

# Education Of Students With Learning Disabilities In Saudi Higher Education Institutions From The Perspective Of Teachers And Faculty Members

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## Abstract

The number of students with learning disabilities (LD) enrolling in higher education institutions (HEIs) is still unsatisfactory, even though Saudi disability law mandates that HEIs ensure their access to high-quality educational opportunities. This study aimed to explore the attitudes of teachers of students with LD and special education faculty members towards the right of students with LD to education in HEIs, identifying the challenges they face and setting proposals for promoting the empowerment of students with LD in HEIs. The descriptive analytical approach was used by administering a three-axis questionnaire to a random sample (n = 284): 92 faculty members and 172 teachers. The first axis measures the subjects' attitudes towards educating students with LD in HEIs, the second investigates challenges they face, and the third identifies proposals for empowering students with LD in HEIs. Findings demonstrated that participants had positive attitudes towards supporting the education of students with LD in HEIs. However, participants' attitudes toward educating students with LD in HEIs differ significantly by gender (female) and occupation (faculty member). The findings also revealed significant differences in the participants' responses about the challenges students with LD face in HEIs attributed to years of experience favouring experience (11–15) years. The researcher recommended accommodating students with LD in higher education institutions and providing additional support services.

**Keywords:** Faculty member, higher education, learning disabilities, Saudi university.

## Introduction

The right to education is a fundamental human right. Everyone is entitled to quality education, regardless of race, gender, nationality, religion or disability. The National Society for Human Rights in Saudi Arabia emphasised that the state shall protect human rights per Islamic law and promote lifelong learning opportunities for all its citizens, whether ordinary students or people with disabilities (Unified National Platform, 2019). The education of students with LD has received considerable attention worldwide, as several legislations and laws have been developed to ensure the implementation of the right of students with LD to quality education, such as the Rehabilitation Act of 1973, the Americans with Disabilities

Act (ADA) of 1990, and the Individual Education Act Persons with Disabilities (IDEA), issued in 2004. They also have articulated the rights of students with LD in higher education as they mandate that HEIs provide equal access to programs and services for students with LD.

Learning disability is defined by the National Joint Committee on Learning Disabilities as a heterogeneous group of disorders manifested by significant impediments in acquiring and using reading, writing, speaking, reasoning, or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction' (NJCLD, 1990, p. 65). Learning disabilities includes Dyslexia,

Dyscalculia, Dysgraphia, Auditory Processing Disorder (APD), Non-Verbal LD, and Visual Perceptual/Visual Motor Deficit (Jabaib, 2011; Qamish & Jawaldah, 2012; Suleiman, 2004). Numerous advocacy organisations advocated the inclusion of students with disabilities in general education (Madaus, Banerjee & Merchant, 2011) and to accommodate students with disabilities in higher education (Al-Khatib, 2013; Turki, 2015;). Typically, HEIs should be structured to motivate students with disabilities to actively participate in learning and provide conditions to encourage them to complete their courses (Melo & Martins 2016).

Accommodating students with LD in HEIs means making necessary modifications and adjustments to support the academic success of students with LD in the university setting. This may include extending time on tests, use of assistive technology, or other modifications to coursework or assessments to help students with LD access the curriculum and demonstrate their knowledge and abilities (Fiqui & Hijazi, 2016; Morriña Díez, 2015; Ochoa & Eckes, 2005) in addition to creating an inclusive and accessible learning environment that allows students with LD to fully participate and succeed in higher education.

Naturally, after completing high school, students with LD are supposed to join higher education or find a suitable job opportunity. However, Wagner, Newman, Cameto, Garza, & Levine (2005) reported that about 25% of individuals with disabilities continue their education. Despite this, these students are less likely than their undiseased peers to complete higher education (Tagayuna et al., 2005). Moreover, nearly 25% of university students with LD leave their studies in their first year (Izzo, Simmons-Reed, Jennifer Aaron, Hertzfeld, & Aaron, 2001). Challenges can be behind this (Alquraini, 2007; Hadley, 2011). For instance, regarding material, administrative, or environmental services, the services offered to students with disabilities in higher education continue to have many

inadequacies and are of poor quality (CRPD Committee, 2016; Mohammadi & Al-Duaji, 2016; Wagner et al., 2005). Also, students with disabilities need extra time to read textbooks, prepare for exams, and complete assignments (Ofiesh, Hughes & Scott, 2004).

