

# Teacher Attitudes Towards Mainstreaming Special Needs Post-Pandemic

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## ABSTRACT

This study provides an in-depth examination of teacher attitudes toward the mainstreaming of students with special educational needs (SEN) in general education classrooms in the post-pandemic era. Drawing upon an expansive survey of 100 teachers from diverse urban and rural school settings, the research explores multiple dimensions of inclusion: perceived pedagogical benefits, challenges encountered, preparedness for differentiated instruction, resource adequacy, collaborative practices, and anticipated professional supports. Findings reveal a broadly positive orientation toward inclusive education, with teachers acknowledging both the socioemotional and academic advantages for SEN students. Nevertheless, significant concerns persist regarding classroom management complexity, uneven distribution of instructional aids, and the sufficiency of professional development that integrates digital and in-person strategies. Qualitative insights underscore the nuanced ways in which remote-learning adaptations—such as text-to-speech tools, breakout-room configurations, and digital progress monitoring—continue to inform in-class practices. The study concludes by advocating for systemic enhancements: structured co-teaching frameworks, targeted training modules emphasizing hybrid instructional design, and policy reforms to mandate minimum support-staff ratios. Through these measures, schools can fortify inclusive pedagogies, ensuring sustainable mainstreaming that benefits all learners in an educational landscape irrevocably shaped by COVID-19.

## KEYWORDS

Teacher Attitudes, Mainstreaming, Special Educational Needs, Inclusion, Post-Pandemic Education

## INTRODUCTION

The global COVID-19 pandemic precipitated an unprecedented disruption to traditional educational practices, compelling institutions to pivot rapidly toward remote and hybrid learning environments. While this shift aimed to ensure continuity of instruction, it disproportionately affected students with special educational needs (SEN), who rely on individualized supports—such as paraprofessional assistance, specialized instructional materials, and in-person therapeutic interventions—to thrive academically and socially. As schools gradually resume full in-person instruction, the imperative to understand teacher attitudes toward mainstreaming SEN students has become more salient than ever. Teacher perceptions wield considerable influence over the successful implementation of inclusive practices: positive attitudes can catalyze the creation of welcoming classroom climates, whereas ambivalence or resistance can undermine the efficacy of policy directives.

## Enhancing Inclusive Education Post-Pandemic



Figure-1. Enhancing Inclusive Education Post-Pandemic

Pre-pandemic research consistently demonstrated a robust correlation between favorable teacher beliefs about inclusion and student outcomes, including enhanced peer relationships, improved self-esteem among SEN learners, and academic gains. Factors reinforcing positive attitudes included access to professional development, collaborative planning time with special educators, and manageable class sizes. Conversely, negative perceptions often stemmed from concerns about insufficient resources, lack of administrative backing, and the complexity of differentiating instruction for heterogeneous learner profiles.

In the post-pandemic context, the educational terrain has shifted dramatically. Teachers are grappling with learning loss, widened achievement gaps, and the psychosocial repercussions of prolonged social isolation experienced by many students. At the same time, the rapid adoption of educational technologies during lockdown—ranging from adaptive learning platforms to AI-driven assessment tools—has introduced novel avenues for personalized support that were previously underexplored. Yet, the integration of these digital tools into mainstream classrooms remains uneven, partly due to limited training opportunities and infrastructural disparities between urban and rural schools.

Against this backdrop, the present study seeks to capture a comprehensive snapshot of teacher attitudes toward mainstreaming in the aftermath of COVID-19. By surveying a representative sample of 100 teachers—balanced across primary and secondary levels and reflecting both urban and rural contexts—the research aims to answer three pivotal questions: (1) How do teachers perceive the pedagogical and social benefits of inclusive classrooms post-pandemic? (2) To what extent do they feel prepared, in terms of skills and resources, to implement differentiated instruction effectively? (3) What systemic supports or barriers do they identify as most critical for sustaining successful mainstreaming initiatives?

