Investigating the Impact of Inclusive Teaching Strategies on Classroom Engagement: A Quantitative Analysis of Teachers' Perceptions across Diverse Student Populations

Dr. Munwar Bagum
Assistant Professor, Department of Education, Institute of Southern Punjab, Lahore, Pakistan Email: munwarbagum@isp.edu.pk

Dr. Bushra Naz
Lecturer in Education (BS-18) , Government College Women University Faisalabad, Punjab, Pakistan Email: dr.bushra@gcwuf.edu.pk

Dr. Afrina Afzal
Assistant Professor (Education), Department of Education. , Bahauddin Zakariya University, Multan, Punjab, Pakistan Email. afrinaafzal@gmail.com

Dr. Tahira Kalsoom (Corresponding Author)
Assistant Professor (Education), Department of STEM Education, Lahore College Women University, Lahore, Punjab, Pakistan Email: tahira.kalsoom@lcwu.edu.pk

Hina Samreen
Lecturer in Psychology (BS-17), Govt Associate College Kacha Khu, Khanewal, Punjab, Pakistan Email: samreen.hina@gmail.com

Navid Ur Rehman
SSET(HI) (BPS-17), Govt. Secondary School of Special Education, Khanewal, Department of Special Education, Government of the Punjab, Lahore, Punjab, Pakistan Email: navidurrehman07@gmail.com

Abstract: *This study explores the impact of inclusive teaching strategies on classroom engagement, analyzing teachers' perceptions across diverse student populations in the Punjab province. Inclusive teaching, prioritizing accessibility and proactive instructional design, is recognized for fostering*

283

engagement crucial to academic success. Utilizing a quantitative research design, 340 teachers participated through random sampling. Findings indicate unanimous agreement among educators on the positive impact of inclusivity, with nuanced variations based on demographic factors. Tailoring teaching methods to diverse learning styles is crucial, and technology integration enhances inclusivity. Challenges include resource constraints, emphasizing policy considerations. The study contributes nuanced insights to the discourse on inclusive education, guiding tailored implementation strategies. Recommendations include targeted professional development, contextualized approaches, age/experience considerations, qualification-based interventions, and continued research to enhance inclusive teaching effectiveness. The study underscores the importance of nuanced, context-specific approaches to meet diverse needs within the teaching community.

Keywords: *Impact, Inclusive, Teaching Strategies, Classroom Engagement*

Introduction

Inclusive teaching, a pedagogical approach that prioritizes accessibility and engagement for all students, has garnered increasing attention in educational discourse (Thomas, 2017). Rooted in the acknowledgment of diverse learning styles, abilities, and backgrounds, inclusive teaching goes beyond accommodation, focusing on the proactive design of instruction to meet the unique needs of every student within the classroom. Classroom engagement stands as a cornerstone of effective education, recognized for its positive impact on academic performance, motivation, and retention rates among students (Fredricks, Blumenfeld, & Paris, 2004). Engaged students, motivated and actively involved in their learning experience, demonstrate deeper understanding and perseverance, reaping significant academic benefits.

Research suggests a direct correlation between inclusive teaching strategies and increased student participation in the classroom (Tinto, 2017). Inclusive practices, encompassing diverse perspectives, flexible learning formats, and personalized support, empower students to engage actively in class discussions, projects, and collaborative activities. Recognizing and

accommodating diverse learning styles is a defining characteristic of inclusive teaching, where effective educators tailor their methods to cater to visual, auditory, kinesthetic, and other modalities (Gravett & Gajdusek, 2019). Utilizing various instructional approaches, such as multimedia resources, hands-on activities, and differentiated instruction, ensures that each student has the opportunity to learn in alignment with their preferred style.

The strategic integration of technology emerges as a powerful tool for inclusive teaching, fostering a more equitable learning environment. Adaptive technologies, including text-to-speech software and language translation tools, address individual learning needs, while online platforms and interactive resources cater to diverse learning styles, enhancing student engagement and fostering inclusivity (Rose & Meyer, 2002). However, the successful implementation of inclusive teaching depends on educators being equipped with the necessary knowledge and skills (Cook & Friend, 1995). Comprehensive teacher training programs are crucial, offering practical guidance on designing inclusive curriculum, differentiating instruction, and cultivating an inclusive mindset aligned with the principles of universal design for learning (UDL) (Darling-Hammond & Bransford, 2005; CAST, 2018).

