



RESEARCH PAPER

**Bridging the Chasm: Strengthening Faculty Development Programs to Support Inclusive Education for Diverse Learner Needs in Higher Education**

<sup>1</sup>Iram Bashir, <sup>2</sup>Dr. Ghulam Muhammad Malik and <sup>3</sup>Dr. Abdul Majeed Khan

1. M.Phil Scholar, Institute of Education, University of Sargodha, Sargodha, Pakistan
2. Lecturer, Institute of Education, University of Sargodha, Sargodha, Pakistan
3. Assistant Professor, Institute of Education, University of Sargodha, Sargodha, Pakistan

**Corresponding Author:** irambashir236@gmail.com

**ABSTRACT**

The growing multicultural nature of student groups in higher education calls for pedagogical strategies that address diverse learning needs. Faculty play a central role in implementing inclusive practices, but their ability to do so depends largely on the training and support they receive. This research explored how faculty perceive various learning needs, their willingness to adopt inclusive education, and the significance of faculty development programs. A quantitative, descriptive design was used, with a structured questionnaire distributed to 330 faculty members at the University of Sargodha and its affiliated colleges in Punjab, Pakistan. The results showed strong faculty commitment to inclusive education and effective teaching practices for students with cognitive, physical, and linguistic disabilities. The findings emphasized the importance of faculty development programs in enhancing educators' knowledge, skills, and confidence in inclusive pedagogy. The study concluded that long-term, comprehensive faculty development is crucial for creating inclusive and equitable learning environments in higher education.

**KEYWORDS** Diverse Learning Needs, Inclusive Education, Faculty Development Programs, Higher Education, Faculty Intentions

**Introduction**

There is a paradigm shift in higher education where the groups of students are more heterogeneous. Such diversity is not confined to the difference in culture, language, and social and economic status but includes the diversity of cognitive abilities, learning styles, and physical or neurological disabilities (Johnson, 2022; Taylor et al., 2023). Despite the enrichment of the academic space that this heterogeneity brings, it is also a tremendous burden to the members of the faculty who are struggling to make the academic environment inclusive to enable all the students to thrive. The idea behind inclusive education is that equal opportunities to access high-quality learning opportunities should be established by actively removing barriers and ensuring that the participation of all students in education will be significant (UNESCO, 2017).

The faculty members are the key players in the translation of the ideas of inclusion into the classroom practice. Their ideologies, thoughts, and, above all, their pedagogical choices directly influence the conditions of learning and academic performances of various learners (Meyer et al., 2014). Nonetheless, numerous teachers do not feel ready to successfully employ inclusive instructional techniques or simply lack the required confidence to do so, and it is frequently connected to the lack of pre-service training or in-service training in inclusive pedagogy (Darling-Hammond et al., 2020). The intentions of the faculty members in terms of being motivated and ready to engage in inclusive practices can be left unfulfilled without proper preparation, which eventually affects their determination to assist all learners fairly (Martinez et al., 2021). This is a critical point of the difference

between the desire to be inclusive and the ability to achieve inclusion and it defines the success of inclusive education efforts.

Faculty development programs (FDPs) can be seen, in this regard, as a key intervention. These are formalized professional development opportunities that assist the instructors in having the knowledge, skills, and reflective practices that will help them to support the diverse student needs (Wang et al., 2022). Best FDPs expose faculty to models such as the Universal Design for Learning (UDL), which promotes a multiplicity of the means of representation, action and expression, and engagement as one of the methods of developing flexible learning conditions (CAST, 2018). With participation in this kind of development, faculty can redirect their focus from a deficit-based perception of student diversity to an asset-based perspective that considers variability as a resource that can be utilized (Smith and Garcia, 2023).

## **Literature Review**

The theoretical basis of the research is based upon three highly interdependent pillars, and they include: the nature of various learning needs in higher learning institutions, what motivates faculty to adopt inclusive practices, and how faculty development programs can be transformative. This review is a synthesis of existing literature, which aims to provide the theoretical and empirical background of the current research.

The modern classroom of higher education is a mini society, containing students who have diverse learning profiles. This diversity does not focus on classic demographics but has large differences in cognitive abilities, sensory and physical impairments, mental health issues, language skills, and cultures (Johnson, 2022; UNESCO, 2017). This wide range is summarized, therefore, in the concept of diverse learning needs, when a flexible, responsive, and equitable approach to pedagogy is needed (Smith and Garcia, 2023). Conventional, non-individualistic approaches of teaching are becoming more and more viewed as insufficient, and such a system frequently results in student disinterest and inequalities in achievement among non-normative students (Adams & Bell, 2023).

Studies constantly point out several important dimensions of diversity that should be addressed by educators. Cognitive and Physical Divergence consists of students with particular learning disorders (e.g., dyslexia), attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder, and physical or sensory disabilities. The adaptive technology, differentiated instruction, and alternative assessment methods may frequently be needed to support such students (Tomlinson, 2017; Smith & Garcia, 2023). Cultural and Linguistic Diversity means that with the growth in the international movement of students and the involvement of indigenous and minority populations in classes, the classroom has become culturally and linguistically heterogeneous. This will require culturally responsive pedagogy to legitimize the different viewpoints and scaffolding to support students encountering language obstacles (Banks, 2015; Lee & Chang, 2021). Diversity in Learning Styles and Preferences means that students vary in their natural preferences, perception, and processing of information in the most effective way (e.g. visual, auditory, kinesthetic). This variability needs to be recognized by applying multimodal teaching techniques and providing the learners with options in their way of proving their learning (Fleming, 2012; Cassidy, 2021). The inability to meet these various needs may continue to perpetuate systemic inequities. On the other hand, the inclusive strategies have also been associated with better student engagement, motivation, academic success, and a sense of belonging (Meyer et al., 2014; Jones et al., 2021).

