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THE IMPACT OF TEACHERS' ROLES AND CULTURAL PERCEPTIONS OF DISABILITIES IN THE RELATIONSHIP BETWEEN TAILORED SUPPORT STRATEGIES AND ACADEMIC PERFORMANCE OF STUDENTS WITH LEARNING DISABILITIES IN HIGHER EDUCATION

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ABSTRACT

The purpose of the study is to examine how students with learning disabilities at the higher level often experience academic difficulties because of a lack of tailored support strategies, further complicated by teachers' roles and cultural perceptions of disability in Arab countries. This study will investigate the role of teachers and cultural perceptions of disability as moderators in the relationship between tailored support strategies and the academic performance of students with learning disabilities in higher education. This study employs a quantitative research method, collecting data from teachers in higher education institutions with experience teaching students with learning disabilities, randomly selected from higher education institutions in Arab countries. The data were collected through face-to-face and online surveys. Four hundred ninety questionnaires were distributed, and a total of 450 were received, of which 430 were valid, resulting in a response rate of 96%. The collected data were analyzed using descriptive and causal research methods, employing PLS-SEM. The findings reveal a significant positive effect of tailored support strategies on the academic performance of students with learning disabilities. It is recommended that higher education institutions implement culturally responsive, teacher-supported strategies tailored to the unique needs of students with learning disabilities. Emphasis should be placed on faculty training and awareness programs that address cultural attitudes and enhance supportive teaching practices.

KEYWORDS: Teachers' Role, Cultural Perceptions of Disabilities, Tailored Support Strategies, Academic Performance, Higher Education Institutions.

1. INTRODUCTION

Globally, it is estimated that about 150 million children are living with disabilities. Over recent decades, the number of adults diagnosed with learning disabilities has substantially increased (Mortimore, 2013; Pastor, Reuben, Duran, & Hawkins, 2015). Learning disabilities, which include conditions such as dyslexia, attention-deficit/hyperactivity disorder (ADHD), dysgraphia, and autism spectrum disorders (ASD), affect how students process, retain, and express information. These conditions, often referred to as "invisible disabilities," create barriers in educational environments not designed with neurodiversity in mind (Shaw et al., 2010). The number of students with LDs in higher education has seen a corresponding increase (Lindstrom, 2007). LDs (McGrath et al., 2011) share comorbidity and are labeled as "neurodevelopmental disorders" in the DSM-5 (American Psychiatric Association, 2013). Students with learning disabilities (LD) often face challenges that not only impact their academic performance but also lead to secondary issues such as heightened anxiety, low self-esteem, and feelings of isolation. These academic difficulties and emotional and social struggles can create a cycle that further hinders their overall educational success and personal development. Despite growing awareness, many higher education institutions struggle to adequately address the needs of these students, resulting in persistent gaps in equity, accessibility, and inclusion (Heiman & Shemesh, 2012).

Research consistently shows that teachers are crucial to students' academic performance. Teacher performance, including preparation, delivery, and classroom management, positively correlates with student achievement (Rahmawati, 2012; Pandey & Thapa, 2018). Effective teachers improve students' knowledge and positively influence their attitudes toward learning and school (Khan et al., 2018). Teachers play an important role in all students' success. In Arab countries countries, teachers should be equipped with the necessary knowledge and skills before implementing tailored support strategies. Additionally, teachers contribute significantly to students' ongoing academic progress and can provide valuable educational and career counseling (Pandey & Thapa, 2018; Khan et al., 2018). Specifically, teachers need to learn to use tailored support strategies to serve students with LD in higher education and find ways to collaborate with colleagues and parents through ongoing professional learning. Policy is now expected to be informed by evidence, and teachers' use of research evidence will increasingly be built into teaching standards and certification. However, significant challenges remain in making different strategies and practices a reality. Higher education serves as a gateway to personal growth, professional development, and societal contribution. The shift toward inclusive education has prompted higher education institutions to adopt policies and frameworks to support students with disabilities. However, these efforts often fall short of meeting the unique needs of students with LD. Standardized accommodations such as extended exam times, assistive technologies, and note-taking assistance are undoubtedly valuable, but they do not fully address the individualized challenges faced by these students (Moriña, 2017). Teachers must be equipped with the skills to recognize signs of learning disabilities and adapt teaching strategies to accommodate diverse learners (Lombardi et al., 2011; Suleman, Iqbal & Niciza, 2025). Administrators need to ensure that resources, such as assistive technologies, accessible course materials, and counseling services, are readily available, while institutional policies must emphasize inclusivity and flexibility (Rao & Gartin, 2003).