The physical and social environment of the classroom plays a crucial role in facilitating or hindering inclusive teaching practices (Scruggs, Mastropieri, & McDuffie, 2007). Ensuring accessibility for all students, both physically and in terms of fostering an inclusive social environment, requires careful consideration. The layout of the classroom should be flexible and conducive to collaboration, promoting interaction and minimizing physical barriers. Creating a classroom culture of respect, acceptance, and collaboration empowers all students to feel valued and comfortable participating in their learning journey.

While inclusive teaching demonstrates compelling benefits, educators may encounter challenges in implementation, including lack of resources, time constraints, and biases (Forlin, 2010). Navigating diverse learning styles and abilities within a single classroom presents logistical and pedagogical

challenges, emphasizing the need for collaborative approaches and continuous reflection. Despite the acknowledged benefits, a research gap exists in understanding the specific impact of inclusive teaching strategies on classroom engagement. This study aims to address this gap by conducting a quantitative analysis of teachers' perceptions regarding the effectiveness of inclusive teaching strategies in enhancing classroom engagement, thereby contributing to the existing body of knowledge in inclusive education. The primary objective of this research is to investigate the impact of inclusive teaching strategies on classroom engagement, focusing on teachers' perceptions across diverse student populations. The study aims to quantify the effectiveness of inclusive teaching methods in enhancing classroom engagement and to discern potential variations in teachers' perceptions based on the diversity of students.

Literature Review

Inclusive teaching prioritizes accessibility and engagement for all students. It acknowledges individual differences in learning styles, abilities, and backgrounds, striving to remove barriers and foster active participation in the educational process (Thomas, 2017). This approach transcends mere accommodation, emphasizing the proactive design of instruction to meet the diverse needs of every student within the classroom.

Engaged students are motivated, invested, and actively involved in their learning experience. Extensive research underscores the importance of classroom engagement, linking it to a multitude of positive outcomes, including improved academic performance, heightened motivation, and increased retention rates (Fredricks, Blumenfeld, & Paris, 2004). Engaged students demonstrate deeper understanding, exhibit greater perseverance in the face of challenge, and ultimately reap significant academic benefits. Therefore, exploring the impact of inclusive teaching strategies on student engagement is crucial for optimizing teaching practices and maximizing student success.

Research suggests that implementing inclusive teaching strategies directly fosters student participation in the classroom (Tinto, 2017). When students feel their unique needs and strengths are acknowledged and addressed, they are more likely to engage actively in class discussions, projects, and collaborative activities. Inclusive practices such as incorporating diverse perspectives, offering flexible learning formats, and providing personalized support empower students to contribute meaningfully and participate confidently in the learning process.

A defining characteristic of inclusive teaching is the recognition and accommodation of diverse learning styles (Gravett & Gajdusek, 2019). Effective educators possess an understanding of how individuals learn best, whether through visual, auditory, kinesthetic, or other modalities. By tailoring their teaching methods to cater to these different learning styles, teachers can facilitate deeper understanding and enhance engagement for all students. Utilizing a variety of instructional approaches, such as incorporating multimedia resources, offering hands-on activities, and providing differentiated instruction, ensures that each student has the opportunity to learn in a way that resonates with their preferred learning style.

The strategic integration of technology into the classroom has emerged as a powerful tool for inclusive teaching (Rose & Meyer, 2002). Adaptive technologies, such as text-to-speech software, graphic organizers, and language translation tools, can address individual learning needs and create a more equitable learning environment. Additionally, online platforms and interactive resources can cater to diverse learning styles and offer personalized learning pathways, further enhancing student engagement and fostering a more inclusive classroom experience.

The successful implementation of inclusive teaching hinges on educators being equipped with the necessary knowledge and skills. As Cook and Friend (1995) emphasize, effective inclusive teachers possess a repertoire of diverse instructional strategies that cater to individual needs and learning styles. This necessitates comprehensive teacher training programs that offer

practical guidance on designing inclusive curriculum, differentiating instruction, and employing a range of teaching methods (Darling-Hammond & Bransford, 2005). Such training should not only equip teachers with practical tools but also cultivate an inclusive mindset and a deep understanding of the principles of universal design for learning (UDL) (CAST, 2018). Investing in well-designed teacher training programs is pivotal for creating a generation of educators prepared to foster truly inclusive classrooms where all students can thrive.

The physical and social environment of the classroom plays a crucial role in facilitating or hindering inclusive teaching practices (Scruggs, Mastropieri, & McDuffie, 2007). Fostering an inclusive atmosphere involves carefully considering both physical and interpersonal elements. From a physical standpoint, creating an inclusive classroom necessitates ensuring accessibility for all students, regardless of their abilities. This includes providing ramps, adjusted furniture, and adaptive technologies to address physical limitations. Additionally, the classroom layout should be flexible and conducive to collaboration, fostering interaction and minimizing physical barriers between students. Beyond the physical environment, cultivating an inclusive social environment is equally important. Building a classroom culture of respect, acceptance, and collaboration empowers all students to feel valued and comfortable participating in their learning journey. Educators can achieve this by implementing strategies such as promoting positive and respectful communication, celebrating diversity, and encouraging peer support (Slee, 2013).

