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Integrating Generative AI in Inclusive Education: Faculty Perceptions of ChatGPT's Role for Students with Learning Disabilities

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Abstract

The rapid expansion of generative artificial intelligence (AI) in higher education has created new opportunities for inclusive teaching, particularly for students with learning disabilities who require adaptive instructional support and accessible learning resources. As a generative AI tool, ChatGPT has gained attention for its capacity to provide interactive explanations, scaffold academic tasks, and personalize responses. This study examines faculty perceptions, perceived challenges, and accessibility concerns regarding the use of ChatGPT in supporting students with learning disabilities within Saudi higher education. Using a descriptive survey design, data were collected from 412 faculty members through a structured questionnaire. Descriptive statistics and two-way analysis of variance were applied according to academic rank and years of experience. Faculty recognized ChatGPT's usefulness for information access, writing support, and content drafting (M = 3.60, SD = 0.44), while expressing concerns regarding institutional support, accessibility barriers, training needs, and ethical issues (M = 3.68, SD = 0.39). No statistically significant differences were found by academic rank or experience. The findings highlight the need for stronger institutional readiness to support responsible generative AI integration in inclusive higher education.

Keywords: generative AI, learning disabilities, higher education, inclusive education, faculty perceptions.

1. Introduction

Artificial intelligence has rapidly become a transformative force in higher education worldwide, particularly with the emergence of generative AI systems capable of producing human-like language, adaptive explanations, and interactive academic support (Holmes et al., 2022; Zawacki-Richter et al., 2019). Across global higher education systems, universities are increasingly exploring how generative AI can improve instructional flexibility, student engagement, and educational accessibility, especially within inclusive learning environments designed to accommodate diverse learner needs (Kasneci et al., 2023; Su & Yang, 2023). Recent developments have positioned generative AI not merely as a technological innovation but as a strategic educational tool with implications for equity, participation, and individualized support (Ayala, 2023; Kirmani, 2022).

At the same time, inclusive education has become a global policy priority, with growing attention to ensuring that students with learning disabilities receive equitable opportunities for participation and academic success in higher education (Rao et al., 2021; Römhild & Holllederer, 2023). Students with learning disabilities frequently encounter persistent barriers related to reading comprehension, written expression, information processing, organization, and academic self-regulation (Augusto et al., 2025; Yenduri et al., 2023). These barriers often remain insufficiently addressed within conventional university teaching practices, creating risks of underachievement, reduced academic confidence, and limited engagement (Bonuomo et al., 2023; Gkora & Karabatzaki, 2023).

Within this context, generative AI offers new possibilities for adaptive educational support. Unlike traditional assistive technologies that often serve single functions, generative AI systems can simultaneously simplify content, generate explanations, support writing, organize ideas, and provide immediate feedback (Bahrini et al., 2023; Dai et al., 2023). Such features suggest strong potential for supporting inclusive teaching practices and for aligning with Universal Design for Learning principles that emphasize flexible representation, engagement, and expression (CAST, 2018; Choi & Ahn, 2023).

Among available generative AI tools, ChatGPT has emerged as one of the most accessible and widely discussed applications in higher education because of its conversational flexibility and ease of interaction (Alshurideha et al., 2024; OpenAI, 2024). Its capacity to generate personalized responses, scaffold academic tasks, and support multiple forms of communication makes it particularly relevant for students with learning disabilities (Ayala, 2023; Mındajao, 2023). However, despite growing global interest, important concerns remain regarding reliability, ethics, accessibility, institutional readiness, and responsible pedagogical integration (Abas et al., 2023; Urbina et al., 2023).

In Saudi Arabia, higher education institutions are undergoing rapid digital transformation under Vision 2030, with increasing institutional emphasis on

innovation, accessibility, and educational modernization (Alghamdi & Alzahrani, 2024). Although this transformation creates favorable conditions for AI adoption, empirical evidence remains limited regarding how university faculty perceive generative AI tools when applied to inclusive education, particularly for students with learning disabilities. Faculty perceptions are especially important because they directly influence whether such technologies are accepted, resisted, or meaningfully integrated into instructional practice (Alshurideha et al., 2024; Davis, 1989).

