



RESEARCH PAPER

Inclusive Education at Elementary Level in Punjab: A SWOT Analysis of Viability and Academic Impact

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ABSTRACT

This study conducted a SWOT analysis of inclusive education (IE) practices and their impact on academic performance at the elementary level in Punjab, Pakistan. Using a quantitative method and survey design, data were collected from a sample of 386 primary school teachers (215 male, 171 female), selected through stratified random sampling across Bhakkar, Layyah, and Mianwali districts of the province of Punjab. A validated 75-item closed-ended questionnaire (Cronbach's $\alpha = .789-.927$) was used for gathering required data whereas inferential analyses of the collected data were done using independent samples t-tests and linear regression. Findings of the study indicate that teachers hold strong conceptual awareness of IE and recognize its social and academic benefits. Regression analysis confirmed a strong positive impact of IE on academic performance ($R = .842$, $R^2 = .709$, $p < .001$). No significant gender differences were found for strengths, weaknesses, or opportunities; however, male teachers perceived systemic threats more strongly than female teachers ($t = 2.000$, $p < .05$). The study recommends targeted policy reforms, teacher capacity-building, and institutional collaboration to advance SDG-4 goals in Punjab.

Keywords: Inclusive Education, Academic Performance, SWOT Analysis, Elementary Level

Introduction

Inclusive education (IE) is a central principle of global education policy, supported by the Salamanca Statement (UNESCO, 1994), the UN Convention on the Rights of Persons with Disabilities (2006) and SDG-4. Requires pedagogical and structural change to provide equitable access and participation for all learners.

In Punjab the most populated province of Pakistan the practices of inclusive approach are inconsistent. More than 3,000 primary schools are outsourced and the level of preparedness of teachers to teach children with education for inclusion is insufficient (Kazmi et al., 2023; Waqar et al., 2024). There is no diagnostic research done on inclusive education that is structured on SWOT and contextualized in the public primary schools of Pakistan. This study aims to fill the gap of the relationship between IE and academic performance in primary school through a comprehensive SWOT analysis and empirical examination of the relationship between IE and academic performance in three districts with sample of 386 primary school teachers (Kamran et al., 2024).

Literature Review

Inclusive education is the inclusion of learners with various abilities in mainstream classes (UNICEF, 2024). It has a normative architecture, that is, the Salamanca Statement (1994), the Dakar Framework (2000), the UNCRPD Article 24 (2006) and SDG-4 (2015),

which have an international mandate for equity-driven reform. Although policies were identified in Pakistan, their implementation is limited due to lack of infrastructure, negative attitudes of teachers, and a lack of capacity (Kusimo & Chidozie, 2019).

SWOT analysis is a systematic method of determining the strengths and weaknesses of an organization and the opportunities and threats faced by it (Gürel & Tat, 2017). It is flexible and can be adapted to the socio-cultural and policy dimensions of inclusive education in low-resource situations (Irfan et al., 2024; Hassan et al., 2025).

The three theories that underpin this study are Vygotsky's (1978) Sociocultural Theory, which views inclusive classrooms as spaces for collaborative cognitive development of students; Bandura's (1997) Self-Efficacy Theory, which focuses on how teachers' confidence affects the quality of their inclusive practice; and Bronfenbrenner's (1979) Ecological Systems Theory, which highlights the importance of alignment among the classroom, school, community, and policy environments.

There is global evidence of IE's ability to develop empathy, lower stigma as well as enhance literacy and numeracy outcomes (Schnepel et al., 2022; Krämer et al., 2021). Some of the internal barriers are: inadequate teacher training, overcrowded classes, cultural stigma, and lack of resources (Artiles et al., 2019; Slee, 2018). The opportunities include, among others, the use of assistive technology, SDG-4 funding, and NGO partnerships (Oyedokun, 2024; Khanna & Bhola, 2023). At the systemic level, there are threats to the curriculum, threats at the policy level, and threats at the cultural and institutional level (Kalyanpur & Harry, 2012; Khan & Ahmad, 2019).

Hypotheses

- 1 No significant difference exists in the perception of male and female teachers about the strength of inclusive education at the elementary level in Punjab.
- 2 Perception of male and female teachers about the weaknesses of inclusive education at the elementary level in Punjab does not vary significantly.
- 3 There is no significant difference in the perception of male and female teachers about different threats to inclusive education at the elementary level in Punjab.
- 4 No significant differences exist between the perceptions of male and female teachers about different opportunities to inclusive education at the elementary level in Punjab.
- 5 Inclusive education does not have a significant impact on the academic performance of students at the primary level.

