Teachers' Attitudes About Including Students With Autism In General Education Classrooms Inclusion Policy for Students with Autism in Saudi Arabia: The Challenge and Prospects of Teachers Attitudes

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Abstract

*T*he study's main focus was on the attitude of teachers on the inclusion policy of students with autism in general classrooms in Saudi Arabia. *The researcher focused on the attitude of teachers as the theoretical construct. The study assessed teachers' attitudes towards inclusion policy when handling students with autism based on teachers' demographic data. The study involved a sample size of 454 eligible teachers of different degrees, levels of experience, different ages, males, and females. The sample was selected through simple random sampling to reduce selection bias. Data collection involved the use of surveys containing 28 statements requiring the respondents to rate each statement using the ORI, Opinions Relative to Integration Survey using the 4 points Likert scale, and 7 items on demographic information. Data analysis involved the use of descriptive statistical design where the SPSS was used to finding the central tendency, the distribution, and the standard deviation to answer the research questions. T-tests were involved in finding the correlation between gender and teacher attitudes, and the position of special or general education teacher and teacher attitudes. The findings held that the years of experience depict positive correlations towards autism inclusion. Therefore, the years of training influence the teacher's attitude on the inclusion of students with autism in a general class setting. The study will inform Saudi Arabia policymakers when designing policies for students with special needs like autism. Future studies should focus on the effects and issues of inclusion in Saudi Arabian public schools to help bridge the knowledge gap and create*

increasing awareness on students with autism.
Keywords: Inclusion Policies, Students with Special needs, Autism, Saudi Arabia, special education, Teacher's attitude, General Education Classrooms

Introduction

The history of general education system Saudi Arabia's goes back to a century ago, while special education services in the country was created in 1957 (Al-Ajmi, 2006; Alshahrani, 2014). Since its inception, the special education system showed fast progress and continues its development process – from only one institution it grew to over 1,000 institutions for students with special needs (Alshahrani, 2014). After adoption of Saudi Vision 2030, the pace of education system development even has been accelerated.

The regulatory bodies in Saudi Arabia, in particular, the Ministry of Education, adopted laws guaranteeing education for students with special needs. In the beginning of century, the Ministry of education developed its current Regulations of Special Education Programs and Institutes based on similar U.S. policies, which proved to be effective, including the Education for All Handicapped Children Act of 1976 and Individuals with Disabilities Education Act of 1990 (Alnahdi, 2014). Saudi Arabia's policies in special education aims at ensuring inclusion of disabled students in the environment with minimal possible restrictions. These legal advancements and promotion of inclusion politics, in the conditions of the growing number of students with autism, became impetus for schools to

attempt to add inclusion programs for students with autism (Alnahdi, 2014).

At the same time, with success of inclusion, one of the most significant roles is played by the attitude manifested by teachers. According to research data, to ensure effectiveness of inclusion, positive attitude about inclusion, inherent in teachers is necessary (e.g., Beattie, Algozzine, & Jordan, 2014). At the same time, various factors affect teachers' attitudes concerning inclusion of students with autism – for example, the level of specific training passed by the teachers (Hutchinson et al., 2015). Moreover, studies testify conflicting and contradictory views of elementary school teachers in Saudi Arabia about the possibility and mechanisms of inclusion of students with various special needs into general education ecosystem (e.g., Alnahdi, 2014; Alquraini, 2012). Thus, it is evident that there is strong need for further research devoted to Saudi elementary teachers' attitudes on inclusion of students with autism.

Background

According to the definitions of the World Health Organization (WHO, 2016), autism spectrum disorder (ASD) today represents one of the most common disorders among students. The American Psychiatric Association (2013) states that persons suffering with ASD are characterized with difficulties in the field of communication, language, repetitive activities, as well as social interaction, with the broad range of symptoms

severity. However, in general, the psyche of such students is distinguished by vulnerability, exhaustion and satiety: in some cases, they cannot even concentrate on something for a short time, their actions are unfocused and inconsistent; others spend hours repeating the same primitive manipulations, and attempts to distract them, switch to something else, change the nature of their activity are either ignored or provoke an increase in stereotypes, perhaps even an expression of protest in the form of aggression. They do not withstand even a slight stress, and are quickly 'depleted.' Such students are characterized by weak motivation, lack of interest in any activity. Often, they are unfocused, which makes it extremely difficult to work with them and hinders their social adaptation. According to WHO (2016) estimations, one in 160 children worldwide suffers with autism and this number is increasing – likely, because of more accurate diagnosis criteria developed recently. However, currently, intervention strategies are mainly of psychosocial character, implying behavior correction and training programs for parents aimed at facilitating in reducing difficulties.

Naturally, increased number of students with the diagnosis of autism poses the problem of developing mechanism to provide best education opportunities for them (Boyle & Topping, 2012). In particular, in Saudi Arabia, this need is especially acute (Alnahdi, 2014). In the Disability Code of 2000, inclusion is called an important

way to enable access to education for students with disabilities in Saudi Arabia (Alquraini, 2011).

It is generally accepted that inclusive education is a process of development of general education, implying the availability of education for all, which ensures access to education for children with special needs. The term "inclusive education" is reflecting a new look not only at the education system, but also at the place of a person in society. Inclusion involves solving the problem of education of children with disabilities by adapting the educational space, the school environment to the needs of each child, including reforming the educational process (redesigning classrooms so that they meet the needs and requirements of all children without exception, the necessary teaching aids according to the type of deviation child development, psychological and methodological readiness of teachers, and more) (Beattie et al., 2014). Thus, inclusion involves the inclusion of children with special educational needs in mass educational institutions, where it is considered important to remove all barriers to the full participation of each child in the educational process. Today inclusion is considered a way for students to receive the education that fits their individual needs in the best way. At the same time, inclusion concept can be realized in a number of ways, depending on the students needs, the specifics of the educational institution, and even the overall culture of community (Alnahdi, 2014; Kocbeker-Eid, 2016).

Attempts of the state to maintain and develop inclusive education has both proponents and critics, especially among practicing teachers. In particular, some teachers claim about their concerns that inclusion of students with autism in the general education classrooms will negatively affect learning experience and performance of 'ordinary' (typically developing) students (Ahsan, Sharma, & Deppeler, 2012). They emphasize that their classrooms are not equipped well to accommodate students with special needs. Moreover, learning styles of typically developing students and those with autism are crucially different. Some teachers say they do not have necessary teaching skills to work with such students, as they have not received training on special education or autism (Kocbeker-Eid, 2016). At the same time, inclusion movement has a lot of supporters. In particular, Boyle and Topping (2012) write about the arguments of supporters in the following way: they argue about high potential of enrichment of educational experience in students with autism if they can interact and work together with typically developing peers (TDPs), while TDPs will not experience any negative consequences from such interaction. Proponents of inclusive education for students with autism also consider that schools will receive financial benefits from inclusive classrooms creation, as fewer special education classrooms and specially trained teachers will be needed.