Therefore, this study investigates faculty perceptions of ChatGPT's role in supporting students with learning disabilities within Saudi higher education, using Saudi Arabia as an empirical context to contribute to the broader international discussion on responsible generative AI integration in inclusive higher education.

2. Background

2.1. Theoretical Framework

The integration of generative artificial intelligence into inclusive higher education requires conceptual frameworks that explain both educational accessibility and faculty adoption of emerging technologies. For this reason, the present study is grounded in two complementary frameworks: Universal Design for Learning (UDL) and the Technology Acceptance Model (TAM).

Universal Design for Learning emphasizes the creation of flexible learning environments that accommodate learner variability through multiple means of representation, engagement, and expression (CAST, 2018). Within higher education, UDL has become particularly relevant for students with learning disabilities because it promotes instructional flexibility that reduces barriers to participation and supports diverse cognitive needs (Rao et al., 2021). Generative AI tools such as ChatGPT theoretically align with UDL principles because they can provide alternative explanations, scaffold content, simplify language, and offer repeated interactive support adapted to learner needs (Ayala, 2023; Holmes et al., 2022). However, the extent to which these tools practically support inclusive teaching depends on how they are implemented within real educational settings.

Alongside UDL, the Technology Acceptance Model provides a framework for understanding faculty attitudes toward educational technologies. According to TAM, technology adoption is largely influenced by perceived usefulness and perceived ease of use (Davis, 1989). In higher education, faculty members' judgments regarding whether a technology improves teaching and whether it can be integrated without excessive difficulty strongly shape actual classroom adoption (Crittenden & Peterson, 2019). In the context of generative AI, faculty acceptance also reflects concerns related to institutional support, ethical guidance, and digital competence.

Together, UDL and TAM offer a dual lens for understanding ChatGPT in inclusive higher education: UDL explains its pedagogical potential for accessibility, while TAM

explains why faculty may accept or resist its use despite perceived educational benefits.

In the present study, UDL provides the pedagogical lens for examining whether ChatGPT supports inclusive educational access for students with learning disabilities, whereas TAM explains how faculty judgments regarding usefulness, usability, and institutional readiness shape acceptance of generative AI in higher education.

2.2. Generative AI and Inclusive Higher Education

Recent international research has highlighted the growing role of generative AI in higher education, particularly through applications that support writing, feedback, content generation, and adaptive communication. ChatGPT has emerged as one of the most widely discussed tools because of its conversational design and accessibility across academic tasks (Kasneci et al., 2023; Su & Yang, 2023). Studies indicate that faculty and students increasingly view ChatGPT as a resource for lesson preparation, academic writing support, and interactive learning (Iqbal et al., 2022).

Several studies have reported that ChatGPT may enhance accessibility by simplifying information and supporting students who require adaptive communication formats. Bond et al. (2024) and Verma et al. (2023) noted that conversational AI may contribute to reducing barriers for learners who need text simplification, repeated clarification, or multimodal interaction. Similarly, Ayala (2023) emphasized that ChatGPT can support students with disabilities by providing individualized explanations, lower reading-level responses, and assistance with organizing academic tasks.

Research has also identified broader educational benefits such as increased motivation, improved writing quality, and greater learner engagement (Biswas, 2023; Hwang & Chang, 2023; Kung et al., 2023; Lo, 2023). Immediate feedback and flexible interaction are often identified as major strengths, particularly in contexts where students require continuous support (Dai et al., 2023).

Despite these opportunities, evidence also shows significant limitations. Abas et al. (2023) reported that while ChatGPT supports personalization, concerns remain regarding accuracy and inconsistency of generated responses. Urbina et al. (2023) further highlighted risks of cognitive bias and exclusion within AI-generated outputs, raising important concerns for inclusive education. Baidoo-Anu and Ansah (2023) similarly argued that although ChatGPT may reduce teacher workload and increase student motivation, safe educational adoption requires ethical safeguards and faculty preparation.

2.3. Faculty Readiness and Institutional Challenges

Faculty readiness remains a central factor in determining whether generative AI becomes a practical instructional resource. Söderström et al. (2024) found that many educators remain uncertain about how ChatGPT should be integrated into teaching

and often report limited institutional guidance. Das and Madhusudan (2024) similarly observed that although students often perceive ChatGPT positively, educators continue to express concerns regarding ethical implications, reliability, and academic integrity.

