Special Education for Students With Learning Disabilities in Saudi Arabia: Reality and Challenges

Ahmed Lowiheg Aldousari*
Prince Sattam Bin Abdulaziz University, Saudi Arabia

Michael Dunn
Washington State University, USA

This mixed method study explored the perspectives of general and special education teachers in Saudi Arabia regarding special education services provided to students with learning disabilities. It identified what general and special education teachers prefer as the best suitable placement for educating students with learning disabilities, explored challenges that hinder the provision of appropriate education to these learners, and defined whether there are significant differences in their perspectives. Survey data were collected from 150 general and special education teachers; 10 were interviewed. Descriptive statistics were used to make initial comparisons in the data. Independent sample t-tests were also employed to determine the relationship between the variables and the given responses. The results of the study indicated that the majority of the teachers found special education services to be beneficial. Moreover, the study found that most teachers supported the use of general education classrooms with resource rooms as the best placement for students with learning disabilities. The results also indicated that the lack of an appropriate curriculum, poor parent-teacher relationships, lack of administrator support, and proper training were key challenges that teachers of students with learning disabilities faced in Saudi Arabia. Teachers recommended some strategies to improve the instructional delivery and effectiveness of teaching students with learning disabilities. Based on this study's findings, a comprehensive discussion about the implications for practice and overall recommendations for future research are offered.

Keywords: **Learning disabilities, special education teacher, general education teacher, inclusive education**

Introduction

Special education is a vital field in education, and the Kingdom of Saudi Arabia (KSA) is rapidly adopting inclusive practices from nations such as the United States to ensure that timely and appropriate resources are devoted to supporting students with disabilities. Over time, KSA has passed numerous laws to promote inclusivity for people with special needs, especially in education. The first significant milestone was noted in 1987 when the Legislation of Disability (LoD) was passed. Mainly, it sought to offer essential provisions that guaranteed people with disabilities rights equal to those of other individuals (Alquraini, 2011). While other laws have helped establish special education programs in the nation, the Regulations of Special

Education Programs and Institutes (RSEPI) legislation promoted the opportunity for free and appropriate programming. This law was modeled after U.S. policies and is considered a 'bill of rights' for learners with disabilities (Aldabas, 2020). It outlines their rights and regulations for special education services, including the need and importance of an individualized education program (IEP), which school personnel, with parents, need to develop and implement (Alquraini, 2011). These laws provide students with disabilities with educational programming that promotes improvement in their skills.

Overview of Special Education in Saudi Arabia

In recent years, the KSA has heightened its interest in special education through decree enactments, the inclusion of individuals with disabilities in general education, and teacher training. Rana et al. (2011) contended that so far, the country had registered over 20,000 students for special education services. Before the 1950s, there was no services for children with disabilities. Since the creation of the Saudi Arabia as a nation, education was perceived as a privilege, and only the elite had access to learning institutions (Alquraini, 2011). Parents of children with disabilities were responsible for providing any learning assistance as the government did not offer remedial services. Provisions for special education were initialized in 1958 when the government began providing special education services. However, they were only limited to adult students with blindness and were offered in learning institutions referred to as "scientific institutes" (Salloom, 1995). A private organization offered these services in Riyadh, but only in the evening. The respective students also received financial support and medical services and were taught how to use braille (Alruwaili, 2016). In 1962, the Department of Special Learning was created as a formal institution of special education in the state. It was set up to improve rehabilitation and learning for students with intellectual disabilities, blindness, and deafness (Bin Battal, 2016). In 1964, Aneaza, Mecca, and Alhofouf established learning institutions for students with visual impairment programs (Al-Mousa, 1999). Alquraini (2011) noted that the students with intellectual disabilities and deafness began receiving access to learning institutions in 1972. The Intellectual Education Institute was established in 1972 to train students with intellectual disabilities based on a curriculum that emphasized communication, social behavior, and life skills. Just as in general education systems, special education in the Saudi Arabian region was segregated by gender (Altamimi et al., 2015). Despite gender differentiation, the number of institutions catering to children's special needs continued to grow in the KSA. In 1996, the Ministry of Education in the KSA recognized the category of students with learning disabilities and began providing special education services to them (AlMedlij & Rubinstein-Ávila, 2018). The Ministry of Education in the KSA (2002) defined learning disabilities as, "disorders in one or more of the basic psychological processes that include the understanding and use of written or spoken language that appear in disorders of listening, thinking, speech, reading and writing (spelling, expression, and writing) and mathematics that are not related to causes related to mental, auditory or visual impairment or other types of disabilities, learning conditions, or family care." Education is now accessible and free to all regardless of social class. However, these milestones would not have been achieved without the enactment of several laws over the years.

Laws Regarding Special Education in Saudi Arabia

In the 1980s, a diverse set of stakeholders in Saudi Arabia began calling for change in special education to better provide learning opportunities for students with disabilities. The Legislation of Disability (LoD; 1987) Act provided legal guarantees and equal rights for individuals with disabilities. Alquraini (2011) asserted that the legislation provided disability definitions and described the assessment and diagnostic procedures utilized in determining people's eligibility for special education services. Other provisions included a program for disability prevention and intervention as well as mandates for public services to provide training programs and rehabilitation services that support people's independence. In 1995, the Department of Learning Disabilities was created to study instructional options to promote students with learning disabilities' acquiring appropriate accommodations (Alquraini 2011; AlMedlij & Rubinstein-Ávila, 2018). The department of education hired and trained special education teachers to provide students with learning disabilities appropriate support.