The intentions of the faculty members are critical to the successful implementation of inclusive education, that is, willingness, motivation, and planned actions to implement the inclusive strategies in teaching (Martinez et al., 2021). Faculty intention is not an act of creation; a complicated combination of both internal and external influences shapes it. A

sound theory that can be used to comprehend these intentions is the Theory of Planned Behavior (TPB) (Ajzen, 1991). TPB would predict that the intentions of faculty are determined by attitudes, subjective norms, and perceived behavioral control. Attitudes mean the positive or negative judgment of the person on doing the behavior (e.g. the belief that inclusive teaching is a good and useful thing) (Garcia, 2022). Subjective Norms means the perceived social pressure in the institution, other staff, and students to practice inclusivity (Davis, 2021). Perceived Behavioral Control means the perceived ease or difficulty of the implementation of inclusive teaching that is tightly connected with self-efficacy and the accessibility of the required resources and training (Bandura, 1997; Bishop and Borkowski, 2020). High self-efficacy faculty individuals who believe in their ability to complete a particular task in teaching tend to continue using inclusive strategies despite barriers like teaching large classes or having few resources (Morris and Contreras, 2021). Nevertheless, research shows that deficiency in training is also one of the major obstacles that result in low self-efficacy and adverse views towards inclusion among faculty members who believe that they are unprepared (Darling-Hammond et al., 2020).

Faculty development program (FDPs) is one of the significant change levers that are highly promoted to fill the gap between intention and action. Successful FDPs do not just talk a lot in theory but offer practical and hands-on training on the inclusive pedagogies (Wang et al., 2022). One of the core elements of this type of training is the Universal Design of Learning (UDL), a model that helps design learning experiences in a way that, throughout the process, will be accessible and challenging to everyone (CAST, 2018). UDL emphasizes providing several forms of engagement (the reason behind learning), several forms of representation (what of learning), and several ways of action and expression (the how of learning) (Meyer et al., 2014). Moreover, recent studies show that faculty development programs (FDPs) grounded on Universal Design for Learning (UDL) principles not only improve faculty knowledge and skills but also increase their self-confidence (Smith and Garcia, 2023). Faculty tend to be more assertive when they are taught to devise flexible curricula and make use of inclusive instructional technologies, which in turn raises their motivation to participate in such practices (Wang et al., 2022). Furthermore, through the creation of communities of practice and peer conversations about inclusive teaching, FDPs could indirectly influence the subjective norms positively (Johnson, 2022). But FDPs are only effective based on the commitment of the institution. When they believe that their institution will support them with continuous assistance, sufficient resources, and leadership advocating the idea of inclusive education, faculty members are more likely to employ their new skills (Santoro and Allard, 2019; Lee and Chang, 2021).

Therefore, literature creates a distinct nexus between various learning needs, intentions of the faculty regarding inclusive education, and the empowering presence of the faculty development programs. The present research aimed to empirically investigate the faculty members' perceptions in the context of Pakistani higher education. The systematic exploration of their perceptions regarding diverse learning needs, intentions to inclusive education, and the importance of professional development programs.

## **Material and Methods**

This study aimed to examine the perceptions of higher education teachers on the issue of diverse learning needs, intentions of the faculty regarding inclusive education, and the role of the faculty development programs. In this section, the researcher described the methods to be employed in the study, e.g., research design, population and sampling, instrumentation, validity and reliability, and data collection and data analysis methods.

## **Research Design**

The research methodology that was employed in the current research was quantitative research based on a descriptive research design. The descriptive design was

taken as the most appropriate option since it allows gathering data on a subset of a population in an appropriately organized form to capture some phenomena, attitudes, or behaviors, in this case, faculty perceptions and intentions (Creswell and Creswell, 2018). The cross-sectional survey design enabled the researcher to obtain data from a stratified random sample of faculty members on one occasion, therefore, providing the researchers with a view of the current situation and the relationships between the key variables.

### **Sampling and Population**

The target population of the study comprised all the faculty members working in the public universities and colleges of Punjab, Pakistan. The stratified random technique of sampling was evident to ensure that the sample was representative and diverse in its coverage of diverse experiences. The strata were selected based on the academic discipline and the type of institution (college vs. university).

The sample size comprised 330 faculty members. This size offers a suitable database to be analyzed, and it is deemed to be suitable for survey research. To improve the generalizability of the results in the population under investigation, the researchers chose to sample different academic disciplines and teaching departments, along with teachers' designations, including lecturers, assistant professors, associate professors, and professors.

### **Instrumentations**

The primary data collection instrument was a structured questionnaire developed after a critical review of the relevant literature and already tested scales. The questionnaire contained four sections. In Section A, demographic information was collected, including academic designation, type of institution, years of teaching experience, and gender. Section B comprised the Scale of Diverse Learning Needs. This section contained fifteen questions, which measured the attitudes and practices of the faculty regarding helping students with linguistic, cultural, physical, and cognitive differences. Section C consisted of the Inclusive Education Scale. This section contained 14 items that assessed faculty knowledge, attitudes, motivation, and perception of institutional support of inclusive education were considered in the section. However, Section D covered the Faculty Development Programs Scale, which evaluated the faculty's attitude and perceptions about faculty development programs. Moreover, each item in Sections B, C and D was rated on a five-point Likert scale (1 being strongly disagree, 5 strongly agree).

