018). Habib (2005) also noted that there is no effective system for monitoring and developing school principals. Additionally, Miqdadi et al. (2014) found that such evaluation criteria and procedures are not clear to school leaders and the evaluation instruments are not in agreement with established best practices for principals. Therefore,
the weaknesses in the accountability system in Saudi schools may be one of the reasons for the low performance exhibited by school leaders in the area of special education. In addition, the absence of incentives is another major obstacle faced by those in school leadership positions (Karim, 2014; Mathis, 2010). Many Saudi educators do not want to take on the responsibilities of school leadership because of the heavy workload and lack of incentives. Such positions lack necessary advantages that would make them attractive to teachers so that they would consider taking on the greater responsibilities, varied tasks, and often overburdened and cumbersome routines that are involved in them. Thus, the low performance in instructional leadership for special education of school leaders may be attributed to the absence of incentives and lacking professional development regarding topics related to special education instructional leadership.

Implications

The following implications are made based upon the review of literature and the findings of the current study. The first section is about implications related to practice. The second section is implications regarding policy. The third section is about implications for principals’ preparation.

Implications for Practice

Provide ongoing professional development. The present study found that most of the participants reported that they had no professional development training in the last three years in the area of special education. Additionally, almost half of the respondents reported they believe they do not have basic knowledge of special education and special education law. Professional development for school staff is crucial to the success of inclusive programs (Kluth, 2010; Waldron et al., 2011; Waldron & Redd, 2011).
Accordingly, principals need to receive adequate training in special education service delivery and law. Alkatheery (2017) found that principals in Saudi Arabian schools had little knowledge of RSEPI. Additionally, Al-Abduljabar (1999) and Masoud (2009) found that principals in Saudi Arabia believe that students with disabilities should be educated in self-contained classrooms and disagree with including them in the general education classroom. Alharbi (2016) also found that principals do not receive sufficient professional development regarding inclusion. Moreover, Aljabri (2017) found that both principals and teachers report that principals are in great need of training in the following: managing special education classes, supporting special education teachers, special education curriculum, working with students with special needs, and working with parents of students with disabilities.

Professional development has a huge influence on student performance. School principals need to receive systematic training that includes research-based best practices on inclusion (Mizell, 2010). One-size-fits-all training sessions are not the solution. Topics should include such areas as: the rationale for inclusion, planning for inclusion, effective teaching practices for students with disabilities, differentiated instruction, lesson study, peer-tutoring, collaboration, and co-teaching (Loreman et al., 2014).

**Ensure high-quality instruction.** The present study found that principals reported that they had low level of practice in visiting special education classrooms to monitor instructional program and monitor the progress of students with disabilities. Therefore, it is suggested that principals as instructional leaders should spend more time in special education classrooms observing instruction and learning and provide useful feedback for teachers. Additionally, based on the finding of the present study, school
principals should work to protect teachers’ instructional time; recognize superior student with disabilities achievement; attend IEP meetings; and, set clear performance standards for high-quality instruction. Furthermore, principals must be knowledgeable about the best practices that have been shown to be effective in improving the learning outcomes of students with disabilities and how to ensure that these instructional practices are implemented to best meet the needs of students with disabilities.

Implications for Policy

A major revision of the regulations of special education programs and institutes (RSEPI) with special attention to school leadership standards needs to be implemented. The RSEPI need to be revised to ensure that special education programs receive a strong instructional leadership. The Ministry of Education should revise RSEPI and include more roles for principals as instructional leader in both general and special education, as a change agent, and as individuals who shape positive school culture. This revision should clarify what principals must know to improve school performance and student achievement. The Ministry of Education should develop a team consisting of experts that would determine the specific roles and responsibilities to be assigned school principals in the delivery of special education services in their schools. These responsibilities must be articulated clearly and accurately.

Make the role of principal more autonomous. The Saudi educational system is a very bureaucratic, centralized system, where the individual schools lack autonomy. Meemar (2014) found that Saudi principals have no voice in many critical matters. For example, public school principals in Saudi Arabia have no say regarding the selection of teachers, transfer of staff to or from their schools, curriculum development, or choice of
textbooks. Consequently, school principals need to be granted more authority to support success in their schools. Such greater freedoms might include the ability to suspend inefficient staff, hire outstanding teachers, provide training, and develop school curriculum.