Institutional barriers also influence implementation. Previous studies indicate that successful educational technology adoption depends on professional development, policy clarity, and technical support (Zawacki-Richter et al., 2019). Without these conditions, even technologies perceived as useful may remain underutilized.

Accessibility presents an additional institutional challenge. While generative AI offers adaptive possibilities, practical barriers such as digital literacy, unequal access, training deficits, and technological infrastructure can limit its inclusive value (Verma et al., 2023). This is particularly important for students with learning disabilities, where accessibility must extend beyond availability to include meaningful usability within academic contexts.

2.4. Saudi Higher Education Context and Research Gap

In Saudi Arabia, higher education institutions are undergoing rapid digital transformation, with increasing emphasis on innovation and technology integration under Vision 2030. Recent institutional developments have expanded the use of digital learning platforms and AI-supported systems across universities (Alghamdi & Alzahrani, 2024). At the student level, Aldossary et al. (2024) found that Saudi university students generally viewed generative AI positively and associated it with educational development.

However, existing evidence in Saudi higher education remains limited in several respects. Most available studies focus on general technology adoption rather than inclusive education, and few examine faculty perspectives specifically related to students with learning disabilities. Although Alghamdi (2023) emphasized that successful educational innovation requires faculty readiness and institutional support, empirical investigation of these factors in relation to ChatGPT remains insufficient.

Furthermore, much of the international literature has concentrated on general student populations, while disability-focused applications remain underexplored (Togni, 2025). This leaves an important gap concerning how faculty perceive the practical value, challenges, and accessibility of generative AI when used to support students with learning disabilities in real university settings.

Accordingly, this study addresses that gap by examining faculty perceptions, challenges, and accessibility concerns related to ChatGPT within Saudi higher education, contributing Saudi empirical evidence to the broader international discussion on responsible generative AI integration in inclusive education.

2.5. Research Questions

The study is guided by the following research questions:

1. What are faculty members' perceptions of ChatGPT technology in supporting students with learning disabilities?
2. What challenges, including accessibility-related issues, do faculty members perceive in using ChatGPT to support students with learning disabilities?
3. Are there statistically significant differences in perceptions, challenges and accessibility based on faculty members' experience and academic rank?

3. Methods

3.1. Research Design

This study employed a descriptive survey design to examine faculty perceptions of ChatGPT in supporting students with learning disabilities in higher education. ChatGPT was selected as a representative generative AI application because of its widespread accessibility and growing educational use.

3.2. Participants and Sampling

The study targeted all faculty members at Najran University (N = 1,350). An online survey was distributed through official university communication channels coordinated by the Public Relations and Media Department. A total of 428 faculty members accessed the survey link. After excluding 16 incomplete responses, 412 valid questionnaires were retained for analysis, representing a response rate of 30.5%. The sample included faculty across academic ranks and teaching experience categories, supporting institutional-level interpretation of the findings.

Table 1. Faculty members' experience and academic rank

Variable	Category	Frequency	Percentage
Experience	5 years or less	115	27.9%
	6–10 years	163	39.6%
	More than 10 years	134	32.5%
	Total	412	100.0%
Academic Rank	Professor	75	18.2%
	Associate Professor	98	23.8%
	Assistant Professor	139	33.7%
	Lecturer	100	24.3%
	Total	412	100.0%

Note. N = 412.

3.3. Instrument and Procedure

A structured questionnaire was developed based on relevant literature on generative AI in education, inclusive teaching, and faculty technology acceptance (Alshurideha et al., 2024; Das & Madhusudan, 2024; Söderström et al., 2024). The instrument contained two sections of 20 items each: faculty perceptions of ChatGPT usefulness and perceived challenges and accessibility concerns. All items used a five-point Likert scale ranging from 1 (Very Low) to 5 (Very High). Mean score interpretation followed established intervals: 1.00–2.33 = low, 2.34–3.66 = moderate, and 3.67–5.00 = high. The questionnaire was administered online between December 15, 2025, and January 15, 2026, after obtaining ethical approval (Approval No. 202512-076-039557-086501). Participants were informed about the study purpose, voluntary participation, confidentiality, and their right to withdraw at any time before providing electronic informed consent. No identifying information was collected, and all responses were recorded anonymously and used solely for research purposes.