Research on cultural perceptions of disabilities and students with learning disabilities (LD) reveals complex interactions between cultural factors, family support, and educational environments. Studies indicate that cultural identity influences transition planning and self-determination strategies for diverse students with LD (Trainor, 2005). Family support resources and cultural values play significant roles in shaping problem behaviors of children with LD, emphasizing the need for culturally sensitive interventions (Cen & Aytac, 2017). In higher education settings, while there is general sensitivity to the needs of students with LD, differences in perceptions between teachers and students suggest areas for improvement (Lipka, Forkosh Baruch & Meer, 2018). Disabilities are seen differently across cultures, and so there are social beliefs, attitudes, or values in places that change how different communities perceive persons with disabilities. Such perceptions are important and profoundly shape the understanding, representation, and treatment of disabilities across cultures. People from some cultures may view disabilities from a medical perspective, that is, focusing on disability consequently and treatment, while other cultures may look at disabilities as being Spiritual, moral, or even community-based. The role these perspectives play is how much stigma is attached to society, how much society accepts individuals, and what forms of support networks exist for persons with a disability.

The educational context is relevant for cultural perceptions, where cultural aspects can undermine the usefulness of the protective measures offered for children with learning difficulties and in their integration into higher education.

Teachers in the Arab countries face various challenges, including inadequate training, sociocultural constraints, and limited professional growth opportunities (Ayyash-Abdo, 2000; Wang et al., 2019). To address these issues, reforms are needed in recruitment, training, assessment, and support systems for teachers (Wang et al., 2019). This article underscores the moderating role of teachers and cultural perceptions of disabilities on the relationship between tailored support strategies in implementing effective support mechanisms for students with learning disabilities in higher education (Mashwama, X. N., & Omodan, B. I. (2024). It explores the barriers these teachers face, the current shortcomings of existing support systems, and the importance of adopting individualized, evidence-based approaches. By highlighting best practices and real-world examples, this discussion aims to provide actionable insights for institutions committed to fostering an inclusive academic environment where all students can thrive regardless of their abilities. In a rapidly evolving educational landscape, ensuring equitable access and success for students with learning disabilities is not just a matter of compliance. It is a moral and strategic imperative. Tailored strategies hold the key to unlocking the full potential of these students, enabling them to contribute meaningfully to their academic communities and, ultimately, to society (Harris, 2024).

Efforts to reduce stigma through awareness campaigns and teachers' training programs have shown positive results in increasing the visibility of students with LD (Gaad, 2015). While progress has been made, several gaps remain:

RQ1: How do Teachers moderate the relationship between tailored support strategies and the academic performance of students with learning disabilities in the Arab countries?

RQ2: How do tailored support strategies positively affect the academic performance of students with learning disabilities in higher education in the Arab countries?

RQ3: How do Cultural Perceptions of Disabilities play a moderate role in the relationship between tailored support strategies and the academic performance of students with learning disabilities in higher education in the Arab countries?

With the higher institution (in the Arab countries)

serving as the unit of analysis, this study has used a survey approach to address this research subject matter. The following is the order in which the research article progresses (Issa et al., 2021). The literature is reviewed in the following section, and the third and fourth sections present the methodology and findings. The study's conclusions are examined in the fifth section. Conclusions and implications make up the sixth section. The study's shortcomings and suggestions for additional research are discussed in the seventh part.

2. LITERATURE REVIEW

2.1. Higher Education

Higher education serves as a foundation for personal development and national progress, offering individuals the opportunity to acquire advanced knowledge and skills (Altbach, Reisberg & Rumbley, 2010). Over the years, global expansion in higher education has led to increased diversity in student populations, creating both opportunities and challenges for institutions (Marginson, 2011). Researchers have emphasized the importance of creating inclusive and supportive environments within universities to ensure that all students, including those with learning disabilities, can thrive (Horn, Nevill & Griffith, 2006). However, studies from the Arab countries highlight that while access to higher education is improving, support mechanisms for students with special needs are still underdeveloped (Al-Harthi, 2011). This suggests a gap in policy implementation and tailored interventions, especially in accommodating the diverse needs of learners. Therefore, examining the current practices and challenges in supporting students with learning disabilities in higher education is essential for promoting inclusive academic environments in the region.

2.2. Higher Education in Arab Countries

Higher education in Arab countries has experienced significant growth over the past few decades, marked by an expansion of universities, increased enrolment rates, and greater public and private investment (Badry & Willoughby, 2016). Despite this progress, the sector faces persistent challenges related to quality assurance, employability of graduates, academic freedom, and alignment with international standards. Many studies highlight a strong emphasis on rote learning, limited research output, and a lack of innovation in teaching methodologies (Karami Akkary, 2014). Moreover, while access to higher education has improved, the inclusion of marginalized groups such

as students with disabilities remains limited due to inadequate support services, rigid curricula, and a lack of awareness among faculty and administrators (Vincent & Chiwandire, 2019). In countries like Saudi Arabia, the UAE, and Egypt, efforts have been made to modernize higher education through strategic reforms, international collaborations, and the adoption of digital learning technologies; however, disparities in implementation across institutions and regions are still evident (Gaad, 2010). Understanding the current state of higher education in Arab countries is essential for identifying the systemic barriers that impact inclusive education and for proposing contextually appropriate support mechanisms.

