

## **Inclusive Practices' Influence on Diversity in Higher Education Institutions**

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### **Abstract**

*Inclusion is a philosophy, a spirit, and a true educational practice that keepsake leeway of learning for every learner. Diversified, equitable, and inclusive practices at the higher education level are now inevitable for the permanence of society. The central axis of focus of the Higher Education Commission Pakistan is the implementation of Diversity-inclusive practices that require higher education institutions to employ contextual, practical, and locally inclusive and innovative methodologies and strategies to meet the privations of students with special needs. University faculties are the main agents of transforming and bringing change around by reducing exclusions. This research aims to analyze the factors affecting diversity-inclusive practices at higher education institutions as perceived by university faculty based on their gender, experience, and training attended regarding accommodating diversity. This study adopted and contextualized the APTD scale (Accessibility, Processes, Training, Demand) as a research instrument. The data were collected from faculty employed in the universities of a historical city of Pakistan. Research findings highlighted the need & interest of faculty for training to understand and make equitable chances of learning for diversity in the classrooms. University faculties are advised to use diversity-inclusive practices as the teaching approach to acknowledge the differences and ensure access to learning and opportunities within the university premises that are available to all students.*

**Keywords:** Diversity-inclusive practices, diversity, inclusion at higher education level, inclusive education, education for all, equitable learning opportunities

### **Introduction**

Inclusion is a right of every human being, in every setting, boundary, or genre. National and international legal standards have bound Pakistan to develop each sector of education into an emancipated inclusive community. The veritable practice of inclusion demands educational institutions encourage every learner to reach their fullest potential, provide equitable learning resources and prospects, and continue stipulated facilities. Inclusion is a philosophy, a spirit, and a true educational practice that keeps leeway of learning for every learner.

The past two decades of this century upheld inclusive education practices mainly focused at the elementary and secondary school levels (De-Haro-Rodríguez et. al., 2020) with a significant setback in practices at the higher education level (Polo et. al., 2018). Today, Higher education institutions in Pakistan are striving hard to meet the social and economic progress expected to contribute to the country's vision. Higher Education Commission is continuously taking initiatives to address the destitution of the higher education sector of Pakistan. Universities need to be united to make inclusion possible, considering the three dimensions insinuated in the Index of Inclusion i.e., Policy, culture, and Practice (Booth & Ainscow, 2011).

Policies can make significant differences in the inclusion of diversity in higher education/universities (Salmi & D'Addio, 2020). Higher Education Commission, Pakistan launched its first-ever policy on persons with disabilities in 2021. Every university is bound to have an accessibility committee on campus, to manage admission-related issues, to develop procedures for requesting reasonable accommodations, and support resources. HEC ensures the abolition of authoritarian, physical, structural, academic, and social barriers to expedite learning prospects for students with special needs at HEIs/Universities.

Universities' access must be open for all irrespective of age, sex, ethnicity, culture, race, religion, different beliefs and attitudes, socioeconomic status, abilities, disadvantaged and marginalized (Farooq,

2013; Muftahu, 2020). University entry requirements, enrollment quota of universities, and access to syllabi and lessons can create hurdles in gaining access opportunities. In efforts to increase access to higher education institutions, are expected not to compromise on quality and excellence standards (Muftahu, Anmali, & Xiaoling, 2023).

Today many nations are constrained to inclusive education and are trying to integrate the veritable realization of inclusive education into educational systems (Suleymanov, 2015). Education of students with special education needs is an uphill task resulting from colossal ill practices in Pakistan. There is a need to strengthen the organizational culture to promote disability-inclusive practices. Faculty and teachers' readiness encourages the system to accept inclusive related needs and matters (Persina, Shamardina & Luzhbina, 2018).

University faculty are the linchpin in achieving inclusive education at the higher education institutions (Llorent, et. al., 2020). University faculty must be prepared to accept every kind of student in their classrooms (Moriña, 2020). González-Castellano, Colmenero-Ruiz, Córdón-Pozo (2021) concluded in their study that university faculty are at the higher ranks of duties, so they are substantially responsible for implementing inclusive education practices in their respective campuses. Training university faculty to accommodate diversity and students with special needs (SWSN) can make campuses inclusive for all. Lack of teachers' training negatively influences teachers' practices in implementing inclusion at the higher education level (Hansen & Dawson, 2020; Collins, Azmat & Rentschler, 2019).