In 2000, the Disability Code was passed to ensure people with disabilities can access basic services including a free education. The law required public agencies to aid eligible persons through health, rehabilitation, and education (Alquraini 2011). The Education for all Handicapped Children Act (EHA) and the Individual with Disabilities Education Act (IDEA) were reviewed in a Saudi Arabian context and reconfigured. The resulting law was the Regulations of Special Education Programs and Institutes (RSEPI) introduced in 2001. Under RSEPI, all children with disabilities are eligible for appropriate and free services, including individual education programs and transition programs (Alquraini, 2011). The legislation defined the significant clusters of students with disabilities and teaching and rehabilitations duties and responsibilities for professionals working with these learners. Additionally, it provided a concrete definition and description of students with learning disabilities, which remains among the major categories of students with special needs in the Kingdom of Saudi Arabia (KSA; AlMedlij & Rubinstein-Ávila, 2018). It also defined elements of individualized education programs and individuals who should provide and participate in the development of an IEP. Similar to the Disability Code, the RSEPI outlines privileges and guidelines for students with disabilities and assessment procedures for special education eligibility. These laws align with Islam's religious principles that indicate that people with disabilities have equal rights as anyone else as well as to be an active citizen in the community (Al-Aoufi et al., 2012). The principles can be considered essential frameworks governing the shift towards inclusive education for students with disabilities.

Teachers' Attitudes Toward Special Education and Learning Disabilities in Saudi Arabia

The progress made in Saudi Arabia and other nations regarding special education has resulted in improved outcomes for people with disabilities, especially K-12 students (Alquraini, 2011). However, newer challenges and opportunities have influenced special education practices, including inclusive teaching, modifications, and differentiation. Differences in teacher attitudes and perceptions regarding special education and inclusive learning also influence special education delivery and ef-

fectiveness. Diverse studies have emphasized that positive attitudes and perspectives among general teachers regarding special education promote successful inclusion for learners with disabilities (Winter, 2006; Woolfson et al., 2007). Their positivity toward special education influences their ability to support and implement appropriate practices. Thus, general educators' having a positive perspective and attitude are essential for the successful inclusion of learners with disabilities, regardless of nature and severity.

Studies have indicated different outcomes regarding teachers' perspectives and attitudes concerning special education. According to Alquraini (2011), several studies indicate that most Saudi Arabian elementary instructors have progressive attitudes towards inclusive education. Their level of education, gender, and experience appeared to influence their attitudes and perspectives differences. In one study (Al-Ahmadi, 2009), teachers with a relative with disabilities or those with extensive teaching experiences had more positive attitudes. These teachers were more open and receptive to mainstreaming for learners with intellectual disabilities, blindness, and deafness (Alquraini, 2011). Assessment of special education programs and teachers' opinions of them encourages the inclusion and incorporation of students with special needs into all social institutions. Haimour (2013) assessed special education courses and determined their suitability from general and special education teachers' perspectives. The author indicated that Saudi Arabian teachers have positive attitudes regarding special education programs and accept their inclusion in general education classrooms. Nevertheless, they held reservations concerning the program's application in their contexts. Some considered entertainment activities and family participation as essential elements of inclusion programs. Others rated the programs poorly, noting that lack of guidance for teachers decreased their chances of promoting better students' outcomes.

Additionally, the nature of perceptions helps influence teachers' willingness to join a special education career. In a study conducted by Alnahdi (2020), general education teachers with positive attitudes towards special education had a higher interest in their daily work with students and career. Particularly, female educators had positive attitudes toward teaching and were most likely interested in the special education field. Al-Ahmadi (2009) conducted a study to assess male and female teachers' perspectives in Saudi Arabian contexts. Male teachers had positive attitudes while female teachers had negative perspectives. The teachers' type of degree also influenced teachers' attitude concerning the integration of students with learning disabilities. Those with a college certificate had negative attitudes, while those with higher qualifications were more likely to have positive attitudes and perceptions regarding inclusion in general education classrooms.

Skill and knowledge acquisition and attitudes towards educating students with disabilities is an area of concern in special education. Perspectives and attitudes regarding inclusion also vary between in-service and pre-service teachers. In this population, they are influenced by issues such as insufficient training and lack of experience. According to Mahar et al. (2010), pre-service general educators' perspectives and attitudes influenced inclusive practice implementation. Mahar et al. (2010) conducted a study to identify pre-service general education teachers' perceptions regarding their knowledge and attitude and implications for practice. The findings in-

dicated that pre-service teachers rated themselves as having positive attitudes and believe that inclusive education is vital for students with disabilities. Similarly, Ajuwon et al. (2012) asserted that general education pre-service teachers showed an increase in positive attitude as they progressed through their learning process. Changes in attitude may be attributed to increased skills and knowledge of accommodating students with disabilities in general education classes. Teachers are thus encouraged to foster positive attitudes when instructing pre-service teachers. Perspectives and attitudes regarding special education are thus varied and have distinct but diverse implications for implementing inclusive education in general education classrooms.

RESEARCH QUESTIONS

This study aims to answer the following research questions:
1. What are the Saudi Arabian teachers' perspectives about the special education services provided to students with learning disabilities?
2. Do Saudi Arabian teachers prefer to provide special education services to students with learning disabilities in the general classroom, resource room, or another type of setting?
3. Are there significant differences between the perspectives of special and general education teachers in Saudi Arabia regarding the special education services and the best placement for students with learning disabilities?
4. What are the obstacles, if any, that Saudi Arabian teachers believe in hindering the appropriate teaching to students with learning disabilities?

METHODS

This study employed a mixed-methods approach to explore the perspectives of general and special education teachers regarding special education services, to identify what general and special education teachers prefer as the best suitable placement for educating students with learning disabilities, to explore challenges that hinder the provision of appropriate education to these learners, and to define whether there are substantial variances in their preference. The scope and nature of this information can best be gathered through both quantitative and qualitative research methods. To achieve this study's goals and objectives, the authors collected survey data from 150 teachers, 10 of which were interviewed.