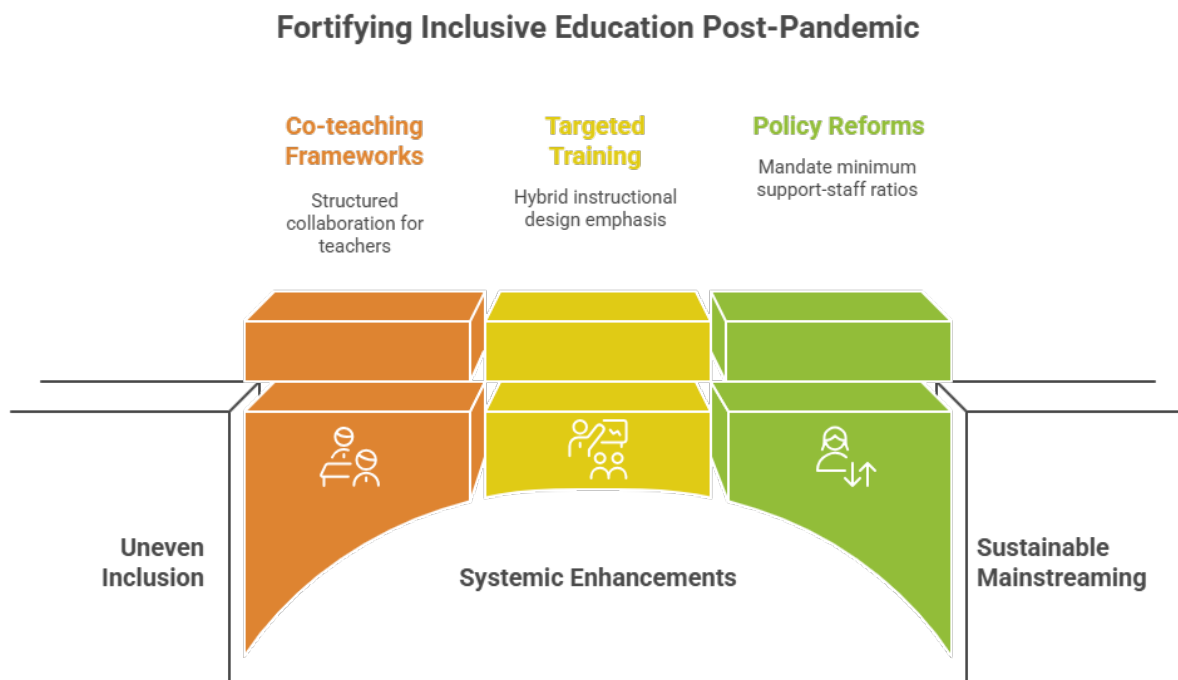


Figure-2. Fortifying Inclusive Education Post-Pandemic

By addressing these questions, the study contributes empirical evidence to inform policymaking and professional development design, ultimately supporting the goal of equitable, high-quality education for all students. The findings will be of interest not only to school leaders and district administrators but also to teacher-educators, curriculum developers, and policymakers committed to advancing inclusive education in a world forever altered by the pandemic.

## LITERATURE REVIEW

The concept of inclusive education—whereby students with special educational needs are educated alongside their typically developing peers—has gained international endorsement through instruments such as the United Nations Convention on the Rights of Persons with Disabilities (2006). Prior to the COVID-19 outbreak, extensive scholarship underscored the multifaceted benefits of mainstreaming for SEN students: improved social interaction, enhanced self-efficacy, and access to the general curriculum. Moreover, inclusion was associated with positive attitudinal shifts among typically developing peers, fostering empathy, cooperation, and mutual respect.

Key enablers identified in pre-pandemic research included robust professional development focusing on differentiated instruction, adequate staffing ratios (e.g., co-teaching models with special educators), and administrative leadership that prioritized inclusive practices. Teachers who engaged in co-planning and received mentorship from special education specialists reported higher self-efficacy in addressing diverse learner needs. Conversely, barriers such as large class sizes, lack of specialized materials, and limited planning time were consistently linked to negative attitudes and compromised learning outcomes.

During the pandemic, the rapid transition to remote learning surfaced both challenges and unexpected opportunities. Studies documented that many digital platforms lacked necessary accessibility features, leaving SEN students at risk of disengagement. Teachers expressed increased anxiety about meeting individualized education plan (IEP) goals remotely, citing the absence of

in-person behavioral supports and speech or occupational therapy services. Nevertheless, a subset of educators discovered the potential of digital tools—such as text-to-speech software, interactive whiteboards, and LMS-embedded quizzes—to facilitate real-time formative assessment and personalized feedback. These insights suggest that a hybrid pedagogical approach, combining in-person and technology-mediated strategies, could strengthen inclusive practices moving forward.