### **Validity and Reliability**

The first draft of the questionnaire has been reviewed by seven experts in the research of faculty development and inclusive education of the University of Sargodha, Institute of Education. Their contribution was used in establishing content (how well the items could measure the constructs under consideration) and face validity (the clarity and understandability of the items). The questionnaire was enhanced according to their advice.

A pilot study involved fifty participants among the members of the University of Sargodha faculty who were not in the main sample. In the pilot study, the internal consistency of the scales was measured by Cronbach's Alpha. The reliability coefficients demonstrated that the results were very reliable, including the reliability coefficient value of the total survey was 0.974, the Diverse Learning Needs Scale, 0.929, the Inclusive Education Scale, 0.917, and the Role of the Faculty Development Programs Scale, 0.927. The instrument proved to be very reliable since all the scores surpassed the acceptable score of 0.70 (Field, 2018).

Data collection of the 330 faculty members was done both online and in-person (through Google Forms). Confidentiality and anonymity were assured to the participants.

In order to minimize the amount of missing data, the researchers ensured that all the parts of the questionnaire were completed before administering it.

The quantitative data were analyzed by using the software, Statistical Package for the Social Sciences (SPSS) version 26. The descriptive statistics that were used to analyze the data provided by the respondents in response to the Likert-scale items, as well as to give a summary of the demographic profile of the respondents, included frequencies, percentages, means, and standard deviations. These analyses portrayed the central tendencies and variability in the perception of the main variables of the study by the faculty.

## Results and Discussion

### Demographic Profile

According to the study's demographic profile, the majority of respondents were female, with 37% (111) being men and 63% (189) being women. The profile showed that 29.7% (89) of respondents had between 11 and 15 years of experience, 31.7% (95) of respondents had between 5 and 10 years, 16% (48) had been in the first five years, and 22.6% (68) had been in the field for more than 15 years. Of the students who responded to the survey, 59.7% (or 179) typically attended universities, whereas 40.3% (or 121) attended colleges. Additionally, according to the breakdown, lecturers accounted for the largest group of responses (49.4%, or 148), followed by assistant professors (28.3%, or 85), associated professors (15%, or 45), and professors (7.3%, or 22).

**Table 1**  
**Frequency Analysis of Students' Responses about the Diverse Learning Needs**

Sr#	Statements	Disagreement Zone		Total Disagreement	N	Agreement Zone		Total Agreement	Result
		SDA	DA			A	SA		
1	I adapt my teaching methods to accommodate students with cognitive or mental disabilities.	12 (4.0%)	54 (18.0%)	66 (22%)	5 (1.7%)	145 (48.3%)	84 (28.0%)	234 (78%)	Agreement
2	I provide different formats for course materials to students with physical disabilities.	6 (2.0%)	30 (10.0%)	36 (12%)	18 (6.0%)	138 (46.0%)	108 (36.0%)	264 (88%)	Agreement
3	I believe students with physical or cognitive disabilities can flourish in my classroom	12 (4.0%)	48 (16.0%)	60 (20%)	17 (5.7%)	138 (46.0%)	85 (28.3%)	240 (80%)	Agreement
4	I modify my teaching to fulfil the varying cognitive abilities of students.	0 (0%)	30 (7.1%)	30 (7.1%)	0 (0%)	132 (44.0%)	138 (46.0%)	254 (90%)	Agreement
5	I assess the diverse learning needs of students before designing my lessons.	1 (3%)	27 (9.0%)	28 (10%)	0 (0%)	128 (42.7%)	144 (48.0%)	272 (90.7%)	Agreement
6	I provide additional support for students who face language barriers.	0 (0%)	27 (9.0%)	27 (9.0%)	1 (3%)	138 (46.0%)	134 (44.7%)	273 (93.7%)	Agreement
7	I encourage students to share their cultural experiences.	12 (4.0%)	22 (7.3%)	34 (11.3%)	10 (3.3%)	161 (53.7%)	95 (31.7%)	266 (88.7%)	Agreement
8	I use teaching practices to engage students from diverse backgrounds	11 (3.7%)	22 (7.3%)	33 (11%)	11 (3.7%)	158 (52.7%)	98 (32.7%)	267 (89.1%)	Agreement

9	I utilize available resources to support students with language barriers.	6 (2.0%)	12 (4.0%)	18 (6.0%)	0 (0%)	120 (40.0%)	162 (54.0%)	282 (94%)	Agreement
10	I believe that cultural diversity enhances students' learning experience.	6 (2.0%)	35 (11.7%)	41 (13.7%)	12 (4.0%)	127 (42.3%)	120 (40.0%)	259 (86.3%)	Agreement
11	I use different learning styles to understand the course material.	6 (2.0%)	26 (8.7%)	32 (10.7%)	8 (2.7%)	124 (41.3%)	136 (45.3%)	268 (89.3%)	Agreement
12	I allow students to choose from different learning activities.	7 (2.3%)	34 (11.3%)	41 (13.6%)	12 (4.0%)	125 (41.7)	122 (40.7%)	259 (86.4%)	Agreement
13	I use group activities that consider diverse learning styles.	5 (1.7%)	26 (8.7%)	31 (10.4%)	8 (2.7%)	125 (41.7%)	136 (45.3%)	269 (89.7%)	Agreement
14	I assess students' learning styles to use that information for class activities.	5 (1.7%)	33 (11.0%)	38 (12.7%)	12 (4.0%)	128 (42.7%)	122 (40.7%)	262 (87.4%)	Agreement
15	I use a variety of teaching methods to meet students' learning preferences.	7 (2.3%)	16 (5.3%)	23 (7.6%)	2 (7%)	118 (39.3%)	157 (52.3%)	277 (98.6%)	Agreement