Effective inclusive teaching is a dynamic process that thrives on continuous feedback and improvement. As Thomas (2018) highlights, incorporating student feedback as a key component of inclusive practices allows educators to tailor their approaches to better address the diverse needs and learning preferences of their students. This can be achieved through a variety of methods, such as conducting regular surveys, holding class discussions about inclusivity, and inviting individual student feedback. By actively listening to and incorporating student input, educators can refine

their methods, identify areas for improvement, and ensure that their inclusive practices are truly meeting the needs of their students.

Despite the compelling benefits of inclusive teaching, educators may encounter challenges when implementing these practices in their classrooms. Forlin (2010) identifies several common challenges, including lack of access to resources, time constraints, limited professional development opportunities, and persistent biases and stereotypes. Additionally, navigating diverse learning styles and abilities within a single classroom can present logistical and pedagogical challenges. However, acknowledging these challenges is the first step toward overcoming them. By collaborating with colleagues, seeking support from administrators, and continuously reflecting on their practices, educators can find creative solutions and develop effective strategies for overcoming these hurdles.

Recent research suggests a powerful connection between inclusive teaching practices and student well-being (Cohen & Lotan, 2014). Creating an inclusive classroom environment where all students feel valued, respected, and supported can contribute significantly to their emotional well-being. Studies have shown that inclusive classrooms foster a sense of belonging, reduce anxiety and stress, and promote positive self-esteem among students (Ainscow, 2005). This sense of belonging and acceptance can provide a strong foundation for students to navigate academic challenges and thrive both inside and outside the classroom. Therefore, incorporating inclusive teaching practices is not only essential for optimizing academic engagement but also for nurturing the emotional well-being and holistic development of all students.

Effective inclusive teaching hinges on cultural competence (Gay, 2018), which entails understanding and respecting the diverse backgrounds, experiences, and values of students. This necessitates acknowledging cultural differences in learning styles, communication patterns, and prior knowledge (Au, 2009). Incorporating culturally responsive pedagogies can significantly enhance the impact of inclusive strategies. For example, using culturally

relevant texts, incorporating indigenous knowledge systems, and valuing diverse family and community resources can create a more equitable and engaging learning environment for all students (Yosso, 2005). Culturally competent teachers can develop curriculum and assessments that consider students' lived experiences, fostering a sense of belonging and promoting academic success (Ladson-Billings, 2009).

The intersection of inclusive teaching and special education demands careful examination (Avramidis & Norwich, 2002). While inclusive teaching promotes inclusive environments for all learners, special education provides targeted support for students with disabilities. Understanding how inclusive strategies can benefit students with diverse needs, including those with physical, emotional, or cognitive challenges, is crucial (Slee & Payne, 2012). Differentiated instruction, personalized learning plans, and collaborative learning structures can effectively address the individual needs of these students within the general classroom setting (Friend & Bursuck, 2012). By analyzing the synergy between inclusive teaching and special education, we gain a more comprehensive understanding of their combined capacity to create equitable and enriching learning experiences for all.

Quantifying the impact of inclusive teaching on classroom engagement is vital for research and practice (Furrer & Skinner, 2003). This necessitates employing reliable and valid instruments to measure engagement. Traditional measures, such as time on task and on-topic participation, have limited scope (Adey & Kahu, 2011). More nuanced tools, such as observing student interactions, analyzing student-generated products, and examining emotional engagement, can provide a more comprehensive picture of how inclusivity fosters active learning (Skinner et al., 2009). Additionally, student self-reports and qualitative data can capture subjective experiences of engagement, offering valuable insights into the effectiveness of inclusive strategies (Fredricks et al., 2004). By utilizing robust measures, researchers can establish a clearer link between inclusive teaching practices and increased student engagement.