Sustainable and inclusive higher education can be achieved by considering teachers' training needs (González-Castellano, Córdón-Pozo, Pueyo-Villa, & Colmenero-Ruiz, 2021). Teacher education programs in Austria trying to incorporate diversity practices and strategies throughout universities. "The Disability Resource Centre provides individual support to students with special needs and advocates, reminds and monitors lecturers to ensure their offerings are inclusive..... currently developing measures to support teacher education students to develop the necessary reflective competencies to ensure they do not reproduce inequalities as they progress through the profession" (Symeonidis & Wendt, 2023).

Students with disabilities should have empathetic and equity-based access to services in the higher education sector rather than facing sympathetic attitudes. In Pakistan, universities lack the basic facilities to make institutions more inclusive, leading to the exclusion of this vulnerable group of society (Farooq, 2012; Yasmeen, Minto & Khan, 2010). The condition of universities, inadequate access to buildings, and pathetic infrastructure distress the quality of education for SWSN (Amoah, Bamfo-Agyei & Simpeh, 2023). And the problems do not stop here in future, Students with disabilities face credibility issues in getting jobs or understanding workplace demands, due to poor training and learning opportunities at higher education levels (Zwicker, Zarisani & Emery, 2017).

There is a deep relationship between the university accessibility level and inclusive practices on campus. Whenever we discuss accessibility, it consequently leads to barriers. A study conducted by Awan (2019) exposed that faculty attitudes, lack of related training, and being unaware of the needs of students and curriculum goals can be barriers to inclusive teaching. Awan concluded that pre-service and in-service professional development training of teachers, inclusive pedagogy, and seminars can immensely uplift the significance of teaching in the higher education setup of Pakistan. Teachers' intrinsic motivation to elevate the learning standards of all students at the higher education level can certify their achievement.

The heads of the universities must ensure execution of the quality classrooms for all learners. Inclusive curriculum practices ensure to minimize or obviate the need to plan reasonable adjustments (Bunbury, 2020). "Although the majority of teachers claimed to have modified the curriculum, no teachers from either higher education institutes were observed to have modified the curriculum to meet the curricular requirements of their students" (Iqbal & Ashraf, 2023).

A study conducted by Hussain, Shahzadi & Khan (2020) emphasized the challenges faced by students with learning disabilities at the higher education level including access to classrooms, libraries, transport and admin offices of the university, bad attitudes of university faculty, and inauspicious classroom lectures and methods. Another study in the context of Pakistan, conducted by Bano, Akhter & Anjum (2013)

observed the hostile curriculum, congested classrooms, inaccessible buildings and infrastructure, and unavailability of equipment to make higher education setups inclusive.

The number of hearing-impaired students is few in universities as compared to other special needs (Hussain, et. al. 2020; Noor, et. al. 2020), and the challenges faced by them influence the inclusive practices at the HE. Communication and socialization issues are faced by SWHI at HEI. Universities do not hire sign language interpreters and note-takers. Hearing-impaired students often get reluctant to ask teachers and peers, so communication barriers subsist (Ain, 2021).

Ashfaq & Rana (2015) identified that students with specific learning disabilities, emotional and behavioral needs, and students with physical and health impairments are victims of non-trained teachers. Meaningful and relevant professional development is stressed, administrative support is compulsory, the incorporation of assistive technology to assist the learning needs, and a more diverse teacher training curriculum is required in higher education institutions to prepare better future teachers. Students with physical and health impairments at higher education institutions in Pakistan face different kinds of barriers as identified by Ayub (2022), inaccessible transport confines their sovereignty, weak legal basis and practices, poor supervising systems, and a detachment among ministries are nationwide impediments in the true sanctioning of inclusive practices in Pakistan.