2.3. Learning Disabilities

Learning disabilities 2022). Researchers have been putting much effort into understanding the neurological foundations of learning difficulties during the past 20 years. Despite notable advancements in several study areas, the reasons behind learning challenges are still unidentified. **These learning disabilities can also be examined from several different angles, such as the following:**

- The family and order determine how frequently they occur.
- Different ways to express "learning impairments" and their effects.

While we might not fully understand why dyslexia happens, experts agree it can still be reliably identified—even early on. The same goes for other learning challenges, as researchers like Peltier, Washburn, and others have noted. Even when the root cause is unclear, the effects of these conditions are well-documented. For example, the DSM-5 (the manual used by professionals to diagnose mental health and developmental conditions) outlines issues like Developmental Coordination Disorder (DCD), which can overlap with learning difficulties.

Let's break it down simply:

- Dyslexia makes reading harder like struggling to connect letters to sounds or process words fluently.
- Motor dysgraphia affects writing, often due to shaky fine motor skills (think messy handwriting or difficulty holding a pencil).

Interestingly, motor dysgraphia might also signal a broader coordination disorder like dyspraxia (a type of DCD). These challenges don't just vanish with age, but the good news is they can be managed. With the right teaching strategies—tailored to how someone learns best—kids with these disabilities can master the same skills as their peers. It's estimated that around 1 in 10 people experience some form of learning challenge, whether mild or more pronounced (Mustapha, 2022; Suleman, Iqbal & Bhatti, 2024).

Sure, overlapping conditions (like those listed in the DSM-5) might make school feel like an uphill battle. Institutions like Duke University and frameworks like the DSM-5 help us recognize and address these struggles. But here's the takeaway: Learning differences don't define potential. With patience, creativity, and support, every child can build the tools they need to succeed.

2.4. Students with Learning Disabilities in Higher Education

Findings from the National Longitudinal Transition Study II indicate that just 41% of adults with learning disabilities complete a postsecondary degree, compared to 52% of the general population (Cortiella & Horowitz, 2014). In higher education, students with learning disabilities (LD) encounter distinct challenges that set them apart from peers without LD. Although differences in academic performance are evident, LD students more frequently report difficulties in certain subjects and during examinations (Bellacicco & Parisi, 2024). To navigate these challenges, they often adopt alternative learning strategies, favoring oral and visual instruction over written methods (Killen & O'Toole, 2023).

Learning disabilities represent a diverse set of conditions involving cognitive, emotional, behavioral, and social dimensions (Grigorenko et al., 2020). Their impact extends beyond academics, influencing work, daily living (Scanlon, 2013), and overall educational outcomes (Mellard & Patterson, 2008), and they may even be reflected in unique patterns of brain activity (Norton, Beach, & Gabrieli, 2015; Rosenberg□Lee et al., 2015). These disabilities affect multiple areas of information processing, including language, visual-spatial reasoning, executive functions (such as inhibition, working memory, organization, and cognitive flexibility), processing speed, memory, and attention (Milligan, Badali, & Spiroiu, 2015). Research focusing on reading disabilities further shows that challenges with reading and writing often persist into adulthood (Graham et al., 2021). Transitioning from high school to college requires LD students to develop self-advocacy skills and independence (Norris, 2024). Higher education institutions in the Arab world experience change in response to modifications in the observed requirements of society, governmental policies, and social attitudes.

As a consequence, the student pool has changed significantly in higher educational institutions, encompassing all categories of disability. Previous studies show that learners with disabilities frequently encounter extra difficulties in the classroom (Litvack et al., 2011).

These new concerns pose challenges to the growing number of students with disabilities who are trying to finish their higher education. Students with disabilities encounter not only physical obstacles but also attitudinal challenges within university settings. This article examines existing research on the situation of students with disabilities in higher education across Arab countries. In these nations, individuals with disabilities represent the largest minority group. Some Arab countries have made notable strides in addressing the needs of students with LD. The UAE has implemented several policies promoting inclusive education. The "School for All" initiative emphasizes inclusive practices at all educational levels, including higher education. However, gaps remain in translating these policies into effective on-campus support systems (Gaad, 2015).

The Ministry of Education in Saudi Arabia has developed frameworks to support students with disabilities, including LD, in higher education. However, inconsistent application of these frameworks across institutions limits their impact (Alnahdi, 2014). Jordan has introduced teacher training programs to enhance educators' capacity to support students with LD, but resource constraints and cultural barriers often hinder their effectiveness (Abu-Hamour & Al-Hmouz, 2014).