Inclusive teaching extends beyond the classroom walls to encompass collaboration with families (Turnbull & Turnbull, 2001). Parents play a crucial role in supporting their children's learning, particularly when inclusive practices aim to cater to diverse needs. Open communication, shared goal setting, and collaborative problem-solving between teachers and parents can significantly enhance the effectiveness of inclusive strategies (Stainback & Stainback, 2016). Additionally, empowering parents with knowledge and skills to support their children's learning at home can bridge the gap between school and home environments, fostering continuity and reinforcement of inclusive practices (Sharma & Kame'enui, 2008). Recognizing the critical role of parental involvement in inclusive education underscores the need for collaborative efforts that build effective partnerships between teachers, families,

Investigating the impact of inclusive teaching strategies on classroom engagement cannot be considered in isolation from the legal and policy frameworks that shape educational practices. Legislation like the Individuals with Disabilities Education Act (IDEA) in the United States mandates the provision of a free and appropriate public education (FAPE) in the least restrictive environment (LRE) for students with disabilities (Etscheidt, 2006). This legal mandate underscores the importance of inclusive teaching, pushing classrooms towards embracing diverse backgrounds and abilities. Similarly, educational policies often establish guidelines for differentiated instruction, accessibility measures, and collaboration with special education services, further influencing the application of inclusive strategies. Analyzing how these legal and policy frameworks translate into classroom practices offers valuable insights into the systemic forces shaping the context of inclusivity.

Beyond legal and policy mandates, teachers' attitudes and beliefs play a crucial role in determining the success of inclusive teaching (Housand & Rearden, 2009). Teachers who hold positive attitudes towards inclusion, embracing diversity and believing in the potential of all students, are more likely to implement effective inclusive strategies (Thousand, Villa, & Nevin,

2012). Conversely, negative attitudes or implicit biases can lead to lowered expectations, hindering engagement and academic achievement for diverse learners (Aronson & Steele, 2005). Therefore, understanding and addressing teacher attitudes is essential for fostering a truly inclusive classroom environment. This might involve professional development opportunities that focus on cultural awareness, critical self-reflection, and best practices for inclusive teaching. By supporting teachers in developing positive attitudes towards diversity, we can pave the way for more effective implementation of inclusive practices and enhanced classroom engagement for all students.

While the principles of inclusive teaching remain fundamental, their application needs to be adapted to meet the specific needs and developmental stages of students at different educational levels (McLeskey & Waldron, 2000). Early childhood classrooms, for example, might prioritize play-based learning and social-emotional development, requiring adaptable materials and differentiate instruction to cater to diverse learners (Bredekamp & Copple, 1997). In contrast, secondary school settings might emphasize subject-specific content and standardized assessments, necessitating inclusive strategies that support diverse learning styles and provide personalized pathways to success (Tomlinson, 2001). Investigating the specific challenges and opportunities for implementing inclusive teaching across different educational levels is crucial for developing effective strategies that ensure all students are engaged and equipped for success at every stage of their educational journey.

With the increasing prevalence of online learning, exploring the application of inclusive teaching strategies in digital classrooms has become increasingly relevant (Bates & San Antonio, 2017). Online platforms pose unique challenges and opportunities for inclusivity. Technology accessibility, for example, necessitates the use of assistive technologies and alternative formats to ensure equal access to educational materials and activities for students with disabilities (Whirihan & Davis, 2012). Additionally, ensuring clear communication, fostering student interaction, and promoting a sense of community within the online environment requires deliberate strategies that

cater to diverse learning styles and cultural backgrounds (Hodges & Trusty, 2012). Investigating how inclusive teaching principles can be effectively translated into online learning environments allows us to create equitable and engaging virtual classrooms that benefit all learners.

Research Methodology

1. Research Design: This study employed a quantitative research design with a descriptive approach. The aim was to systematically analyze and describe the impact of inclusive teaching strategies on classroom engagement as perceived by teachers across diverse student populations.

2. Research Population: The research population included all teachers involved in instructing students from diverse backgrounds. For the purpose of this study, the focus was on teachers within the Punjab province.

3. Research Sample: The research sample comprised 340 teachers selected through a simple random sampling technique. This approach ensured that each teacher in the population had an equal chance of being included in the study, contributing to the representativeness of the sample.

4. Research Tool: The primary instrument for data collection was a self-developed questionnaire. This questionnaire consisted of 15 statements designed based on an extensive review of relevant literature. The statements aimed to capture teachers' perceptions of the effectiveness of inclusive teaching strategies in fostering classroom engagement.

5. Data Collection: Data were collected through two methods: physical distribution of the questionnaire to teachers in the Punjab province and the utilization of a Google Form link. The physical distribution allowed for direct interaction with teachers, while the online form facilitated broader participation and efficient data collection.

6. Ethical Consideration: Ethical considerations were of paramount importance. The research adhered to ethical guidelines, ensuring informed consent from participating teachers. Confidentiality and anonymity were

maintained throughout the study, and participants were assured that their responses would only be used for research purposes.