**Provide incentives and support for school leaders.** The absence of incentives is one of the major obstacles to recruiting and retaining quality individuals in the position of school leader (Karim, 2014; Mathis, 2010). Most Saudi teachers do not want to take on the role of school leader because of the heavy workload, lack of support from the Ministry of Education, and lack of incentives (Alhumaidhi, 2013). Currently, qualified educators are offered very little in terms of incentives that would encourage them to take on the sometime cumbersome efforts and great responsibility of school leadership positions. Thus, the Saudi Ministry of Education should provide appropriate support and incentives for such positions to improve the educational process. Districts also should provide additional support to school leaders to increase their involvement in instructional leadership in the area of special education.

**New accountability system.** The current policy for accountability in Saudi schools is ineffective (Alkharraif, 2008; Almajal, 2009). Moreover, as Almannie (2015) stated, accountability is not fully embedded in the Saudi educational system. In addition, there are deficiencies in the current Saudi evaluation model for school leaders (Alajlan, 2018). Habib (2005) noted that there is no effective system for monitoring and developing school principals. Additionally, Miqdadi, Obeidat, Zaboon, and Beni Amer (2014) found that evaluation criteria and procedures are not clearly defined for school leaders and that evaluation instruments are not in agreement with established best
practices for principals. Therefore, it is both difficult and inappropriate to hold school leaders accountable for performance given that so many aspects of the evaluation process and the standards are undefined. However, improvement in this area is absolutely necessary given how much research has shown that strong instructional leadership in all programs, including those for students with disabilities, has a positive impact on outcomes.

**Implications for Principal Preparation**

The results of the findings from the present study were that most of the respondents indicated that they had obtained no college credits in the field of special education during their college careers. Several studies, including the current one, have shown that principals generally do not have enough preparation and training regarding the education of students with disabilities and how to effectively provide leadership for special education services (Alharbi, 2016; Aljabri, 2017; Lasky & Karge, 2006). Most Saudi Arabian universities do not currently require that students in education leadership programs take any special education credit other than what is required to be a teacher. Therefore, preparation programs for principals should be changed to cover evidenced-based instructional strategies that reinforce the performance of all students, including those with disabilities (Bays & Crockett, 2007; Salisbury & McGregor, 2002; Seltzer, 2011). In addition, principal preparation programs should include more coursework on students with disabilities and on how to motivate change in schools (Lasky & Karge, 2006). Moreover, school principals are in need of professional development to help them establish positive school culture and climate, and to ensure positive attitudes toward
students with disabilities (Avissar et al., 2003; Praisner, 2003; Roberts & Guerra, 2017; Seltzer, 2011).

**Recommendations for Future Research**

The following recommendations for future research are based upon the review of the literature and the findings of the current study. Additionally, these recommendations are specifically directed as needed research in Saudi Arabia.

1. Consideration should be given to including the perspectives of special education teachers toward instructional leadership in their schools. Researchers should explore the different perspectives this study did not address.

2. Future research should expand data collection to cover more regions in Saudi Arabia and larger population samples. Such expanded studies may lead to a deeper understanding of school leaders’ practices of instructional leadership in special education.

3. Different methodologies such as qualitative or mixed methods might be used to collect data from and on principals regarding instructional leadership in special education programs.

4. There is a need for further qualitative research into the reasons Saudi school leaders do not practice strong instructional leadership in special education.

5. Research examining whether there is a significant difference in the level of knowledge of special education law and policy between elementary and middle school leaders is recommended.
6. It is important to determine the relationship between the practice of instructional leadership in special education and the variables of school structure, school size, and urban versus rural schools.

7. Researchers might also explore the perspectives and instructional leadership practices of school leaders who have special education certification.

Limitations of the Study

This study has several limitations. First, the study only included principals in three cities in Saudi Arabia: Riyadh, Jeddah, and Dammam. In addition, it was limited to only principals at elementary and middle schools and did not include any teachers or other staff. Therefore, it will be difficult to generalize the study results to other cities or high schools in Saudi Arabia, or to those who work in schools who are not either principals or special education teachers. In addition, the data collected in the study were self-reported from elementary and middle school principals in the three cities, which may mean that there is an issue of social desirability, where participants tend to respond to surveys in a manner they feel will be viewed positively by others. Another limitation of the study was that most of the research that justified the need for the present study was from the United States. Another limitation of the study was that the standard deviation of participants in the present data was high, which indicates that the data points are spread out over a wider range of values. Therefore, future studies should take this point into account and classify the mean scores in three groups instead of four.