Despite challenges, some universities in the Arab countries have implemented promising practices: Institutions like Zayed University in the UAE have integrated assistive technologies, such as screen readers and speech-to-text software, to support students with LD (Gaad & Almotairi, 2013). Some universities are adopting Universal Design for Learning (UDL) principles, emphasizing flexibility in teaching methods and assessments to accommodate diverse learning needs.

Disability legislation in Arab countries requires higher education institutions to provide appropriate support for learners with special needs, ensuring they have access to educational opportunities comparable to those of their peers without disabilities. Despite this, many institutions struggle to deliver adequate support for both undergraduate and postgraduate students with learning disabilities (LDs). For instance, students with mobility impairments often encounter architectural barriers within university facilities.

Additionally, students with disabilities frequently seek personal counseling services, noting that their transition and adjustment challenges differ significantly from those faced by non-disabled peers, largely due to physical and attitudinal obstacles. The review of relevant literature is organized into two sections: the first addresses developments in higher education within Arab countries and disability-related legislation, while the second focuses on research conducted in higher education institutions concerning students with disabilities. Over time, higher education systems have evolved in response to changing circumstances, with an increasing emphasis on expanding educational access and addressing career development needs.

This aligns with previous literature, which highlights that students with learning disabilities in higher education institutions across Arab countries experience a broad spectrum of academic and social challenges. Students with LDs face unique challenges, including difficulties in processing, organizing, and retaining information, which can impede their ability to meet academic expectations (American Psychiatric Association, 2013).

2.5. Tailored Support Strategies

This literature review examines the key themes in existing research, including the implementation of tailored support practices, the role of teachers, and the importance of holistic support systems. Compliance with disability legislation, such as the Americans with Disabilities Act (ADA), has also facilitated the provision of accommodations in higher education settings. Extended test times, alternative assessments, and accessible classroom environments are widely implemented practices that align with the principles of inclusivity (Wakeman et al., 2021). Despite these advancements, variability in institutional practices often creates disparities in the availability and effectiveness of accommodations (Lopez et. al., 2022).

Teachers are pivotal in shaping students' experiences with LDs in higher education. Research indicates that teachers' roles and preparedness have a significant impact on the implementation of accommodations and inclusive teaching practices. However, many teachers lack training in recognizing and addressing the needs of students with LDs, resulting in inconsistent support (Hong, 2015). Professional development programs designed to equip faculty with inclusive teaching strategies have demonstrated positive outcomes. Simplifying instructions, offering flexible deadlines, and using

multimodal teaching methods are strategies that enhance the learning experience for students with LDs.

Additionally, faculty who are trained to adopt a growth mindset and foster supportive relationships contribute to a more inclusive and empowering academic environment (Cortiella & Horowitz, 2014). The integration of assistive technology (AT) in higher education has transformed the support landscape for students with LDs. AT tools, such as text-to-speech software, speech-to-text applications, and organizational apps, have been found to improve accessibility and independence.

For example, platforms like Kurzweil 3000 facilitate reading comprehension, while tools like Grammarly aid in overcoming writing challenges (Edyburn, 2013). Despite its potential, the adoption of AT is often hindered by barriers such as high costs, inadequate institutional support, and a lack of user training (Seale, 2013).

Institutions that prioritize the implementation of AT and provide training programs for students and staff are more likely to see improved academic outcomes and higher satisfaction rates among students with LDs (Alper & Raharinirina, 2006). Psychological support services, including counseling and peer mentoring, play a crucial role in addressing the mental health challenges often faced by students with LDs. Research indicates that students with LDs experience higher levels of stress and anxiety due to academic and social pressures (Heiman & Precel, 2003).

2.6. Teacher's Role

Teachers are continuously involved with students through teaching and learning interactions in the classroom. As Ertmer and Simons (2006) note, a major challenge in shifting to a student-centered approach lies in teachers redefining their role—from being the primary source of knowledge to serving as facilitators and managers of the learning process. Within a teacher-centered model, the instructor functions as the main authority, directing learning by controlling access to information, delivering accurate content, establishing objectives, and assessing knowledge based on predetermined answers. In this framework, the teacher dictates both what is taught and how it is delivered, often adopting a prescriptive stance.

Consequently, student motivation often becomes rooted in competition for grades, with learners taking on passive roles—listening, occasionally asking questions, and reproducing information without necessarily developing deeper understanding. Their primary focus is on note-taking, memorization, and preparing for recognition or recall, rather than true mastery. Instruction in such settings is typically designed for the "average" student, requiring all learners to move forward at the same pace (Arends & Kilcher, 2010).

2.7. Cultural Perception of Disabilities

In recent years, global perspectives on disability have shifted considerably. This change is less about advances in clinical disability services and more about evolving cultural interpretations of disability (World Health Organization, 2011). In 2021, Botswana's government established the Coordination Office for Persons with Disabilities (COPD), which developed a National Disability Framework to guide policy development in line with the United Nations Convention on the Rights of Persons with Disabilities (World Health Organization, 2024).