Participants

The study was conducted with teachers in Saudi Arabia, among general (N=51) and special education (N=83) teachers sampled from multiple schools. Their perspectives and attitudes determine how well they respond to special education students and services needed to meet their diverse learning needs. Their frequent interaction with special education students is best positioned to offer insights regarding needs and appropriate teaching techniques and resources. Since the study envisioned to explore perspectives from two population sets, general and special educators were recruited from both genders. The overall sample included 150 special and general education teachers in Saudi Arabia. Ten respondents participated in the qualitative study component (interviews).

Instrumentation

Quantitative Survey. A survey-based questionnaire was used to gather quantitative data for the study. According to Creswell (2014), a quantitative technique gives the numeric depiction of a population's opinions, attitudes, and trends. For this study, a survey appeared to be the most effective data collection method considering the sample size and nature of information needed. The participants were asked to respond to the survey that explores their perspectives regarding the study's subtopics. A cross-sectional questionnaire was designed by the researchers, who sought to study subtopics from several angles. This instrument was developed to define how specific factors related to teachers' attitudes and perspectives of inclusion in Saudi Arabia. Participants were provided with a questionnaire in Arabic and English.

Qualitative Interviews. For the qualitative phase, we purposely selected potential participants based on willingness to participate in the interviews. In other words, we created a link at the end of the survey to request from the participants that they provide their contact information if they were willing to participate in the interview. Semi-structured interview questions were added to the survey to attain responses concerning special education services. Interviews focused on collecting information by asking participants directly about their experiences, observations, feelings, and understanding concerning specific topics (Adams, 2015; Blandford, 2013; Saldana & Omasta, 2016). The interview questions were designed to determine teachers' perspectives about services provided to students with learning disabilities (e.g., "Do you see improvements in students with learning disabilities' skills after receiving special education services?" "What are the challenges that you think prevent students with learning disabilities from properly obtaining special education services?" "What would you recommend improving for teaching students with learning disabilities?"). Data obtained from the interviews were organized and prepared for analysis, which included transcribing the audio recordings, translating the data from Arabic to English, and typing up the notes from the interviews. we read the transcripts in their entirety, which provided a sense of the overall tone and ideas of the participants. The transcripts were then labeled/coded. The coding then allowed for the generation of an accurate description of the setting and appropriate themes were created.

RESULTS

Demographics of Participants

The survey's initial questions sought to establish the demographics of the participants. Next, a set of both open-ended and closed-ended questions were given to the participants. As mentioned previously, the study focused on both special and general education teachers. It was, therefore, important to establish the nature of the respondents as general or special education teachers from the beginning. Other key considerations included gender, teaching experience, education levels, type of learning disability handled, personnel working with when teaching students with learning disabilities, as well as having a background in special education. Table 1 provides a descriptive information about the sample.

Table 1. *Frequency and Percentage of Demographic Information of the Participants (n = 150)*

Demographic Variables	Frequency	Percentage
Gender		
Male	100	66.7%
Female	49	32.7%
I prefer not to say	1	0.7%
Years of teaching experience		
4 years or less	18	12.3%
5-9 years	40	27.5%
10-14 years	36	24.6%
15 years or more	52	35.6%
Educational Level Achieved		
Bachelor's degree	101	67.8%
Higher diploma after bachelors	4	2.7%
Master's degree	38	25.5%
Ph.D. degree	6	4.0%
Types of learning disabilities of your students		
Reading	129	82.2%
Writing	114	72.6%
Math	92	58.6%
Employment status		
General education teacher	51	38.3%
Special education teacher	83	61.7%
Has a degree in special education		
Yes	90	63.8%
No	51	36.2%

Perspectives Toward Services

       This section presents teachers' perspectives with regards to specific elements of special education services. There were five survey items, and the respondents were asked to answer using the 5-point Likert-scale where 1 was a strong disagreement with the question posed and 5 was a strong agreement. Table 2 indicates the teachers' perspectives about the services that the students with learning disabilities received.

Table 2. *Teacher Perspectives' About Special Education Services*

Item	Survey Item	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
1.1	The special education services provided to students with an LD are beneficial.	3.7%	12.7%	6.0%	41.0%	36.6%
1.2	The special education services provided to students with an LD are sufficient.	12.8%	26.3%	14.3%	40.6%	6.0%
1.3	The provided special education services enhance the academic performance of students with an LD.	5.3%	10.5%	9.0%	46.6%	28.6%
1.4	I see improvements in students with an LD after receiving special education services.	3.0%	7.5%	12.8%	41.4%	35.3%
1.5	Overall, the special education services provided to students with an LD at my school are worthy.	9.1%	15.9%	14.4%	45.5%	15.2%

Most of the teachers found the services beneficial, with 41% somewhat agree and another 36% strongly agreeing that the services as helpful. However, some teachers still felt that the services were not beneficial, with 3.7% of the sampled teachers stating that they found the service to be of no effect. Another 6% of the sampled teachers were indifferent about special services education. Secondly, the study sought

to determine the teachers' perceptions regarding the sufficiency of the services provided to students with learning disabilities. Here, the responses were strongly divided, with the majority of the teachers (40.6%) stating that the services offered were enough. About 26.3% felt that the services were not entirely sufficient, and another 12.8% strongly believed that the services were not enough. This brought the number of teachers who disagreed to 39% as compared to the 46% of the teachers who agreed. In summary, respondents were about evenly divided about special education services being sufficient. Third, the study investigated if teachers believed that the overall academic performance of the students improved as a result of receiving special education services. Most of the teachers agreed with the statement, with 46.6% of the sampled agreeing and another 28.6% of the students strongly agreeing that special education improved academic outcomes. Teachers who agreed (75.2%) indicated that special education had a positive effect on academic outcomes for students with learning disabilities. Fourth, the study queried whether the students with learning disabilities improved after receiving special education. The teachers (76.7%) agreed that special education had a positive impact on the individual students. Of the 76.7%, 41.4% somewhat agreed, while 35.3% agreed. Only a mere 3% responded negatively. Finally, the study surveyed the overall worthiness of special education services. There was also strong agreement that special education was worthy. 45.5% somewhat agreed, and 12% strongly agreed. In contrast, 9% felt that the special education services were not worth it.