3.4. Validity

Content validity was established through expert review by six specialists in learning disabilities, educational technology, and measurement and evaluation. Revisions were made based on feedback regarding item clarity, relevance, and wording, with agreement exceeding 90%.

Construct validity was examined through pilot testing with 25 faculty members from the target population who were not included in the final sample. Item-to-dimension correlations are presented in Table 2.

Table 2. Item-to-dimension correlation coefficients

No.	Perceptions	Challenges & Accessibility
1	.644**	.775**
2	.693**	.740**
3	.714**	.752**
4	.770**	.689**
5	.682**	.744**
6	.742**	.751**
7	.676**	.786**
8	.641**	.780**
9	.678**	.653**
10	.693**	.763**

11	.644**	.737**
12	.647**	.772**
13	.621**	.716**
14	.794**	.764**
15	.640**	.817**
16	.609**	.799**
17	.778**	.708**
18	.622**	.733**
19	.680**	.761**
20	.767**	.784**

Note. All coefficients are significant at $p < .01$ (**).

Table 2 shows that the correlation coefficients in the perceptions domain ranged between 0.621 and 0.794, while in the challenges and accessibility domain, they ranged between 0.653 and 0.817. All values are significant at the 0.01 level, confirming the items' strong association with their respective domains and indicating high construct validity.

3.5. Reliability

Table 3. Test–retest reliability and internal consistency

Dimension	Items	Test–Retest Reliability	Cronbach's Alpha
Perceptions	20	.92	.89
Challenges & Accessibility	20	.91	.81
Total	40	.93	.92

Table 3 illustrates the reliability analysis results of the study instrument, confirming its strong consistency and dependability. The test-retest reliability coefficients were 0.92 for the perceptions domain, 0.91 for the challenges and accessibility domain, and 0.93 for the overall instrument. These high values indicate excellent stability over time, suggesting that participants responded consistently across multiple administrations. Furthermore, Cronbach's alpha coefficients were calculated to assess internal consistency, yielding 0.89 for the perceptions domain, 0.81 for the challenges and accessibility domain, and 0.92 for the entire instrument. These

findings demonstrate that the questionnaire is both reliable and suitable for use in academic research.

3.6. Data Analysis

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS), Version 25. The analysis proceeded in several steps. First, all returned questionnaires were screened for completeness and response validity. Incomplete submissions were excluded prior to analysis, and the remaining responses were coded and entered into SPSS for statistical processing. Second, descriptive statistics were computed to summarize participant characteristics, including frequencies and percentages for teaching experience and academic rank. Third, means and standard deviations were calculated for each questionnaire item and for the two main study domains: faculty perceptions and challenges/accessibility. These statistics were used to determine the overall level of responses according to the predefined interpretation ranges of the Likert scale. Fourth, before conducting inferential analysis, the assumptions for parametric testing were examined. Homogeneity of variances was assessed using Levene's test, and normality was checked using the Shapiro–Wilk test together with visual inspection of Q-Q plots for the residuals. The results indicated that the assumptions were sufficiently met for the purposes of analysis. Fifth, two-way analysis of variance (ANOVA) was performed to examine whether statistically significant differences in faculty perceptions and in challenges/accessibility were associated with years of teaching experience and academic rank. Statistical significance was evaluated at the .05 level.

4. Results

Table 4. Faculty perceptions of ChatGPT's usefulness in supporting students with LD

(Rated on a 5-point scale: 1 = Very Low, 2 = Low, 3 = Moderate, 4 = High, 5 = Very High)

No.	Item (Abridged)	Mean	SD	Interpretation
1	Supports academic content	3.92	0.51	High
2	Improves writing efficiently	3.83	0.53	High
3	Increases internet info access	3.93	0.43	High
4	Adaptive learning support	3.85	0.51	High
5	Provides diverse answers	3.79	0.57	High
6	Interacts with data types	3.84	0.51	High
7	Discovery-based learning help	3.31	1.05	Moderate