Summary

Chapter 5 aimed to provide a summary of the findings and discussed how these findings compare to the existing literature on instructional leadership. In addition, this
chapter discussed the implications of the study related to practice, policy, and principals’ preparation. Additionally, this chapter concluded by providing recommendations for future research.
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APPENDIX A

QUESTIONNAIRE
<table>
<thead>
<tr>
<th>The Instructional Leadership Behaviors in Special Education Programs Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please circle the response that most closely corresponds with your level of involvement in the following tasks. Use the following scale:</td>
</tr>
<tr>
<td>0 = I do not do that</td>
</tr>
<tr>
<td>2 = Sometimes I do that</td>
</tr>
<tr>
<td><strong>A. Creating a Shared Mission and Promoting a Positive Learning Climate</strong></td>
</tr>
<tr>
<td>1. I set a mission statement that reflects the philosophy that ALL children can achieve.</td>
</tr>
<tr>
<td>2. The faculty was involved in creating the mission.</td>
</tr>
<tr>
<td>3. Teachers are involved in the decision-making process.</td>
</tr>
<tr>
<td>4. I facilitate teachers working together.</td>
</tr>
<tr>
<td>5. I set an anti-bullying policy.</td>
</tr>
<tr>
<td>6. I encourage families to participate in decision making and advocacy activities in the school.</td>
</tr>
<tr>
<td>7. I recognize students who do superior academic work with formal rewards such as an honor roll or mention in the principal's newsletter</td>
</tr>
<tr>
<td>8. I recognize superior student achievement or improvement by seeing students in the office with their work</td>
</tr>
<tr>
<td>9. I ensure that instructional time is protected. For example, students are not called to the office during instructional time, class time is not interrupted for announcements, and I ensure tardy and truant learners suffer specific consequences for missing lesson time</td>
</tr>
<tr>
<td>10. I seek to admit all students from this locality.</td>
</tr>
<tr>
<td>11. I set a policy to minimize discrimination.</td>
</tr>
<tr>
<td><strong>B. Managing curriculum and instruction</strong></td>
</tr>
<tr>
<td>12. I provide support for teachers to make inclusion more successful.</td>
</tr>
<tr>
<td>13. I set a policy to make adjustments in exams and assessment procedures to reduce the barriers to learning and support the participation of all students.</td>
</tr>
<tr>
<td>14. I have the basic knowledge of special education and special education laws necessary to facilitate effective inclusion.</td>
</tr>
<tr>
<td>15. I provide resources that support inclusion.</td>
</tr>
<tr>
<td>16. I review curriculum development for special education programs in my school</td>
</tr>
<tr>
<td>17. I attend most IEP meetings</td>
</tr>
</tbody>
</table>
Please mark or write the appropriate response. All responses will be kept anonymous.

Please place a check mark or write to the right of the appropriate category or type your answer in the box provided:

Gender: Male______ Female______

School Level: Elementary ____ Middle ___

School location: Riyadh ____ Jeddah ____ Dammam ___

Your educational level: ______

How many years of experience do you have as a school principal?
Approximate number of Special Education University or college credits in your formal education: ____

Approximate number of professional development training hours specific to the area of special education you have participated in during the last three years: ____

Please answer the following questions regarding your effectiveness towards the special education programs at the school:

Gender
- Male
- Female

Education area
- Riyadh
- Jeddah
- Dammam

Education level
- Kindergarten
- Elementary
- Intermediate
- Secondary

How many years have you been a school principal?

Approximate number of Special Education University or college credits in your formal education: ____

Approximate number of professional development training hours specific to the area of special education you have participated in during the last three years: ____

Please answer the following questions regarding your effectiveness towards the special education programs at the school:

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- Secondary

How many years have you been a school principal?
1. اساهم في وضع رؤية ورسالة للمدرسة تعكس أن جميع الطلاب قادرين على التعلم
   ● لا أقوم بذلك ابداً
   ● نادراً
   ● في بعض الأحيان
   ● دائماً

2. أشارك العاملين بالمدرسة في إنشاء رسالة المدرسة
   ● لا أقوم بذلك ابداً
   ● نادراً
   ● في بعض الأحيان
   ● دائماً

3. أشرك المعلمين في صنع القرار المدرسية
   ● لا أقوم بذلك ابداً
   ● نادراً
   ● في بعض الأحيان
   ● دائماً