Material and Methods

A positivist quantitative survey research design was used to produce objective, generalizable results of teacher perceptions of IE and its academic influence (Park et al., 2020; Rahi et al., 2019). The target population was 11,250 PSTs of 628 public primary schools in Layyah, Bhakkar and Mianwali (AY 2023-24). A sample of 386 teachers was random stratified (proportional) sampled using Yamane's (1973) formula at 5% margin of error, by district and gender.

Table 1
Sample Distribution by District and Gender

District	Male Teachers	Female Teachers	Total
Layyah	70	61	131
Bhakkar	71	58	129
Mianwali	74	52	126
Total	215	171	386

A self-designed closed-ended questionnaire (75 items) was presented in eight sections (A-H) that included the subsections for IE knowledge, academic performance, perceptions of viability, SWOT dimensions and impact sub-dimensions. The items were rated on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The content was validated by an eight-member expert panel, and the construct was validated by PCA using varimax rotation (all factor loadings ≥ 0.40). Cronbach's α for reliability ranged from .789 to .927.

Questionnaires were sent out using the online platform and in person through institutional visits, achieving a 94% response rate. Data were analyzed using SPSS software, which involved descriptive statistics, independent samples t-test for gender-based SWOT analysis, and simple linear regression to determine the effect of IE on academic performance. Ethical procedures (informed consent, confidentiality, voluntary participation, right to withdrawal) were carefully adhered to.

Results and Discussion

The conceptual knowledge of IE of the teachers was also found to be good ($M = 3.92$ to 4.10) (Section A). The majority of students identified IE as learner centered, equity-based and participatory. Academic performance as a multidimensional construct was also high (Section B: $M = 3.72$ – 4.09) with most of the participants relating academic performance to examination results, classroom participation and effective learning outcomes. Overall, teachers perceived IE as feasible in schools, which have mainstream education approach (mean range $M = 3.80$ – 3.95) and they strongly agreed inclusion is a national education goal and an equity framework. Lower endorsement of long-term feasibility (66–67%), however, suggested ongoing concerns about lack of resources and administrative support. Stigma reduction and a sense of belonging were the most endorsed strengths (82.9%, $M = 4.11$, $SD = .71$), followed by development of empathy and collaborative skills (81.3%, $M = 4.10$). Other assets were good peer modeling of students with disabilities (74.2%, $M = 3.90$) and promotion of differentiated instruction (72.0%, $M = 3.92$).

Teacher workload limiting instructional differentiation ($M = 4.10$, $SD = .66$) and peer non-acceptance of students with special needs ($M = 4.09$, $SD = .69$) were most commonly identified as weaknesses. Other barriers were a lack of individualized student support (74.3%, $M = 3.95$), a lack of accommodative classrooms (78.2%, $M = 4.00$), and the lack of professional development in inclusive strategies (67.5%, $M = 3.76$). There were several key opportunities for growth, with the top three being: Institutional adaptation due to increased disability enrolment (77.9%, $M = 4.00$); Government and donor interest creating new streams of funding for inclusion (74.8%, $M = 4.01$); and NGO-Community partnerships (73.5%, $M = 3.96$). Sixty-seven percent of teachers ($M = 3.79$) acknowledged the use of technology in teaching, but some teachers were aware of inequities in access.

The most pervasive threat (77.2%, $M = 4.01$) was curriculum-strategy misalignment, followed by implementation ambiguity creating administrative confusion (75.7%, $M = 3.99$), funding shortfalls (73.5%, $M = 3.87$), inadequate disability data (73.4%, $M = 3.87$), and insufficient specialized staff (72.7%, $M = 3.86$). Contextualization sensitivity was found with cultural stigma towards disability where endorsement ranged from 54.5 to $M = 3.53$. The positive perceptions were noted for all three sub-dimensions. Students' social skills (71.8%) and confidence in learning with disabilities (70.5%) were seen to improve from inclusion, as well as empathy with others (75.8%) and self-confidence (71.0%) under Student Development. With regards to teacher preparedness, 82.9% agreed that inclusion promotes innovative teaching methods ($M = 4.15$), while 79.9% associated it with a cycle of teacher lifelong learning ($M = 4.02$). Three-fourths (77.6%) indicated greater teacher collaboration and 76.5% reported better resource allocation under Systemic Impact.