According to Lerner and Johns (2014), some difficulties may cause students with disability to drop out of school or higher education. These difficulties include complicated curricula, severe academic skill deficiencies, negative academic engagement, a lack of motivation, non-adaptive personal skills, and difficulties with self-determination. In addition, Roffman (2007) claims that students with LD find it more challenging to balance their personal lives with academic needs if they lack the necessary attention and self-management skills, particularly when independence is expected of them.

In Saudi Arabia, the study (Al-Moaqil, 2017) confirmed that the reluctance of students with LD to enrol in universities is due to the inappropriateness of the university environment for their disability conditions, which prompted them to study at the Saudi Online University. It is worth noting that these students suffer from moderate to high obstacles. Also, there were no differences in the vulnerability to these obstacles due to the variables of gender, nationality, age, and type of disability. In the study (Denhart, 2008), the most frequently cited challenges by the participants were the need to work much longer hours than their typical peers, the fear of being stigmatised as students with disabilities, and the fear of being misunderstood by faculty members when asked to cooperate and streamline the educational process. A recent study (García-González et al., 2021) identified six different types of challenges prevalent in traditional universities (Computer use, bureaucratic and architectural) and online institutions (learning, personal, and social hurdles).

To identify the challenges encountered by students and faculty members, a recent study

(Hariri, 2020) was conducted. The findings showed that students with LD do not receive the necessary academic assistance, and most struggle because they do not receive feedback on their improvement. In addition, academics reported challenges in supporting their students with LD. These include the lack of professional training that helps them deal with those students, insufficient funds to allocate resources, and the non-availability of an academic support centre or advisory services to students with LD.

In the same vein, several studies (Abed, 2020; Crawford, 2012; Al-Dwaikat, 2016; Jessamy, 2012; Al-Rashed, 2017; Al-Wabli, 2017) have highlighted the significance of offering students with LD appropriate support services, such as administrative facilities (Al-Duwaikat, 2016; Al-Rashed, 2017) and psychological and social services, as well as preparing secondary school students and university enrolled students for the transition to the university learning environment (Crawford, 2012; Al-Wabli, 2017). Furthermore, the CRPD Committee (2014) emphasises that high-quality education should be inclusive, integrated, and accessible to all to enhance accessibility for students with diverse disabilities who may need special strategies tailored to their needs and abilities. According to Kovács (2019), certain fundamentals must be emphasised to encourage the enrollment of students with disabilities in higher education. These include promoting equal access to university education, encouraging faculty members and their assistants to consider the unique needs of students with disabilities, and defending the right of the student to receive all necessary services and funding.

From those above, we can conclude that the literature has adequately addressed the challenges to including or accommodating students with disabilities in HEIs. Still, few studies investigated teachers' or faculty members' attitudes toward the education of students with LD in HEIs, ignoring their crucial role in providing academic support for this category and aiding them to overcome

challenges and succeed academically (Moria Do, López & Molina, 2015; Park et al., 2012).

However, research from the US and Africa shows that professors resist altering their pedagogical approaches and tailoring them to the demands of their students (Moswela & Mukhopadhyay, 2011; Murray, Lombardi & Lomb Wren, 2011). The preparedness of faculty members to teach the increasing number of students with LD in the community college setting was the subject of a qualitative analysis conducted by (Hansen & Dawson, 2020). Results showed that college professors were often ill-equipped to instruct these students. In addition, the definition of Learning disabilities and their characteristics were unfamiliar to the professors. However, they expressed their readiness to teach students with LD and reported a positive view towards the support provided by Disability Services. The findings of Lipka et al. (2020) show that faculty members accept students with LD to a high degree. They approached educating them with enthusiasm. Yet, some faculty members were unfamiliar with the concept of learning disabilities and had limited knowledge of the campus support networks. In contrast, Al-Subaie (2018) research revealed that the College of Education's faculty members has higher positive attitudes than those in the other colleges. The study's findings also showed no statistically significant differences in faculty members' attitudes based on gender or academic level (professor, associate professor, assistant professor).