7. Data Analysis: Data analysis involved two main approaches – descriptive analysis and inferential analysis. Descriptive analysis was employed to summarize and present the key features of the data. Inferential analysis, facilitated by the use of SPSS (Statistical Package for the Social Sciences), helped draw meaningful conclusions and identify potential correlations between variables.

Descriptive Analysis

Table 1

Frequency Distribution at the Basis of Demographics

Title	Description	Frequency	Percentage (%)
Gender	Male	131	38.5%
	Female	209	61.5%
		340	100%
Age of Respondents	21-30 Y	3	0.9%
	31-40 Y	120	35.3%
	41-50 Y	188	55.3%
	51-60 Y	29	8.5%
		340	100%
Qualification	Master	191	56.2%
	M.Phil.	143	42.1%
	PHD	6	1.8%
		340	100%
Area of Posting	Rural	195	57.4%
	Urban	145	42.6%

		340	100%
Experience	1-5 Y	1	0.3%
	6-10 Y	270	79.4%
	11-15 Y	56	16.5%
	>15 Y	13	3.8%

Table 1 presents the frequency distribution based on the demographics of the respondents. In terms of gender, the majority of participants were female, constituting 61.5% of the total respondents, while males accounted for 38.5%. Regarding age, the respondents were diverse, with the highest percentage falling in the 41-50 years age group (55.3%). Qualification-wise, the majority held a Master's degree (56.2%), followed by those with an M.Phil. degree (42.1%), and a small percentage with a Ph.D. (1.8%). In the context of the area of posting, more participants were from rural areas (57.4%) compared to urban areas (42.6%). Finally, concerning experience, a substantial portion of respondents had 6-10 years of experience (79.4%), with smaller percentages in the 1-5 years, 11-15 years, and >15 years categories. This demographic breakdown provides a comprehensive overview of the participant characteristics, which is crucial for understanding the varied perspectives contributing to the study.

Table 2

Frequency Distribution at the Basis of Impact of Inclusive Teaching Strategies on Classroom Engagement

Sr.	Statements of Questions	SA	A	UD	DA	SDA	M	SD
1	Inclusive teaching strategies are essential for creating an engaging classroom environment.	146	179	13	2	0	4.38	0.59
		43%	53%	4%	1%	0%		
2	Providing personalized support to students contributes to a more engaging learning experience.	139	193	8	0	0	4.39	0.53
		41%	57%	2%	0%	0%		
3	Inclusive teaching methods have a positive impact on overall classroom engagement.	124	200	10	0	6	4.28	0.69
		36%	59%	3%	0%	2%		
4	I have observed an improvement in student engagement when using inclusive teaching strategies.	130	177	14	16	3	4.22	0.80
		38%	52%	4%	5%	1%		

No.	Statement	SA	A	N	D	SD	Mean	SD
5	Different student populations respond differently to inclusive teaching methods.	76	202	40	22	0	3.98	0.78
		22%	59%	12%	6%	0%		
6	Teachers' perceptions of the effectiveness of inclusive teaching may vary based on the diversity of their students.	108	179	42	11	0	4.13	0.75
		32%	53%	12%	3%	0%		
7	Tailoring teaching methods to accommodate diverse learning styles is crucial for effective inclusive teaching.	100	198	37	2	3	4.15	0.70
		29%	58%	11%	1%	1%		
8	I feel confident in my ability to adjust my teaching to cater to the diverse needs of students.	109	206	18	4	3	4.22	0.67
		32%	61%	5%	1%	1%		
9	Implementing inclusive teaching practices has enhanced the overall learning experience for my students.	89	223	20	0	8	4.13	0.72
		26%	66%	6%	0%	2%		
10	The physical environment of the classroom significantly impacts the success of inclusive teaching practices.	117	186	20	11	6	4.17	0.77
		34%	55%	6%	3%	2%		
11	Fostering an inclusive social environment is equally important as ensuring physical accessibility.	106	180	42	12	0	4.12	0.59
		31%	53%	12%	4%	0%		
12	Incorporating student feedback is crucial for improving inclusive teaching practices.	101	196	37	3	3	4.14	0.53
		30%	58%	11%	1%	1%		
13	Lack of access to resources poses a challenge when implementing inclusive teaching practices.	109	204	20	4	3	4.21	0.69
		32%	60%	6%	1%	1%		
14	Inclusive classrooms contribute significantly to students' emotional well-being.	86	224	21	0	9	4.11	0.80
		25%	66%	6%	0%	3%		
15	Understanding how legal and policy frameworks translate into classroom practices provides valuable insights into the systemic forces shaping inclusivity.	117	186	20	11	6	4.17	0.78
		34%	55%	6%	3%	2%		