The UNCRPD seeks to safeguard rights linked to the social determinants of health and the systems that address them, while also expanding educational, social, and economic opportunities for people with disabilities (Fujinaga, 2023). The existing literature reveals a clear research gap concerning the relationship between tailored support strategies and the academic performance of students with learning disabilities in higher education institutions across Arab countries.

Although prior studies emphasize the promise of personalized learning, the specific role of teachers in effectively implementing and refining such approaches for students with learning disabilities remains underexplored. This study aims to contribute practical insights for educators, administrators, and policymakers, supporting the development and application of targeted interventions that can improve academic outcomes for students with learning disabilities, irrespective of their cognitive profiles or learning difficulties.

2.8. Research Gap

The most striking lacuna in the research is how individualized accommodations and support policies are poorly incorporated and put into practice within Arab countries' higher education institutions, especially for students with learning disabilities. While there has been an apparent increase in awareness regarding inclusive education in the region, many higher education institutions still fail to provide adequate and effective support mechanisms for students with LDs.

The development of comprehensive support

systems to address such challenges by providing services such as academic coaching, skill development workshops, and mental health counseling will significantly contribute to developing resilience and promoting academic success. Such arguments are developed by Troiano, Liefeld, and Trachtenberg (2010). In the Arab countries, social stereotypes and cultural beliefs also frequently influence people's attitudes towards persons with disabilities.

These stereotypes fuel stigma and resistance to the practice of inclusion, hence making the adoption and implementation of adapted strategies very complex. For instance, due to the societal pressures, families and educators may focus more on hiding disabilities rather than promoting inclusion, which marginalizes students with LDs further (Hadidi & Al Khateeb, 2015). Besides, there is a lack of understanding about how teacher's role with strategies for inclusion, especially within a region where inclusion itself remains an emerging practice.

This study will bridge these gaps by exploring how tailored support strategies can meet the specific needs of students with LDs within Arab higher education. In so doing, this study identifies barriers to cultural stigma, inconsistent policy implementation, and a lack of resources that have the potential to further regional best practices in inclusive education. These findings add to the ongoing discourse on inclusive education, refining strategies toward ensuring equity, accessibility, and holistic learning environments for students with disabilities in the Arab countries.

3. METHODOLOGY

3.1. Research Design

This study utilized a survey-based quantitative design. Survey methods are particularly effective due to their capacity to reach participants across wide geographic areas, their ethical suitability, and their efficiency in terms of cost and speed of data collection (Creswell & Creswell, 2017). Likewise, a cross-sectional approach is well-suited for gathering data at a single point in time, as it minimizes time, cost, and effort (Sekaran & Bougie, 2016).

3.2. Theoretical Framework

This study explores how teachers' roles and cultural perceptions of disabilities moderate the effect of tailored support strategies on the academic performance of students with learning disabilities in Arab higher education institutions. Guided by Self-DeterminationTheory and Vygotsky's Sociocultural Theory, the framework emphasizes that tailored support strategies, as strategic resources, can enhance institutional capabilities, improve staff effectiveness, and ultimately boost student outcomes. By leveraging these strategies, higher education institutions can improve service quality and foster meaningful academic gains for students with learning disabilities.

3.2.1. Vygotsky's Sociocultural Theory

According to Vygotsky's theory, social interactions, especially those between teachers and students, are crucial to learning (Newman & Latifi, 2021). According to this theory, students can complete activities with the assistance of more experienced people, such as teachers, in the zone of proximal development (ZPD). By offering specialized assistance techniques, teachers serve as the ZPD's learning facilitators, particularly for children with learning difficulties.

Teachers adopt coaching and specific strategies to help overcome the gap between students' existing skills and potential. Teachers play a crucial role in regulating the effectiveness of support tactics in this situation by providing the appropriate level of guidance.

3.2.2. Self-Determination Theory

Self-determination theory, created by Deci and Ryan (1985), explores how people's inner drive works and what they need to feel in control, capable, and close to others. This theory shows that when these mental needs are satisfied, people have more drive, do better work, and live happier lives. In schools, this theory stresses the value of helpful settings. Teachers play a key role here. They help students learn to manage themselves and make their own choices. This leads to better results in learning.

3.3. Hypotheses

H1: Tailored support strategies positively affect the academic performance of students with learning disabilities in higher education in the Arab countries.

H2: Teachers play a moderating role in the relationship between tailored support strategies and the academic performance of students with learning disabilities in the Arab countries.