Statement of the Problem

While there is growing number of education opportunities, in Saudi Arabia, autism research is still quite limited in its scope. So, studies in inclusion of students

with autism and teacher attiude to inclusion in Saudi Arabia, have been explored in previous studies, but these studies are not in-depth and detailed, and are not devoted to the sphere of elementary education. The number of students with autism is growing number around the world (Boyle & Topping, 2012), and the percentage of such students are included in general education classrooms shows tendency to increase (Planty et al., 2007). At the same time, evidently, teachers' attitudes influence the manner and results of their teaching, thus, understanding their attitudes in this area is crucial for further development of inclusive education in Saudi Arabia for students with autism (Beattie et al., 2014). However, there is lack in necessary information in this field available to researchers or regulators in Jeddah, Saudi Arabia. With that in mind, this study aims at bridging the gap in research on inclusion policies and mechanisms for students with autism in Saudi Arabia, based on the investigation of teachers' attitudes, with the application of surveying techniques for teachers working in general education elementary institutions.

Purpose of the Study

The purpose of the present study is to reveal the attitudes of elementary teachers in Saudi Arabia concerning the expediency and possibilities of mechanisms of inclusion of students suffering from autism in general education classrooms and to investigate the correlation between these attitudes and characteristic demographics data of teachers.

Rationale of the Study

As Beattie et al. (2014) claims, teaching style and the way of communication and working interaction with

students during the educational process in the classroom to significant extent depends on inherent teachers' attitudes. Therefore, in case of teachers' negative attitudes towards inclusion, it is unlikely they will adopt teaching methods for working with students with autism, and vice versa, if their view in the field is positive, they are more likely to create an effective inclusive environment for such students in their classrooms (Beattie et al., 2014). Thus, it seems important to explore opinions of elementary teachers concerning the issue of inclusion of students with autism. Taking into account huge number of students with autism in school systems around the world, many teachers, in particular, in Saudi Arabia should comprehend the necessity and possibility of such policies.

Variables

The focus of the present study is attitudes of elementary teachers about the inclusion of students with autism in Saudi classrooms. Therefore, teachers' attitudes represent the dependent variable, measured with the use of the Opinions Relative to Inclusion (ORI) survey, implying asking teachers to rate their attitudes concerning different aspects of the inclusion of students with autism.

The independent variables include teachers' demographic data, such as age, gender, level of education, years of teaching experience, position, attitude to students with autism, and attitude to the presence of students with autism in the general education classroom. Data collection was carried out using a multiple-choice survey; the

dependent and independent variables relationship was determined using a range of statistical tools.

Research Questions

The study has a number of hypotheses and corresponding research questions and sub-questions to determine whether the hypotheses are correct:

Research Question 1: What are the attitudes of Saudi elementary school teachers concerning the concept and practice of inclusion of students with autism in general education environment (classrooms)?

Hypothesis 1: In general, attitudes of elementary school teachers in Saudi Arabia about the inclusion of students with autism in general education classrooms are of positive nature.

Research Question 2: Do any significant differences exist between elementary school teachers' attitudes concerning the expediency of inclusion of students with autism in general education classrooms based on teacher demographic background?

Hypothesis 2: There are significant differences in elementary school teachers' attitudes concerning the inclusion of students with autism in general education classrooms based on teacher demographic background.

Significance of the Study

Individual education does not meet the needs of children with autism, since it is most often carried out by the parents themselves, and the teacher only examines the

achievements. Moreover, because of the lack of social impressions, limited contacts contribute to secondary autism (Wood, 2019). Even if a child studies well, he is unlikely to be able to apply the acquired knowledge and skills in life. It is impossible to teach effective social skills in isolation, at home or in special educational institution. Moreover, a child who initially finds it difficult to master communication skills is deprived of the opportunity to develop them. At the same time, there is foreign and domestic experience in creating adequate conditions for education and upbringing, in which an autistic child can achieve significant success in development, social and labor adaptation and integration in society. It is known that the mastery of social life skills occurs most successfully if they are developed with adequate special support in a situation of natural life (Smith, 2011). In this regard, one of the main tasks of correctional work in autism is to help in the organization of socially adequate forms of behavior, contacts with peers, in the gradual and sequential development of a more complex and dynamic educational environment.

At present, an evident lack of research is observed in the field of elementary school teachers' attitudes concerning educating students with autism in a general education environment in Saudi Arabia. It determines the value of the present study, as it can contribute to determining Saudi teachers' opinions on the issue of inclusive education, which, in turn, can serve as a basis for regulatory politics in

the field, school educational practice, and further research in the field. Bearing in mind that elementary school years are crucially important in creating a foundation for students' life-span development and social perspectives, this research could benefit society as a whole, as well as communities with different cultures and social background, instead of relying activities in inclusive education in Saudi Arabia on the research data and practice from the U.S. and other countries.

Deep understanding of the way elementary school teachers feel about practice of inclusion of students with autism could help schools conceptualize and draw up their inclusion programs to ensure better assistance and support for students in the classroom activities. It is expected that broad adoption of inclusion practices in schools would provide benefits both students with autism and general education students, based on the advantages of diversity. Moreover, filling the gap in the inclusive school education research, this study can become an important element for a stronger foundation for future special education research in Saudi Arabia and other Gulf countries.

Limitations

The region of data collection included only Jeddah, Saudi Arabia. This choice was made because of the large size of the city, in attempt to make the data more representative for the country. Moreover, Jeddah belongs to the major Saudi cities that provide services for children with autism (Alothman, 2014). However, restriction of data

by only one city and only elementary school teachers without participation of middle and high school teachers, to some extent, represent limitation of the study. Another limitation was connected with the fact that the respondents' answers to survey questions were dependent on whether they had the time and desire to complete the survey. Moreover, some cross-cultural limitations should ne mentioned – the survey was adapted and translated into Arabic for Saudi participants but its content was originally written in English for American participants. Although all efforts were made to provide the highest quality of translation, still a possible respondents' misunderstanding the questions or ideas can be considered limitation.

Another potential limitation consists in the fact that some participants could strive to present themselves in a positive light, which lead them to giving false answers. Moreover, survey implied participants' self-perception and, to some extent, self-assessment, which could lead to answers that are not entirely true and accurate. Especially, it was a risk factor in the optional open-ended response part of the survey.

Finally, the scope of research did not include seeking explanation of the reasons of teachers' reported attitudes. The task was to reveal these attitudes and draw conclusions based on the above-mentioned correlations. However, these limitations do not diminish the value of the study, as the very concept of the study initiation was to outline identify the problem and suggest directions for further research in the field.

Literature Review
Education in Saudi Arabia

Saudi Arabia is located in the Arabian Peninsula, with Islam as the official religion – thus, Sharia Law lies in the foundation for the legal system, which requires all citizens to practice Islam in public, although it is permitted to practice other religions in private (Doumato, 2000). This naturally left an impression on the education system and policies. Islam and Sharia Law influence shaping education policies. In this context, the long history of gender segregation effects by educating boys and girls in separate facilities (Ferguson & Lopez, 2002).

However, in February 2015, the ruling monarch carried out a reformatting of the structure of the state apparatus agencies , initiating the creation of the Council for Economy and Development, which oversees economic and social ministries and departments. In 2016, after extensive discussions, the Vision 2030 program was adopted. Saudi rhetoric changed - the "homeland" was no longer an analogue of the "country of the Two Noble Shrines," but became the "Kingdom of Saudi Arabia" with "national objectives of socio-economic development," when the surrounding geopolitical space - the "Arab-Muslim world" was declared only the Saudi "strategic rear" (Khan & Khan, 2020). Vision 2030 opened with "commitments" related to health, education, culture, and leisure. Their resumes are "cultural support and leisure activities," "healthy life," and "study to work" (Khan & Khan, 2020).