8	Provides immediate feedback	3.71	0.74	High
9	Educational revolution	3.42	0.89	Moderate
10	Helps students learn	3.26	1.01	Moderate
11	Mobile accessibility	3.48	0.88	Moderate
12	Supports T&L for disabilities	3.38	0.96	Moderate
13	Awareness of pros/cons	3.75	0.69	High
14	Trainable for learning needs	3.71	0.65	High
15	Delivers content to students	3.63	0.73	Moderate
16	Personalized learning help	3.45	0.86	Moderate
17	Boosts academic confidence	3.61	0.78	Moderate
18	Helps find creative solutions	3.53	0.81	Moderate
19	Improves writing for difficulties	3.44	0.93	Moderate
20	Task completion aid	3.16	1.11	Moderate
	Overall Perceptions	3.60	0.44	Moderate

Table 4 presents faculty members' perceptions of ChatGPT in supporting students with learning disabilities. The highest-rated item was Item 3, "ChatGPT increases the ability to obtain information from the internet," with a mean score of 3.93 (SD = 0.43), indicating a high level of agreement. The lowest-rated item was Item 20, "ChatGPT helps in effectively completing academic tasks," with a mean score of 3.16 (SD = 1.11), which falls within the moderate range according to the interpretation criteria.

The overall mean score for the perceptions domain was 3.60 (SD = 0.44), indicating a moderate level of perception. These results suggest that faculty generally recognize specific practical benefits of ChatGPT, particularly in information access and writing-related support, while maintaining more cautious views regarding its role in direct academic task performance.

Table 5. Perceived challenges and barriers to accessing ChatGPT for supporting students with LD (Rated on a 5-point scale: 1 = Very Low, 2 = Low, 3 = Moderate, 4 = High, 5 = Very High)

No.	Item (Abridged)	Mean	SD	Interpretation
1	Ethical/security challenges	3.50	0.90	Moderate
2	Data bias	3.52	0.84	Moderate
3	Copyright law confusion	3.26	1.03	Moderate
4	Misuse by students	3.55	0.84	Moderate
5	Negative perceptions	3.90	0.50	High
6	Lack of academic support	3.87	0.52	High
7	Lack of trained staff	3.76	0.64	High
8	Tech problems	3.57	0.83	Moderate
9	Parental understanding	3.70	0.70	High
10	Usability by all students	3.82	0.56	High
11	Handling ChatGPT output	3.80	0.60	High
12	Ease of access	3.80	0.60	High
13	Weak tech skills	3.64	0.72	Moderate
14	Navigating features	3.57	0.85	Moderate
15	Knowledge of features	3.73	0.69	High
16	Training availability	3.73	0.71	High
17	Awareness of capabilities	3.77	0.66	High
18	Digital divide	3.66	0.72	Moderate
19	Lack of human contact	3.67	0.72	High
20	Access variability	3.68	0.75	High
	Overall Challenges & accessibility	3.68	0.39	High

Table 5 presents faculty perceptions of challenges associated with using ChatGPT to support students with learning disabilities. The highest-rated item was Item 5, reflecting negative perceptions toward ChatGPT use, with a mean score of 3.90 (SD = 0.50), indicating a high level of agreement. The lowest-rated item was Item 3, related

to copyright knowledge, with a mean score of 3.26 (SD = 1.03), which falls within the moderate range.

Items 11–20 addressed accessibility-related concerns such as usability, ease of access, digital literacy, and variability in student access. Several items within this subset received high mean scores, indicating that accessibility is viewed by faculty as an important challenge in ChatGPT implementation.

The overall mean score for the challenges and accessibility domain was 3.68 (SD = 0.39), indicating a high level according to the interpretation criteria. These findings suggest that concerns related to ethics, institutional support, and accessibility remain prominent in faculty perceptions of ChatGPT use in inclusive higher education.

Table 6. Two-way ANOVA results for perceptions and challenges by experience and academic rank

Factor	Dimension	SS	df	MS	F	p
Experience	Perceptions	0.066	2	0.033	0.17	.846
Experience	Challenges & Accessibility	0.251	2	0.126	0.81	.447
Academic Rank	Perceptions	0.584	3	0.195	0.99	.399
Academic Rank	Challenges & Accessibility	0.155	3	0.052	0.33	.803
Error	Perceptions	80.081	406	0.197		
Error	Challenges & Accessibility	63.249	406	0.156		
Total	Perceptions	80.797	411			
Total	Challenges & Accessibility	63.677	411			

Note. SS = Sum of Squares; df = degrees of freedom; MS = Mean Square.