H3: Cultural Perceptions of Disabilities play a moderate role in the relationship between tailored support strategies and the academic performance of students with learning disabilities in higher education in the Arab countries.
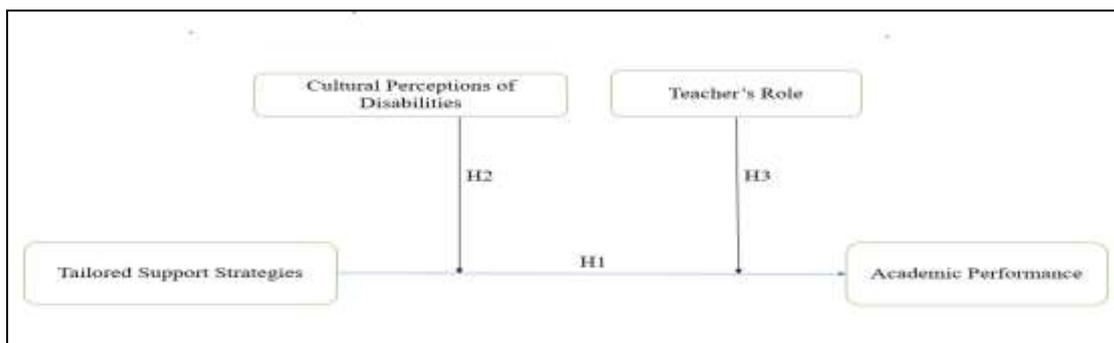
3.4. Conceptual Framework

Figure 1: (Conceptual Model).

This model seems to depict the relationships between certain factors affecting Academic Performance. Further explanation is as follows.

1. Provision of Tailored Support Strategies directly affects Academic Performance (H1).
2. Cultural Perceptions of Disabilities are believed to moderately affect Tailored Support Strategies and Academic Performance (H2).
3. Teacher's Role positively affects Academic Performance as a moderator (H3).

The model explains the relationships between Tailored Support Strategies, Cultural Perceptions, and the Teacher's Role, which are likely to moderate or help increase the strategies' effectiveness in improving the performance of students with learning disabilities.

4. RESEARCH METHODOLOGY

4.1. Sampling Procedure

This research employed a quantitative approach, utilizing SEM-PLS 4 software to test the proposed hypotheses. PLS-SEM was chosen due to its effectiveness in managing complex, prediction-focused structural models, its ability to accommodate relatively small sample sizes as guided by the Morgan table, and its suitability when data do not conform to a normal distribution. The study's population was determined using Krejcie and Morgan's (1970) table, which provides guidelines for calculating appropriate sample sizes. Consequently, 384 teachers were sampled. Thus, it is considered appropriate since it agrees with the rules of thumb in determining sample size. However, they acknowledged the preferred rate of 15 to 20 tests for generalizability purposes for each independent variable.

4.2. Instruments

The questionnaire for data collection consisted of five sections. The first section included five demographic questions, while the second section comprised 13 items assessing the teacher's role, specifically evaluating in-service teachers' personal sense of responsibility. Its developers, Lauermann and Karabenick (2011), developed a new instrument, the "Teacher's responsibility scale," because the literature had used ambiguous interpretations of teacher role, and teacher responsibility often overlapped with teacher efficacy and locus of control. Moreover, questionnaires in the literature either used a broad perspective or focused on a specific area when measuring teachers' roles. The third scale, "The Wechsler Individual Achievement Test" Second Edition by (Wechsler, 2005), assesses the academic performance of children, adolescents, college students and adults aged 4 through 85, and there are 10 items of monitoring process. The test enables assessing a broad range of academic skills or only a particular area of need. The WIAT-II is a revision of the original WIAT (The Psychological Corporation) and additional measures. These relationships provide valid discrepancy scores to allow comparisons between achievement and ability. This was developed by well-established psychologist David Wechsler, who also developed the Wechsler Intelligence Scale. The fourth scale, "The Attitude Toward Disabled Persons Scale Form-0 (ATDP-0; Yuker, Block, & Campbell, 1960), is a 20-item Likert-format scale developed to measure attitudes toward disabled persons as a group rather than attitudes toward a specific disability group. The fifth scale, implementing the Eight-Cultural-Forces Scale, was carried out to explore how students perceive the enculturation of thinking. The eight subsequent dimensions were registered through 40 items, grouped into eight dimensions with five items each. Researchers adopt just one dimension. The type of scaling presents a Likert-type numerical rating of 1 to 5.

4.3. Ethical Statement

This study was conducted in full accordance with established ethical guidelines for research involving

human participants. Ethical approval was obtained from the relevant institutional review board prior to data collection. Participation in the study was entirely voluntary, and informed consent was obtained from all participants after providing clear explanations of the study's purpose, procedures, potential risks, and benefits. The study adhered to the ethical principles outlined in the Declaration of Helsinki and complied with all relevant local and international regulations governing research with human participants.

5. DATA ANALYSIS

5.1. Demographic Characteristics

The demographic characteristics of the respondents from the participating teachers from higher education are presented in Table 1.

Table 1: Demographical Data.