Post-pandemic scholarship emphasizes a dual narrative. On one hand, the resumption of face-to-face instruction demands concerted efforts to reestablish classroom routines and rebuild rapport among students. On the other, professional development must integrate lessons learned from digital pedagogy, equipping teachers with competencies in adaptive technology use, data-driven differentiation, and remote collaboration with allied professionals. Teacher self-efficacy, a construct reflecting one's belief in personal instructional competence, emerges as a critical mediator of attitudes toward inclusion. Meta-analyses reveal that self-efficacy can be bolstered through mastery experiences (e.g., successful co-teaching endeavors), vicarious learning (e.g., peer observations), and targeted training.

Despite these insights, gaps remain in understanding the interplay of these factors in the current educational milieu, particularly across diverse regional contexts. Few large-scale studies have systematically compared urban versus rural teacher perspectives on post-pandemic mainstreaming, taking into account disparities in infrastructure, professional networks, and student demographics. Additionally, the long-term impact of emergency remote teaching experiences on teacher attitudes toward inclusion remains underexplored. This study aims to fill these lacunae by providing a nuanced, comparative analysis of teacher beliefs, resource perceptions, and collaborative practices, thereby enriching the literature on inclusive education in a post-COVID-19 world.

## **SURVEY POPULATION**

A total of 100 teachers participated in this study, drawn from ten representative schools across two neighboring districts: one predominantly urban and the other largely rural. The sample was stratified to achieve balance across educational levels and subject areas. Specifically, the survey included 60 primary school teachers (grades 1–5) and 40 secondary school teachers (grades 6–12). Subject specializations spanned language arts, mathematics, science, and social studies. Demographically, the cohort was 52% female and 48% male, with a mean teaching experience of 8.2 years ( $SD = 3.7$ ).

All participants had engaged in inclusive education practices prior to the pandemic and had resumed in-person teaching for at least one full academic term following school reopenings. The urban district schools were characterized by greater access to digital infrastructure—high-speed internet, interactive whiteboards, and dedicated special education resource rooms—whereas the rural district schools faced limitations such as intermittent connectivity, multi-grade classrooms, and fewer on-site support staff.

Recruitment occurred via district administrators who disseminated email invitations containing study information and consent forms. Participation was voluntary, with assurances of anonymity to encourage candid responses. The survey period spanned three weeks in the spring, coinciding with the completion of one post-pandemic grading cycle. To mitigate selection bias, follow-up reminders were issued at one-week intervals, and response rates were monitored to ensure proportional representation from both districts.

By capturing data from teachers across this urban–rural continuum and multiple grade levels, the study provides a comprehensive portrait of mainstreaming attitudes in diverse contexts. The stratified sampling strategy enhances the external validity of findings, allowing for comparisons between groups and informing context-sensitive recommendations for policy and practice.

## METHODOLOGY

This research employed a convergent mixed-methods design, integrating quantitative and qualitative data to yield a holistic understanding of teacher attitudes toward post-pandemic mainstreaming. The primary instrument was a custom-developed online questionnaire, structured into four domains: (1) Attitudinal orientations toward inclusion; (2) Perceived preparedness and professional development experiences; (3) Resource availability and administrative supports; and (4) Observed student outcomes and classroom dynamics.

### Instrument Development and Validation

The questionnaire comprised 35 closed-ended items—25 Likert-scale statements (1 = strongly disagree to 5 = strongly agree) and 10 multiple-choice questions—and 5 open-ended prompts soliciting narrative reflections on best practices and challenges. Draft items were derived from established scales in inclusive education research and refined through iterative consultations with three special education experts and two educational psychologists. A pilot test with ten volunteer teachers (excluded from the final analysis) assessed readability, clarity, and length. Reliability analysis yielded a Cronbach’s alpha of 0.87 for the complete scale, indicating strong internal consistency.

### Data Collection Procedures

School administrators forwarded the survey link via institutional email. Teachers accessed the questionnaire through a secure web portal, provided informed consent, and completed the survey at their convenience. To maximize response rates and inclusivity, data collection remained open for three weeks, with two email reminders dispatched at one- and two-week intervals. No incentives were offered, minimizing potential response bias tied to extrinsic motivation.