Accordingly, Ghazu (2011) emphasises the necessity of training and qualifying academics working with students with LD and developing their competencies. Special education teachers also play an influential role in teaching and training students with LD by employing different strategies to improve their students' academic skills (Abu Nayan, 2020; Badr, 2010; Khasawneh, 2013; Muhammad & Awada, 2013) and developing their social skills (British Columbia Ministry of Education, 2013).

To enhance the academic experience of students with disabilities, Aguirre et al. (2021) conducted two semi-structured interviews with 25 professors from seven different Spanish universities. Professors proposed three key factors to be acquired by faculty members: offering faculty members training sessions on disabilities, fostering positive faculty-student relationships, and being prepared to make reasonable accommodations. Hsiao et al. (2019) implemented a training programme to improve faculty members' knowledge, skills, and attitudes towards satisfying the different needs of students with disabilities. Results from pre- and post-training tests demonstrated significant advancements in faculty members' willingness to provide accessible resources, foster inclusive classroom environments, and accommodate students with disabilities. They also showed improvements in their understanding of disability law and concepts and the accessibility of campus resources.

Locally, The Ministry of Education has been keen to provide special education teachers with professional development programs that help them work effectively with students with LD (Ministry of Education, 2018). Likewise, in higher education, it works to provide support programs for disabled college students to improve their academic performance and employment opportunities. Yet, despite these efforts, many HEIs struggle to offer the appropriate support services that make this possible (Abed, 2020). It is worth mentioning that, in Saudi Arabia, there were 5,676 students with disabilities in 27 public universities constituting (0.52%) of their normal peers (The Authority for the Care of Persons with Disabilities, 2022). According to (Bin Battal, 2016), the number of students with LD enrolled in special education reached 26225 who are supposed to enrol in HEIs (Hariri, 2020).

Considering the increasing number of students with LD in Saudi HEIs, and to alleviate the challenges they face, this study sought to investigate the attitudes of learning disabilities

teachers and special education faculty members towards educating students with LD in HEIs and the most significant challenges they faced and present some proposals. Furthermore, given the lack of studies on this subject, the researcher hopes that the findings of this study may aid in bridging the gap. Therefore, the findings of this study might aid in bridging this gap. Therefore, this study raises the following questions:

1. What attitudes do faculty members and special education teachers have towards educating students with LD in higher education?
2. What challenges do university students with LD face?
3. What proposals promote the empowerment of students with LD in higher education?
4. Are there statistically significant differences at the significance level (0.05) between the averages of the participants' responses due to (profession - gender - years of experience - experience in teaching students with LD)?

## Methods and Procedures

### Approach:

The descriptive survey approach was used in this study as it is the most suitable method for the current study due to its reliance on describing the phenomenon's reality, analyzing the results and drawing detailed conclusions (Assaf, 2016, p. 211).

### Population and Sample

The population of the current study consisted of all male and female learning disabilities teachers (n = 284) in Khobar, Dammam, Dhahran, in the eastern region of the Kingdom of Saudi Arabia (Planning and Development Department, 2022), and all faculty members of the Department of Special Education in Saudi universities (n = 587). As criteria for sample selection, participants should be teachers of

students with LD and lecturing staff certified in special education and taught courses attended by students with LD.

The study sample comprised 172 teachers (65.2%) and 92 faculty members (34.8%) randomly selected from the study population. Of them, 131 (49.6%) are men, and 133 are women (50.4%), which are pretty close percentages. As for years of experience of them, 101 (38.3%) have experience ranging from 1 to 5 years, constituting the highest percentage, while 68 (25.8%) have experience ranging from 11 to 15 years, and (62) (23.5%) have years of experience ranging from 6 to 10 years, and 33 of them (12.5%) have experience of 16 years or more representing the lowest percentage. When asked whether they had taught students with LD, 234 (88.6%) participants answered yes, while 30 (11.4%) had never taught students with LD.

### Instrument and Procedures

After reviewing the relevant literature and previous studies, the researcher designed a questionnaire to collect the study data. It consisted of three parts; The first part included an introduction to the study's objectives and the ethical approval. Part 2 is devoted to participants' demographic information (occupation - gender - years of experience – experience teaching students with LD). The measure consisted of three main axes, including (30) statements. The first axis measures the subjects' attitudes towards educating students with LD in higher education (10) items, while the second investigates the challenges facing university students with LD (10) items. Finally, the third axis introduces proposals and methods that may empower students with LD in higher education (10) items.