Students with VI in higher education faced hurdles in accessing the physical premises of the campus, reading material, and assistive devices (Hussain, Hameed & Ashraf, 2022). Students with VI at higher education levels have somewhat similar problems with access, participation, and socialization, as students with HI. They mostly cannot solve whiteboard mysteries, reading materials are also not accessible to them, get constrained to theoretical arts-based courses, and face attitudinal barriers, fall victim to inexperienced faculty, get poor or no assistive technology at higher education institutions. Hardly any students with special needs pursue their degrees in natural sciences (Iqbal & Ashraf, 2023).

Hussain, Shehzadi & Khan (2020) conducted a study on the HEI of Khyber Pakhtunkhwa, urged to modify existing buildings according to

the needs of disabled students, reframing policy structure and revision of curriculum, academic and fee concession, ground floor hostel facilities, transport facility, provision of assistive devices, counseling services for SWSN at higher education institutions/universities.

The universal design of learning is not confined to access, rather it expands to ensure the participation, learning, and development of individuals with special needs. Classroom echoes the diversity of native groups of people sharing almost the same dynamics. The thirst for learning of all students in the classroom can be quenched using inclusive practices. Classroom diversity develops children academically and socially. Inclusive practices are the only instructional framework that can respond to and patronage educational institutions (Para & Siddiqui, 2022).

Due to the poor quality of education especially in the higher education sector, Pakistan could not realize the EFA goals by 2015 (Govt. of Pakistan Education Statistics, 2017). Higher education institutions are not fulfilling the needs of SWSN in the true sense (Ain, 2021). Universities are reluctant to use differentiated curricula, neoteric learning resources, and trained faculty to deal with special needs (Bano, et. al. 2013; Hameed, 2010). Substantial infrastructure (Ackah-jnr & Danso, 2019), the unavailability of Assistive technology (Arsh.et.al. 2019), Budget allocation and investment to accommodate the needs of SWSN in inclusive setup is also quite low (Shaukat, 2022).

A study conducted by Aguirre, Carballo, & Lopez-Gavira, (2021) on 25 faculty members of Spanish universities based on their best inclusive practices “The results show three key elements to improve the academic experience of students with disabilities: disability-specific training for faculty members, a good faculty–student relationship and the willingness to make reasonable adjustments. This article proposes a well-trained faculty, who develop flexible teaching with a positive and close relationship toward their students, as the ideal profile to serve as an example to other colleagues and universities to improve the quality of academic and social experiences for students with disabilities”.

Few faculty members at HE institutions opt various types of reasonable adjustments in the classroom that showed their favorable attitudes. Due to the lack of knowledge about special needs, doubts exist, that can be lowered by taking disabilities as professional challenges and

providing new learning experiences to them to gain greater professional satisfaction (Sandoval, et. al. 2021). Universities isolate disability from the deficits lens to acknowledge the participation of every learner (Moriña, et. al. 2020).

University-based strategies of accommodating SWSEN at the higher education level can make the campuses inclusive for all. Many universities are not equipped with disability resource centers for students with special education needs. Disability-friendly infrastructure, practicing inclusive teaching styles by university faculty, varied nature of notes, flexible assessment, psychological support, and provision of related resources can make university life more practical for individuals with disabilities. Multi-tier support strategies are suggested to centralize things and make institutions inclusive for all (Zahid, Khan & Keshf, 2018).

As a result of the inclusive education ratification in 2003, Brazil's education system stressed the enrollment of students with special needs in HE. They asserted that Expenditures on higher education do not include the teachers' training, infrastructure, and learning resources and material to operationalize the true sense of inclusion, access, and permanence in higher education institutions. Education and learning material provided to SWSEN are also not structured enough to ensure access and permanence. Higher education institutions are expected to provide full partaking and procurement of knowledge to students with special education needs. Institutional leaders are expected to take a stance to remove organizational barriers to substantiate equity and inclusion (Manrique& Moreira, 2018).

Inclusion's call is for all learners to optimize their learning, values, abilities, opportunities, access, participation, relevance, and integrity. Equality of opportunities depicts a huge mismatch in basic and higher education enrollment. Policies must seek to include the excluded ones in HE. Teachers are the main source at HEI to implement an inclusive environment in a true sense. The attitudes and diversity-inclusive practices employed by faculty at higher education can never be disregarded.