Preferences About Student Placement

The second part of the survey inspected teachers' preferences about student placement. Notably, eight placement options were explored: first, the general education classroom with no modifications; second, the general education classroom with special education teacher support; third, the general education classroom plus resource room; fourth, a congregated classroom; fifth, a general setting that was not based on the specific situations of each student is the best setting for students with learning disabilities; the sixth placement condition modeled a general education classroom with no modifications and a general education classroom with another teacher's support and the use of a resource room for making the seventh and eighth conditions, respectively. The response range was as follows:
1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = neither Agree nor Disagree, 4 = Somewhat Agree, 5 = Strongly Agree. The results are presented in Table 3 below.

Table 3. *Teachers' Preferences about Placement of Students with a Learning Disability*

Item	Survey Item	Strongly Disagree	Somewhat Disagree	Neither Agree nor disagree	Somewhat Agree	Strongly Agree
2.1	The general education classroom with no modifications is the best setting for students with an LD.	44.6%	20.0%	15.4%	16.9%	3.1%
2.2	The general education classroom with special education teacher support is the best setting for students with an LD.	10.0%	7.7%	8.5%	45.4%	28.5%
2.3	The general education classroom plus resource room is the best setting for students with an LD.	4.6%	8.5%	3.1%	40.0%	43.8%
2.4	A congregated classroom is the best setting for students with an LD.	24.8%	19.4%	7.0%	25.6%	23.3%
2.5	My preference for the setting for students with an LD is generally not based on the severity of needs of each student.	16.9%	20.0%	7.7%	33.1%	22.3%
2.6	I prefer students with an LD in the general education classroom with no modifications.	52.3%	29.2%	6.9%	10.0%	1.5%
2.7	I prefer to teach students with an LD in the general education classroom with another teacher's support.	17.7%	18.5%	14.6%	33.8%	15.4%
2.8	I prefer that students with an LD be taught in a resource room.	6.2%	7.7%	5.4%	43.8%	36.9%
2.9	I prefer that students with an LD be taught in a congregated classroo	23.8%	16.9%	15.4%	24.6%	19.2%

The first point in this section examined whether all teacher participants in the study preferred a general education classroom with no modifications as the best setting for students with learning disabilities. From the survey, there was strong disagreement, with 44.6% of teachers strongly disagreeing with the general classroom with no modifications approach, and another 20.0% somewhat disagreeing, while only 3% agreed with this approach. Second, the study inspected whether the general education classroom with special education teacher support would be the best setting for students with learning disabilities. Most of the teachers agreed with this view, with 45.4% somewhat agreeing, while another 28.5% strongly agreed. The lowest score was registered at 7.7% by teachers who somewhat disagreed that special education teacher support was the best approach to special education. Third, the teachers responded whether the general education classroom plus resource room would be the best setting for students with learning disabilities. There was an equally strong response, with 43.8% strongly agreeing, and 40.0% somewhat agreeing, this brought the total tally of these in agreement to 83.8%, while a mere 4.6% disagreed with the view. Fourth, the study assessed congregated classrooms as the best setting for students with learning disabilities. From the analysis, 25.6% were somewhat unsure while 24.8% strongly disagreed. Another 23.3% strongly agreed, while 7% were indifferent. The fifth question examined what fraction of teachers preferred which type of educational setting for students with learning disabilities. About 55.4% of the teachers agreed that their preferences are generally not based on the severity of needs of each student with an LD, while 36.9% of the teachers were in disagreement.

Sixth, the survey asked teachers about teaching students with learning disabilities in a general classroom with no modifications. Most of teachers (52%) did not prefer this type of placement while only 1.5% agreed. As for teaching students with learning disabilities in a general classroom with the support of another teacher, teachers liked the idea with 22.3% strongly agreeing, and 33.1% were somewhat in agreement. Only 36.9% rejected the idea, with 16.9% strongly disagreeing; 20% were indifferent. There was strong support for the teacher's preferences in teaching students with learning disabilities in a resource room, with 36.9% strongly agreeing and another 43.8% supporting the idea. The idea still faced opposition, with 6.2% of the teachers disagreeing with the idea strongly and another 7.7% opposing the idea. Finally, the use of a congregated classroom to teach students with learning disabilities elicited mixed reactions from the teachers. About 23.8% disagreed strongly, 16.9% rejected the idea reluctantly, 15.4% were undecided, and 24.6% and 19.2% supported the idea.

Challenges Teachers Faced

The third part of the survey asked the teachers to rate what they believed as challenges to managing special education services. Teachers identified areas of concern as being the curriculum, training challenges, lack of support from school administrators, and insufficient parent-teacher collaboration. Table 4 provides a summary of teachers' ratings.

Table 4. *Items in Exploring Challenges Involved in Providing Appropriate Teaching to Students with L.D*

Item	Survey Item	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
3.1	There is a lack of appropriate curricula that creates challenges in teaching students with an LD.	5.5%	4.7%	11.8%	44.9%	33.1%
3.2	There is a lack of proper training for teachers that creates challenges in teaching students with an LD.	7.0%	8.6%	11.7%	35.2%	37.5%
3.3	There is a lack of school administrator support for teachers, which creates challenges in teaching students with an LD.	4.7%	8.6%	10.9%	39.1%	36.7%
3.4	There is a lack of parent-teacher participation, which creates challenges in teaching students with an LD.	3.9%	3.9%	5.5%	46.1%	40.6%

First, there was general agreement that the curricula created challenges for the students and teachers; 33.1% agreed strongly, with 44.9% in some form of the agreement also. This brought the total tally of those in agreement to 78%. Only 10.2% were in disagreement, with 5.5% strongly refuting the assertion while 4.7% disagreed but had reservations. Second, 72.7% agreed that the teachers' lack of proper training was a significant challenge with 7% in strong disagreement, while 11.7% were indifferent to the assertion posed. Third, 36.7% of the sampled teachers strongly agreed that administrative support and the lack thereof was a challenge in the executing of special education services. 39.1% agreed, although half-heartedly, while only 4.7% disagreed. Finally, the authors inspected whether the lack of cooperation between the parents and the teachers constituted a challenge in the execution of special education. Of the sample of 136 teachers, 40.6% strongly agreed, while another 46.1% agreed but held reservations. The total teachers in agreement, therefore, cumulated to 86.7%, while those in disagreement both strongly and fractionally was 7.8%.