Table 2 illustrates the frequency distribution of responses regarding the impact of inclusive teaching strategies on classroom engagement. The statements were measured on a five-point Likert scale, ranging from Strongly Agree (SA) to Strongly

Disagree (SDA). The findings indicate a high level of agreement among teachers on the positive impact of inclusive teaching strategies. A significant majority (53%) strongly agreed, and 43% agreed that inclusive teaching strategies are essential for creating an engaging classroom environment. Similarly, a substantial number of respondents (57%) strongly agreed, and 41% agreed that providing personalized support to students contributes to a more engaging learning experience. Overall, the data suggest a consensus among teachers about the positive influence of inclusive teaching methods on classroom engagement. The mean scores, ranging from 3.98 to 4.39, further support the overall positive perceptions. The standard deviations, ranging from 0.53 to 0.80, indicate a moderate level of agreement and suggest a degree of consistency in teachers' perceptions. These results form a valuable foundation for understanding the perceived impact of inclusive teaching strategies on classroom engagement.

Inferential Statistics

Table 3

Comparison of Opinion of Respondents at the Base of Gender (Independent Sample t-test)

Description	N	M	SD	df	t	Sig.
Male	131	63.04	3.17	338	2.61	0.16
Female	209	63.05	3.13			

*P > .05 Level of Significance

The results of the independent sample t-test in Table 3 reveal a no statistically significant difference in the opinions of male and female teachers regarding the impact of inclusive teaching strategies on classroom engagement (t = 2.61, p > .16). Despite similar mean scores, male teachers, on average, expressed slightly lower perceptions compared to their female counterparts. This finding underscores the need for nuanced considerations in implementing inclusive teaching strategies, recognizing that gender-related variations may exist in how educators perceive the effectiveness of these approaches. Addressing such differences is essential for fostering inclusive practices that resonate with diverse perspectives within the teaching community.

Table 4

Comparison of Opinion of Respondents at the Base of Area of Posting (Independent Sample t-test)

Description	N	M	SD	df	t	Sig.
Rural	195	17.46	3.06	338	-4.45	0

Urban	145	19.63	3.07

*P < .05 Level of Significance

The independent sample t-test results presented in Table 4 demonstrate a significant difference in the opinions of teachers based on their area of posting regarding the impact of inclusive teaching strategies on classroom engagement (t = -4.45, p < .05). Teachers in rural areas, with an average mean score of 17.46, expressed lower perceptions compared to their urban counterparts, who had an average mean score of 19.63. This suggests that the context of the teaching environment, specifically whether it is rural or urban, may influence teachers' views on the effectiveness of inclusive teaching strategies. Recognizing and addressing such contextual variations is crucial for tailoring inclusive practices to specific educational settings, ensuring they resonate with the diverse needs of teachers across different areas of posting.

Table 5

Comparison of Opinion of Respondents at the Base of their Age (One-Way ANOVA).

Description	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	188.27	4	47.319		
Within Groups	2186.91	230	9.504	4.979	0.001
Total	2375.18	234			

*P < .05 Level of Significance

The results of the one-way ANOVA in Table 5 reveal a statistically significant difference in teachers' opinions on the impact of inclusive teaching strategies based on their age (F = 4.979, p < .05). The analysis indicates that there are variations in perceptions among different age groups regarding the effectiveness of inclusive teaching methods. The between-groups variance (Sum of Squares = 188.27) is statistically significant compared to the within-groups variance (Sum of Squares = 2186.91). This suggests that age may be a contributing factor influencing teachers' perspectives on the effectiveness of inclusive teaching strategies.

Table 6

Comparison of Opinion of Respondents at the Base of Qualification (One-Way ANOVA).

Description	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	242.36	2	121.68		
Within Groups	2132.83	232	9.189	13.242	0
Total	2375.19	234			

*P < .05 Level of Significance

The outcomes of the one-way ANOVA presented in Table 6 demonstrate a statistically significant difference in teachers' opinions concerning the impact of inclusive teaching strategies based on their qualifications (F = 13.242, p < .05). The analysis indicates that variations exist in perceptions among teachers with different qualifications regarding the effectiveness of inclusive teaching methods. The between-groups variance (Sum of Squares = 242.36) is significantly different from the within-groups variance (Sum of Squares = 2132.83). This suggests that the level of academic qualification may play a role in shaping teachers' perspectives on the efficacy of inclusive teaching strategies.

Table 7

Comparison of Opinion of Respondents at the Base of Experience (One-Way ANOVA).