Table 6 presents the results of the statistical analysis examining differences in faculty members' perceptions and perceived challenges or accessibility issues related to ChatGPT use, based on their years of teaching experience and academic rank. The absence of significant differences by academic rank or teaching experience suggests that attitudes toward ChatGPT are broadly consistent across faculty demographics. This uniformity implies that professional development or policy initiatives for AI integration can be designed at the institutional level without heavy tailoring to specific subgroups.

The analysis showed that no statistically significant differences were found between the groups in either the perceptions domain or the challenges/accessibility domain, with all p-values greater than 0.05. This indicates that faculty members, regardless of their level of experience or academic position, held similar views regarding the use of ChatGPT in teaching students with learning disabilities. The lack of variation suggests that perceptions of ChatGPT may be shaped more by shared institutional or technological factors than by individual faculty demographics.

5. Discussion

The findings indicate cautious faculty acceptance of ChatGPT in inclusive higher education. Faculty acknowledged its usefulness for supplemental academic tasks while expressing concerns regarding institutional support, ethics, and accessibility, reflecting the Technology Acceptance Model through recognized usefulness but constrained ease of use.

These results are consistent with previous studies that have highlighted ChatGPT's role in bridging digital learning gaps and enhancing personalized instruction. Specifically, ChatGPT has been shown to provide immediate, accessible feedback, simplify complex content, and support adaptive learning pathways and factors that are particularly beneficial for students with learning disabilities who often need customized instructional approaches (Verma et al., 2023; Abas et al., 2023).

From a Universal Design for Learning perspective, ChatGPT aligns theoretically with inclusive teaching through flexible explanation, writing support, and interactive engagement. However, accessibility concerns suggest that practical implementation remains limited where digital literacy and equitable access are insufficient.

In addition, Faculty acknowledged the usefulness of ChatGPT for drafting content, generating study materials, summarizing information, and answering student inquiries. Prior research similarly suggests benefits for participation and academic independence (Baidoo-Anu & Ansah, 2023; Iqbal et al., 2022), although faculty remained cautious regarding efficacy and ethical implications.

The main barriers identified were limited training, weak institutional support, ethical concerns, and accessibility challenges such as usability, digital literacy, and unequal access. These findings align with previous literature emphasizing that successful AI integration in inclusive education depends on both ethical safeguards and accessible institutional implementation (Abas et al., 2023; Das & Madhusudan, 2024; Verma et al., 2023).

No statistically significant differences were found by academic rank or teaching experience, suggesting that perceptions of ChatGPT were relatively consistent across faculty groups. This indicates that perceived barriers are institutional rather than demographic, supporting recent evidence of similar awareness patterns across academic groups (Abu Muqaddam, 2024; Al-Alam, 2024).

Collectively, the findings paint a picture of a faculty body that is aware of ChatGPT's potential in theory but is constrained in practice. They perceive a stark misalignment between the tool's promising features and the reality of their teaching environment, which lacks the necessary support structures, ethical guidelines, and accessibility safeguards to make its use viable and effective for students with learning disabilities. Ultimately, the study demonstrates that theoretical alignment with UDL principles and perceived usefulness from a TAM perspective are insufficient for adoption. The practical ease of use within an equitable and supported system is the critical factor determining whether AI tools like ChatGPT will transition from a novel potential to a realized support for inclusive education.

The present findings also align with broader international evidence indicating that faculty acceptance of generative AI is often shaped less by national context and more by shared institutional conditions affecting technology adoption. Similar concerns regarding training, reliability, ethical use, and institutional guidance have been reported in international studies across different higher education systems. For example, Söderström et al. (2024) found that educators in European contexts expressed uncertainty regarding practical classroom integration of ChatGPT, while Das and Madhusudan (2024) reported similar concerns regarding ethical implications and responsible educational use. Likewise, Bond et al. (2024) emphasized that across higher education systems, successful AI adoption depends on institutional rigor, ethical frameworks, and collaborative implementation. These similarities suggest that the barriers identified in the present study are not unique to Saudi higher education but reflect broader structural challenges facing universities globally as they attempt to integrate generative AI into inclusive teaching.