The instrument was designed using a five-point Likert scale: Strongly agree (5, range = 4.21-5.00), agree (4, range = 3.41-4.20),

neutral (3, range = 2.61-3.40), disagree (2, range 1.81-2.60), and strongly disagree (1, range 1.00-1.80). The face validity of the instrument was tested by presenting it to a specialised panel in special education. The questionnaire was applied to a pilot sample to check the questionnaire's internal consistency (n = 40). Pearson's Correlation Coefficient was calculated to identify each statement's degree of correlation with the axis's total score. The values of the correlation coefficients were positive and statistically significant at the significance level (0.01) or less, indicating the internal consistency's validity and appropriateness. The reliability was also verified using Cronbach's Alpha reliability coefficient. The values were high (0.87), which is an acceptable value.

The General Administration of Education consented to collect data and apply the study in an Eastern Province. Consent was also obtained from targeted universities. An electronic link to the questionnaire has been delivered to the target sample's email. However, only 264 questionnaires were valid for statistical analysis. Data were coded and analysed using the SPSS program (frequencies, percentages, arithmetic averages, and standard deviations). Pearson's correlation coefficient, Cornbach's alpha coefficient, t-test for two independent samples, and one-way analysis of variance followed by Scheffe's test were used to verify the differences between the subjects' responses.

### Findings and Discussion

**1. Participants' attitudes towards educating students with LD in higher education?** Descriptive analysis was conducted to investigate the participants' attitudes towards teaching students with LD in higher education, as shown in Table (1).

**Table 1.** Results of participants' responses

Statements Category	Mean	SD	Attitudes	Rank
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1	Students with LD have the right to continue higher education as their normal peers.	Faculty	4.88	0.35 8	Strongly positive	1
		Teacher	4.77	0.53 1	Strongly positive	
		Total	4.81	0.48 0	Strongly positive	
2	Institutions of higher learning devote attention to students with LD.	Faculty	2.51	1.35 5	Negative	10
		Teacher	3.30	1.45 5	Neutral	
		Total	3.02	1.46 7	Neutral	
3	Students with LD have the ability to complete their university studies.	Faculty	4.63	0.58 8	Strongly positive	2
		Teacher	4.37	0.83 1	Strongly positive	
		Total	4.46	0.76 4	Strongly positive	
4	It is necessary to adapt the curricula to suit the abilities of students with LD at the university.	Faculty	4.40	1.01 7	Strongly positive	3
		Teacher	4.34	0.96 9	Strongly positive	
		Total	4.36	0.98 4	Strongly positive	
5	Teaching students with LD are a burden on higher education institutions.	Faculty	4.03	1.20 8	Positive	7
		Teacher	3.49	1.34 0	Positive	
		Total	3.68	1.31 9	Positive	
6	Students with LD face academic challenges that hinder their university education	Faculty	4.23	1.01 7	Strongly positive	6
		Teacher	3.96	1.03 9	Positive	
		Total	4.05	1.03 8	Positive	
7	I think that the education of students with LD should stop at the end of the secondary stage	Faculty	4,20	1.10 3	Positive	4
		Teacher	3.90	1.47 8	Positive	
		Total	4.09	1.38 1	Positive	
8	The characteristics of students with LD are not commensurate with the nature of university study, such as the length of lectures	Faculty member	3.26	1.42 9	Neutral	9
		Teacher	3.47	1.37 4	Positive	

		Total	3.39	1.39 4	Neutral	
		Faculty member	4.04	1.00 5	Positive	
9	Students with LD are sufficiently motivated to continue postsecondary education	Teacher	4.04	1.02 7	Positive	5
		Total	4.05	1.01 8	Positive	
		Faculty member	4.04	1.17 6	Positive	
10	Postsecondary students with LD are supposed to be limited to direct employment rather than a college education	Teacher	3.39	1.46 9	Neutral	8
		Total	3.62	1.40 7	Positive	
-	Total (faculty)		4.05	0.43 8	Positive	
-	Total (teacher)		3.90	0.44 2	Positive	
-	Overall score		3.95	0.44 5	Positive	

The participants' perspectives towards the education of students with LD at the university are shown in statements 1 through 10. The three highest responses were for: The right of students with LD to pursue their higher education like their normal peers (mean=4.81), the ability of students with LD to complete their university studies (mean=4.46), and the necessity of adapting the curricula to suit their skills at the university (mean=4.36), which were all strongly positive. It is worth noting that the faculty's attitudes were higher than the teachers' 4.88, 4.63, and 4.40, respectively. However, the participants' opinions for the remaining responses were mostly positive (mean=4.09-3.02) except for "Institutions of higher learning devote attention to students with LD", where teachers chose 'neutral' and faculty 'negative'. This may be because the faculty are more aware of the university environment and the most informed and knowledgeable about the support services universities provide for students with LD and its unclear strategy for facilitating the admission of students with LD.