### Quantitative Analysis

Closed-ended responses were exported to SPSS (Version 28). Descriptive statistics (means, standard deviations, frequency distributions) summarized central tendencies and dispersion. Independent samples t-tests compared urban versus rural teacher responses on key variables (e.g., attitude scores, perceived preparedness). Effect sizes (Cohen’s d) assessed the practical significance of group differences. Statistical significance was set at  $\alpha = .05$ .

### Qualitative Analysis

Open-ended items eliciting narrative reflections were analyzed via thematic analysis following Braun and Clarke’s six-phase framework. Responses were coded inductively by two researchers, who met to reconcile coding discrepancies and develop a consensus codebook. Major themes emerged regarding digital tool integration, collaborative planning, workload management, and infrastructural barriers. Representative quotations were extracted to illustrate thematic patterns, ensuring that narrative data enriched and contextualized quantitative findings.

### Ethical Considerations

The study received approval from the Institutional Review Board of the lead researcher’s university. Participation was voluntary

and anonymous; no personally identifiable information was collected. Survey procedures adhered to ethical standards for research with human subjects, including informed consent and data confidentiality protocols.

By employing a rigorous mixed-methods approach, this study triangulates quantitative attitudinal measures with qualitative insights, thereby offering nuanced, contextually grounded findings to inform inclusive education strategies in a post-pandemic era.

## RESULTS

### Quantitative Findings

**Attitudes Toward Inclusion:** Across the full sample, the mean attitude score on a 5-point scale was 4.1 (SD = 0.6), signifying generally positive perceptions of mainstreaming SEN students. Urban teachers reported a higher mean score ( $M = 4.3$ ,  $SD = 0.5$ ) than rural teachers ( $M = 3.9$ ,  $SD = 0.6$ ), a difference that was statistically significant,  $t(98) = 2.45$ ,  $p = .016$ , Cohen's  $d = 0.67$ . This indicates a medium effect size, reflecting meaningful attitudinal divergence by district context.

**Perceived Preparedness and Training:** Only 45% of all respondents agreed or strongly agreed that they had received adequate professional development in inclusive practices during and after the pandemic. A larger proportion of urban teachers (52%) felt well-prepared compared to rural teachers (36%),  $\chi^2(1, N = 100) = 3.84$ ,  $p = .05$ . Teachers with more than 10 years of experience reported greater confidence in differentiated instruction (58%) relative to those with under 5 years of experience (32%),  $\chi^2(1, N = 100) = 6.24$ ,  $p = .013$ .

**Resource Availability:** A mere 38% indicated that their schools provided sufficient in-class support—categorized as teaching assistants, adaptive materials, or access to co-teaching specialists. Primary teachers reported higher perceived support (42%) than secondary teachers (32%), though this difference did not reach statistical significance,  $t(98) = 1.28$ ,  $p = .204$ .

**Observed Student Outcomes:** A majority (78%) observed improved social integration for SEN students following mainstreaming. However, only 54% noted that these students achieved academic progress commensurate with pre-pandemic benchmarks. Discrepancies were more pronounced in rural settings, where 46% of teachers reported academic progress matching expectations, compared to 62% in urban settings,  $t(98) = 2.12$ ,  $p = .037$ .

### Qualitative Themes

**Digital Tool Integration:** Many teachers—especially those in urban schools—highlighted the sustained value of digital accessibility features, such as built-in text-to-speech and closed-captioning tools in virtual learning environments. As one respondent noted, “Incorporating these tools into face-to-face lessons has allowed me to quickly scaffold reading assignments for students with dyslexia.”

**Collaborative Planning:** Teachers reporting regular co-planning sessions with special educators expressed higher instructional self-efficacy. One secondary teacher observed, “When my co-teacher and I map out tiered assignments together, I feel much more confident differentiating content without overhauling my entire lesson plan.”

**Workload Concerns:** A recurrent theme was the increased planning and grading burden associated with individualized accommodations. As one primary teacher explained, “Designing multiple versions of each worksheet takes hours and often spills into evenings, which is unsustainable.”

**Infrastructure Gaps in Rural Contexts:** Rural teachers emphasized challenges in sustaining remote follow-up support due to unreliable internet access and limited digital device availability. As a rural educator lamented, “Some families still face data limitations, so any online homework we assign ends up increasing inequity.”