Most of the faculty members agreed with the statements of the diverse learning needs as illustrated in Table 1. Based on the findings, it was observed that teachers were active in adjusting their teaching methods according to the needs of physically, mentally, and cognitively impaired students. They also had diverse course material formats in order to ensure that every student was able to access the course material. Seventy-eight to ninety-four per cent of the answers indicated that they considered the diverse learning needs of students before lesson planning, modified instructional teaching methods to accommodate diverse cognitive abilities, and provided other supportive services to struggling students who faced language barriers. Similarly, teachers had asserted on using a wide range of teaching activities to engage a multicultural group of students, which included group projects, cultural inclusion, and multimodal learning activities. Moreover, the table depicted a keen commitment to inclusive education. The proportions of agreement revealed that teachers proactively engaged in practices that could help in the inclusion, equity and accessibility of the classroom as well as the awareness of the worth of diversity in the learning process. This indicated that the members of the faculty were active and optimistic in addressing the needs of every student, regardless of their peculiarities and challenges.

**Table 2**  
**Frequency Analysis of Students' Responses about the Inclusive Education**

Sr#	Statements	Disagreement Zone		Total Disagreement	N	Agreement Zone		Total Agreement	Result
		SDA	DA			A	SA		
16	I understand the importance of inclusive education in the classroom.	12 (4.0%)	48 (16.0%)	57 (20%)	17 (5.7%)	138 (46.0%)	85 (28.3%)	240 (80%)	Agreement
17	I know how to create a learning environment that accommodates all students.	12 (4.0%)	54 (18.0%)	66 (22%)	5 (1.7%)	145 (48.3%)	84 (28.0%)	234 (78%)	Agreement
18	I believe inclusive education benefits students with disabilities.	6 (2.0%)	30 (10.0%)	36 (12%)	18 (6.0%)	138 (46.0%)	108 (36.0%)	264 (88%)	Agreement

19	I am aware of the various inclusive teaching models available.	12 (4.0%)	48 (16.0%)	57 (20%)	17 (5.7%)	138 (46.0%)	85 (28.3%)	240 (80%)	Agreement
20	I understand the need to adapt teaching methods to meet the diverse needs of students.	11 (3.7%)	9 (3.0%)	20 (6.7%)	11 (3.7%)	186 (62.0%)	83 (27.7%)	280 (93.4%)	Agreement
21	I feel responsible for creating an inclusive classroom environment.	5 (1.7%)	17 (5.7%)	22 (7.4%)	5 (1.7%)	121 (40.3%)	152 (50.7%)	278 (92.7%)	Agreement
22	I am motivated to implement inclusive practices in my teaching	5 (1.7%)	17 (5.7%)	22 (7.4%)	5 (1.7%)	124 (41.3%)	149 (49.7%)	278 (92.7%)	Agreement
23	I am confident that inclusive teaching strategies can improve student outcomes.	5 (1.7%)	21 (7.0%)	26 (8.7%)	5 (1.7%)	132 (44.0%)	137 (45.7%)	274 (91.4%)	Agreement
24	I believe that inclusive education should be a priority in every educational setting.	12 (4.0%)	22 (7.3%)	34 (11.3%)	10 (3.3%)	161 (53.7%)	95 (31.0%)	266 (88%)	Agreement
25	I continuously improve my teaching practices to be more inclusive.	11 (3.7%)	22 (7.3%)	33 (11%)	11 (3.7%)	158 (52.7%)	98 (32.7%)	267 (89.1%)	Agreement
26	I feel that my institution supports inclusive education.	6 (2.0%)	12 (4.0%)	18 (6%)	0 (0%)	120 (40.0%)	162 (54.0%)	280 (94%)	Agreement
27	The leadership at my institution demonstrates commitment to inclusive education.	6 (2.0%)	35 (11.7%)	41 (13.7%)	12 (4.0%)	127 (42.3%)	120 (40.0%)	259 (86.3%)	Agreement
28	I believe that my institution provides the necessary resources for inclusive teaching.	12 (4.0%)	22 (7.3%)	34 (11.3%)	10 (3.3%)	161 (53.7%)	95 (31.0%)	266 (88%)	Agreement
29	I receive sufficient professional development to improve my inclusive teaching.	11 (3.7%)	22 (7.3%)	33 (11%)	11 (3.7%)	158 (52.7%)	98 (32.7%)	267 (89.1%)	Agreement

Table 2 shows that faculty members were very opinionated towards the agreement, and their attitudes regarding inclusive education were positive. The majority of the respondents (approximately 78 to 94 per cent) showed strong agreement that they believed they had a professional responsibility to create inclusive classrooms; they understood the importance of inclusive education. Also, they expressed their belief that inclusive practices enhanced the overall learning outcomes and that they were beneficial to students with disabilities. In addition, a large percentage of members of the faculty agreed that their organizations and administration were committed to inclusive education by providing resources and professional development opportunities. Also, the respondents confirmed that inclusive education should be placed first in any learning environment. These findings indicated the general knowledge and institutional endorsement of inclusivity in institutions of higher learning. The results suggested that the organizations should promote inclusive practices among their educators, and the teachers should be willing to do so. Consequently, inclusive education was regarded as both an institutional goal and a professional responsibility, which implied that colleges and universities gradually turned their classrooms into more inclusive and fairer.