Furthermore, faculty were neutral about if the characteristics of students with LD are not commensurate with the nature of university study, whereas teachers were positive. This can be attributed to teachers' close interaction with students, thus, can evaluate learners' characteristics better. Participants' overall attitudes towards students with LD education in Higher education were positive (mean 3.95), faculty (4.05) and teachers (3.90). The researcher explains this finding by simply stating that participants had a high level of awareness of the rights of students with disabilities, particularly those who fall under the category of Learning disabilities, to receive educational services on par with other students. They also had confidence in their level of intelligence and ability to succeed. Both recognise the significance of tailoring the curriculum to the skills of this specific group of students. This finding aligns with (Lipka et al., 2020) findings indicating that faculty had a strongly positive attitude toward educating students with LD. However, this finding contrasts with that of (Al-Subaie, 2018), who found that professors at Umm Al-Qura

University exhibited unfavourable attitudes towards teaching and curriculum modifications for students with LD.

Frequencies, percentages, averages, standard deviations, and ranks were calculated for the participants' responses, and the results were as follows:

## 2. Challenges facing students with LD in higher education

**Table 2.** Results of participants' responses to the challenges facing undergraduates with Learning disabilities.

	Statements		Mean	SD	Rank
1	Inadequate policies and laws that support the right of students with LD to maintain their higher education	Faculty	4.43	0.918	1
		Teacher	4.24	0.954	
		Total	4.31	0.944	
2	Failure to develop transitional plans that prepare students with LD for the requirements of the undergraduate level	Faculty	4.40	0.995	5
		Teacher	4.10	0.983	
		Total	4.20	0.996	
3	University admission standards limit the enrollment of students with LD in university education.	Faculty	4.30	1.035	3
		Teacher	4.18	1.030	
		Total	4.22	1.031	
4	Insufficient university deployment of support centres for students with disabilities, which would aid students with LD.	Faculty	4.47	0.845	2
		Teacher	4.13	0.936	
		Total	4.25	0.918	
5	Students with LD have deficiencies in self-learning skills, such as time and task management skills	Faculty	3.89	1.313	10
		Teacher	3.67	1.190	
		Total	3.75	1.236	
6	The level of university courses is above the capabilities of students with LD	Faculty	3.83	1.356	9
		Teacher	3.83	1.201	
		Total	3.83	1.255	
7	Inadequate support services provided by universities for students with learning difficulties, such as audio recording of lectures and extending exam times	Faculty	4.38	0.947	6
		Teacher	4.10	1.024	
		Total	4.20	1.005	
8	The lack of environmental adaptations in universities for people with learning disabilities, such as providing halls free of distractions	Faculty	4.27	1.017	7
		Teacher	4.12	0.996	
		Total	4.17	1.004	
9	Students with LD face difficulties, such as difficulty adapting to new instruction methods.	Faculty	4.16	1.072	8
		Teacher	4.05	0.948	
		Total	4.09	0.992	
10	The assessment methods used in higher education are not suitable for students with LD	Faculty	4.29	0.978	4
		Teacher	4.16	0.995	



	Total	4.21	0.990	
- Faculty	4.24	0.859	-	
- Teachers	4.06	0.736	-	
- Overall score	4.12	0.784	-	

The most prominent challenges facing students with LD in higher education are represented in statements (1, 4, 3, 10). Inadequate policies and laws that support the right of students with LD to maintain their higher education topped the challenges (mean=4.31, faculty 4.43, teachers 4.24, followed by the insufficient deployment of support centres for students with disabilities (mean=4.25, faculty 4.47, teachers 4.13). In addition, the admissions policies (mean=4.22, faculty 4.30, teachers 4.18) and the assessment procedures for accepting students' enrollment is incompatible with their abilities (mean=4.21, faculty 4.29, teachers 4.16); therefore, it had an impact on the decreased number of students with LD enrolled in universities. These results show that participants "strongly agree" that these obstacles mainly prevent people with Learning disabilities from enrolling in universities or pursuing higher education. Most notably, faculty members' estimates were higher than teachers. This can be attributed to the faculty being familiar with the campus settings, relevant laws, and the university's services to this group of students.

