

Teacher Preparedness for Migrant Children in Primary Schools: An Ecological Analysis of Professional Capacity and Structural Constraints

Vinayak Pathak

Faculty of Education, Banaras Hindu University, Varanasi, India

ORCID: 0009-0009-1413-9234

Anamika Trivedi

Department of Education, Central University of Punjab, Bathinda, India

ORCID: 0009-0000-9665-5332

Ashish Singh

Faculty of Education, Banaras Hindu University, Varanasi, India

ORCID: 0009-0004-3957-6346

Neha Yadav

Department of Education, Vasanta College for Women, Banaras Hindu University, Varanasi, India

ORCID: 0009-0005-1587-0433

Alok Gardia

Faculty of Education, Banaras Hindu University, Varanasi, India

ORCID: 0009-0005-6982-7203

Pankaj Singh

Faculty of Education, Banaras Hindu University, Varanasi, India

ORCID: 0000-0002-2018-5343

ABSTRACT

The increasing enrolment of children from labour-migrant families in Indian primary schools presents significant challenges for teachers, particularly in addressing linguistic diversity, interrupted schooling, and limited institutional support. This study examines teacher preparedness and the ecological factors shaping it in government primary schools with high migrant enrolment, using Bronfenbrenner's Ecological Systems Theory as the guiding framework. A convergent mixed-methods design was employed, combining a 46-item survey of 100 teachers with semi-structured interviews with 10 teachers. Quantitative findings indicate moderate-to-low teacher preparedness ($M = 2.66$, $SD = 0.62$), with migration-focused training ($\beta = 0.42$) and prior classroom exposure to migrant children ($\beta = 0.31$) emerging as the strongest predictors. Years of teaching experience were not a significant predictor. Qualitative findings identified language barriers, irregular attendance, inadequate migration-sensitive training, and administrative constraints as major challenges. The findings suggest that teacher preparedness is shaped less by individual experience

than by institutional and systemic conditions. The study highlights the need for migration-responsive teacher education, sustained professional development, flexible school practices, and supportive educational policies.

Keywords: convergent mixed methods design, ecological systems theory, inclusive pedagogy, labour migration, primary education, teacher preparedness

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INTRODUCTION

India is among the world's largest producers of internal labour migrants. According to the 2011 Census of India, more than 450 million people have migrated within the country. This figure has grown substantially due to widening economic inequalities between rural and urban regions, seasonal agricultural cycles, and the expansion of construction, textile, and manufacturing industries (Deshingkar & Farrington, 2009; UNESCO, 2019). This migratory flux is not an isolated phenomena associated only with the adults. Millions of children accompany their parents on these circular and seasonal journeys, enrolling and repeatedly unenrolling in government primary schools at their destination sites. The educational consequences for these children are serious and cumulative. Interrupted schooling, persistent learning gaps, low language proficiency in the dominant medium of instruction, and a constant sense of social exclusion from the classroom community (UNESCO, 2019).

Government primary schools in labour-destination districts across states in India such as Gujarat, Uttar Pradesh, Maharashtra, Delhi, and Punjab have seen a marked increase in migrant student enrolments over the past decade. These schools already stretched thin by overcrowded classrooms, multi-grade teaching demands, and resource constraints are now expected to accommodate learners who bring with them diverse language needs, irregular schooling histories, and socioeconomic vulnerabilities. The standard pedagogical approaches are not equipped to address these concerns. Despite this, education policy and in-service professional development have not meaningfully adapted to recognise teachers of migrant children as a distinct professional category that requires dedicated preparation (Kumar, 2005; National University of Educational Planning and Administration [NUEPA], 2016).

PROBLEM STATEMENT

Primary school teachers in migrant-receiving contexts face several pedagogical challenges. These challenges fall outside their formal training. First, linguistic diversity- migrant children speak regional languages or dialects that differ from both the language of instruction and the dominant language used in school. Teachers who lack preparation in translanguaging or mother-tongue-based multilingual education (MTB-MLE) are not well equipped to address this gap.