**Table 3**  
**Frequency Analysis of Students’ Responses about the Faculty Development Program**

Sr#	Statements	Disagreement Zone		Total Disagreement	N	Agreement Zone		Total Agreement	Result
		SDA	DA			A	SA		
30	Faculty development programs increase my knowledge of inclusive teaching strategies.	6 (2.0%)	30 (10.0%)	35 (12%)	11 (3.7%)	124 (41.3%)	129 (43.0%)	264 (88%)	Agreement
31	I gain valuable skills to support students with disabilities.	6 (2.0%)	34 (11.3%)	40 (13.3%)	12 (4.0%)	129 (43.0%)	119 (39.7%)	260 (86.7%)	Agreement
32	I find faculty development sessions on inclusive education to be highly beneficial.	6 (2.0%)	26 (8.7%)	32 (10.7%)	8 (2.7%)	124 (41.3%)	136 (45.3%)	268 (89.3%)	Agreement
33	I learn new teaching methods that help me to address students' various learning styles.	7 (2.3%)	34 (11.3%)	41 (13.6%)	12 (4.0%)	125 (41.7%)	122 (40.7%)	259 (86.4%)	Agreement
34	Faculty development programs help me to update on current trends in inclusive education.	6 (2.0%)	26 (8.7%)	32 (10.7%)	8 (2.7%)	124 (41.3%)	136 (45.3%)	268 (89.3%)	Agreement
35	I have access to professional development programs that focus on inclusive education.	6 (2.0%)	30 (10.0%)	35 (12%)	11 (3.7%)	124 (41.3%)	129 (43.0%)	264 (88%)	Agreement

Table 3 shows the opinion of the members of the faculty concerning the effectiveness of faculty development programs in supporting inclusive education. The level of agreement was high, as 86% to 89% of the respondents identified the positive impact of such programs. Faculty members asserted that professional development activities enabled them to learn new things, keep abreast of current trends, and obtain valuable skills to deal with various learning styles and students with disabilities. Moreover, the participants also agreed that they could sufficiently access and receive the benefits of faculty development opportunities in inclusive education. This was an indication that the initiative to offer professional training was effectively helping teachers become effective in inclusive practices and remain abreast of the current teaching methods. Hence, the findings indicated the extent to which faculty development programs were critical in empowering teachers to take audacious risks in order to adopt inclusive practices. The inclusive cultures in the institutions of higher learning were also enhanced due to the contributions of such programs in creating awareness, skills and teaching in an inclusive manner.

**Table 4**  
**Means and Standard Deviations of Diverse Learning Needs (N) = 300**

Statement	Mean	Std. Deviation	Interpretation	Ranking
I provide different formats for course materials to students with physical disabilities.	4.26	0.892	Very High	1 <sup>st</sup>
I adapt my teaching methods to accommodate students with cognitive or mental disabilities.	4.26	0.862	Very High	2 <sup>nd</sup>
I believe students with physical or cognitive disabilities can flourish in my classroom.	4.25	0.919	Very High	3 <sup>rd</sup>
I modify my teaching to fulfil the varying cognitive abilities of students.	4.25	0.881	Very High	4 <sup>th</sup>
I use different learning styles to understand the course material.	4.15	1.002	Moderately High	5 <sup>th</sup>
I use a variety of teaching methods to meet students' learning preferences.	4.15	1.002	Moderately High	6 <sup>th</sup>
I allow students to choose from different learning activities.	4.13	1.016	Moderately High	7 <sup>th</sup>
I use group activities that consider diverse learning styles.	4.12	1.018	Moderately High	8 <sup>th</sup>

I assess students' learning styles to use that information for class activities.	4.10	1.015	Moderately High	9 <sup>th</sup>
I assess the diverse learning needs of students before designing my lessons.	4.08	0.998	Moderately High	10 <sup>th</sup>
I provide additional support for students who face language barriers.	4.07	1.042	Moderately High	11 <sup>th</sup>
I encourage students to share their cultural experiences.	4.06	0.888	Moderately High	12 <sup>th</sup>
I use teaching practices to engage students from diverse backgrounds	4.04	0.845	Moderately High	13 <sup>th</sup>
I utilize available resources to support students with language barriers.	4.04	1.001	Moderately High	14 <sup>th</sup>
I believe that cultural diversity enhances students' learning experience.	4.03	0.994	Moderately High	15 <sup>th</sup>

The findings indicated that the teachers were highly committed and engaged in using inclusive teaching approaches that met the different learning needs and abilities of their students (Table 4). The two statements that received the best rating, were "I provide different formats to course materials to students with physical disabilities" (Mean = 4.26, SD = 0.892) and "I adapt my teaching materials and methods to accommodate students with cognitive or mental disabilities" (Mean = 4.26, SD = 0.862) had a very high inclusivity level and suggested that teachers actively changed their lessons and materials to make them accessible to all students. Likewise, a high interpretation was made in such statements as "I believe my classroom can be a good place of students with physical or cognitive disabilities" (Mean = 4.25) and "I can adjust my teaching to suit the various cognitive abilities of my students" (Mean = 4.25), and it was clear that there were positive attitudes of teachers and flexibility in their approach to various students with disabilities. Moderately high interpretations, such as the statements about the support of students who could not grasp the language better, such as "I give the students extra support based on language barriers" and "I design my lessons based on the diverse learning needs of the students", who had moderately high interpretations (Mean = 4.07 and Mean = 4.08, respectively). Similarly, expressions like "I encourage students to talk about their cultural experiences" (Mean = 4.06) and "I use teaching practice to make sure that students with different backgrounds are involved in the classroom" (Mean = 4.04) suggested that the teachers respected cultural diversity and made sure that all students equally contributed to the classroom. Further, the statements such as "I apply different teaching techniques to suit the learning preference of students" (Mean = 4.15) and "I give students the option of various learning activities" (Mean = 4.13) showed that the teachers had moderately high scores on accommodating the learning preferences of students. Based on these responses, teachers knew that students had different styles of learning, and they employed various methods to engage them and understand them.