4. أسهل عمل المعلمين مع بعضهم البعض.
   ● لا أقوم بذلك ابداً
   ● نادراً
   ● في بعض الأحيان
   ● دائماً

5. أشجع الأسر على المشاركة في عملية صنع القرار في المدرسة وتشجعهم على المشاركة في الأنشطة التي تدافع عن حقوق ذوي الاحتياجات الخاصة.
   ● لا أقوم بذلك ابداً
   ● نادراً
   ● في بعض الأحيان
   ● دائماً

6. أضع قواعدين في المدرسة للحد من التنافس بالألقاب، التسلط، الاستقواء (التنمر) بين الطلاب.
   ● لا أقوم بذلك ابداً
   ● نادراً
   ● في بعض الأحيان
7. أكرم طلاب التربية الخاصة المتفوقون أكاديميا بجوائز ومكافأات رسمية. على سبيل المثال لا الحصر ذكر اسمه في قائمة الشرف بالمدرسة.

لا أقوم بذلك ابدا

نادراً

في بعض الأحيان

دائماً

8. أكرم طلاب التربية الخاصة المتفوقون أكاديميا من خلال رؤيتهم في مكتبي.

لا أقوم بذلك ابدا

نادراً

في بعض الأحيان

دائماً

9. أقوم بمحفظة على وقت التعليم. على سبيل المثال، اتكد من أن طلاب التربية الخاصة لا يستدعون لخارج الصف خلال وقت شرح الدرس، و الحد من المقاطعات بإعلانات عامة أثناء سير الحصة التعليمية، ومحافظة الطلبة المتغيبين والمؤثرين عن الدوام الرسمي لإضاعتهم الوقت التعليمي.

لا أقوم بذلك ابدا

نادراً

في بعض الأحيان

دائماً

10. أسعى لقبول جميع الطلاب الساكنين بالحي بالمدرسة بغض النظر عن درجة أعاقتهم.

لا أقوم بذلك ابدا

نادراً

في بعض الأحيان

دائماً

11. اضع قانون في المدرسة أو برنامج للحد من العنصرية والتمييز.

لا أقوم بذلك ابدا

نادراً

في بعض الأحيان

دائماً

ب. إدارة المنهج والتدريس

12. أوفر الدعم للمعلمين ليصبح برنامج الدمج أكثر نجاحا.

لا أقوم بذلك ابدا
13. اضع قوانين تهدف لإجراء تعديلات في الامتحانات وإجراءات التقييم للحد من العوائق أمام التعلم لجميع الطلاب.
لا اقوم بذلك ابدا
نادرأ في بعض الاحيان
دائما

14. لدي بعض المعلومات الأساسية عن التربية الخاصة وعن قوانين التربية الخاصة الازمة لتسهيل عملية الدمج.
لا اقوم بذلك ابدا
نادرأ في بعض الاحيان
دائما

15. اوفر الموارد التي تدعم دمج طلاب التربية الخاصة.
لا اقوم بذلك ابدا
نادرأ في بعض الاحيان
دائما

16. اراجع إعداد المناهج الدراسية لبرامج التربية الخاصة في مدرستي.
لا اقوم بذلك ابدا
نادرأ في بعض الاحيان
دائما

17. احضر أغلب اجتماعات البرنامج التربوي الفردي لطلاب التربية الخاصة.
لا اقوم بذلك ابدا
نادرأ في بعض الاحيان
دائما

ج. مراقبة وتطوير طرق التدريس

18. أقوم بترشيح معلمين لتلقي دورات تدريبية تدعم نجاح دمج ذوي الاحتياجات الخاصة.
لا اقوم بذلك ابدا
19. أقوم بزيارة الفصول الدراسية في التربية الخاصة لمتابعة ومراقبة جودة الاستراتيجيات التعليمية ومدى تنفيذ المنهج الدراسي.

لا أقوم بذلك ابداً
دامناً
في بعض الأحيان

20. أقوم بمراقبة تقدم التحصيل العلمي لطلاب التربية الخاصة.

لا أقوم بذلك ابداً
دامناً
في بعض الأحيان

21. أقوم بتشجيع الأنشطة التي تؤدي إلى تقبل طلاب التربية الخاصة.

لا أقوم بذلك ابداً
دامناً
في بعض الأحيان

22. أقوم بتقديم معلمي التربية الخاصة في مدرستي.