### **Research Objectives**

Diversity-inclusive Practices in our context are confined to the practices relevant to addressing disability and SWSN. This research intended to find out the:

1. Attitudes of university faculty for the inclusion of SWSN at the higher education level
2. Accessibility of the campus for students with disabilities
3. Diversity-inclusive practices employed by faculty for students with SN
4. Interest of faculty in training regarding inclusion

### **Research Questions**

The following research questions provided a guide to seek answers that truly aligned with the objectives of this research study:

1. What are the attitudes of university faculty toward the inclusion of SWSN at the higher education level?
2. How do faculty make the university campuses accessible for SWSN?
3. What diversity-inclusive practices are mostly used by university teachers for SWSN?
4. What kind of training is required by faculty to deal with the SWSN in higher education classrooms?

### **Research Design**

A descriptive research design was used under a quantitative paradigm to explore the factors affecting diversity-inclusive practices at the higher education level. To glean the perceptions of the faculty of universities, the survey method was used using a purposive sampling technique.

### **Instrumentation**

This study adopted the APTD scale (Accessibility, Processes, Training, Demand) as a research instrument developed by Gonzalez-Castellano, Cordon-Pozo, & Colmenero-Ruiz, according to Pakistan's contextual realities (2022). The first section of the instrument consists of the demographics of faculty members including gender, age, experience, designation of the faculty member, name & type of the university, subjects taught by faculty members, students with special needs attended by faculty members, training attended by faculty members regarding inclusive education practices at the HE level. Section two of the instrument was consisting of statements regarding the attitudes of faculty members

towards inclusion, accessibility of the campus for SWSN, diversity-inclusive practices, and interest in training regarding diversity-inclusive practices at the higher education level. Data was collected using Google Forms and personally visiting the faculty members at their respective campuses.

**Data Analysis and Results**

Descriptive and inferential statistics were performed to analyze faculty members’ responses regarding diversity-inclusive practices at higher education institutions. To find out faculty’s attitudes towards the inclusion of SWSN, accessibility of SWSN on campus, diversity-inclusive practices of faculty, and interest in training regarding diversity-inclusive practices, the mean scores and standard deviation, One-way ANOVA, and Independent Sample t-test were used.

**Table 1**

*Demographics of the faculty*

<b>Demographics</b>	<b>Percentage</b>
Gender of the faculty	
• Female	53
• Male	47
Age of the faculty	
• 21 to 27 years old	0
• 28 to 34 years old	31
• 35 to 41 years old	42
• 42 to 47 years old	13
• above 47	15
University Job Experience	
• 0-5 years	38
• 6-10 years	17
• 11-15 years	21
• 16-20 years	21
• Above 20	3
Designation of the faculty member	
• Lecturer	63
• Assistant Professor	27
• Associate Professor	7
• Professor	3
Name of the Department	
• Special Education	28

• Education	22
• Natural Sciences	8
• Applied Sciences	20
• Linguistics	14
• Business Education	5
• Islamic Studies	3
No. of taught special needs students	
• No student	29
• 1 and 5 students	29
• 6 and 10 students	18
• 11 and 15 students	6
• More than 16 students	18
Training attended regarding inclusion in last 5 years	
• No training	46
• 1-4 training	25
• 5-9 training	16
• More than 10 training	13

Table 1 represents the demographics of the sample i.e., universities' faculty. In sample 53% of the faculty members were female and 47% were male, with 73% aged 28 to 41 years and above 42 years of age being 28%. whereas 38% of the faculty members had 0-5 years of experience, 17% had 6-10 years of university job experience, 21% had 11 to 15 and 16 to 20 years of experience respectively, and 3% had above 20 years of experience. In faculty members surveyed 65% of the sample's designation was lecturer, 27% assistant professor, 7% associate professor, and 3% professor. For sample percentage 28% of the sample's department of job was Special Education, 22% of Education, 20% Applied Science, 14% linguistics, 8% natural sciences, 5% business education, and 3% Islamic studies. 29% of faculty have not taught any student with special needs at a higher education level, 29% have taught between 1 and 5 students with special needs, 18% taught more than 16 students, and 6% taught 11-15 students with special needs. Captivatingly, 46% of the faculty had never attended any sort of training regarding the inclusion of SWSN in the last 5 years, 25% have attended 1-4 training, 16% attended 5-9 training, and 13% attended more than 10 training in last five years regarding the inclusion of SWSN at the higher education level.