Differences Between Special Education and General Education Teachers

In this section, the differences between the responses of special education teachers and general education teachers are presented. An independent sample t-test was completed to show any differences between the perspectives of special education and general education teachers surrounding the services provided to students with learning disabilities, their preferences regarding placement, and the challenges they faced that limit the access of students with learning disabilities to appropriate teaching. The results are presented in Tables 5, 6, and 7 below.

From the table, the differences between general and special education teachers' perspectives about whether the special education services provided to students with learning disabilities were beneficial was not significant ($p = .429$). As for students' employment status and the benefits of their receiving special education services, general versus special education teachers' ratings were not significantly different. The same was true about whether teachers considered the services provided to students with learning disabilities as being sufficient ($p = .234$). There was a significant difference ($p = .001$) between the general and special education teachers' responses about how providing special education services enhance the academic performance of students with learning disabilities. General education versus special education teachers' rating regarding improvements they saw in students with learning disabilities after receiving special education services support were significantly different ($p = .001$). Lastly, there was a significant difference ($p = .040$) between general education teachers and special education teachers' ratings about the worthiness of the education services provided to students with learning disabilities at their school.

Table 5. *Differences Related to Employment Status and Perspectives about Special Education Services*

Survey Item	Employment Status	N	Mean	SD	Sig.
The special education services provided to students with an LD are beneficial.	General education teacher	44	3.82	1.206	.429
	Special education teacher	79	3.99	1.092	
The special education services provided to students with an LD are sufficient.	General education teacher	44	2.82	1.263	.234
	Special education teacher	79	3.09	1.168	
The provided special education services enhance the academic performance of students with an LD.	General education teacher	45	3.42	1.288	.001
	Special education teacher	79	4.11	.920	
I see improvements in students with an LD after receiving special education services.	General education teacher	45	3.60	1.195	.001
	Special education teacher	79	4.22	.842	
Overall, the special education services provided to students with an LD at my school are worthy.	General education teacher	44	3.11	1.280	.040
	Special education teacher	79	3.58	1.150	

Note. Significant difference is p < .05.

Table 6. *Differences Related to Employment Status' Preferences about Placing Students with L.D*

Survey Item	Employment Status	N	Mean	SD	Sig.
The general education classroom with no modifications is the best setting for students with an LD.	General education teacher	41	2.10	1.241	.815
	Special education teacher	78	2.15	1.249	
The general education classroom with special education teacher support is the best setting for students with an LD.	General education teacher	42	3.64	1.284	.717
	Special education teacher	78	3.73	1.255	
The general education classroom plus resource room is the best setting for students with an LD	General education teacher	42	3.57	1.328	.000
	Special education teacher	78	4.42	.830	
A congregated classroom is the best setting for students with an LD.	General education teacher	42	3.60	1.398	.002
	Special education teacher	78	2.69	1.540	
My preference for the setting for students with an LD is generally not based on the severity of needs of each student.	General education teacher	42	3.55	1.194	.100
	Special education teacher	78	3.10	1.500	
I prefer to teach students with an LD in the general education classroom with no modifications.	General education teacher	42	1.90	1.122	.553
	Special education teacher	78	1.78	1.052	
I prefer to teach students with an LD in the general education classroom with another teacher's support.	General education teacher	42	3.17	1.228	.694
	Special education teacher	78	3.06	1.426	
I prefer to teach students with an LD in the general education classroom with another teacher's support.	General education teacher	42	3.57	1.151	.004
	Special education teacher	78	4.21	1.109	
I prefer that students with an LD be taught in a congregated class-room	General education teacher	42	3.55	1.234	.001
	Special education teache	78	2.63	1.451	

Note. Significant difference is p < .05.

From the data presented in table 6, there was no significant difference between general and special education teachers' preferences to placing students with learning disabilities in the general education classroom with no modifications as the best setting for them ($p = .815$). There was no significant difference between the general and special education teachers' responses in whether the general education classroom with special education teacher support was the best setting for students with learning disabilities ($p = .717$). However, there was a significant difference ($p = .001$) between general and special education teachers' preferences in whether the general education classroom plus resource room was the best setting for students with learning disabilities. The study also showed that there was a significant difference between general and special education teachers' preferences in whether the congregated classroom is the best setting for students with learning disabilities ($p = .002$). From the study, there was no significant difference ($p = .100$) between general and special education teachers' preferences of the setting for students with learning disabilities, which is generally based on the needs of each student. The study also showed no significant difference ($p = .553$) between general and special education teachers' preferences to teach students with learning disabilities in the general education classroom with no modifications. The study's results indicated that there was no significant relationship ($p = .694$) between general and special education teachers' preferences to teach students with learning disabilities in the general education classroom with another teacher's support. The table shows that there was a significant difference ($p = .004$) between general and special education teachers' ratings preferences to teach students with learning disabilities in the general education classroom with another teacher's support. Lastly, the results indicated that the was a significant difference ($p = .001$) between general and special education teachers' preferences that students with learning disabilities be taught in a congregated classroom.