لا أقوم بذلك ابداً
دامناً
في بعض الأحيان

23. أناكد من أن جميع المعلمين على علم بالمتطلبات والإجراءات القانونية بتعليم ذوي الاحتياجات الخاصة.

لا أقوم بذلك ابداً
دامناً
في بعض الأحيان
اجتمع مع معلمي التربية الخاصة للحديث عن احتياجاتهم، ومشاكلهم، والقضايا التي تخص المنهج الدراسي بشكل دوري.

لا اقوم بذلك ابداً

نادر

في بعض الاحيان

دائما

25. اصادق على درجة الدمج لطلاب التربية الخاصة المناسب سواء كان في فصل خاص أو غرفة المصادر، أو دمج الطالب كليا في التعليم العام.

لا اقوم بذلك ابداً

نادر

في بعض الاحيان

دائما

26. الموافقة على إحالة الطالب لإجراء عملية التقييم اللازمة في التربية الخاصة.

لا اقوم بذلك ابداً

نادر

في بعض الاحيان

دائما

27. مراجعة إحالة الطالب لإجراء عمليات التقييم اللازمة في التربية الخاصة.

لا اقوم بذلك ابداً

نادر

في بعض الاحيان

دائما
APPENDIX B

EXPERT EVALUATION FORM
Expert Evaluation Form

I am a doctoral student at the University of Northern Colorado and I am writing a dissertation on "Perspectives and knowledge of principals in Saudi Arabia regarding instructional leadership in special education programs in their schools." In this communication, I am developing an instrument to measure the principals’ instructional leadership behaviors in special education programs. This instrument is based on Weber’s instructional leadership model. Since you have expertise in special education or educational leadership, I am sending a draft copy of the instrument and requesting your assistance in the validation of the items included in the draft. Those items in the instrument which are judged to be acceptable will be included in the survey instrument.

Please evaluate the attached listing of items using the following code:

A. Acceptable;

B. Acceptable but needs adjustment; or,

C. Unacceptable.

Please feel free to suggest changes in the item statements and to add new items that in your judgement will increase the value of the instrument.

Thank you very much for your time and assistance. If you would like a summary of the results of my study, please indicate so on the form.

Sincerely,

Yazeed Alnasser

Doctoral Student at the University of Northern Colorado
Greeley, Colorado
Email: Ylnasser88@gmail.com
Please rate the items using the following code:

A. Acceptable
B. Acceptable but needs adjustment
C. Unacceptable

A. Creating a Shared Mission and Promoting a Positive Learning Climate

1. I set a mission statement that reflects the philosophy that ALL children can achieve. ____
2. The faculty was involved in creating the mission. ____
3. Teachers are involved in the decision-making process. ____
4. I facilitate teachers working together. ____
5. I set an anti-bullying policy. ____
6. I ensure that students are not called to the office during instructional time. ____
7. I seek to admit all students from this locality. ____
8. I set a policy to minimize discrimination. ____
9. I recognize students who do superior academic work with formal rewards such as an honor roll or mention in the principal's newsletter. ____
10. I recognize superior student achievement or improvement by seeing students in the office with their work. ____
11. I encourage families to participate in decision making and advocacy activities in the school. ____

B. Managing Curriculum and Instruction

1. I provide support for teachers to make inclusion more successful. ____
2. I set a policy to make adjustments in exams and assessment procedures to reduce the barriers to learning and support the participation of all students. ____
3. I have the basic knowledge of special education and special education laws necessary to facilitate effective inclusion. ____
4. I provide resources that support inclusion. ____
5. I review curriculum development for special education programs in my school. ____
6. I attend most IEP meetings. ____

C. Observing and Improving Instruction

1. I provide staff development that supports inclusion. ____
2. I visit classrooms to Monitor instructional program, curriculum implementation, and the quality of instructional practice. ____
3. I monitor student with disabilities achievement. ____
4. I encourage social activities that promote interactions with regular students during the school day. ____

D. Assessing the Instructional Program

1. I evaluate special education staff in my school. ____
2. I ensure that all educators are aware of special education’s legal requirements and procedures. ____
3. I meet with special education staff to talk about their needs, concerns, or curriculum issues on a regular basis. ____
4. I approve placements for students with disabilities in my school. ____
5. I approve the student referrals for comprehensive special education evaluations. ____
6. I review the student referrals for comprehensive special education evaluations. ____
APPENDIX C

EXPERT COMMITTEE
Dr. Majed Alsalim

A faculty member in the Department of Special Education at King Saud University. Dr. Alsalim is fluent in both English and Arabic and obtained his Ph.D. in Special Education from the University of Kansas in the United States. Previously, Dr. Alsalim earned his master’s degree in special education from California State University, Northridge. He was a teacher for hearing impaired students for six years.