**Table 2**

*Attitudes of university faculty toward inclusion*

<b>Attitudes of university faculty</b>	Mean	SD
Need of training to deal with students with special educational needs	2.84	0.4
Awareness of specific regulations of the university for students with special educational needs	2.49	0.6
Awareness of "Policy for Students with Disabilities at Higher Education Institutions in Pakistan"	2.60	1.2
Mandatory Specific pieces of training of university faculty to teach students with SN	2.96	0.6
Difficulties in altering the content and materials of my course to adapt them to meet the needs of students with SN	1.85	0.8
Designing parallel activities for students with SN would be a problematic	1.93	0.6
Feeling burdensome working with students with SN is additional work for faculty members.	2.2	0.7
Intentional discrimination against students with special needs in my classroom	1.4	0.7

Table 2 depicts the mean scores and standard deviation of the responses of university faculty members regarding their attitudes toward the inclusion of students with special needs at higher education levels. The average number of University faculty agreed that they should get training on how to act with SWSN (M = 2.84) and half of the faculty of the total sample agreed that they know the university rules and regulations regarding SWSN (M = 2.49), they know the HEC higher education policy regarding special needs (M = 2.60), and universities should launch training for faculty regarding special needs ( M = 2.96). the small number of faculty members believed that they could modify the curriculum easily (M = 1.85), they could do parallel activities easily (M = 1.9), working with students would not be an extra burden for them (M = 2.2), and they do not intentionally discriminate SWSN in the classrooms (M = 1.4).

**Table 3**

*Comparison of Attitudes of university faculty towards inclusion*

	Scores	Sum of Squares	df	Mean Scores	F
Experience	Between groups	44.76	4	11.2	1.98
	Within groups	356.12	63	5.6	
	Total	401.0	67		
Designation	Between groups	19.14	4	6.8	1.07
	Within groups	381.7	63	6.1	
	Total	401.0	67		
Students taught with disabilities	Between groups	25.1	4	6.2	1.03
	Within groups	376.1	63	6.1	
	Total	401.0	67		
Training attended regarding inclusion	Between groups	6.5	4	2.18	.35
	Within groups	394.5	63	6.16	
	Total	401.0	67		

Table 3 depicts that a comparison between-groups analysis of variance was conducted to explore the attitudes of university faculty, regarding the inclusion of SWSN, based on their experience, designation, No. of taught students with disabilities, and trainings attended regarding inclusion. There was statistically no significant difference has been found in the responses of faculty members with respect to their experience:  $F(4, 63) = 1.98$ , designation  $F(4, 63) = 1.07$ , no. of students taught  $F(4, 63) = 1.03$ , and training attended regarding inclusion  $F(3, 67) = .35$ . Post-hoc comparisons showed the difference is significant in more than 10 years of experience, attitudes signify who taught more than 5 students, and have attended more than four training.

**Table 4**

*Faculty responses regarding the accessibility of the campus for SSN*

Accessibility of the Campus	Mean	SD
The university is equipped with adequate resources to provide quality education to students with SN	2.19	0.7
Classroom equipment is adjusted (whiteboard heights, switches, seating, etc.)	2.16	0.8
The university provides services and provisions so that students with SN can have equal conditions as the rest of the students.	2.24	0.7

The university has methods to solve any sort of adaptation/modification in the access to the course for students with SN	2.2	0.8
The university has disability or Special needs resource centers in the campus	1.97	0.8
Is there any accessibility committee followed by HEC policy on campus?	2.1	1.3

Table 4 depicts the mean scores and standard deviation of the responses of university faculty members regarding the accessibility of the campus for SWSN at higher education levels. The average number of faculty members agreed that the university has adequate resources for special needs (M = 2.19), the university offers equal support and services to all students irrespective of disability (M = 2.24), classroom equipment is adapted/adjusted (M = 2.16), somewhat adapted curriculum (M = 2.2). a very small number of faculty know about the availability of a resource center on campus (M = 1.97) and the existence of an accessibility committee on campus (M = 2.1).