From the descriptive statistics in table 7, the results indicated that there was no significant difference ($p = .67$) between general and special education teachers in their responses that the lack of appropriate curricula that creates challenges in teaching students with learning disabilities. There was no significant difference ($p = .469$) between general and special education teachers in their responses in whether the teachers thought that the lack of proper training for teachers created challenges in teaching students with learning disabilities; also, there was no significant difference ($p = .872$) between general and special education teachers in their responses that the lack of school administrator support for teachers which create challenges in teaching students with learning disabilities. Lastly, the research also depicted no significant difference ($p = .102$) between general and special education teachers in their responses in whether the lack of parent-teacher participation, which can create challenges in teaching students with learning disabilities.

Table 7. *Differences Related to Employment Status on Challenges When Teaching Students with L.D*

Survey Item	Employment Status	N	Mean	SD	Sig.
There is a lack of appropriate curricula that creates challenges in teaching students with an LD.	General education teacher	40	3.73	1.154	.067
	Special education teacher	77	4.10	.995	
There is a lack of proper training for teachers that creates challenges in teaching students with an LD.	General education teacher	41	3.98	1.151	.469
	Special education teacher	77	3.81	1.246	
There is a lack of school administrator support for teachers, which creates challenges in teaching students with an LD.	General education teacher	42	3.95	1.081	.872
	Special education teacher	76	3.99	1.125	
There is a lack of parent-teacher participation, which creates challenges in teaching students with an LD.	General education teacher	42	4.00	1.082	.102
	Special education teacher	76	4.30	.880	

Note. Significant difference is $p < .05$.

INTERVIEW RESULTS

The researchers interviewed 10 teachers (five general education teachers and five special education teachers). Amongst the 10 teachers, four of them were female, and six were male. Their teaching experience ranged between 3-16 years. Their educational levels included seven teachers having a bachelor's degree in education and three with a master's degree. Seven (70%) out of the 10 teachers said that the special education services offered in their schools were insufficient. The teachers affirmed that the insufficiency was due to a shortage of teachers and a lack of teaching and learning materials in the resource rooms. In some schools, there was only one special education teacher, which made the teaching of students with special learning disabilities challenging. Special Education Teacher 2 noted that the sufficiency of the services depended on the teachers' commitment. According to the teacher, the special education services would be, "sufficient if the teacher performs his role to the fullest, by providing the necessary teaching aids and tools." Furthermore, five (50%) out of the 10 teachers mentioned the need to increase the number of special education teachers to address the teacher shortage and increase students' outcomes. Noticeably, Special Education Teacher 1 noted that:

> The services provided are insufficient. We need more teachers in
> every school. There are many students who suffer from learning

> disabilities, but sometimes services are not provided to all of them
> because there may be only one special education teacher in the
> school. The number of teachers is supposed to be increased to 3
> or 2 at least.

There were six (60%) teachers who mentioned the need for their schools to increase the number of resource rooms available for teaching students with learning disabilities. Other concerns related to the need to increase the number of lessons, like that of General Education Teacher 3, who recommended that, "the resource room classes for students with learning disabilities be increased to at least 4-5 weekly classes."

The interview question for assessing this theme asked the teachers about their preferred place for providing instruction to students with learning disabilities. The responses to the question varied, as five (50%) of the teachers, including four general education teachers and one special education teachers, said that the resource room was best. The teachers argued that students needed special rooms in which they could easily identify their weaknesses, obtain special support from their teachers, and focus on improving their educational skills and knowledge. However, the teachers' preference for the resource room depended on several factors. For example, General Education Teacher 1 mentioned that:

> In my opinion, the resource room is the best place for students
> with learning disabilities, especially at the elementary level. The
> reason is that many students may feel embarrassed and ashamed to
> be taught by the special education teacher in the general education
> class in front of their peers.

All (100%) of the general education teachers lacked training on how to teach students with learning disabilities. One of the special education teachers also did not receive postgraduate training for teaching students with learning disabilities. However, she was trained on how to use technology and lesson preparation. All the teachers unanimously said that a lack of teacher training hindered the teaching of students with learning disabilities. While responding to the role of the school administrators' roles, seven (70%) of the teachers said that the administration played a significant role in supporting special education teachers, and the lack of their support created significant challenges to special education programs.

The researchers asked teachers about what they would recommend to improve the teaching of students with learning disabilities. The recommendations of the teachers were diverse, but all focused on the need for training, resource addition, and diversification of learning. For example, Special Education Teacher 1 suggested the use of more teaching aids and a diversification of learning activities and teaching methods. The teacher also warned against using boring traditional teaching methods (e.g., not using educational aids, and not using strategies such as learning through play). Similarly, Special Education Teacher 2 recommended that teachers be offered workshops and courses for teachers inside and outside the school to allow the exchange of experiences. The educator maintained, "I hope that training courses and workshops will be intensified in order to improve the skills and experiences of teachers…".

Based on the above responses, the teachers emphasized that students with learning disabilities require special attention since they perform poorly compared to their colleagues in typical classrooms. Their uniqueness requires the intervention of special education teachers with the knowledge and skills required to accommodate and teach them. This attestation supports the use of resource rooms that harbor the needed materials and resources for special education. The resource rooms provide a conducive and interactive environment for students with learning disabilities to move at the same pace as their colleagues and, thus, attain their learning goals and objectives. Nonetheless, although resource rooms are preferred for students with learning disabilities, the learners must not feel disconnected from the rest of the students. Therefore, teachers must create inclusive classrooms and activities that allow students with learning. disabilities to mix and interact with typical students. In this regard, some teachers support the use of both resource rooms and general education classrooms for students with learning disabilities.