Table 2
Independent Samples T-Test — SWOT Dimensions by Gender

Hypothesis	Male Mean	Female Mean	t-value	Decision
H ₀₁ : Strengths	3.99	3.91	1.225	Accepted (p > .05)
H ₀₂ : Weaknesses	3.96	3.89	1.242	Accepted (p > .05)
H ₀₃ : Opportunities	3.92	3.82	1.620	Accepted (p > .05)
H ₀₄ : Threats	3.91	3.77	2.000	Rejected (p < .05)

The results for H₀₁ - H₀₃ showed that there were no significant differences between the male and female groups regarding their perceptions of strengths, weaknesses and opportunities. The mean scores for male teachers (M = 3.91) and female teachers (M = 3.77) differed on H₀₄ (t = 2.000, p < .05) with male teachers reporting greater perceived institutional threats to IE than female teachers, which may stem from differences in exposure to institutional and policy-level threats.

Table 3
Regression Model Summary

R	R ²	Adjusted R ²	F-value	p-value
.842	.709	.708	895.962	< .001

Table 4
ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	97.248	1	97.248	895.962	.000 ^b
Residual	39.943	368	.109		
Total	137.191	369			

Table 5
Regression Coefficients

Predictor	B	Std. Error	β	t-value	p-value
(Constant)	-0.232	.141		-1.647	.100
Inclusive Education	1.070	.036	.842	29.933	< .001

- Dependent Variable: Academic Performance
- Predictors: (Constant), Inclusive education

The model showed a strong, statistically significant relationship between IE and academic performance (R = .842, R² = .709, F(1, 368) = 895.962, p < .001) with 70.9% variance explained by IE in academic outcomes. The unstandardized coefficient (B = 1.070, p < .001) means that for every one unit increase in IE scores, there is a 1.07 unit increase in academic performance. H₀₅ was rejected. The model was found to be robust by residual diagnostics (mean residual = 0, SD = 0.33, and standardized residuals were within the range of -4 to +4).

Discussion

The conceptual awareness of IE of teachers of Punjab is similar to the global scenario (UNESCO, 2020; Kamran et al., 2023). There was, however, relatively low endorsement of long-term viability, indicating low implementation confidence that aligns with the results of Kuyini et al. (2024) in various national contexts. Results support the sociocultural theory of Vygotsky (1978) and international meta-analytic findings of positive or neutral academic outcomes of non-disabled peers in inclusive contexts (Krämer et al., 2021; Roldán et al., 2021). The study confirms that IE, if well supported, is considered as good practice in education. In Pakistan context, peer non-acceptance, and workload of teachers are well documented obstacles. The data corroborate a high level of limited confidence in managing diverse learning needs (68%), consistent with Forlin and Chambers (2011), and reflect the lack of policy-level commitment translating to material and institutional conditions for effective inclusion. The recognition of technology and NGO partnerships as key enablers are in line with Al-Azawei et al. (2017) and UNESCO (2020). But the disparities among rural and

urban areas and lack of digital professional development for teachers for using technology are also a problem in Punjab (Waqar et al., 2024; Khan et al., 2023), and need to be addressed concurrently.

Similarly, problems of curriculum misalignment and policy ambiguity have been found worldwide in the Global South (Sharma et al., 2012; Majoko, 2016). A significant gender difference in threat perception (H_{04} rejected) is likely due to subjectively more access of male teachers to institutional and administrative procedures in the context of male dominated school leadership in Punjab. The strong regression evidence ($R^2 = .709$) makes significant contribution to the empirical literature as an extension to the largely qualitative Pakistani scholarship (Loreman, 2014; Saloviita, 2020). The results of 77.6% saying there had been an increase in teacher working in collaborative ways, and 76.5% reporting that resources were more effectively allocated also align with Ainscow's (2020) perspective of inclusive schools promoting professionally collaborative institutional cultures.

Conclusion

The study gives extensive empirical evidence regarding viability and effect in inclusive education in three districts of Punjab, Pakistan. Teachers showed high conceptual acceptance for IE and they knew its social, academic and institutional values. IE was found to be a significant predictor of academic performance, as confirmed by regression analysis ($R^2 = .709$, $p < .001$). Even so, structural and attitudinal obstacles and resource constraints persist at the school level that hamper effective implementation. The results indicate that while inclusive education is claimed to be well accepted on a philosophical level in Punjab, on an operational level, it is hindered. In order to fulfil its transformative promise, policy coherence, commitment to investing in resources, targeting teacher preparation, and continued community engagement are key all circling around and around IE and keeping it central, rather than marginal, in the SDG-4 development agenda in Punjab.

Recommendations

- All Primary School teachers need to have access to ongoing CPD in inclusive pedagogy and this practice should be compulsory and well-funded by the Educational Authorities.
- Schools will have to provide assistive technology, modified instructional materials, and special support personnel in order to facilitate effective implementation of IE.
- Teachers, parents and community partners should work together, and school leadership should encourage such cooperation, to create positive, inclusive school cultures.
- Long-term academic, social and emotional outcomes of inclusive education should be studied in future to support evidence-based policy and practice.

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