Dr. Stephen Seedorf

Leading the Frontier Academy school in the United States, Dr. Seedorf has been the principal for five years. Furthermore, Dr. Seedorf is also an adjunct professor of Educational Leadership at the University of Northern Colorado. Dr. Seedorf has earned degrees from the University of Northern Colorado in Music Education (B.M.E.), Special Education (M.A.), Educational Leadership (Ed.S.), and Gifted and Talented Education (Ed.D.). He was also a special education teacher for eight years.

Dr. Abdullah Mohammad Alamri

A faculty member in the College of Leadership and Planning at King Abdullah College, Dr. Alamri has published several studies on leadership in Saudi schools. He has also served as a principal and was previously a teacher.

Dr. Saleh Meemar

A faculty member in the Educational Leadership Department at Taibah University, Dr. Meemar earned his Ph.D. in Educational Leadership from Western Michigan University. Additionally, he has published several books and research on leadership in Saudi schools. Furthermore, he worked as an educational counselor in the Saudi Arabian Ministry of Education. Finally, Dr. Meemar holds the position of Assistant
Director of Accreditation Department in the Saudi Arabian Cultural Mission (SACM) to the United States.

**Dr. Obad Abdallah Al-Subaie**

A faculty member in Educational Leadership Department at Imam Abdulrahman Bin Faisal University in Dammam, Saudi Arabia, Dr. Al-Subaie has published several books and research about educational leadership in Saudi schools. Additionally, he was the Vice Dean of Scientific Research at Majmaah University. He also was a general education teacher for 19 years.

**Khalifah Hammad Albalawi, Ph.D.**

A faculty member in Administration and Educational Planning Department at University of Tabuk, Saudi Arabia, Dr. Albalawi is the Chair of Administration and Educational Planning Department. He earned his Ph.D. in Educational Leadership from Western Michigan University. Additionally, he has published research on leadership in Saudi schools.

**Dr. Ghada Abdulrahman Algaser**

A faculty member in Educational Administration Department at Umm Al-Qura University, Makkah, Saudi Arabia, Dr. Abdulrahman Algaser has published research on leadership and is a particular interest in higher education. She was a teacher before she moved to Umm Al-Qura University.

**Wejdan Alrasheed**

The current school principal of Albelad Elementary School in Riyadh, Saudi Arabia, Ms. Alrasheed has been a principal for 13 years. She earned her Master’s Degree
in Special Education from King Saud University and was also a teacher of Mathematics for seven years.

Mohammad Algamdi

Mr. Algamdi is the principal of Iben Ther Middle School in Riyadh, Saudi Arabia. He has been a principal for 10 years and earned his Master’s Degree in Educational Leadership from King Saud University. In addition, he was a teacher of English Language for six years.
APPENDIX D

THE RELIABILITY OF SCORES FROM THE INSTRUCTIONAL LEADERSHIP BEHAVIORS IN SPECIAL EDUCATION PROGRAMS SURVEY (PILOT STUDY)
### Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.912</td>
<td>27</td>
</tr>
</tbody>
</table>