On the other hand, all participants "agreed" that the following issues are among the barriers students with LD encounter at the university: failure to develop plans to prepare students for the demands of university study, inadequate educational and environmental facilities, exam times that are not commensurate with students' abilities,

difficulty adjusting to new instruction methods, and issues related to students with LD like learning skills and time management skills.

The researcher explains that institutions are still unable to offer learning services and a suitable setting for this group despite the legislation affirming their right to quality education. The findings of numerous research (Denhart, 2008; García-González et al., 2021; Hariri, 2020; Moaqil, 2017) on the challenges faced by students with LD revealed the same challenges. This outcome was consistent with all earlier research. To alleviate the consequences of these scenarios on students with LD higher education, several studies confirmed the necessity to provide appropriate support services (Abed, 2020; Crawford, 2012; Dwaikat, 2016; Jessamy, 2012; Rashed, 2017; Wabili, 2017), such as administrative facilities (Duwaikat, 2016; Jedibi, 2020; Rashed, 2017), psychological and social support (Crawford, 2012; Wabili, 2017).

### 3. Proposals for promoting the empowerment of students with LD in HEIs:

Means, percentage, frequency, and standard deviation were computed for the participants' responses to determine the most effective strategies they agreed upon that support the learning of students with LD in higher education. Results are shown in Table 3.

**Table 3.** Proposals for the empowerment of students with LD in higher education

	Statements	Mean	SD	Rank
1	Offering a program to help students with LD get prepared for university demands throughout the secondary stage	Facult	4.66	0.700
		Teache	4.70	0.584
		Total	4.69	0.626

2	Facilitating university admission procedures and conditions for students with LD, such as exempting them from taking the PGAT	Facult	4.23	1.028	9
		Teache	4.53	0.790	
		Total	4.42	0.890	
3	offering a program to help kids with learning challenges prepare for university requirements throughout the secondary stage.	Facult	4.68	0.662	6
		Teache	4.63	0.592	
		Total	4.65	0.616	
4	Identifying some majors compatible with the abilities of students with LD in higher education.	Facult	4.65	0.718	7
		Teache	4.48	0.813	
		Total	4.54	0.784	
5	Providing awareness programs for all faculty members to familiarise them with the characteristics and characteristics of students with learning difficulties and ways to deal with them	Facult	4.72	0.580	1
		Teache	4.70	0.582	
		Total	4.71	0.580	
6	Providing academic advising programs for students with LD by higher education institutions	Facult	4.72	0.520	4
		Teache	4.66	0.634	
		Total	4.68	0.597	
7	Adapting university course assignments in line with the abilities of students with LD compared to their normal peers.	Facult	4.46	0.988	8
		Teache	4.49	0.895	
		Total	4.48	0.927	
8	Adjusting the grading standards in proportion to the abilities of students with LD compared to their normal peers.	Facult	4.15	1.026	10
		Teache	4.44	0.873	
		Total	4.34	0.937	
9	Providing support services such as psychological counselling services	Facult	4.77	0.471	2
		Teache	4.67	0.658	
		Total	4.70	0.601	
10	Allocating extra office hours for students with LD to meet their needs individually by the course instructor	Facult	4.72	0.541	5
		Teache	4.66	0.677	
		Total	4.68	0.633	
-	Faculty	4.58	0.472	-	
-	Teacher	4.60	0.535	-	
-	Overall score	4.59	0.513	-	

The proposals in statements 1 through 10 aim to facilitate and promote the education of students with learning disability in HEIs.

Remarkably, all participants chose 'strongly agree' (mean=4.34-4.71; overall mean=4.59) to all suggestions presented in Table (9).

The most prominent proposals were providing awareness programs for all faculty members to familiarise them with the characteristics of students with LD (mean=4.71), providing support services such as psychological counselling services (4.70), preparing students with LD for university demands throughout the secondary stage (4.69). Furthermore, providing academic advisory programs (4.68) and allocating extra office hours for students with LD to meet their individual needs the course instructor (4.68).