Thus, the education system, being a product of historical socio-economic and cultural development, as in a mirror reflects the nature and level of the current state of society. At the same time, it is an integral part of the society, since it, firstly, plays a decisive role in the preparation of the main production factor of the economy; secondly, modern education is a prerequisite for overcoming traditional views and prejudices, conscious perception of the achievements of science, technology and the formation of the mentality of the individual in the industrial and post-industrial era. Saudi Arabia's pivot to greater integration into a globalized community necessitates, in particular, a closer attention to the field of inclusive education, which is recognized as the norm in developed and many developing countries.

Current Structure of the Saudi Education System

In recent years, including in frames of Vision 2030, Saudi Arabia made a lot of efforts in general education reform and increased investment in public education, building more schools and hiring more teachers; accordingly, the curriculum is changing (Al-Munajjed, 2008). However, separate education for boys and girls remains. This segregation covers also the teachers; male teachers for educating boys and female - for girls. The overall public education system contains four levels: pre-school and kindergarten (for ages 2-6), elementary school for ages 6-12, intermediate (for ages 12-15), and secondary (for ages 15-18) (Al-Salloom, 1995).

Special Education in Saudi Arabia

Back in the 1960s, the Special Education Division was established with the aim to enable launching programs for students with disabilities. Further, the first institute for deaf students and students with learning disabilities was established in 1972 (Alshahrani, 2014). At the same time, Legislation of Disability was passed, guaranteeing equal rights for individuals with disabilities and laying out government-provided special education services. It should be also noted how the Saudi Labor and Workmen Law determines a person with disability: "any person whose capacity to perform and maintain a suitable job has diminished as a result of a physical or mental infirmity" is considered to have a disability (Al-Jadid, 2013).

Since enaction of this law was enacted, more than 2,000 schools were opened for students with disabilities, and, within regular general education schools, over 5,000 special education classes were created (Alnahdi, 2014). Today, there are 1,136 institutes for male students with disabilities, 567 institutes for female students with disabilities, 3,555 classes in frames of regular schools for boys with disabilities, and 1,796 such classes for girls with disabilities (Alnahdi, 2014). Thus, in a relatively short time, the country has made significant efforts within education policy for students with disabilities, but some obstacles still remain.

Special Education Teachers Challenges

The way how schools in Saudi Arabia should provide education to students with special needs was modeled

based on the USA policies, having shaped in the Regulations of Special Education Programs and Institutions of 2001. These regulations also give description of individualized education plans (IEPs) (Alquraini, 2012), intended for all students with special needs. At the same time, IEPs are not 'customized,' in fact, they do not match students' individual needs, rather being based on a kind of general standards. Classrooms are divided into only two groups based on student abilities and needs, with education plan for each group. Background of teachers usually include a bachelor's degree in special education, but they lack teaching assistants (Alnahdi, 2014). Additionally, it is challenge for teachers to ensure implementation of IEPs for every student individually, as a teacher has to work with a group of 15 students, which is in fact the standard size of usual group in European schools (Alquraini, 2011).

Haimour and Obaidat's (2013) in their study suggested that Saudi teachers manifest deficit of knowledge and skills necessary to teach students with autism. In frames of the study, 391 teachers of diverse levels of education and experience were questioned on basic information on autism. Surprisingly, less than half the teachers gave correct answer. In particular, only 50% correctly answered that autism is a disorder diagnosed by medical methods. Regarding causes of autism, over 40% of teachers claimed that autism can be caused by poor parenting practices, not even considering genetic factors as the reason. Thus, with such incompetence, teachers unlikely can provide quality

education for a student with autism, and even can harm these students, applying unprofessional approaches (Haimour & Obaidat, 2013). At the same time, it was found that the more teaching experience and the higher the degree a teacher had, the more answers were right. Teachers with professional training background in special education also showed higher scores.

Such a lack of knowledge creates rather challenging situation in the case of inclusion. There is acute need to increase general education teachers' knowledge about autism, in order to properly and effectively provide inclusion of students with autism in their classrooms.

Policies of Inclusion

Despite the presence of above-mentioned challenges, Saudi Arabia is the leader for inclusion in the Arab world (Alkhateeb, Hadidi, & Alkhateeb, 2016). Education is provided for free for all students, including students with special needs. The Disability Code passed in 2000 guarantees for student's access to additional free services (Alquraini, 2011). However, even though the Ministry recognizes inclusion as important, public schools have not fully implemented it (Alquraini, 2011).

The majority of students with mild disabilities attend regular schools (it is 90% of male students and 65% of female students). However, many are assigned to special classrooms or groups, meaning their limited interactions with typically developing (TDPs), except in some non-curricular activities (Alnahdi, 2014), while students with

more severe or multiple special needs are isolated in special education institutions without possibility to interact with their typically developing peers within educational institution (Alquraini, 2012). In 2007-2008 school year, 96% of students in this category were receiving education in such special institutions (Alquraini, 2012). At the same time, among the reasons of failure to implement full inclusion in Saudi schools, there are lack of necessary number of specially trained teachers, non-sufficient research in the field, and sometimes lack of necessary equipment in schools (that it, absence of disabled-friendly environment) (Al-Ahmadi, 2009; Alqahtani, 2012). These factors are further described in the following sections, devoted to consideration of teacher and family attitudes, autism education and services, and lack of autism research.

Attitudes of Teacher and Family About Inclusion

At present, teachers are not required to have a special education degree or certificate to be considered sufficiently qualified - only a standard bachelor's degree is considered enough (Al-Ahmadi, 2009). However, there is an evident need for more well-trained teachers in public schools in Saudi Arabia. A study of Alnahdi (2014) revealed that general education teachers did not welcome special education students – they claim such students should be treated solely by special education teachers.

It is necessary to point out the social difficulties in overcoming widespread prejudices and pedagogical

stereotypes, as well as organizational difficulties associated with the creation of barrier-free environment, ensuring an effective path for the development of education for children with disabilities, including those suffered with autism. However, teachers poorly fulfill their functions of implementation and development of children with disabilities and special needs due to the lack of experience, knowledge, skills and abilities, and, secondly, due to the lack of conditions for its implementation in a number of schools.

Alquraini (2011), in general, found that families were not closely involved with special education, even when their children were in programs that supported inclusion. As a consequence, it made difficult to use their input when creating IEPs. Moreover, a lack of community support for families contribute to the lack of family involvement in education.

Overall public and private support for families of students with autism is quite limited. Almasoud (2010) emphasizes the absence of local support services to teach parents cope with the specifics of the disorder. Although there is a need and desire for them, there are no established programs to educate parents about autism, training on methods to manage stress and anger, as well as intervention techniques.