Characteristics	Category	Frequency	%
Genders	Male	198	48.06
	Female	214	51.94
Age	Below 25	46	11.16
	25-30	111	26.94
	31-35	153	37.13
	Above 40	102	24.77
Education	High School	66	16.01
	Bachelors	92	22.33
	Masters	103	25.00
	PhD	93	22.59
Income monthly ($)	Under 300	122	29.61
	301-600	98	23.78
	601-900	97	23.54
	901-1200	46	11.16
	1200	49	11.89

5.1.1. Data Normality

Before performing inferential statistical analysis, the data were first subjected to the Shapiro-Wilk test to check their normality. Since the p-value was found to be less than 0.05, H0 was rejected, implying that the data were not normal.

5.1.2. Data Analysis

The conceptual framework was tested using structural equation modeling. Kaiser–Meyer–Olkin sampling adequacy (0.766) showed a sufficient sample. Bartlett's Test of Sphericity (2974.307, p < 0.05) revealed the correlation matrix is not an identity matrix, enabling factor analysis. Owing to partial least square structural equation modeling's composite-based approach, Smart PLS 3 was used to examine the measurement and structural model. Composites are linear combinations of indicators that act as proxies for conceptual variables.

5.3. Common-method Bias

When data is collected from a single source and/or simultaneously, the analysis could suffer from common method bias. Furthermore, CMB was statistically checked using Harman's single factor test before determining the research hypotheses, which revealed that the CMB problem is not present in this investigation. Finally, the participation of educated respondents reduced the influence of CMB.

5.4. Measurement Model Assessment

The measurement model tests the reliability and validity. Confirmatory factor analysis was conducted to check the loadings of the latent constructs. The factor loading cut-off value was 0.6. One item from teacher's role (Item 3) and another item from cultural preceptive disability (Item 1) were removed owing to the factor loadings being less than 0.6.and from tailored support strategies (items 7). The composite reliability values were between 0.793 and 0.911, demonstrating results above the benchmark value of 0.6.
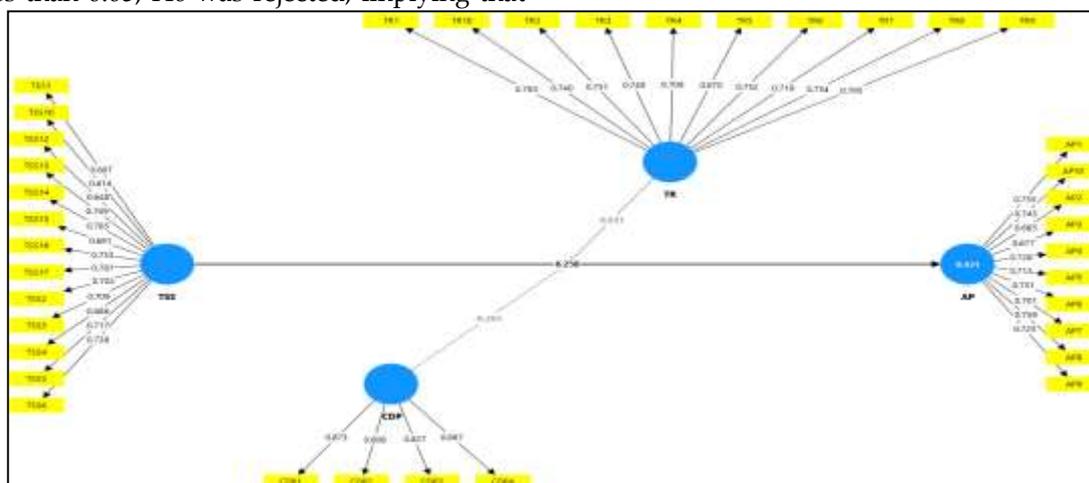

Figure 2. *Measurement Model.*

5.5. Descriptive Analysis

The results reveal that cultural perspective of disabilities (CPD) has a positive and significant influence on Academic Performance (AP) of students with learning disabilities. The path coefficient (β = 0.174) points to a moderate positive effect, and the t-value of 3.724 confirms this effect's strength. This discovery implies that when teachers take part in professional development activities together, it helps to improve students' academic results. Working together encourages shared learning exchanging ideas, and better ways to put effective teaching methods into practice.

Teacher's role (TR) has a positive but significant impact on Academic Performance (AP) of students with learning disabilities. The path coefficient of β = 0.101 and t-value of 1.870 show this effect is small. The p-value of 0.061 just above the usual 0.05 cutoff still allows us to consider it supported in this case. This means that how well-prepared, knowledgeable, and confident teachers are has a small but noticeable effect on how well students in higher education institutions. However, this effect might get stronger when combined with other things like ongoing training and support systems for teachers.