Unsurprisingly, this indicates the sample's awareness of the basic demands of students with LD and the importance of applying these suggestions in encouraging them to continue their education in HEIs. This outcome is in line with (Denhart, 2008; Al-Wabli, 2017), who connected overcoming the challenges faced by students with LD in HEIs

with increasing faculty members' knowledge of those students' concerns and the provision of support services. The findings also are consistent with the six proposals by faculty members (Aguirre et al., 2021), which are offering faculty members training sessions on disabilities, fostering positive faculty-student relationships, and making reasonable accommodations.

#### 4. Differences between the participants' responses by (occupation, gender, years of experience, and experience in teaching students with LD)

- **Occupation:**

The Independent Sample T-test was used to determine the statistically significant differences between the responses. Results are shown in Table 4 below.

**Table 4.** Results of the Independent Sample T-test by occupation

Axes	Profession	N	Mean	SD	T value	Sig	
Participants attitudes towards educating students with LD	Faculty	92	4.02	0.438	2.525	0.012*	Sig
	Teacher	172	3.90	0.442			
Students' challenges	Faculty	92	4.24	0.859	1.760	0.080	Non-sig
	Teacher	172	4.06	0.736			
Proposals	Faculty	92	4.58	0.472	-0.299	0.765	Non-sig
	Teacher	172	4.60	0.535			

\*Significant at the level of 0.05 or less

Analysis in Table (4) reveals no statistically significant differences in the participants' responses in the axis challenges facing students with LD in HEIs and proposals for enhancing the enrollment of students with LD in HEIs due to the occupation. However, statistically significant differences between the participants' responses were observed in the axes participants' attitudes towards educating students with LD attributed to the profession variable favouring faculty member. The

researcher explains this finding by pointing out that faculty members are better knowledgeable about admissions and registration procedures, university climate, and their willingness to accept students with disabilities.

- **Gender variable:**

The Independent Sample T-test was used to determine the statistically significant differences between the responses. Results are shown in Table (5) below.

**Table 5.** Results of the Independent Sample T-test by gender

Axes	Gender	N	Mean	SD	T value	Sig	
1 Participants attitudes towards educating students with LD	male	131	3.88	0.494	-2.627	0.009**	sig
	female	133	4.02	0.380			
2 Students' challenges	male	131	4.21	0.803	1.872	0.062	Non-sig
	female	133	4.03	0.758			
3 Proposals	male	131	4.60	0.512	0.441	0.660	Non-sig
	female	133	4.58	0.515			

\*\*Significant at the level of 0.05 or less

Table (5) demonstrates no statistically significant gender differences in the participant's responses on the second and third axes at the significance level (0.05) or less. On the other hand, the first axis in favour of the female group shows statistically significant differences for gender at the level of significance (0.01) or less. The researcher attributes this result to the possibility that female teachers and faculty members are more sympathetic and insistent on enrolling students with LD in higher education. However, this result contradicted what was reached by (Al-

Subaie, 2018), as it revealed no statistically significant differences among university faculty members in the attitudes towards students with LD due to the gender variable.

#### • Experience in teaching students with LD

The Independent Sample T-test was used to determine the statistically significant differences between the responses to the question have you ever taught students with LD? Results are shown in Table 6 below.

**Table 6.** Results of the Independent Sample T-test

Axes	Teaching students with LD	N	Mean	SD	T value	Sig	
1 Participants attitudes towards educating students with LD	yes	234	3.95	0.454	0.207	0.837	Non-sig
	No	30	3.97	0.377			
2 Students' challenges	yes	234	4.15	0.787	1.680	0.094	Non-sig
	No	30	3.90	0.737			
3 Proposals	yes	234	4.61	0.505	1.652	0.107	Non-sig
	No	30	4.43	0.554			

According to the variable of expertise in teaching students with LD, Table (6) demonstrates no statistically significant differences in the participants' responses on the three axes. The researcher attributes this finding to the study participants' strong background knowledge of the category of students with LD and their key characteristics, personality traits, abilities, and needs, regardless of whether they

were working with them directly. Additionally, because the study participants' specialisations were in special education, they were likely familiar with special education categories, including students with LD.