Available Services and Autism Education Opportunities

Steady increase of autism awareness was observed in Saudi Arabia in recent years. In particular, the topic now is

covered in media, and the Saudi Autistic Society (SAS) advocates for greater awareness and education in the field. Moreover, there is growth in volunteer efforts in the country (Almasoud, 2010). However, in one study, it was reported that only 14% of parents of children with autism said their children were attending public schools (Alnemary et al., 2017). Public schools still manifest resistance to serve them, thus special centers are used for accommodation of students with autism – the major ones among them are the Academy of Special Education, Prince Faisal bin Fahd Mother's Center, and the Jeddah Autism Center (JAC) - the oldest center and a leader in autism awareness initiatives (Jeddah Autism Center, n.d.), provide families with education programs and support, and offer training workshops for teachers (Alothman, 2014).

At the same time, finding integral comprehensive and appropriate education programs for children with autism is much more limited after the age of elementary school. Adult individuals with autism are offered some alternative education programs in private groups like the SAS – it is private program, for example, a summer program for adults teaching skills of using computers (Almasoud, 2010).

Gaps in Autism Research

As it was mentioned above, there is clear lack of published research on autism education and inclusion in Saudi Arabia. As 2016 review of studies in Arab countries from 1990 to 2014 shows, only 42 studies had been published, while the majority of them were published in the

last six years (Alkhateeb et al., 2016). Al-Ahmadi (2009) rightly claims that deficit of research in special education issues contributes to the lack of inclusion practical implementation, and, in turn, the effects of current inclusion practices in Saudi Arabia are unknown due to the absence of relevant research. Autism awareness gradually increases in recent years, however, there is still acute need for more in-depth and broad-scale research, in particular, of an interdisciplinary nature (Al-Humaidan, 2009).

Back in 2009, the head of the SAS, Al-Huseini, called for an increase in the number of facilities available to children with autism (as cited in Al-Humaidan, 2009). She noted that many families need SAS' for help with their children because the government does not provide enough financial support. She added that currently many families have to apply for unofficial paid services of special teachers and caregivers for help with their children.

Inclusion Policy in the World

International experience shows that the development of inclusive education system as a form of integration of children with special educational needs is a long-term strategy that requires patience and tolerance, consistency, continuity, phasing and an integrated approach for its implementation. At the same time, in a broad sense, integration is understood as a development process, the result of which is the achievement of unity and integrity within a system based on the interdependence of individual specialized elements.

The USA is a country with a developed system of inclusive education. The issue of the integration of disabled children was raised at the US Congress in 1973 and was enshrined in law. The main goal of the law is to integrate – that is, educate children with disabilities in mainstream schools with additional assistance as needed (Liasidou, 2012). In particular, an inclusive approach in the United States involves understanding the various educational needs of children and providing services in accordance with these needs through full participation in the educational process, public involvement, and elimination of segregation and discrimination in education. According to the law, a written opinion and an individual educational program are drawn up for each child; compulsory education of children with special needs as far as possible in mass schools is prescribed, as well as their inclusion in the environment with minimal restrictions.

Odom et al. (2011) emphasize that the percentage of students with disabilities in the U.S. receiving education in general education classrooms showed sound growth since the beginning of movement toward inclusion in the early 1990s, with encouragement from the Individuals with Disabilities Education Act of 2004. The term "inclusion" is not used in this Act, but the Act contains requirement for schools to place students in the least restrictive environment possible, encouraging students' education alongside their TDPs to the most possible extent. This evidently contributed to the practice of inclusion.

As to the European countries, in Italy, the processes of inclusive education of children with special needs in general education schools are developing very actively - this has been provided by law since 1971. Italy is considered a kind of "laboratory" of inclusive education; according to some data, in Italy, from 80% to 95% of children with special needs study in integration schools (Liasidou, 2012). In general, in countries with a liberal model, inclusive education is mainly aimed at integrating children with developmental disabilities into the environment of typically developing peers; for children with behavior problems, special programs are implemented or temporary placement in special educational institutions that provide specialized behavior correction programs, after which the child returns to mainstream school.

Factors of Inclusion Success

According to Obiakor, Harris, Mutua, Rotatori, and Algozzine (2012), to enable inclusive school to work in such way that all students are indeed part of the school community, continuous efforts of teachers and other professionals toward social justice for the students is needed. The authors found that inclusive programs building from collaboration appeared to be more successful - these imply sharing responsibilities among all children, as well as communication and support from administration, facilitated by group planning.

In Saudi Arabia, the Disability Code of 2000 requires education of students with disabilities in the least

restrictive environment possible; thus, the law can be used to ensure education of students enrolled in inclusive programs in the overall environment that allows quality education. Communities should also take part in reflection on how students with disabilities or special needs receive proper assistance in their educational and social journeys (Obiakor et al., 2012).

Also, providing specialized instruction within inclusion is crucial – they have to be research-based, to achieve application of the most effective approaches (Odom et al., 2011). Teachers should consider and take into account all their students' needs, which imply continuous planning work and focus on every student' learning style. This means the necessity of 'customization,' flexible approach to instruction, suitable for all students, while maintaining a common objective of concrete lesson (Boyle & Topping, 2012).

It should be especially emphasized that well-trained teachers are capable of creating a more successful environment for inclusion (Cammuso, 2011). This suggests skills such as above-mentioned instruction modification and situational approach. An online survey of school principals, conducted in the Midwest in the U.S. aimed at revealing their attitudes towards the preparedness of staff for work in conditions of inclusion (England, 2014). Interestingly, over 900 principals reported the ability to modify instruction as the most important skill.

Teacher enthusiasm is another indicator of successful inclusion, which is closely connected to the skill of

flexibility in instructions. Without positive attitudes about inclusion teacher unlikely can make inclusion effective (Beattie et al., 2014). Many studies show that teachers with a positive sense of self-efficacy in their field manifest more inclination to think positively about including students with special needs in their general education classrooms (Ahmmed, Sharma, & Deppeler, 2014; Avramidis & Kalyva, 2007; Sharma, Loreman, & Forlin, 2012).

Another feature of pedagogical activity in conditions of inclusion is the teamwork of teachers – it can be implemented both in the classroom and outside the classroom.

However, without transformations and a systematic approach, it is impossible not only to make inclusion work effectively, but also to fully implement it. If to proceed from the assumption that inclusion is a system, then its productivity depends on the well-functioning work of its components. Proper training of teachers contributes to the formation of a friendly social environment, which is the best way to help a child with disabilities develop a sense of belonging. An inclusive environment involves the creation of natural conditions, those in which the child will not feel the inconvenience associated with his physical or mental characteristics. A well-formed inclusive environment promotes the formation of a tolerant society, where differences are respected and perceived as part of a diverse world.

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Factors that Influence Teacher Attitudes about Inclusion
Moral obligation.

Osguthorpe and Sanger (2013) present teaching as a moral process, within which teachers believe they make moral impact on students, and this belief, in turn, affects teachers' readiness and decisions to teach and to include students in their classrooms. Sometimes, teachers have motivation to teach because they believe they will influence the next generation and contribute to young people living meaningful lives (Al-Yaseen, 2011; Bakar, Mohamed, Suhid, & Hamzah, 2014; Dundar, 2014). Bearing in mind the role and significance of religion in Saudi Arabia, many education workers indeed likely have some sense of moral obligation influencing their attitudes towards inclusive education.