**Table 5**  
*Comparison regarding the accessibility of the campus*

	Scores	Sum of Squares	df	Mean Scores	F
Experience	Between groups	289.4	4	72.2	6.3*
	Within groups	716.3	63	11.3	
	Total	1005.1	67		
Designation	Between groups	102.6	4	34.2	2.4
	Within groups	902.4	63	14.1	
	Total	1005.1	67		
Students taught with disabilities	Between groups	183.1	4	46.1	3.5*
	Within groups	882.2	63	13.0	
	Total	1005.1	67		
Training attended regarding inclusion	Between groups	148.1	4	49.3	3.67*
	Within groups	857.0	63	13.3	
	Total	1005.1	67		

Table 5 depicts that analysis of variance was conducted to check the accessibility of the campus regarding the inclusion of SWSN, based on

the experience of faculty, designation of faculty, No. of taught SWSN by faculty, and training attended by faculty regarding inclusion. There was statistically significant difference has been found in the responses of faculty members with respect to their experience:  $F(4, 63) = 6.3^*$ , No. of students taught  $F(4, 63) = 3.5^*$ , and training attended regarding inclusion  $F(3,67) = 3.67^*$ . No statistically significant difference was found based on designation  $F(4, 63) = 2.4$  of the faculty. Post-Hoc comparisons showed the difference is significant in more than 5 years of experience, assistant professors, and those who taught more than 5 students with disabilities.

**Table 6**

*Diversity-inclusive practices of faculty*

<b>Disability-Inclusive Practices</b>	<b>Mean</b>	<b>SD</b>
Knowledge of techniques to make the classroom inclusive for students with special needs.	3.6	0.9
Knowledge of educational implications of inclusive education in the teaching-learning process	3.8	1.02
Adequate qualifications and training to modify the material for students with SN	3.6	1.2
Knowledge of specific techniques to facilitate the participation and integration of students with SN in my class	3.7	1.0
The university faculty must modify content in the subject to adapt them to the characteristics of students with SN	3.9	1.1
Modification of activities that are part of the subject to adapt them to the characteristics of students with SN	4.1	0.8
Modifications to the material used in the classroom tasks to adapt them to the characteristics of students with special educational needs	4.7	0.9
Provision of appropriate materials to students with special needs is time-consuming.	3.4	1.2
University faculty needs to do modifications to the methodology to adapt it to the characteristics of students with SN (illustrations, use of audiovisual materials, sequencing of activities etc).	4.1	0.8
Preference to have alternative assessments/separate exam/audio papers for students with special needs in my class.	2.6	1.3

Table 6 depicts the mean scores and standard deviation of the responses of university faculty members regarding diversity-inclusive practices for SWSN at higher education levels. The higher number of faculty members agreed that university faculty are required to make modifications in material (M = 4.7) and activities according to the characteristics of students with SN (M = 4.1), modifications in methodology (M = 4.1), modification in the content of the subject (M = 3.9), education implication of inclusive classrooms known to them (M = 3.8), ensure participation in class (M = 3.7), know the techniques and have the qualification to deal special needs in inclusion (M = 3.6). faculty members also agreed that making modifications and adaptations is time-consuming (M = 3.4). An average number of faculty responded that they would not prefer alternative assessments (M = 2.6).