**Table 5**  
**Means and Standard Deviations of Inclusive Education (N) = 300**

Statement	Mean	Std. Deviation	Interpretation	Rank
I am aware of the various inclusive teaching models available.	4.29	0.876	Highly High	1 <sup>st</sup>
I believe inclusive education benefits students with disabilities.	4.28	0.867	Highly High	2 <sup>nd</sup>
I know how to create a learning environment that accommodates all students.	4.25	0.881	Highly High	3 <sup>rd</sup>
I receive sufficient professional development to improve my inclusive teaching.	4.17	0.992	High Moderate	4 <sup>th</sup>
I believe that my institution provides the necessary resources for inclusive teaching.	4.15	1.002	High Moderate	5 <sup>th</sup>
The leadership at my institution demonstrates commitment to inclusive education.	4.14	1.003	High Moderate	6 <sup>th</sup>
I feel that my institution supports inclusive education.	4.14	1.006	High Moderate	7 <sup>th</sup>
I continuously improve my teaching practices to be more inclusive.	4.13	1.016	High Moderate	8 <sup>th</sup>

I understand the importance of inclusive education in the classroom.	4.12	1.018	High Moderate	9 <sup>th</sup>
I believe that inclusive education should be a priority in every educational setting.	4.08	1.038	High Moderate	10 <sup>th</sup>
I am confident that inclusive teaching strategies can improve student outcomes.	4.07	1.034	High Moderate	11 <sup>th</sup>
I am motivated to implement inclusive practices in my teaching.	4.07	1.053	High Moderate	12 <sup>th</sup>
I feel responsible for creating an inclusive classroom environment.	4.03	0.994	High Moderate	13 <sup>th</sup>
I understand the need to adapt teaching methods to meet the diverse needs of students.	4.02	1.003	High Moderate	14 <sup>th</sup>

As indicated by the overall high moderate to very high mean scores in Table 5, the results demonstrated that faculty members had very positive opinions and a strong commitment to inclusive education. The statements with the highest ratings, "I am aware of the various inclusive teaching models available" (Mean = 4.29, SD = 0.876), "I believe inclusive education benefits students with disabilities" (Mean = 4.28, SD = 0.867), and "I know how to create a learning environment that accommodates all students" (Mean = 4.25, SD = 0.881), were interpreted as being extremely positive, showing that teachers had a strong awareness of, positive beliefs about, and practical knowledge about inclusive teaching. It appeared that educators generally felt supported by institutional initiatives and resources, as evidenced by statements like "I believe my institution provides the necessary resources for inclusive teaching" (Mean = 4.15) and "I receive sufficient professional development to improve my inclusive teaching" (Mean = 4.17). According to perceptions of institutional commitment to an inclusive education and leadership support to promote the same, faculty members acknowledged the efforts of their institutions in making them more welcoming to all (Means = 4.14-4.13). Also, such items as "I am motivated to implement inclusive practices" (Mean = 4.07) and "I feel responsible to create an inclusive classroom environment" (Mean = 4.03) showed that the respondents were motivated and had a sense of responsibility towards inclusive teaching. These items demonstrated positive attitudes, and they were classified as highly moderate, though they ranked lower. In general, the findings indicated that members of the faculty were proponents of inclusive education, they were optimistic, and well-informed about it. Nonetheless, more could be done to promote inclusive practices in the learning environments through continuous initiatives in professional growth and the provision of resources. Institutional support, consciousness of inclusive models, and individual motivation were significant in the development of an inclusive teaching environment.

**Table 6**  
**Means and Standard Deviations of Faculty Development Program (N) = 300**

Statement	Mean	Std. Deviation	Interpretation	Rank
I have access to professional development programs that focus on inclusive education.	4.17	0.992	High Moderate	1 <sup>st</sup>
Faculty development programs help me to update on current trends in inclusive education.	4.15	1.002	High Moderate	2 <sup>nd</sup>
I learn new teaching methods that help me to address students' various learning styles.	4.14	1.003	High Moderate	3 <sup>rd</sup>
I gain valuable skills to support students with disabilities.	4.14	1.006	High Moderate	4 <sup>th</sup>
Faculty development programs increase my knowledge of inclusive teaching strategies.	4.13	1.016	High Moderate	5 <sup>th</sup>
I find faculty development sessions on inclusive education to be highly beneficial.	4.08	1.038	High Moderate	6 <sup>th</sup>

Table 6 indicates that faculty members usually had high to moderate accessibility and benefits in inclusive education-related professional development programs. Most of the faculty members agreed that they received relevant training opportunities, as the statement with the highest rating, "I have access to professional development programs that are targeted to inclusive education", had a mean score of 4.17 and a standard deviation of 0.992. Also, the remarks on acquiring new teaching skills to meet the needs of different learning

styles (Mean = 4.14) and keeping on track of new trends in teaching (Mean = 4.15) received high to decent scores, which proved that such programs had a positive impact on the instruction process by teachers. Also, the acquisition of helpful skills to assist students with disabilities (Mean = 4.14) and the broadening of knowledge of inclusive strategies (Mean = 4.13) demonstrated that these programs contributed to teachers' professional competency development. Even though the mean score of the statement expressed that "I find faculty development sessions on inclusive education to be highly beneficial" (Mean = 4.08) remained rather high in the moderate perception, it was slightly lower. Such findings indicated that faculty development programs could be discussed as successful and popular, yet they also could be refined in order to reach a very high level of impact and satisfaction.