At the same time, the lack of the motivational-value aspect is probably due to the traditional attitude to education as a process of mastering a system of knowledge, skills, and abilities, the final expression of which is the

exam scores. The inclusive process has its own characteristics and poses new demands for the teacher. It is necessary to know the peculiarities of the psychophysical development of children with various types of disabilities, to master new technologies of work or to change the existing technologies in accordance with the objectives of inclusive education. An important point is to change the goal of the educational process. Teaching a child with disabilities in terms of content and purpose may differ from teaching a child with typical development. This fact requires a certain psychological restructuring from the teacher, a change in attitude towards the result of educational activity. Acceptance of new goals for the teacher requires a new understanding of pedagogical activity.

Teacher training and experience.

As it was mentioned above, teacher training and experience represent the factors of influence on teachers' attitudes towards inclusion. When teachers are more experienced in educating students with special needs, their attitudes towards inclusion are more positive (Dias, 2015). Thus, evident correlation is observed. At the same time, teachers without special training but with experience in teaching in inclusive environment manifest tendency to negative beliefs about inclusion (Kocbeker-Eid, 2016). However, some teachers worry about lack of enough experience and training in them. Teachers who worked with students with autism within their training showed

more optimism about the inclusion of students with autism (Hutchinson et al., 2015). In a survey conducted and described by Dias (2015), teachers who passed training in special education, as a rule, have positive attitudes about inclusion. This testifies in favor of benefits of more specific training to achieve more positive feelings about inclusion in teachers.

School and community support.

According to conclusions of Kocbeker-Eid (2016), teachers working in a more supportive school manifest more positive attitudes towards inclusion. Teachers emphasize the need for the positive support of school staff and parents, to successfully practice inclusion. In the opposite, in cases when schools lack resources and do not provide support, teachers are more inclined to have a negative opinion about inclusion (Sadioglu, Bilgin, Batu, & Oksal, 2013).

Teacher self-efficacy.

Teachers' self-efficacy, or, in other words, their confidence in their own capability of performing their job well, affect their attitudes toward inclusion. In case of high level of confidence, they are more likely to manifest a positive view on inclusion (Ahmmed et al., 2014; Avramidis & Kalyva, 2007; Sharma et al., 2012).

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In the work of Montgomery and Mirenda (2014), higher self-efficacy in collaboration appeared to be a core factor connected with positive attitudes and less concerns towards inclusive education. Teachers who have overall positive feelings about people with disabilities manifest higher levels of self-efficacy. They felt more confidence in using inclusive instruction and addressing disruptions.

In the study by Dixon et al. (2014), devoted teachers' perceptions regarding differentiated instruction and self-efficacy, results between two school districts in Indiana were compared. One of them was large gentrified area with a white-collar demographic and high socioeconomic status. The second one was industrial district of a middle size, with a blue-collar demographic, diverse groups of students, and lower socioeconomic status. The results showed that, not depending on the school, teachers had a higher self-efficacy sense in cases of more professional development in diversity. Overall, teachers in the district with the higher socioeconomic status reported a higher sense of self-efficacy. The reason may be the fact that their schools were better equipped to address issues of classroom management, instructional strategy, and student engagement. Thus, more support from educational institution leads to higher level of teacher' self-confidence and motivation to work in inclusive environment.

Gaps in the Literature

Overall, the available literature presents information on the various aspects of inclusion of students with special needs in a general plan. Despite the large amount of data on teachers' attitudes towards inclusion in general, still an evident gap in the data on autism exist, especially in Saudi Arabia, where data on autism in general and inclusion specifics for students with autism is crucially limited (Alkhateeb et al., 2016). Thus, the question arises – what are teachers' experience and attitudes regarding the inclusion of students with autism in Saudi classrooms. There is the need for more research to find the answer, to ensure the effective inclusion for students with disabilities, with developing solutions to existing problems in the field.

Methodology
Research Design

A quantitative research design was applied to reveal the attitudes of Saudi Arabia teachers concerning the inclusion of students with autism. In this study, surveys among general and special education elementary teachers in Jeddah, Saudi Arabia were conducted in order to collect data in order to test the research hypotheses.

The first survey was used to receive the demographic information; the second one provided the data on teachers' attitudes about the inclusion of children with autism in general education classrooms with an open-ended response (optionally). These two surveys together enabled analysis of the correlation between teachers' demographics and

their attitudes and feelings concerning the inclusion of students with autism in Saudi general education classrooms.

Setting and Ethical Compliance Procedures

The research setting was comprised of multiple public schools in the city of Jeddah, chosen due to high concentration of public schools. Prior to the start of the data collection process, permission from the Institutional Review Board (IRB) of Saint Louis University was obtained. In addition, approval was received from the Ministry of Education's Jeddah School District to conduct the study in Saudi Arabia. No vulnerable population was involved, as teachers were the only participants, without participation of children. Confidentiality of respondents' personal data was endured, as the online survey tool implied keeping data anonymous. All participants were informed that their responses would be anonymous, and they could discontinue the survey at any point regardless of the reason or absence of such.

Population

The population consisted of male and female general and special education teachers in public elementary schools in Saudi Arabia. In the composition of over 32 million people in Saudi Arabia, 527,000 are teachers, who are employed by the Ministry of Education and conduct teaching activity in over 35,000 schools (Argaam, 2015). According to the data of Ministry of Education (2016), there are 15,446 male and female elementary school

teachers in the 612 schools for boys and girls in Jeddah. Only used teachers employed by the Ministry of Education in public schools were enrolled in the study.

Sample participants included the total number of male and female teachers in elementary schools within the Jeddah school district, currently teaching elementary students at the time of data collection. The Ministry of Education's Jeddah school district emailed 15,446 eligible teachers of varying ages, degrees, and levels of experience with the proposition to take part in the survey.

Instrumentation

In the first survey, respondents were suggested to give basic demographic information: their age, gender, city of residence, education history, current teaching position, years of teaching experience, and history of dealing with individuals with autism. The questionnaire for survey was formatted as multiple-choice questions.

In the second survey, respondents were provided with a brief description of "autism" and "inclusion" and example of answering the survey questions. Participants have to read 28 statements regarding their possible attitudes to the inclusion of students with autism and rate each statement using the Opinions Relative to Integration (ORI) survey on a 4-point Likert scale, with the score 1 for "strongly disagree," 2 for "disagree," 3 for "agree," and 4 for "strongly agree."

Validity and Reliability

In the first section of the survey, to encourage honest answers and ensure validity, answers were anonymous. In the second section, the Opinions Relative to Integration (ORI) scale was adapted with permission from the original authors (Antonak and Larrivee (1995)) in written form. The tool is intended to assess teachers' attitudes about placing students with special needs in general education classrooms. It uses a Likert scale and represents a direct attitude measure formatted as a structured survey.

As to reliability of the measure, it should be mentioned that ORI and its variations have been used for decades across many groups. It has been updated by its creator and tested for its reliability, which was determined by the Cronbach alpha formula; the ORI's Cronbach alpha value was found to be .80, testifying a relatively high reliability (as cited in Diken, 2006).