**Table 7**

*Comparison of responses regarding diversity-inclusive practices on Campus*

	Scores	Sum of Squares	df	Mean Scores	F
Experience	Between groups	191.3	4	48.3	1.07
	Within groups	2823.4	63	44.8	
	Total	3017.1	67		
Designation	Between groups	50.60	4	16.87	.36
	Within groups	2966.2	63	46.3	
	Total	3017.1	67		
Students taught with disabilities	Between groups	229.1	4	57.3	1.3
	Within groups	2787.7	63	44.2	
	Total	3017.1	67		
Training attended regarding inclusion	Between groups	357.0	4	119.0	2.9*
	Within groups	2659.7	63	41.6	
	Total	3017.1	67		

Table 7 depicts that a one-way between-groups analysis of variance was conducted to check the diversity-inclusive practices regarding the inclusion of SWSN, based on the experience of faculty, designation of faculty, no. of taught students with disabilities by faculty, and training attended by faculty regarding inclusion. A statistically

significant difference was found based on training attended regarding inclusion  $F(4, 63) = 2.9^*$  of the faculty. There was no statistically significant difference found in the responses of faculty members with respect to their experience:  $F(4, 63) = 1.07$ , designation  $F(4, 63) = .36$ , and no. of students taught  $F(3,67) = 1.3$ . Post-hoc comparisons showed the difference is significant in more than 5 years of experience, those who taught more than 5 students with disabilities, and those who have attended training regarding the inclusion of students with SN at HE levels.

**Interest in training regarding diversity-inclusive practices**

**Table 8**

*Faculty Interested in the training regarding diversity in inclusive practices*

Faculty interest in training	Mean	SD
Need training in teaching methodologies and strategies to deal with special needs in my classroom	4.2	1.0
Need training in the design and adaptation of educational material	3.8	1.1
Needed training in specific methods and resources	3.9	1.0
Knowledge of alternative communication system	4.1	0.8
Learning of alternative assessment ways to assess students with special needs in varied ways	4.1	0.9

Table 8 depicts the mean scores and standard deviation of the responses of university faculty members regarding their interest in training regarding diversity-inclusive practices for SWSN at higher education levels. A higher number of faculty agreed that they want to get trained in teaching methodologies and strategies to deal with SWSN at higher education level ( $M = 4.2$ ) and they want to get training in alternative communication ( $M = 4.1$ ) and alternative assessment methods ( $M = 4.1$ ), training in methods and resources ( $M = 3.9$ ) and in adapting educational material ( $M = 3.8$ ) for special needs at higher education level.

**Table 9**

*Comparison of Responses Regarding Interest in Training on Campus*

	Scores	Sum of Squares	df	Mean Scores	F
Experience	Between groups	237.1	4	59.3	3.3*

	Within groups	1128.2	63	17.9	
	Total	1365.2	67		
Designation	Between groups	142.3	4	47.3	2.4
	Within groups	1223.2	63	19.1	
	Total	1365.2	67		
Students taught with disabilities	Between groups	162.0	4	40.5	2.2
	Within groups	1203.3	63	19.2	
	Total	1365.2	67		
Training attended regarding inclusion	Between groups	54.9	4	18.3	.89
	Within groups	1310.3	63	20.4	
	Total	1365.2	67		

Table 9 depicts that a one-way between-groups analysis of variance was conducted to check the level of interest of faculty in training regarding the inclusion of SWSN, based on the experience of faculty, designation of faculty, no. of taught students with disabilities by faculty, and training attended by faculty regarding inclusion. A statistically significant difference was found based on experience  $F(4, 63) = 3.3^*$  of the faculty. There was no statistically significant difference found in the responses of faculty members with respect to their designation:  $F(4, 63) = 2.4$ , no. of students taught  $F(4, 63) = 2.2$ , and training attended regarding inclusion  $F(3,67) = .89$ . Post-hoc comparisons showed the difference is significant in more than 5 years of experience, those who taught more than 5 students with disabilities, and those who have attended training regarding the inclusion of SWSN at higher education levels.