The findings also generate transferable lessons for higher education systems internationally. First, faculty readiness emerges as a universal prerequisite for effective implementation, indicating that professional development must accompany technological adoption. Second, accessibility concerns such as digital literacy, usability, and equitable access remain central to whether generative AI can genuinely support students with learning disabilities. Third, ethical governance must be treated as an institutional priority, particularly regarding reliability, bias, and responsible pedagogical use. These issues suggest that higher education institutions globally may benefit from adopting unified frameworks that integrate faculty training, accessibility standards, and ethical oversight when implementing generative AI in inclusive education.

Policymakers and institutional leaders must work together to ensure that technology procurement and implementation are driven by inclusive principles. This includes allocating budget for adaptive technologies, ensuring multilingual and multi-sensory support, and embedding AI ethics into teacher training curricula. As higher education increasingly embraces digital transformation, it is crucial that accessibility and equity remain central pillars rather than afterthoughts. The future of inclusive education

hinges not only on technological innovation but also on intentional, equity-focused design and policy reform.

6. Limitations and Future Research

While this study offers valuable insights into faculty perceptions of ChatGPT in supporting students with learning disabilities, several limitations should be acknowledged. First, the study was conducted at a single Saudi university, which limits generalizability to other institutional or cultural contexts. Nevertheless, the issues identified—particularly faculty readiness, accessibility barriers, and ethical concerns—are consistent with challenges reported internationally, supporting cautious transferability to similar higher education settings.

Second, the quantitative survey design identified general trends but did not capture the depth of faculty experiences. Future studies should incorporate qualitative methods such as interviews or focus groups to provide richer insights. In addition, the study focused only on faculty perspectives and did not include students with learning disabilities, whose experiences are essential for understanding practical educational impact.

Finally, infrastructural factors such as internet quality, device availability, and institutional technological support were not directly examined and may influence effective adoption. Future research should investigate these variables and use longitudinal designs to examine the long-term educational impact of generative AI in inclusive higher education.

6.1. Policy Implications

The findings of this study carry significant policy implications for higher education institutions seeking to integrate AI tools like ChatGPT in support of inclusive education. It is important to note that these implications are derived from data collected at a single university; therefore, they are presented as considerations that may be highly relevant for similar institutions, while broader national policies should be informed by more extensive, multi-institutional research.

First, institutional policymakers should prioritize the development of clear guidelines for AI use that address ethical concerns, student data privacy, and academic integrity. Second, funding allocations should be directed toward professional development programs that equip faculty with the skills needed to implement AI tools effectively. Third, institutional policies must mandate accessibility compliance, ensuring that AI technologies are usable by students with diverse learning needs. Finally, institutions should establish interdisciplinary task forces including educators, IT experts, disability advocates, and students to monitor AI integration and continuously refine implementation practices based on feedback and evidence.

While the findings originate from a single university, they suggest considerations that could be scaled. At the national level, education ministries could play a pivotal role in

funding multi-institutional research to verify these findings and, if confirmed, in shaping and standardizing these reforms to ensure consistency across the higher education sector.

7. Conclusion

This study examined faculty perceptions of ChatGPT in supporting students with learning disabilities in Saudi higher education and found cautious acceptance alongside significant concerns related to training, accessibility, and ethical use. These perceptions were consistent across academic rank and teaching experience, suggesting that the barriers identified are institutional rather than demographic.

Although conducted within one Saudi university context, the findings reflect broader international challenges surrounding faculty readiness, accessibility, and responsible generative AI integration in inclusive higher education. Effective implementation therefore requires institutional investment in professional development, accessible infrastructure, and ethical guidance to support responsible use of ChatGPT in inclusive teaching.

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Funding Declaration

This work was supported by the Deanship of Graduate Studies and Scientific Research at Najran University under the Humanities Funding Program grant code (NU/HFP/SEHRC/14/1126-2).

Ethical Approval

All procedures were carried out in accordance with the ethical standards outlined in the 1963 Declaration of Helsinki and its subsequent revisions. Additionally, the ethical approval for this study that was obtained from the Research Ethics Committee at Najran University.

- **Approval No.** (202512-076-039557-086501)
- **Date of approval:** (9-12-2025)

Informed Consent

Informed consent was obtained from all individual participants involved in the study. No identifying information about participants is included in this article.

Data Availability

The datasets generated and analyzed during the current study are not publicly available due to participant confidentiality agreements but are available from the corresponding author on reasonable request.

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