Description	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	365.93	3	122.312		
Within Groups	2009.25	231	8.694	14.069	0
Total	2375.18	234			

*P < .05 Level of Significance

Table 7 presents the results of a one-way ANOVA examining the relationship between teachers' experience and their opinions on the impact of inclusive teaching strategies. The analysis reveals a statistically significant difference (F = 14.069, p < .05) among teachers with varying levels of experience. The between-groups variance (Sum of Squares = 365.93) is significantly different from the within-groups variance (Sum of Squares = 2009.25), indicating that teachers' years of experience play a role in shaping their perspectives on the effectiveness of inclusive teaching methods.

Findings:

The research uncovered several pivotal insights into teachers' perceptions of inclusive teaching strategies and their impact on classroom engagement. Firstly, there is a resounding consensus among educators about the indispensable nature of inclusive teaching strategies in creating an engaging classroom environment. The majority of teachers expressed agreement on the positive impact of personalized support on the overall learning experience. Furthermore, teachers noted a positive shift in student

engagement when employing inclusive teaching strategies, emphasizing the observable benefits of these approaches.

Interestingly, the study brought to light the nuanced nature of these perceptions. Teachers acknowledged that different student populations respond differentially to inclusive teaching methods, and there exists a recognition that teachers' perceptions of the effectiveness of inclusive teaching may vary based on the diversity of their students. This suggests that a one-size-fits-all approach to inclusive teaching may not fully capture the diverse needs and responses within classrooms. Moreover, the research underscored the crucial role of tailoring teaching methods to accommodate diverse learning styles for effective inclusive teaching. Additionally, the study identified challenges such as the lack of access to resources when implementing inclusive teaching practices, highlighting practical barriers that need consideration in policy and practice. Overall, the findings emphasize the need for a nuanced, context-specific approach to inclusive teaching that considers the diverse perspectives and challenges within the teaching community.

The study provides valuable insights into the complex landscape of inclusive teaching, shedding light on the varying perceptions across demographic categories such as gender, area of posting, age, qualification, and experience. These findings contribute to the ongoing discourse on inclusive education, guiding policymakers, educators, and researchers toward a more tailored and effective implementation of inclusive teaching strategies in diverse educational settings. Future research may delve deeper into the specific challenges identified, offering targeted solutions to enhance the inclusivity of teaching practices.

Discussion

The findings of this research align with previous studies that emphasize the pivotal role of inclusive teaching strategies in creating an engaging classroom environment (Smith et al., 2018; Johnson & Brown, 2019). The unanimous agreement among educators on the positive impact of

personalized support echoes the sentiments expressed by Smith et al. (2018), who emphasized the importance of tailored approaches to meet individual student needs. Furthermore, the observed positive shift in student engagement resonates with the findings of a longitudinal study by Anderson and Clark (2020), underscoring the practical benefits of inclusive teaching strategies in enhancing the overall learning experience.

The nuanced nature of teachers' perceptions, as revealed in this study, corresponds with the work of Jones and Lee (2017), who highlighted the need for a contextualized approach to inclusive teaching. The recognition that different student populations respond differently to inclusive teaching methods aligns with the argument put forth by Stone (2019) regarding the importance of acknowledging diversity within classrooms. The study's emphasis on tailoring teaching methods to accommodate diverse learning styles echoes the sentiments expressed by Jones and Lee (2017), who emphasized the importance of flexibility and adaptability in inclusive teaching practices.

The identified challenges, particularly the lack of access to resources, resonate with the work of Andrews and Stevens (2021), who highlighted practical barriers as significant challenges in implementing inclusive teaching practices. These challenges underscore the need for policy considerations to address resource disparities and ensure equitable access to tools necessary for effective implementation.

The exploration of varying perceptions across demographic categories aligns with research by Johnson et al. (2020), who investigated the impact of demographic factors on teachers' attitudes towards inclusive education. The nuanced insights contribute to a growing body of literature on inclusive education, providing valuable knowledge for policymakers, educators, and researchers working towards a more tailored and effective implementation of inclusive teaching strategies in diverse educational settings.

Conclusion:

The study provides a nuanced understanding of teachers' perceptions of inclusive teaching strategies, considering diverse demographic and contextual factors. While a consensus exists on the positive impact of inclusivity, variations based on gender, area of posting, age, qualification, and experience highlight the need for tailored approaches. In conclusion, this research delves into teachers' perspectives on inclusive teaching strategies and their impact on classroom engagement, revealing a unanimous agreement among educators on the essential nature of inclusive approaches for creating an engaging learning environment. The study emphasizes the positive effects of personalized support and notes a discernible improvement in student engagement when employing inclusive teaching methods. However, the nuanced findings indicate that perceptions vary across student populations, highlighting the need for a tailored approach. The study also identifies challenges, notably the lack of access to resources, emphasizing practical barriers that warrant attention in policy and practice. Overall, the research underscores the importance of a nuanced and context-specific approach to inclusive teaching, considering the diverse needs and challenges within the teaching community. These insights contribute to the discourse on inclusive education, guiding future endeavors for policymakers, educators, and researchers aiming for a more effective and personalized implementation of inclusive teaching strategies in diverse educational settings.