Data Analysis

A descriptive statistical design was chosen for the research. The items on the ORI were coded numerically with the aim to reveal the data descriptive statistics. SPSS was applied in finding the distribution, central tendency, and standard deviation to answer the research questions. Thus, teachers' attitudes were determined, as well as differences in attitudes based on previous experience with inclusion. In the process of answering the sub-questions, t-tests were conducted to find the correlation between gender and teacher attitudes, as well as between the position of a

special or general education teacher and teacher attitudes. ANOVA was applied to reveal the correlation between respondents' level of education, years of experience in teaching, and attitudes towards inclusion.

Findings and Discussion
Preliminary Analysis

The original number of participants constituted 454 individuals; however, not all respondents completed the ORI survey, and the final number of participants appeared to be 314. All participants were teachers living in Jeddah. The majority (79.3%) were female, with 20.7% of male respondents accordingly, which indicates a wide gap in gender distribution index among participants.

All the respondents had college degree of some level. A small number of participants had master's degree (n=27) or associate's degree (n=86). Most (n=201) of respondents had bachelor's degree.

The majority of participants (over 64%) reported more than 10 years of teaching, while 20% had been teaching for 5-10 years and a little over 15% conducted teaching activities for less than five years.

Most participants (70%) do not have training in special education, and only 30% noted about receiving such training.

Results for Research Question 1

To answer Research Question 1, analysis of the ORI scores for all participants was carried out using descriptive

statistics in SPSS. The total number of teachers (n=314) scored an average of 67.31 out of 150 - this number appeared belonging to the category "51-75: Disagree a little," showing that teachers disagreed "a little" with including students with autism in general education classrooms.

In the analysis of averages, it was revealed that teachers disagreed most strongly with the statement in Question 3 ("Integration of students with disabilities will necessitate extensive retraining of general-classroom teachers"). Teachers agreed most strongly with the statement in Question 25 ("The student with a disability will not be socially isolated in the general classroom"). The average response constituted the value 1.19, indicating that teachers agreed a little with the statement.

Results for Research Question 2

Analysis of data was carried out to determine relationships between teachers' demographic data and attitudes concerning autism inclusion in order to answer Research Question 2. For the 65 men and 249 women completed the study, average scores appeared quite similar. Men showed average scores of 70.71 with a standard deviation of 21.03, while women' average scores was 66.43 with a standard deviation of 21.1. This indicated that both male and female teachers disagreed "a little" with the idea of student's inclusion with autism in general education classrooms (See Table 10). According to a t-test, the difference between their scores was not significant, $p = .146$

In the process of analyzing results by education level, it was revealed that the 86 participants who with associate's degree showed an average score of 64.23 with a standard deviation of 22.34, the 201 participants with a bachelor's degree had an average score of 67.66 with a standard deviation of 20.74, and those who had master's degree (n=27) had slightly higher averages at the level of 74.3 with a standard deviation of 18.72. All participants, regardless of degree, appeared belonging to the category "51-75: Disagree a little" with including students with autism in general education classrooms. Standard deviations for all groups appeared to be high – this indicates that the average scores spreading out from the mean average on the ORI.

Teachers whose experience was less than five years scored highest on the ORI, while showing the lowest standard deviation. The teachers with 5-10 years and with over 10 years of experience scored progressively lower on the ORI, with higher standard deviations, indicating that more scores fell further from the mean.

With the aim to show a possible correlation between teachers' years of experience and their opinions about including students with autism in regular education classrooms, ANOVA was used. The significance was found to be at the level of $p = .004$ at a significance level of $p = .05$. This indicates a correlation between years of experience and positive position towards autism inclusion.

Sub-Question 1

Descriptive statistics were used to compare ORI average scores for teachers who attended special education training in comparison to those who did not. Teachers who answered "Yes" (n=95) scored an average of 71.96, and there were averages falling far from the mean with a high standard deviation of 19.02. Those who answered "No" (the majority, n=220) scored an average of 65.3 on the ORI, with a similarly high standard deviation of 21.67.

A t-test was used to reveal a possible relationship between teachers' ORI scores and their special education training status. The t-test showed a significance of $p = .010$ at a $p < .05$ significance level, indicating that there was a correlation between teachers' history of special education training and views towards inclusion of students with autism in general education system.

Sub-Question 2

Comparison was carried out for the average ORI scores of teachers with a general education degree (M=236) and teachers with a special education degree (M=79), with the use of descriptive statistics. The mean score for general education teachers was 65.64, and a standard deviation constituted 21.1, showing that some averages fell far from the mean. The mean score for special education teachers was 72.34, and a standard deviation - 20.41, so the high standard deviation indicated about some averages' falling far from the mean.

A t-test was applied with the aim to reveal a possible relationship between teachers' special or general education

degree and their views on students with autism inclusion in general education classrooms. The significance was the following: p = .014 at the p < .05 level, suggesting that the presence of correlation between having a special education degree and view on inclusion of students with autism.

Recommendations for Future Practice

In frames of inclusion, students with autism and other disabilities receive education in general education classrooms together with their typically developing peers, to encourage social relationships (Beattie et al., 2014). However, in Saudi Arabia, there is a need for better policy for students with special needs like autism (Alnahdi, 2014). In the current study, over 37% of elementary school teachers reported about absence of experience working with students with autism. Both secondary research and empirical study showed that, overall, a variety of factors can influence teachers' attitudes on including students with autism, and one of which is namely the amount of training they have received (Hutchinson et al., 2015). Moreover, the finding suggested that with more training, teachers' views of autism inclusion could become more positive, and their approach to teach students with autism become more effective, person-oriented, and flexible. Thus, a strong need for broad-scale of special professional training for elementary school teachers is evident to translate to them knowledge and skills of effective working with students with disabilities, in particular, autism.

Suggestions for Future Research

Although Saudi Arabia is a Middle East leader in the inclusion policies and practices for students with special needs, inclusion environment (eco-system) is not fully implemented in many Saudi public schools (Alkhateeb et al., 2016; Alquraini, 2011). Al-Ahmadi (2009) rightly claims that the lack of research in special education leads to the lack of inclusion implementation. This lack of research, in part, derives from the gap in knowledge about the effects and issues of inclusion. As autism awareness is increasing, a push for more research is increasing as well (Al-Humaidan, 2009). The number of students with autism increases, and schools should be ready for this challenge. The crucial task is to ensure that all schools are 'equipped' with the research necessary to handle inclusion, both in teaching staff and overall educational eco-system.

References

- Ahmmed, M., Sharma, U., & Deppeler, J. (2014). Variables affecting teachers' intentions to include students with disabilities in regular primary schools in Bangladesh. *Disability & Society, 29*(2), 317–331. doi:10.1080/09687599.2013.796878
- Ahsan, M. T., Sharma, U., & Deppeler, J. M. (2012). Exploring pre-service teachers' perceived teaching-efficacy, attitudes and concerns about inclusive education in Bangladesh. *International Journal of Whole Schooling, 8*(2), 1–20.
- Al-Ahmadi, N. A. (2009). Teachers' perspectives and attitudes towards integrating students with learning disabilities in regular Saudi public schools (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (AAT 3371476)
- Al Hamed, M., Ziadeh, M., Al Oteibi, B., & Mutawalli, N. (2007). *Reoayit al-hader wa-istishraf al mustakbal* [Education in Saudi Arabia] (4th ed.). Beirut, Lebanon: Al Rushd Library.