**Table 10**

*Analysis of responses based on the gender of faculty members.*

	Male			Female			95% CI for mean difference	t	df
	M	SD	N	M	SD	N			
Attitudes	19.0 9	2.7 5	32	17.6 3	1.92	36	-2.59, -.31	2.5 *	66
Accessibility of the campus	13.0 3	4.1 9	32	12.7 5	3.62	26	.95, 2.19	.29	62
Diversity-inclusive practices	35.5 0	8.3 3	32	37.7 2	4.72	36	1.13, 5.58	1.3 3	47

Interest in training	20.8 8	5.3 8	32	19.3 4	3.48	36	.69, 3.78	1.3 8	52
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Table 10 shows the comparison of the responses of university faculty attitudes, accessibility of the campus, diversity-inclusive practices, and interest of faculty in training regarding the inclusion of students with special needs, based on their gender. Attitudes of Male faculty members (M = 19.09, SD = 2.75) are significantly different from female faculty members (M = 17.63, SD = 1.92);  $t(66) = 2.5, p = .01$  (two-tailed). Responses regarding Accessibility of the campus for students with special needs, diversity-inclusive practices, and interest in training, showed no statistical difference between the male and female faculty responses.

### **Discussion**

Diversity-inclusive Practices at the higher education level in Pakistan can successfully be launched with the help of the universities' faculty. The attitudes of faculty are the main agents of change. The competencies of universities' faculty can be enriched by developing their attitudes regarding inclusion with the assistance of exercising inclusion in a true sense and a significant way (Solis-Grant, et. al. 2023). Faculty took modifications and adaptations associated with the curriculum as an extra burden and time-consuming. Parallel activities for faculty bothered them most of the time and they intentionally ignored the SWSN.

The infrastructure of the university buildings, the lingering process of renewal of damaged or old buildings, and access to libraries and cafeterias can be made possible by following the Universal Design of Learning and provision of access to related services and resource centers of the universities (Farooq, 2012; Hussain, Hameed & Ashraf, 2022). Diversity-inclusive practices at higher education institutions require practitioners and faculties to show team spirit, commitment, and vehemence (Marquis, et. al. 2016).

Policies can make significant differences in the inclusion of diversity in higher education/universities (Salmi & D'Addio, 2020). Higher education commission should follow-up the developed policy and relevant infrastructure to ensure prospects and to develop projects regarding faculty training (Iqbal & Ashraf, 2023; Hussain, Hameed & Ashraf, 2022). University faculty are interested in being trained for putting

inclusion into practice at all levels (Moriña, Perera & Carbollo, 2020). Teachers considered that they lack the training to ensure inclusion at the higher education level (Hansen & Dawson, 2020; Aguilar, Moriña & Perera, 2019). If the inclusion-related courses will be part of teacher training programs Curriculum content of teacher preparation programs will help teachers to anticipate their future inclusive teaching practice.

Every issue of inclusion needs different treatment at the Higher Education level and requires practical solutions (Bunbury, 2020). Development of an Inclusive culture in higher education will be beneficial for all including university administration, faculty, students with special needs, and communities (Leonova, 2022). Ensuring diversity-inclusive practices requires vigorous engagement and pledge (Kayyali, 2022).

### **Conclusion**

Diversity-inclusive practices at the higher education level in Pakistan are emerging promptly. The perk in such practices succeeded followed by international commitments towards inclusive education and the launch of higher education policy for SWSN. Policy implementation is still raising questions as faculty is not trained enough to deal with SWSN in higher education classrooms. Attitudes of male faculty members are better than female faculty members toward students with special needs in HE classrooms. Faculty members find it difficult to modify the curriculum and execute parallel activities for SWSN, also consider this process time consuming. Very few faculty members were aware of the resource centers that exist in universities to assist teachers and students with SN. Most faculty members refused to apply alternative assessment techniques to assess SWSN. Faculty members who have attended training and taught students with special needs in higher education classrooms their diversity-inclusive practices are significant. Teacher training and teacher education programs can help teachers to employ diversity-inclusive practices for all students in higher education classrooms.

### **Recommendations**

The following recommendations were made based on findings and discussion:

1. A continuous professional development program may be launched for faculty to integrate the inclusion in their practices.
2. Learning resources and service centers at universities may ease the issues faced by students with SN at higher education levels/universities.
3. Students with special needs need further preference in the universities like every other student and prejudice in stipulation of facilities should be reduced.
4. Two to three courses of inclusion in every teacher training program may be beneficial to set a future for diversity-inclusive practices in Pakistan.

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