## **Discussion**

The findings were consistently positive: faculty members desired inclusive practices to be implemented and rated them very positively. They were unswerving within the framework of contemporary theoretical backgrounds and the previous literature. The mean scores of the three constructs, including the Diverse Learning Needs, Inclusive Education, and the Faculty Development Programs, were high.

The faculty members who answered indicated that they engaged in active adaptations in their methods of teaching, they offered diverse resources in courses and made an evaluation of the learning needs of students and then developed a lesson. The preemptive orientation is consistent with the principles of the Universal Design of Learning (UDL), which is built on developing flexible learning conditions that can be adjusted to the learning variation of a person (Meyer et al., 2014; CAST, 2018). The amount of self-reported effectiveness in topics concerning the creation of inclusive classrooms showed how teachers not just accepted these principles, but they put them into their practice.

Moreover, the results indicated that the teachers had the opinion that the university was highly committed to inclusive education, due to resource allocation, and above all, to the presence of dedicated leadership. Research has revealed that one of the main factors denying the global applicability of inclusive higher education practices is the absence of systemic support; hence the backing from the institution becomes a chief variable in favor of the practice (Santoro & Allard, 2019; Lee & Chang, 2021). Faculty's engagement and responsibility feelings are heightened when the university's commitment to inclusivity is felt; this creates a ripple effect that furthers the institutional equity goals (Johnson, 2022).

As the findings indicated that the Inclusive Education and Diverse Learning Needs nevertheless indicated considerable differences in the faculty opinions, even though the results obtained were definitely positive. This somehow implies that the great majority of the faculty were very committed, but still, some might be feeling untrained or lacking in confidence. Such differences in view are often caused by the background of the faculty and their education, teaching styles, or specific discipline (Bishop & Borkowski, 2020). It made evident the critical role that the faculty development programs (FDPs) should be available all the time and flexible so that they can cater to the needs and the different degrees of the faculty members' preparedness. The research indicated that educators actually believed that disabled students were able to perform well at school. They further believed that diversity is good as it made the learning process better for everyone. Rather than simply obeying the directives on how to include people, we can, in reality, appreciate differences and leverage them to our benefit to teach (Taylor et al., 2023). Teachers were creating a space where students felt they could desire to be involved. They achieved this by allowing students to present their backgrounds and teach in various ways (Jones et al., 2021).

The study had a major discovery in that the Faculty Development Programs (FDPs) were considered very important in equipping teachers to teach inclusively. The participants felt that FDPs made them more aware of the practice of inclusion, equipped them with

current knowledge, and gave them skills in helping students with disabilities. Such an observation is aligned with other recent global studies that highlighted the importance of specific professional development on building teacher confidence and ability in heterogeneous classrooms (Wang et al, 2022; Smith and Garcia, 2023). The theory of planned behavior (Ajzen, 1991) provides a useful framework in this instance: FDPs heighten faculty members' intentions toward inclusive practices by positively impacting their attitudes (acknowledgement of the importance of inclusion), subjective norms (building a community of practice), and perceived behavioral control (increasing self-efficacy, knowledge of resources).

## **Conclusions**

Teachers looked at the diversity that students bring, either in their abilities, cultures, or learning styles, as more of a benefit that boosts the learning process, than as a challenge to be overcome. Therefore, it requires an asset-based approach to help create a culture of equity and belonging in the classroom. The paper concluded that not every faculty was prepared and confident, despite the overall positive responses. This meant that there was still a necessity for differentiated and continuous professional learning in response to the different levels of preparedness and diverse challenges presented to educators in different disciplines and career stages.

Moreover, the majority of Pakistani higher education college teachers were willing to drive the inclusive education agenda according to the diverse learning needs of their students. Teachers demonstrated a powerful, active commitment to inclusive education. They were also adjusting their instructional strategies, evaluation methods and instructional resources in order to accommodate students with cognitive, physical and language disabilities. They also knew the variety of learning requirements. This meant that positive attitudes were being transformed into effective classroom practices. The educators were aware of the learning needs that cut across a continuum. All this was an indication that good classroom practices were being translated into positive attitudes.

The faculty development programs were one of the crucial aspects related to the area of teacher empowerment. Indeed, based on the results of this study, it was revealed that the faculty members had positive views on self-efficacy, knowledge, and skills within the area of inclusive pedagogy application. They believed that strengthening faculty members and enhancing their motivation can create a conducive, inclusive learning culture and keep educators updated about the modern tendencies, including Universal Design for Learning.

## **Recommendations**

Based on the study findings, the following recommendations were made:

- Schools may reward and recognize quality in inclusive teaching in a formal way in order to retain faculty members to be motivated. It may be achieved by providing teaching awards as an inclusive pedagogy, funding curriculum development plans with an access emphasis, and incorporating contributions to inclusiveness in the promotion and tenure policies.
- They may develop formal and informal groups such as learning communities or special web portals in which the academic community can exchange materials, challenges and successful teaching ways to teach inclusively. This keeps the engines moving and contributes towards the spirit of cooperation.
- Although perceived support is high, institutions may do more to make their commitment a reality by ensuring that they fund assistive technology, support staff (such as instructional designers and disability support officers), and accessible digital and

physical infrastructure. The inclusive education policies may be developed and executed in an efficient manner.