- Al-Ajmi, N. S. (2006). The kingdom of Saudi Arabia: Administrators' and special education teachers' perceptions regarding the use of functional behavior assessments for students with mental retardation (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (AAT 3222888)
- Alhudaithi, G. S. S. (2015). Saudi Arabian female teachers' attitudes towards the inclusion of children with autism into mainstream classrooms (Doctoral dissertation, University of Leeds).
- Al-Humaidan, M. (2009, April 2). Autistic society sounds SOS for special children. Arab News. Retrieved from http://www. arabnews.com/node/322784
- Al-Jadid, M. S. (2013). Disability in Saudi Arabia. *Saudi Medical Journal, 34*(5), 453–460.
- Alkhateeb, J. M., Hadidi, M. S., & Alkhateeb, A. J. (2016). Inclusion of children with developmental disabilities in Arab countries: A review of the research literature from 1990 to 2014. Research in Developmental Disabilities, 49, 60–75.
- Almasoud, H. (2010). Services and support for individuals with autism: A comparative study between the UK and Saudi Arabia. Special Education Department, College of Education King Saud University, 6.
- Al-Mosa, N. A. (1999). *The journey of special education in the Ministry of Education: Marking the one hundredth anniversary of the foundation of the Kingdom of Saudi Arabia*. Riyadh, Saudi Arabia: Ministry of Education.
- Al-Munajjed, M. (2008). *Women's education in Saudi Arabia: The way forward*. Riyadh, Saudi Arabia: Ideation Center, Booz & Company.
- Alnahdi, G. H. (2007). The extent of applying the rules and guidelines of assessment and diagnosis that set forth in the regulations of special education institutes and programs by special education programs for students with intellectual disability (Unpublished master's thesis). King Saud University, Riyadh, Saudi Arabia.

- Alnahdi, G. H. (2014). Special education programs for students with intelectual disability in Saudi Arabia: Issues and recommendations. *Journal of the International Association of Special Education, 15*(1), 83–91.

- Alnemary, F. M., Aldhalaan, H. M., Simon-Cereijido, G., & Alnemary, F. M. (2017). Services for children with autism in the Kingdom of Saudi Arabia. Autism: *The International Journal of Research and Practice, 21*(5), 592–602. doi:10.1177/ 136236 1316664868

- Alothman, A. (2014). Inclusive education for deaf students in Saudi Arabia: Perceptions of schools principals, teachers and parents (Doctoral dissertation). Retrieved from University of Lincoln Repository. (ID 19026)

- Alqahtani, M. M. J. (2012). Understanding autism in Saudi Arabia: A qualitative analysis of the community and cultural context. *Journal of Pediatric Neurology, 10*, 15–22. doi:10.3233/ JPN-2012-0527

- Alquraini, T. (2011). Special education in Saudi Arabia: Challenges, perspectives, future possibilities. *International Journal of Special Education, 26*(2), 149–159.

- Alquraini, T. A. (2012). Factors related to teachers' attitudes towards the inclusive education of students with severe intellectual disabilities in Riyadh, Saudi. *Journal of Research in Special Educational Needs, 12*(3), 170–182. doi:10.1111/j.1471-3802.2012.01248

- Al-Salloom, H. (1995). Education in Saudi Arabia. Belleville, MD: Amana.

- Alshahrani, M. M. (2014). *Saudi educators' attitudes towards deaf and hard of hearing inclusive education in Jeddah, Saudi Arabia (Master's thesis)*. Retrieved from http://hdl.handle.net/ 10871/15846

- Al-Yaseen, W. S. (2011). Factors influencing Kuwaiti student teachers' choice of teaching as a profession. *College Student Journal, 45*, 667–680.

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.).* Arlington, VA: American Psychiatric Association.
- Antonak, R. F. (1982). Development and psychometric analysis of the scale of attitudes toward disabled persons. *Journal of Applied Rehabilitation Counseling, 13*(2), 22–29.
- Antonak, R. F., & Larrivee, B. (1995). Psychometric analysis and revision of the opinions relative to mainstreaming scale. *Exceptional Children, 62*, 139–149.
- Argaam. (n.d.). [New academic year statistics]. Retrieved from http://gulf.argaam.com/article/articledetail/533051
- Autism Research Center. (n.d.). King Faisal specialist hospital & research center. Retrieved from https://cfar.kfshrc.edu.sa/en/ Default.
- Autism Speaks. (2010). *Crown prince of Saudi Arabia and princess lead new autism awareness initiative in the kingdom.* Retrieved from https://www.autismspeaks.org/about-us/press-releases/crown-prince-saudi-arabia-and-princess-lead-new-autism-awareness-initiative-
- Avramidis, E., & Kalyva, E. (2007). The influence of teaching experience and professional development on Greek teachers' attitudes towards inclusion. *European Journal of Special Needs Education, 22* (4), 367–389. doi:10.1080/08856250701649989
- Bakar, A. R., Mohamed, S., Suhid, A., & Hamzah, R. (2014). So you want to be a teacher: What are your reasons? *International Education Studies, 7*(11), 155–161.
- Beattie, J., Algozzine, R., & Jordan, L. (2014). *Making inclusion work: Effective practices for all teachers.* New York, NY: Skyhorse.
- Blum, G., Wilson, M., & Patish, Y. (2015). Moving toward a more socially just classroom through teacher preparation for inclusion. *Catalyst: A Social Justice Forum, 5*(1). doi:10.1108/ S1479-363620140000005006
- Blumberg, S. J., Bramlett, M. D., Kogan, M. D., Schieve, L. A., Jones, J. R., & Lu, M. C. (2013). Changes in prevalence of parent-

reported autism spectrum disorder in school-aged U.S. children: 2007 to 2011–2012. *National Health Statistics Reports, 65*(20), 1–7.

- Boyle, C., & Topping, K. (2012). *What works in inclusion?* Maidenhead, Berkshire: Open University Press.
- Cammuso, K. (2011). Inclusion of students with autism spectrum disorders. *Brown University Child & Adolescent Behavior Letter, 27*(11), 1–6.
- Carrington, S., Saggers, B., Harper-Hill, K., & Whelan, M. (2020). *Supporting students on the autism spectrum in inclusive schools: A practical guide to implementing evidence-based approaches.* Abingdon, UK: Routledge.
- Christensen, D. L. (2016). Prevalence and characteristics of autism spectrum disorder among children aged 8 years: Autism and developmental disabilities monitoring network, 11 sites, United States, 2012. *MMWR. Surveillance Summaries, 65*(3), 1–23.
- Creswell, J. (2003). *Research design: Qualitative and quantitative approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Dias, P. C. (2015). For a qualitative leap in inclusion: Illusions and delusions from teacher's perspective. *Procedia-Social and Behavioral Sciences, 191*, 1119–1123.
- Diken, İ. H. (2006). Preservice teachers' efficacy and opinions toward inclusion of students with mental retardation. *Eurasian Journal of Educational Research, 23*, 72–81.
- Dixon, F. A., Yssel, N., McConnell, J. M., & Hardin, T. (2014). Differentiated instruction, professional development, and teacher efficacy. *Journal for the Education of the Gifted, 37*(2), 111–127.
- Doumato, E. (2000). *Getting god's ear. Women, Islam, and healing in Saudi Arabia and the Gulf.* New York, NY: Columbia University Press.
- Dundar, S. (2014). Reasons for choosing the teaching profession and beliefs about teaching: A study with elementary school teacher candidates. *College Student Journal, 3*, 445–460.