Second, irregular attendance- patterns of circular migration mean that children leave school for weeks or months when families return to their native regions for work or festivals. When they re-enrol mid-term, they have missed portions of the curriculum.

Third, socioeconomic vulnerability- migrant children live in conditions of poverty, with inadequate housing and limited parental support due to long working hours. These factors affect both their readiness to learn and their participation in school activities (Deshingkar & Farrington, 2009).

Teacher education curricula in India remain oriented toward an idealised learner- one who is socioeconomically stable and linguistically homogeneous. This model no longer reflects the diversity and complexity of many government school classrooms.

LITERATURE REVIEW

Educational Experiences of Children of Labour Migrants

Scholarship on migrant children's educational outcomes consistently shows patterns of disadvantage linked to mobility, language barriers, and social exclusion. Evidence from the Young Lives study in India and Peru highlights how poverty, unequal access to educational provision, and differences in the quality of early education shape children's educational experiences and transitions into primary school (Woodhead et al., 2009). These findings suggest that educational disadvantage is shaped not only by children's household circumstances but also by the accessibility, quality, and responsiveness of educational provision. Similarly, Alcott and Rose (2017) found substantial disparities in learning outcomes among primary-school children in rural India, with household wealth emerging as a particularly strong predictor even after accounting for gender, parental education, overage status, and other factors. Their findings also point to the need to examine how school-level processes may contribute to or mitigate these disparities. Recent evidence from India similarly shows that displacement can disrupt children's educational well-being through language barriers, social insecurity, and inadequate institutional support, underscoring the importance of responsive school environments for children experiencing mobility and displacement (Srinivas et al., 2026).

An important strand of research highlights the link between teacher attitudes and migrant children's sense of belonging in classrooms. Keddie (2012), studying culturally diverse classrooms, found that teachers who viewed diversity as a disruption were less likely to adapt instruction or create inclusive environments. In contrast, those who saw linguistic and cultural diversity as an asset were more likely to use multilingual resources and flexible assessment practices. Reinforcing this, UNESCO (2019) identifies teacher preparedness, covering both attitudes and pedagogy, as a key factor in improving migrant children's educational experiences across different country contexts. This mirrors findings from other migration contexts, where teachers who engaged migration-related content directly, rather than avoiding it, were better positioned to support students affected by mobility and displacement (Cashman, 2022).

Teacher Preparedness and Self-Efficacy

Teacher preparedness can be understood as involving the knowledge and skills needed to respond effectively to diverse learners and adapt classroom practice to their learning needs (Darling-Hammond et al., 2017). A closely related concept is teacher self-efficacy, which refers to teachers' beliefs in their ability to organise and carry out actions necessary to achieve desired educational outcomes (Bandura, 1997). Research shows that self-efficacy shapes how training translates into practice. Teachers with higher self-efficacy are more likely to persist through challenges, try new strategies, and adapt to diverse classrooms (Klassen & Tze, 2014). Recent evidence further indicates that teachers' preparedness for diverse classrooms is closely related to multicultural awareness, with training and multilingual competence contributing to teachers' responsiveness to student diversity (Ejigu et al., 2026).

In contexts of disadvantaged learners, specific forms of training especially those involving direct engagement with the target group are stronger predictors of preparedness than general teaching experience (Hollins & Guzmán, 2005). Geneva Gay (2018) calls for culturally responsive teaching as a way to bridge the gap between teachers' and students' cultural contexts, stressing the need to translate cultural awareness into classroom practice. However, critics argue that individual competence alone is not enough. Christine

Sleeter (2012) notes that without institutional support and aligned policies, culturally responsive approaches are unlikely to produce equitable outcomes.