- Organizations may be encouraged to have extensive, long-term faculty development programs instead of conducting workshops only once in a lifetime. Such programs must be practice-based and center on particular strategies (like Universal Design for Learning, differentiated instruction, and culturally responsive instruction), and have a chance to have peers observe and provide feedback.
- To be able to encourage inclusive education, it is important to conduct future research on the most effective institutional policies and more effective specific leadership techniques. Studies could focus on how different leadership philosophies influence faculty support and the proper implementation of inclusionary policies.
- A qualitative study is necessary to gain a clearer insight into the particular barriers that do not allow all faculty to practice inclusion in its full implementation. This includes the consideration of large classes, discipline, and high pedagogical beliefs.
- Longitudinal studies are also required to determine whether the self-reported behaviors and intentions of the faculty members result in observable changes in the student outcomes. This encompasses such aspects as academic success, retention, and community feeling among the heterogeneous students, especially the disabled.
- Comparative research across universities, regions or countries may identify context-specific issues and effective models of faculty development and institutional support, giving a more holistic view of what best practices in inclusive higher education are.

**References**

- Adams, M., & Bell, L. A. (2023). *Teaching for diversity and social justice* (4th ed.). Routledge. <https://doi.org/10.4324/9781003005759>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
- Banks, J. A. (2015). *Cultural diversity and education: Foundations, curriculum, and teaching* (6th ed.). Routledge.
- Bishop, J., & Borkowski, M. (2020). Faculty self-efficacy in inclusive instruction: A framework for professional development. *Journal of Diversity in Higher Education*, 13(4), 371–385. <https://doi.org/10.1037/dhe0000174>
- Cassidy, S. (2021). The learning styles debate: Exploring the evidence and implications for higher education. *Educational Psychology Review*, 33(4), 1587–1610. <https://doi.org/10.1007/s10648-021-09623-8>
- CAST. (2018). *Universal Design for Learning Guidelines version 2.2*. <http://udlguidelines.cast.org>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2020). *Effective teacher professional development*. Learning Policy Institute. <https://doi.org/10.54300/102.136>
- Davis, L. (2021). Institutional pressures and faculty adoption of inclusive pedagogy: A qualitative analysis. *The Review of Higher Education*, 44(3), 345–369. <https://doi.org/10.1353/rhe.2021.0008>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.
- Fleming, N. D. (2012). *Teaching and learning styles: VARK strategies*. VARK Learn Limited.
- Garcia, L. (2022). Faculty attitudes as predictors of inclusive teaching practices in STEM fields. *Journal of College Science Teaching*, 51(5), 45–52.
- Johnson, A. (2022). Navigating cognitive diversity in the modern classroom. *Journal of Educational Psychology*, 114(4), 789–801. <https://doi.org/10.1037/edu0000721>
- Jones, S., Ball, P., & Hill, K. (2021). The impact of inclusive pedagogy on student engagement and motivation. *Journal of Further and Higher Education*, 45(8), 1125–1140. <https://doi.org/10.1080/0309877X.2021.1875203>
- Lee, J., & Chang, S. H. (2021). Challenges and strategies in implementing inclusive education in higher education: A systematic review. *Educational Research Review*, 34, 100402. <https://doi.org/10.1016/j.edurev.2021.100402>
- Martinez, S., Smith, R., & Johnson, L. (2021). Faculty intentions and the implementation of inclusive pedagogy: A mixed-methods study. *Innovative Higher Education*, 46(5), 521–538. <https://doi.org/10.1007/s10755-021-09553-x>

- Meyer, A., Rose, D. H., & Gordon, D. (2014). *Universal design for learning: Theory and practice*. CAST Professional Publishing.
- Morris, D., & Contreras, M. (2021). Teacher self-efficacy and inclusive classroom practices: A longitudinal study. *International Journal of Inclusive Education*. Advance online publication. <https://doi.org/10.1080/13603116.2021.1978009>
- Santoro, N., & Allard, E. (2019). (Re)Examining the role of institutional support in faculty adoption of inclusive teaching practices. *Teaching in Higher Education*, 24(5), 645–660. <https://doi.org/10.1080/13562517.2018.1491029>
- Smith, J. A., & Garcia, L. (2023). Professional development for inclusive postsecondary education: A meta-analysis of effectiveness. *Review of Educational Research*, 93(1), 45–78. <https://doi.org/10.3102/003465432211252>
- Taylor, M., Roberts, J., & Peterson, D. S. (2023). Diversity as an asset: How inclusive classrooms foster critical thinking and innovation. *Harvard Educational Review*, 93(2), 189–212. <https://doi.org/10.17763/1943-5045-93.2.189>
- Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms* (3rd ed.). ASCD.
- UNESCO. (2017). *A guide for ensuring inclusion and equity in education*. United Nations Educational, Scientific and Cultural Organization. <https://unesdoc.unesco.org/ark:/48223/pf0000248254>
- Wang, Y., Liu, H., & Zhang, W. (2022). The mediating role of self-efficacy in the relationship between faculty development and inclusive teaching practices. *Innovations in Education and Teaching International*, 59(3), 315–327. <https://doi.org/10.1080/14703297.2020.1864678>