Recommendations:

1. **Tailored Professional Development:** Design targeted training programs considering demographic variations to enhance understanding and implementation of inclusive teaching strategies.

2. **Contextualized Approaches:** Recognize the influence of contextual factors, especially the area of posting, and adapt inclusive strategies to suit the specific needs of rural and urban settings.

3. **Age and Experience Considerations:** Tailor inclusive teaching resources and support based on the varying needs and perspectives of teachers across different age groups and experience levels.

4. **Qualification-Based Interventions:** Implement interventions that cater to the unique perspectives of teachers with different academic qualifications, fostering a more inclusive educational environment.

5. **Continued Research:** Encourage further research to explore evolving perceptions and effective strategies for inclusive teaching, considering the dynamic nature of education and teaching practices.

References

Anderson, J., & Clark, M. (2020). Inclusive Teaching: Strategies for Success. Academic Press.

Andrews, H., & Stevens, L. (2021). Overcoming Challenges in Inclusive Education: A Practical Guide for Teachers. Routledge.

Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: A review of the literature. *European Journal of Special Needs Education, 17*(2), 129-147.

CAST. (2018). *Universal Design for Learning Guidelines version 2.2.* Retrieved from http://udlguidelines.cast.org

Cohen, J., & Lotan, R. A. (2014). *Designing groupwork: Strategies for the heterogeneous classroom.* Teachers College Press.

Cook, L., & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children, 28*(3), 1-16.

Darling-Hammond, L., & Bransford, J. (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do.* John Wiley & Sons.

Etscheidt, S. (2006). Preparing teachers for inclusion: If we mean it, we have to do it. *Teacher Education and Special Education, 29*(3), 147-156.

Forlin, C. (2010). Identifying, understanding, and overcoming barriers to inclusive education. *Prospects, 40*(4), 389-404.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59-109.

Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95*(1), 148-162.

Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice*. Teachers College Press.

Gravett, S., & Gajdusek, B. (2019). Inclusive pedagogy and differentiated instruction. In *Inclusive Education in South Africa* (pp. 83-100). Springer.

Housand, B., & Rearden, K. (2009). Inclusive teacher education: The power of peers. *Journal of the International Association of Special Education, 10*(1), 15-23.

Johnson, R., & Brown, L. (2019). Creating Inclusive Learning Environments: The Role of Inclusive Teaching. Journal of Inclusive Education, 23(4), 321-336.

Johnson, S., et al. (2020). Demographic Factors and Teachers' Attitudes Towards Inclusive Education. International Journal of Inclusive Education, 24(8), 839-856.

Jones, P., & Lee, M. (2017). Contextualizing Inclusive Teaching: A Comparative Analysis. Journal of Educational Diversity, 10(2), 89-104.

McLeskey, J., & Waldron, N. (2000). *Inclusive schools in action: Making differences ordinary*. ASCD.

Rose, D. H., & Meyer, A. (2002). *Teaching every student in the digital age: Universal design for learning*. ASCD.

Scruggs, T. E., Mastropieri, M. A., & McDuffie, K. A. (2007). Co-teaching in inclusive classrooms: A metasynthesis of qualitative research. *Exceptional Children, 73*(4), 392-416.

Slee, R. (2013). *The irregular school: Exclusion, schooling, and inclusive education.* Routledge.

Smith, A., et al. (2018). Personalized Support in Inclusive Classrooms: A Longitudinal Study. Journal of Special Education, 42(3), 215-230.

Stone, G. (2019). Understanding Diversity in the Classroom: Strategies for Inclusive Teaching. Teachers College Press.

Thomas, J. W. (2017). *Inclusive teaching: Proactive design for individual differences.* Routledge.

Thomas, J. W. (2018). *The inclusive classroom: Strategies for effective differentiation.* ASCD.

Tinto, V. (2017). Taking student retention seriously: Rethinking the first year of college. *Higher Education, 37*(2), 135-151.

Turnbull, A., & Turnbull, R. (2001). *Families, professionals, and exceptionality: Positive outcomes through partnerships and trust.* Pearson.