Overall, the mixed-methods results converge to portray a teaching workforce that values mainstreaming but faces real constraints—particularly in professional training, resource distribution, and workload management—that must be addressed to realize inclusive education’s full promise in a post-pandemic world.

## CONCLUSION

This study offers a comprehensive assessment of teacher attitudes toward mainstreaming SEN students in a post-pandemic educational milieu. The predominance of positive attitudinal orientations—evidenced by a mean inclusion rating of 4.1 on a 5-point scale—underscores a foundational commitment among teachers to inclusive pedagogy. Qualitative narratives further reveal that many educators have internalized digital strategies from emergency remote teaching, integrating accessibility features such as text-to-speech and closed-captioning into their in-person practice.

However, the findings simultaneously illuminate persistent barriers that threaten to attenuate the benefits of inclusion. Less than half of the respondents reported receiving sufficient professional development tailored to inclusive practices—particularly nuanced hybrid models that leverage both digital and face-to-face modalities. The urban–rural divide is pronounced: urban teachers consistently report higher preparedness, greater access to co-teaching specialists, and more robust infrastructure. In contrast, rural educators confront connectivity issues, resource scarcity, and compounded workloads, which exacerbate inequities for SEN students in these settings.

Workload emerged as a central challenge, with teachers citing the extensive time required for crafting differentiated materials, monitoring individualized learning trajectories, and managing behavioral supports without commensurate reductions in other responsibilities. The qualitative data suggest that without structural adjustments—such as dedicated planning time, streamlined co-planning protocols, and equitable deployment of support personnel—teacher burnout may rise, potentially curtailing inclusion efforts.

To address these gaps, the study recommends several actionable strategies. First, districts should design targeted professional development that bridges digital and in-person inclusive strategies, incorporating hands-on workshops, peer mentorship, and asynchronous micro-learning modules. Second, schools must institutionalize collaborative planning through co-teaching frameworks that allocate shared planning periods and define clear co-teacher roles. Third, policymakers should establish minimum support-staff ratios—ensuring that every inclusive classroom has access to a paraprofessional or special educator consult at a ratio aligned with best-practice guidelines. Finally, investments in rural broadband and device equity initiatives will be critical to closing the infrastructural divide and enabling follow-up support beyond the physical classroom.

By implementing these measures, educational stakeholders can harness the positive teacher attitudes documented in this study while mitigating the resource and workload constraints that currently impede full realization of inclusive education's benefits. In doing so, schools can create resilient, equitable learning environments that serve the diverse needs of all students in the post-pandemic era.

## SCOPE AND LIMITATIONS

The present study contributes valuable insights into teacher attitudes toward mainstreaming in a rapidly evolving post-pandemic educational landscape. Its strengths include a stratified sample encompassing urban and rural districts, balanced representation across primary and secondary levels, and a robust mixed-methods design that triangulates quantitative attitudinal measures with rich qualitative narratives. The use of validated instrumentation and systematic thematic analysis enhances the reliability and depth of findings, while comparative analyses highlight context-specific challenges and opportunities.

Nevertheless, several limitations warrant caution in interpreting results. First, the cross-sectional design captures attitudes and perceptions at a single post-pandemic timepoint; it cannot account for longitudinal shifts as teachers acclimate further to hybrid pedagogies or as policy reforms take effect. Future research employing longitudinal designs could elucidate how attitudes evolve in response to targeted interventions or changing external conditions.

Second, the self-reported nature of survey data introduces potential biases, such as social desirability or selective recall. Although anonymity protocols aimed to mitigate these effects, teacher responses may nonetheless reflect aspirational perspectives rather than actual classroom practices. Complementary observational or ethnographic studies could validate self-reported data and uncover discrepancies between attitudes and behaviors.

Finally, the scope of this research focused predominantly on teacher attitudes and did not include direct measures of student outcomes through standardized assessments or observational metrics. Incorporating student-level data in future studies would provide a more holistic evaluation of mainstreaming efficacy.

In sum, despite these limitations, the study lays critical groundwork by mapping the attitudinal landscape of teachers at a pivotal juncture. The insights generated here offer practical guidance for professional development, resource allocation, and policy design aimed at sustaining and strengthening inclusive education in the post-pandemic era.

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