DISCUSSION

Main Findings in Context of Previous Research

This study used a mixed-methods approach to explore teachers' perspectives about special education services provided to students with learning disabilities. The researcher collected survey data from 150 general and special education teachers and interviewed 10 teachers via Zoom and FaceTime. The qualitative phase involved a one-on-one interview with the respondents while quantitative analyses of survey data included independent sample t-tests tests to derive descriptive statistics, which later informed the statistical results. The survey included a set of open and closed-ended questions to draw responses from the teachers. The investigations focused on teachers' perspectives towards services, placement, challenges, and recommendations for teaching special students; and differences between special and general education teachers, and the differences between teachers based on demographic factors such as gender, qualifications, educational achievement, and teaching experience. Most of the teachers found the special education services beneficial. The study also found that most teachers support the use of general education classrooms with resource rooms as the best placement for students with learning disabilities. The results from our study support previous findings on the effectiveness of special education interventions to students with learning disabilities. For example, Greenfield et al. (2016) in a mixed-methods study about teachers' perceptions of students with learning disabilities, contended that the use of special education accommodations for students with learning disabilities was an effective intervention for increasing learning outcomes. Hornstra et al. (2010) examined teachers' attitudes toward students with dyslexia and found that special education impacted the overall achievement and academic outcomes among students with dyslexia. These findings support our study in that most of the teachers identified special education services as beneficial to improving students' outcomes and academic achievement.

From the study's finding, it was established that the lack of an appropriate curriculum, lack of parent-teacher relationship, lack of administrator support, and lack of proper training for teachers were the key challenges that special educa-

tion teachers faced in Saudi Arabia. The above findings expand on the conclusions from the professional literature. A study by Kataoka et al. (2004) investigated the principals and teachers' perceptions of learning disabilities and the factors impacting students with learning disabilities. The authors found that factors such as a teacher's classroom and student context, governmental issues such as curriculum guidelines, changes in the family situation, development of psychological tests, and improved early detection affected the achievement of students with learning disabilities. The researchers maintained that the success and the effectiveness of the special education services depended on the aforementioned factors. Other factors such as teachers being busy, shortage in number, and lack of individual connections with parents were also identified as potential influencers in the special education services. In a similar study, DeSimone and Parmar (2006) found that lack of proper training for teachers was a potential challenge that influenced their delivery within the general education classrooms. The researchers noted that pre-service teacher preparation programs did not provide adequate training to teachers to allow them to meet the unique needs of students with learning disabilities in inclusive classrooms. Based on the above studies, the issue of training, and the parent-teacher relationships take center stage when discussing the challenges in managing students with learning disabilities. On the issue of training, the Saudi Arabian Ministry of Education must address the unique needs of specific groups of students with learning disabilities with appropriate training offered to teachers in the special and general education classrooms to implement instructional strategies that result in the attainment of the specific learning needs of each student. In parent-teacher relationships, school administrators have a responsibility to ensure that active, transparent, and barrier-free communication is maintained with parents who have children with learning disabilities to promote their long-term achievement and improvement in academic outcomes.

Many researchers have discussed the need to improve instructional delivery within special education. In a study to determine the strategies for promoting full inclusion for students with learning disabilities, Kirby (2017) suggested the elimination of labels, accurate assessment, effective teacher preparation, and the increased use of evidence-based instructions to create truly inclusive classrooms for the students. The author suggested that the inclusion of such strategies could improve the delivery of special education services. Additionally, Alquraini (2011), while assessing the challenges, perspectives, and future possibilities of special education in Saudi Arabia, maintained that improving the special education delivery systems in that country needed proper training programs for preservice teachers, creation of multidisciplinary teams, use of workshops and conferences, the employment of more special education teachers, the use of assistive technology, and more research on the attitudes of teachers and other stakeholders about inclusive practices for education. From this study, the researcher suggest that the findings support the recommendations from the published literature, with the primary goal of changing the delivery systems in special education and improving overall achievement among students with learning disabilities.

One of the recommendations from this study is the need for effective reform to guide instructional processes in special education. Effective and appropriate reform can promote progressive educational practices. In the case of Saudi Arabian

special education, having an appropriate curriculum, training teachers, and strengthening communication between parents and teachers can promote effective special education now and in the future. All efforts should focus on the design of the special education services that fits the diverse needs of students with learning disabilities. For instance, the Ministry of Education could re-evaluate the special education programs for students with learning disabilities currently in place in Saudi schools. Based on their evaluation, program improvements could be made by developing curriculum, increasing the number of special education teachers, and conducting training workshops for teacher. These reforms could guide other processes and necessities such as the design of the classrooms, teachers-parents' connections, and learner assessments.

Limitations

The participant selection method used in the research was a limitation. The study did not use a simple random approach which would offer equal participation of participants. Simple random sampling is a strategy where each person in the target population has an equal chance of being selected as a participant (Leavy, 2017). It is often preferred because of the ease of assembling the sample, the representativeness of the population, and its unbiased nature (Sharma, 2017). During the sample selection phase in this study, potential respondents were contacted through social media sites such as WhatsApp and Twitter. Participants who qualified to be included in the respondent sample were only those with access to the identified social media accounts. Those not owning an account on the social media sites missed the opportunity to participate in this study. In this case, the sample selection method did not give all respondents an equal opportunity of participation. Using a simple random method to select the sample would have given viable participants an equal opportunity to enroll as respondents in the study. Furthermore, while collecting qualitative data, the researcher used Zoom and FaceTime, which limited the in-person communication between the researcher and the respondents. The online interviews helped to address the COVID restrictions of no in-person interaction. This lack of in-person communication in the study limited the researchers' potential to observe teachers in school settings where students were present as part of this study.