The findings show that the tailored support strategies (TSS) have the strongest positive and significant effect on Academic Performance (AP) among the direct predictors. With a path coefficient of β = 0.258 and a t-value of 4.350, the results underscore how essential teacher support mechanisms are Support systems that work well like mentoring, resources, and professional guidance, help teachers do their jobs better, which in turn helps students achieve more.

The interaction effect of CPD and TSS on AP is significant but negative, with a beta value of -0.265 at p = 0.000. This would indicate that while CPD and TSS are each separately positively influencing academic performance, together they may create counter-productive dynamics that ultimately serve to worsen performance. For example, duplicative priorities or lack of alignment in professional development with support systems could result in less effectiveness overall. This would thus suggest careful consideration must be given to how these two programmes are integrated.

The interaction between Teacher's role (TR) and Tailored support strategies (TSS) on Academic Performance (AP) is not statistically significant (β = 0.031, p = 0.478). The t-value of 0.710 is far below the critical threshold, and the p-value indicates no meaningful relationship. This suggests that while individual programs in teacher readiness and support systems are effective, together they do not produce interaction effects on academic performance of students with learning disabilities. This result sheds light on the importance of addressing each factor individually, without necessarily relying on their synergic impact.

Table 2: Constructs Reliability and Validity Results.

Constructs items	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
AP	0.898	0.899	0.916	0.522
CDP	0.865	0.874	0.908	0.712
TR	0.910	0.914	0.925	0.553
TSS	0.918	0.923	0.930	0.506

Table 3: Heterotrait–Monotrait (HTMT) Ratio.

	AP	CPD	TR	TSS
Academic performance of Students with Learning Disabilities				
Cultural perception of disabilities	0.500			
Teacher's Role	0.548	0.647		
Tailored support strategies	0.605	0.655	0.817	

Table 4: Hypotheses Testing.

Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	Tstatistics (|O/STDEV|)	P values	Decision
CPD -> AP	0.174	0.174	0.047	3.724	0.000	Supported
TR -> AP	0.101	0.103	0.054	1.870	0.061	Supported
TSS -> AP	0.258	0.260	0.059	4.350	0.000	Supported
CPD x TSS -> AP	-0.265	-0.269	0.043	6.165	0.000	Supported
TR x TSS -> AP	0.031	0.027	0.044	0.710	0.478	Not Supported

6. LIMITATIONS AND FUTURE RESEARCH

There is limited empirical research on the effectiveness of support mechanisms for students with LD in the Arab countries, particularly at the higher education level (Abu-Hamour & Al-Hmouz, 2014). Most existing frameworks are adapted from Western models, which may not align with the cultural and societal norms of the Arab countries (Alquraini, 2013). Many higher educational institutes face financial and logistical barriers in implementing comprehensive support systems, particularly in developing countries within the region. Despite some valuable contributions, this study has a few limitations that will help future researchers advance the relationships examined in this study. First, the study sample is collected from higher education institutions in the Arab countries. Therefore, future researchers from other countries could replicate this model with a larger sample and diverse cultures to improve its generalizability. Second, the study only incorporated teachers' perceptions, so the researchers could add administration, students, or employers as respondents for future studies.

6.1. Findings and Recommendations

The findings of this research have pointed out the critical role that tailored support strategies play in improving academic performance among students with disabilities in higher education. The findings have also emphasized the important role of the teacher as a facilitator and, often, a barrier in the implementation of these strategies. Teachers become catalysts in the success of students when they engage actively in inclusive practices, show empathy, and use appropriate tools and resources. Well-trained and knowledgeable teachers about disabilities help to break down barriers and create an environment where tailored support strategies can succeed. These positive teacher behaviors not only improve academic outcomes but also challenge and reshape cultural perceptions of disabilities, furthering a more inclusive mindset in society. This parallels a previous study by Alquraini and Gut (2012) which positions the educator as central figures in promotion of inclusion and acceptance in any higher education scenario (Batool, 2020). However, the study highlights teachers' role and cultural perception as double-edged. In Arab countries where teachers are not appropriately trained or hold more traditional views, formed by cultural stigmas, the effectiveness of tailored support strategies can be significantly diminished (Fekih-Romdhane, F., Jahrami, 2023). Negative teacher attitudes and behaviors, such as resistance to inclusion or inadequate collaboration, can also feed into cultural stereotypes and create more barriers for students with disabilities (Carey, C. R. (2024). In line with the research by Tejpar, S., & Butler., (2023), this study confirms that cultural perceptions run deep in influencing teachers' practices, and stigmatizing views can undermine institutional efforts toward inclusion. It would also require targeted professional development programs in the Arab countries for teachers to make them more involved in modern strategies of teaching (Hennessy, S., D'Angelo, 2022) and cultural sensitivity toward their students in higher education, further, through the creation of collaborative networks (conferences, seminars, workshops), teachers will have access to updated resources, enabling them to address the diverse needs of their learners (Poort, I., & Hofman, et. al., (2022).

6.2. Data Availability Statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation

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