### Item-Total Statistics

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I set a mission statement that reflects the philosophy that ALL children can achieve.</td>
<td>73.13</td>
<td>184.830</td>
<td>.338</td>
<td>.912</td>
</tr>
<tr>
<td>2. The faculty was involved in creating the mission.</td>
<td>73.65</td>
<td>178.592</td>
<td>.520</td>
<td>.909</td>
</tr>
<tr>
<td>3. Teachers are involved in the decision-making process.</td>
<td>73.35</td>
<td>184.336</td>
<td>.466</td>
<td>.910</td>
</tr>
<tr>
<td>4. I facilitate teachers working together.</td>
<td>72.95</td>
<td>184.049</td>
<td>.418</td>
<td>.911</td>
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<tr>
<td>5. I provide support for teachers to make inclusion more successful.</td>
<td>72.78</td>
<td>190.589</td>
<td>.224</td>
<td>.913</td>
</tr>
<tr>
<td>6. I set an anti-bullying policy.</td>
<td>73.53</td>
<td>178.512</td>
<td>.526</td>
<td>.909</td>
</tr>
<tr>
<td>7. I set a policy to make adjustments in exams and assessment procedures to reduce the barriers to learning.</td>
<td>74.35</td>
<td>174.490</td>
<td>.769</td>
<td>.905</td>
</tr>
<tr>
<td>8. I have the basic knowledge of special education and special education laws necessary to facilitate effective inclusion.</td>
<td>74.45</td>
<td>182.151</td>
<td>.491</td>
<td>.910</td>
</tr>
<tr>
<td>9. I provide resources that support inclusion.</td>
<td>72.78</td>
<td>189.256</td>
<td>.306</td>
<td>.912</td>
</tr>
<tr>
<td>10. I ensure that instructional time is protected…</td>
<td>73.13</td>
<td>187.138</td>
<td>.334</td>
<td>.912</td>
</tr>
<tr>
<td>11. I seek to admit all students from this locality.</td>
<td>74.30</td>
<td>176.113</td>
<td>.660</td>
<td>.906</td>
</tr>
<tr>
<td>12. I set a policy to minimize discrimination.</td>
<td>73.50</td>
<td>180.769</td>
<td>.558</td>
<td>.908</td>
</tr>
<tr>
<td>13. I review curriculum development for special education programs in my school</td>
<td>74.53</td>
<td>185.435</td>
<td>.441</td>
<td>.910</td>
</tr>
<tr>
<td>14. I attend most IEP meetings</td>
<td>74.75</td>
<td>182.141</td>
<td>.592</td>
<td>.908</td>
</tr>
<tr>
<td>15. I monitor the achievement of students with disabilities.</td>
<td>74.45</td>
<td>173.587</td>
<td>.768</td>
<td>.904</td>
</tr>
<tr>
<td>16. I visit classrooms to Monitor instructional program, curriculum implementation, and the quality of instructional practice.</td>
<td>74.58</td>
<td>173.635</td>
<td>.697</td>
<td>.906</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>17. I recognize students who do superior academic work with formal rewards such as an honor roll or mention in the principal's newsletter</td>
<td>73.53</td>
<td>187.640</td>
<td>.221</td>
<td>.914</td>
</tr>
<tr>
<td>18. I recognize superior student achievement or improvement by seeing students in the office with their work</td>
<td>73.85</td>
<td>179.926</td>
<td>.413</td>
<td>.912</td>
</tr>
<tr>
<td>19. I encourage social activities that promote interactions with regular students during the school day.</td>
<td>73.08</td>
<td>183.046</td>
<td>.549</td>
<td>.909</td>
</tr>
<tr>
<td>20. I evaluate special education staff in my school</td>
<td>73.35</td>
<td>171.003</td>
<td>.701</td>
<td>.905</td>
</tr>
<tr>
<td>21. I ensure that all educators are aware of special education’s legal requirements and procedures.</td>
<td>73.40</td>
<td>179.579</td>
<td>.579</td>
<td>.908</td>
</tr>
<tr>
<td>22. I meet with special education staff to talk about their needs, concerns, or curriculum issues on a regular basis</td>
<td>73.60</td>
<td>178.810</td>
<td>.547</td>
<td>.909</td>
</tr>
<tr>
<td>23. I nominate teachers to receive professional development that supports inclusion.</td>
<td>73.90</td>
<td>176.451</td>
<td>.679</td>
<td>.906</td>
</tr>
<tr>
<td>24. I approve placements for students with disabilities in my school</td>
<td>73.03</td>
<td>189.615</td>
<td>.183</td>
<td>.914</td>
</tr>
<tr>
<td>26. I review the student referrals for comprehensive special education evaluations.</td>
<td>72.93</td>
<td>184.174</td>
<td>.549</td>
<td>.909</td>
</tr>
<tr>
<td>27. I encourage families to participate in decision making and advocacy activities in the school.</td>
<td>73.68</td>
<td>177.199</td>
<td>.555</td>
<td>.908</td>
</tr>
</tbody>
</table>
APPENDIX E

INSTITUTIONAL REVIEW BOARD APPROVAL
DATE: December 19, 2018

TO: Yazeed Alnasser
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [1333258-1] Attitudes of Principals in Saudi Arabia Regarding Instructional Leadership in Special Education Programs in Their Schools
SUBMISSION TYPE: New Project