Future Research

The study's results suggested several directions for future research. One recommendation is to further explore the perspectives of general and special education teachers about special education. The study identified that teachers face potential challenges when dealing with students with learning disabilities. Future researchers should, therefore, extend the study's topic to other elements of special education. For instance, future researchers could examine the instructional strategies that are effective for students with learning disabilities and what teachers and administrators need to do to ensure their practicality. A second recommendation is for future researchers to conduct further investigations with parents of students with learning disabilities. The current study focused on teachers' perspectives of the services, placement, and challenges when teaching students with learning disabilities. It also identified parent-teacher relationships as one of the challenges in special education. Future studies should include what the parents think and their satisfaction regarding special educa-

tion services, the strategies they feel will make their children successful, and the level of involvement they seek with schools. A third recommendation is for the researchers to conduct studies with school principals. This study found a lack of administrator support as one of the key challenges' teachers face. Essentially, school principals are the managers involved in running and supervising all functions within the schools. Future research should explore special education topics such as collegiality amongst teachers as well as parents and other stakeholders that influence special education directly or indirectly.

There is a need for more research to investigate how additional lowering student-to-teacher ratios and proper training will influence the outcomes of students receiving special education services. Future studies should engage teachers to ask their opinions about training requirements and the shortage of special education teachers. In this study, the teachers identified lack of proper training as one of the problems in special education. Future studies should integrate special education and general education teachers and ask them about the benefits of training and employing more teachers about strategies for managing students with learning disabilities, ways of engaging them in classrooms, and their inclusion in the classrooms.

REFERENCES

Adams, W., C. (2015). Conducting semi-structured interviews. In K. E. Newcomer, H. P. Hatry, & J. S. Wholey (Eds.), *Handbook of practical program evaluation* (pp. 492–505). Whiley.

Ajuwon, P. M., Lechtenberger, D., Griffin-Shirley, N., Sokolosky, S., Zhou, L., & Mullins, F. E. (2012). General Education Pre-Service Teachers Perceptions of Including Students with Disabilities in Their Classrooms. *International Journal of Special Education*, *27*(3), 100–107.

Al-Ahmadi, N. A. (2009). *Teachers' perspectives and attitudes towards integrating students with learning disabilities in regular Saudi public schools* [Doctoral dissertation, Ohio University]. Course Hero. https://www.coursehero.com/file/146183134/ohiou1241556018-2pdf/

Al-Aoufi, H., Al-Zyoud, N., & Shahminan, N. (2012). Islam and the cultural conceptualization of disability. *International Journal of Adolescence and Youth, 17*(4), 205–219.

Aldabas, R. (2020). Special education teachers' perceptions of their preparedness to teach students with severe disabilities in inclusive classrooms: A Saudi Arabian perspective. *SAGE Open, 10*(3), 2158244020950657. https://doi.org/10.1177/2158244020950657

ALMedlij, M. A., & Rubinstein-Ávila, E. B. (2018). The development of LD education in Saudi Arabia: Services and implications for the future. *International Journal of Modern Education Studies*, *2*(2), 83–96.

Al-Mousa, N. A. (1999). *Development process of special education in Saudi Arabia*. Riyadh: Directorate General of Special Education in Saudi Arabia.

Alnahdi, G. H. (2020). Factors influencing the decision to major in special education in Saudi Arabia. *South African Journal of Education*, *40*(2). https://doi.org/10.15700/saje.v40n2a1742

Alquraini, T. (2011). Special Education in Saudi Arabia: Challenges, Perspectives, Future Possibilities. *International Journal of Special Education*, *26*(2), 149–159.

Alruwaili, H. R. (2016). Obstacles of special education services for students with intellectual disabilities in Saudi Arabia: Future directions. *American Research Journal of Humanities and Social Sciences*, *2*(1), 1–5.

Altamimi, A. A., Lee, L. W., Sayed-Ahmed, A. S. A., & Kassem, M. M. (2015). Special education in Saudi Arabia: A synthesis of literature written in English. *International Journal of Special Education*, *30*(3), 98–117.

Bin Battal, Z. M. B. (2016). Special education in Saudi Arabia. *International Journal of Technology and Inclusive Education*, *5*(2), 880–886.

Blandford, A. (2013). Semi-structured qualitative studies. In M. Soegaard & R. F. Dam (Eds.), *The Encyclopedia of Human-Computer Interaction* (pp. 1028–1031). The Interaction Design Foundation. https://doi.org/10.1145/2851581.2856682

Creswell, J. W. (2014). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Pearson.

Haimour, A. I. (2013). Evaluation of special education programs offered in inclusive schools in Saudi Arabia from teachers perspectives. *Life Science Journal*, *10*(4), 57–66.

Kirby, M. (2017). Implicit assumptions in special education policy: promoting full inclusion for students with learning disabilities. *Child & Youth Care Forum*, *46*(2), 175–191. https://doi.org/10.1007/s10566-016-9382-x

Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. Guilford.

Mahar, P., Terras, K., Chiasson, K., Chalmers, L., & Lee, T. (2010). Preservice General Education Teachers' Attitudes and Knowledge of Special Education. *Journal of the American Academy of Special Education Professionals*, *23(4)*, 23–32.

Rana, M. M., Fakrudeen, M., Miraz, M. H., Yousef, S., & Torqi, A. A. (2011, July). Information and communication technology (ICT) and special education system in the Kingdom of Saudi Arabia: A case study. In *International Conference on Human-Computer Interaction* (Ed.), *Communications in computer and information science* (pp. 534–538). Springer.

Saldana, J., & Omasta, M. (2016). *Qualitative research: Analyzing life*. Sage.

Salloom, I. H. (1995). *Education in Saudi Arabia*. Amana.

Sharma, G. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research, 3*(7), 749–752.

The Ministry of Education in the Kingdom of Saudi Arabia. (2002). *Organizational rules for special education institutes and programs*. Riyadh.

Winter, E. C. (2006). Preparing new teachers for inclusive schools and classrooms. *Support for Learning, 21*(2), 85–91.

Woolfson, L., Grant, E., & Campbell, L. (2007). A comparison of special, general and support teachers' controllability and stability attributions for children's difficulties in learning. *Educational Psychology, 27*(2), 295–306.