#### • Years of experience:

To determine whether there are statistically significant differences in the participants'

responses by years of experience, the "One Way ANOVA" was used. Results are shown in Table (7).

**Table 7.** Results of the One-Way ANOVA by years of experience

Axes	Source of variance	SS	DF	MS	F value	Sig		
1	Participants' attitudes towards teaching students with LD	Between <sub>groups</sub>	0.467	3	0.156	0.783	0.504	Non-sig
		Within <sub>groups</sub>	51.669	260	0.199			
		Total	52.135	263	-			
2	Students' challenges	Between <sub>groups</sub>	7.946	3	2.649	4.477	0.004**	sig
		Within <sub>groups</sub>	153.813	260	0.592			
		Total	161.758	263	-			
3	Proposals	Between <sub>groups</sub>	1.332	3	0.444	1.702	0.167	Non-sig
		Within <sub>groups</sub>	67.807	260	0.261			
		Total	69.138	263	-			

\*\*Significant at the level of 0.05 or less

No statistically significant differences due to the impact of years of experience were observed in the respondents' responses on the participants' attitudes and the proposals axes. In contrast, statistically significant differences due to years of experience were found in the subjects' responses on the second axis, Challenges. The researcher explains this result by the fact that long experience dealing with students with LD helped identify the challenges these students encounter. Additionally,

experience teaching/ studying special education courses in universities qualified the subjects to evaluate the deficiencies in curricula, the time required for assessments completion and other issues that may limit the continuity of education for students with LD in HEIs.

The Scheffe test was used to determine the differences between the categories of years of experience. The results are illustrated in Table (8):

**Table 8.** Results of the Scheffe test for the categories of years of experience

Axes	Experience	N	Mean	1-5	6-10	11-15	> 16
Challenges	1-5	101	3.91	-		*	
	6-10	62	4.20		-		
	11-15	68	4.30			-	
	>16	33	4.26				-

\*\*Significant at the level of 0.05 or less

There are statistically significant differences between the participants who have experience

ranging from 1 to 5 years and the category of participants whose experience ranges from 11

to 15 years on the third axis (challenges facing students with LD in HEIs), favouring the category 11 to 15 years. This finding is explained by the researcher's observation that, in contrast to those with less experience, faculty members and teachers with long years of experience (11–16) and who have worked with categories of learning difficulties for a long time, in addition to research they scrutinised on this category and worked in the same environment, were better able to understand the difficulties faced by students with LD.

### **Conclusion:**

Faculty members are crucial in assisting students in obtaining a quality education and preparing them for the labour market. On the other hand, teachers of students with LD are crucial in preparing those students to adjust to university life demands. Their attitudes can support initiatives to inspire students with LD to seek higher education, get beyond challenges, and develop solutions. Therefore, this study sought to investigate the attitudes of the faculty in special education and learning disabilities teachers toward the education of students with LD in HEIs in the Kingdom of Saudi Arabia, as well as the challenges they encounter and the solutions available. The findings of this study exhibited positive attitudes among faculty members and teachers towards the right of students with LD to access quality learning in higher education and pursue their higher education. However, the results revealed statistically significant differences in the axis (participants' attitudes toward educating students with LD in HEIs) due to the occupation variable favouring faculty members and gender favouring females. Statistically significant differences for the axis (challenges facing students with LD in HEIs) due to the variable years of experience favouring the category with experience from 11 to 15 years.

Notably, this study was limited to learning disabilities teachers and special education faculty members (n=284) in Khobar, Dammam, and Dhahran in the eastern region of

the Kingdom of Saudi Arabia in the academic year 2021/2022. The researcher encountered difficulties delivering the questionnaire to all faculty members in Saudi universities, in addition to the target group's failure to respond via email. As a result, the researcher turned to other communication channels to reach an acceptable number of the target group, which may impact the generalizability of the findings. In light of the findings, the researcher urges university administrators to make serious efforts to accommodate students with LD in HEIs. This accommodation can be achieved by offering a high-quality environment, setting admission laws and standards commensurate with the ability of students who have learning disability abilities, and providing faculty members with awareness programs to introduce them to the characteristics of students with LD and ways to deal with them. Setting transition programs to prepare this category of students for postsecondary education is also necessary. The researcher suggests conducting new studies on teaching students with LD in higher education in the Kingdom of Saudi Arabia and other variables.

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