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS
DECISION DATE: December 19, 2018
EXPIRATION DATE: December 19, 2022

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

Yazeed -

*Thank you for your extraordinary patience with the UNC IRB process. Your IRB application materials and protocols are clear and thorough. Please update the contact for the IRB Administrator at the end of your informed consent form to Nicole Morse, since Sherry May retired last summer. Then, use this revised form in your participant recruitment and data collection. Your application is then verified/approved exempt and you may proceed with your research.*

*Best wishes with your study.*

*Sincerely,*

Dr. Megan Stellino, UNC IRB Co-Chair

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Nicole Morse at 970-351-1910 or nicole.morse@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB’s records.
APPENDIX F

FACTOR LOADING OF THE FINAL FOUR FACTORS AFTER VARIMAX ROTATION
**Rotated Component Matrix**

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Factors and Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1. I set a mission statement that reflects the philosophy that ALL children can achieve.</td>
<td>.329</td>
</tr>
<tr>
<td>2. The faculty was involved in creating the mission.</td>
<td>.242</td>
</tr>
<tr>
<td>3. Teachers are involved in the decision-making process.</td>
<td>.267</td>
</tr>
<tr>
<td>4. I facilitate teachers working together.</td>
<td>.262</td>
</tr>
<tr>
<td>5. I set an anti-bullying policy.</td>
<td>.589</td>
</tr>
<tr>
<td>6. I encourage families to participate in decision making and advocacy activities in the school.</td>
<td>.622</td>
</tr>
<tr>
<td>7. I recognize students who do superior academic work with formal rewards such as an honor roll or mention in the principal's newsletter</td>
<td>.847</td>
</tr>
<tr>
<td>8. I recognize superior student achievement or improvement by seeing students in the office with their work</td>
<td>.830</td>
</tr>
<tr>
<td>9. I ensure that instructional time is protected. For example, students are not called to the office during instructional time, class time is not interrupted for announcements, and I ensure tardy and truant learners suffer specific consequences for missing lesson time</td>
<td>.863</td>
</tr>
<tr>
<td>10. I seek to admit all students from this locality.</td>
<td>.107</td>
</tr>
<tr>
<td>11. I set a policy to minimize discrimination.</td>
<td>.285</td>
</tr>
<tr>
<td>12. I provide support for teachers to make inclusion more successful.</td>
<td>.131</td>
</tr>
<tr>
<td>13. I set a policy to make adjustments in exams and assessment procedures to reduce the barriers to learning and support the participation of all students.</td>
<td>.700</td>
</tr>
<tr>
<td>14. I have the basic knowledge of special education and special education laws necessary to facilitate effective inclusion.</td>
<td>.658</td>
</tr>
<tr>
<td>15. I provide resources that support inclusion.</td>
<td>.144</td>
</tr>
<tr>
<td>16. I review curriculum development for special education programs in my school</td>
<td>.632</td>
</tr>
<tr>
<td>17. I attend most IEP meetings</td>
<td>.799</td>
</tr>
<tr>
<td>18. I nominate teachers to receive professional development that supports inclusion.</td>
<td>.332</td>
</tr>
<tr>
<td>19. I visit classrooms to Monitor instructional program, curriculum implementation, and the quality of instructional practice.</td>
<td>.845</td>
</tr>
<tr>
<td>20. I monitor the achievement of students with disabilities.</td>
<td>.836</td>
</tr>
<tr>
<td>21. I encourage social activities that promote interactions with regular students during the school day.</td>
<td>.364</td>
</tr>
<tr>
<td>22. I evaluate special education staff in my school</td>
<td>.119</td>
</tr>
<tr>
<td>23. I ensure that all educators are aware of special education’s legal requirements and procedures.</td>
<td>.335</td>
</tr>
<tr>
<td>24. I meet with special education staff to talk about their needs, concerns, or curriculum issues on a regular basis.</td>
<td>.464</td>
</tr>
<tr>
<td>25. I approve placements for students with disabilities in my school</td>
<td>.171</td>
</tr>
<tr>
<td>26. I approve the student referrals for comprehensive special education evaluations.</td>
<td>.166</td>
</tr>
<tr>
<td>27. I review the student referrals for comprehensive special education evaluations.</td>
<td>.616</td>
</tr>
</tbody>
</table>