- Eiken, R. (2015). Teacher attitudes toward the inclusion of students with disabilities in the general education classroom (Doctoral dissertation). Retrieved from http://www.nwmissouri. edu/library/researchpapers/2015/Eiken,%20Robyn.pdf
- England, D. J. (2014). Elementary principals' perspectives on newly graduated general education teachers' abilities to teach students with disabilities in inclusion classrooms (Doctoral dissertation. Retrieved from http://scholarworks. wmich.edu/ dissertations/ 276
- Ferguson, R. M., & Lopez, C. (2002). *World education encyclopedia: A survey of educational systems worldwide* (2nd ed.). Farmington Hills, MI: Gale Group.
- Gathumbi, A., Ayot, H., Kimemia, J., & Ondigi, S. (2015). Teachers' and school administrators' preparedness in handling students with special needs in inclusive education in Kenya. *Journal of Education and Practice, 6*(24), 129–138.
- Griffo, G. (2014). Models of disability, ideas of justice, and the challenge of full participation. *Modern Italy, 19*(2), 147–159.
- Haimour, A. I., & Obaidat, Y. F. (2013). School teachers' knowledge about autism in Saudi Arabia. *World Journal of Education, 3*(5), 45–56.
- Hutchinson, N., Minnes, P., Burbidge, J., Dods, J., Pyle, A., & Dalton, C. J. (2015). Perspectives of Canadian teacher candidates on inclusion of children with developmental disabilities: A mixed-methods study. *Exceptionality Education International, 25*(2), 42–64.
- Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004).
- Jeddah Autism Center. (n.d.). Welcome to Jeddah Autism Center. Retrieved from http://www.jacenter.org/page/welcome-to-jeddah-autism-center
- Liasidou, A. (2012). *Inclusive education, politics and policymaking*. New York, NY: Continuum Publishing Corporation.

- Khan, M. K., & Khan, M. B. (2020). *Research, innovation and entrepreneurship in Saudi Arabia: Vision 2030*. Abingdon, UK: Routledge.
- Kocbeker-Eid, B. N. (2016). What do Turkish prospective primary teachers promise for inclusion? *Journal of Education and Training Studies, 4*(7), 235–248.
- Lord, C., Risi, S., DiLavore, P. S., Shulman, C., Thurm, A., & Pickles, A. (2006). Autism from 2 to 9 years of age. *Archives of General Psychiatry, 63*(6), 694–701.
- Meadows, K. (2003). So you want to do research? 4: An introduction to quantitative methods. *British Journal of Community Nursing, 8*(11), 519–526.
- Mergler, A., Carrington, S., Kimber, M., & Bland, D. (2016). Inclusive values: Exploring the perspectives of pre-service teachers. *Australian Journal of Teacher Education, 41*(4), 20–38.
- Ministry of Education. (2016). [Kingdom of Saudi Arabia]. Retrieved from https://www.moe.gov.sa/ar/Pages/Statistical Information. aspx
- Montgomery, A., & Mirenda, P. (2014). Teachers' self-efficacy, sentiments, attitudes, and concerns about the inclusion of students with developmental disabilities. *Exceptionality Education International, 24*(1), 18–32.
- Obiakor, F. E., Harris, M., Mutua, K., Rotatori, A., & Algozzine, B. (2012). Making inclusion work in regular education classrooms. *Education and Treatment of Children, 35*(2), 477–490.
- Odom, S. L., Buysse, V., & Soukakou, E. (2011). Inclusion for young children with disabilities: A quarter century of research perspectives. *Journal of Early Intervention, 33*(4), 344–356. doi:10.1177/1053815111430094
- Osguthorpe, R., & Sanger, M. (2013). The moral nature of teacher candidate beliefs about the purposes of schooling and their reasons for choosing teaching as a career. *Peabody Journal of Education, 88*, 180–197.

- Patten, E., Baranek G. T., Watson L. R., & Schultz, B. (2012). Child and family characteristics influencing intervention choices in autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities 28*(3), 138–146.
- Planty, M., Provasnik, S., Hussar, W., Snyder, T., Kena, G., Hampden-Thompson, G., ... & Choy, S. (2007). *The condition of education, 2007*. Retrieved from https://nces.ed.gov/ pubs2007/ 2007064.pdf
- Sadioglu, O., Bilgin, A., Batu, S., & Oksal, A. (2013). Problems, expectations, and suggestions of elementary teachers regarding inclusion. *Educational Sciences: Theory and Practice, 13*(3), 1760–1765.
- Sawe, B. E. (2017). *Biggest cities in Saudi Arabia*. Retrieved from http://www.worldatlas.com/articles/biggest-cities-in-saudi-arabia.html
- Sharma, U., Loreman, T., & Forlin, C. (2012). Measuring teacher efficacy to implement inclusive practices. *Journal of Research in Special Educational Needs, 12*(1), 12–21. doi:10.1111/j.1471-3802.2011.01200.x
- Shoulders, T. L., & Krei, M. S. (2016). Rural secondary educators' perceptions of their efficacy in the inclusive classroom. *Rural Special Education Quarterly, 35*(1), 23–30.
- Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology, 99*(3), 611–625.
- Smith, M. K., & Smith, K. E. (2000). "I believe in inclusion, but…": Regular education early childhood teachers' perceptions of successful inclusion. *Journal of Research in Childhood Education, 14*, 161–180.
- Snyder, T. D., de Brey, C., & Dillow, S. A. (2016). Digest of education statistics, 2014. Retrieved from https://nces.ed.gov/pubs2016/2016006.pdf
- Taha, G. R., & Hussein, H. (2014). Autism spectrum disorders in developing countries: Lessons from the Arab world. In V. B.

Patel, V. R. Preedy, & C. R. Martin (Eds.), Comprehensive guide to autism (pp. 2509–2531). New York, NY: Springer.

- UNESCO. (1994). *The Salamanca statement and framework for action on special needs education*. Retrieved from http://www. unesco.org/ education/pdf/SALAMA_E.PDF

- Wagner, D. (2001). Literacy and adult education. In U. P. Barry (Ed.), World education forum, Dakar, Senegal 26-28 April 2000 (p. 47). Paris, France: UNESCO.

- Wood, R. (2019). *Inclusive education for autistic children: Helping children and young people to learn and flourish in the classroom*. Philadelphia, PA: Jessica Kingsley Publishers.

- Woodcock, S. (2013). Trainee teachers' attitudes towards students with specific learning disabilities. *Australian Journal of Teacher Education, 38*(8), 16–29.

- World Health Organization. (2016). *Autism spectrum disorders*. Retrieved from http://www.who.int/mediacentre/ factsheets/ autism- spectrum-disorders/en/

- Worldometers. (n.d.). *Saudi Arabia population*. Retrieved October 12, 2017 from http://www.worldometers.info/world-population/ saudi-arabia-population/

- World Population Review. (2017). *Jeddah population 2018*. Retrieved from http://worldpopulationreview.com/world-cities/ jeddah-population/

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