Structural Constraints in Primary Education

The structural conditions of government primary schooling in India create barriers to differentiated and culturally responsive teaching. Multi-grade classrooms, where one teacher handles multiple grade levels at the same time, remain common in rural and semi-urban areas (Singh et al., 2026). Data from Annual Status of Education Report (2023) show that many schools operate with two or fewer teachers for five grades. Comparable structural pressures have been documented elsewhere in the Global South, where teachers in under-resourced primary schools managing large or multi-grade classes rely heavily on teacher-centered methods and report limited government support for differentiated instruction (Issa & Castulo, 2026). Resource constraints further limit instructional flexibility. Schools lack textbooks in regional languages, trained language-support staff, and adequate digital infrastructure for adaptive learning. Administrative responsibilities such as maintaining records, supervising mid-day meals, and participating in election and census duties reduce the time available for lesson planning and pedagogical innovation (NUEPA, 2016). Recent research further indicates that professional learning is more likely to strengthen teachers' culturally responsive practice when it is sustained and embedded within supportive professional environments rather than delivered as a one-off training intervention (Kite & Durksen, 2026).

These conditions interact with teacher preparedness in complex ways. Recent comparative research likewise suggests that culturally responsive teaching is shaped by conditions operating beyond individual teacher competence. Hu and Zheng (2026) found that teachers' culturally responsive practices were negotiated through everyday classroom adaptations while being constrained by factors operating at teacher, school, and policy levels. Even when teachers have the knowledge and motivation to adapt their teaching for migrant children, they are constrained by overcrowded, multi-grade classrooms and limited curricular flexibility. As Christine Sleeter (2012) argues, structural constraints can neutralise individual teacher competence, creating a disconnect between what teacher education prepares teachers to do and what school systems enable them to practice. This makes it essential to understand teacher preparedness not as an individual attribute alone, but as a product of interconnected ecological factors.

Gaps in the Existing Research

Existing research on migrant children's education in India and the Global South has largely focused on access and enrolment, examining whether migrant children attend school at all (Alcott & Rose, 2017; UNESCO, 2019). The literature has left classroom processes largely unexplored. In particular, less attention has been paid to teacher preparedness- whether teachers have the knowledge, beliefs, and skills needed to effectively teach migrant children.

Studies that do consider teacher perspectives treat preparedness as an outcome of individual training, overlooking the broader systemic and structural factors that shape teacher effectiveness (Alcott & Rose, 2017). As a result, there is a lack of theoretically grounded, ecological approaches that explain how preparedness develops across multiple, interacting levels of the education system.

Contribution of the Present Study

This study makes three distinct contributions to the literature reviewed above. Empirically, it provides the first mixed-methods account of teacher preparedness for children of internal, seasonal labour migrants in Indian government primary schools- a population examined mainly in terms of access and enrolment (Alcott & Rose, 2017; UNESCO, 2019) rather than classroom-level teacher capacity. Theoretically, it extends Bronfenbrenner's Ecological Systems Theory beyond its traditional application to

child development (Bronfenbrenner, 1979, 1994) to teacher professional preparedness. It gives an alternative to the individual-deficit framings that dominate existing teacher-preparedness research (Darling-Hammond et al., 2017; Klassen & Tze, 2014). Methodologically, the study combines a researcher-developed quantitative instrument with reflexive thematic analysis within a convergent design. This approach brings together explanations operating at different levels of the ecological system, from broader structural influences at the exosystem and macrosystem levels to classroom-level processes within the microsystem. These influences are examined in relation to one another, so the study is able to explore how they intersect in shaping teacher preparedness. Such an integration has been largely absent from earlier research, where preparedness is treated primarily as an outcome of individual training. Applying Ecological Systems Theory (EST) helps the study examine how influences across these levels interact to shape the same outcome, connecting structural conditions with individual and classroom-level experience.

RESEARCH QUESTIONS

This study addresses the research gap by examining teacher preparedness for educating children of labour migrants in Indian government primary schools, and by identifying the ecological factors across classroom, institutional, policy, and sociocultural levels that shape this preparedness. Following research questions guide the study:

1. What is the overall level of teacher preparedness for educating children of labour migrants in primary schools?
2. Which factors such as training exposure, years of experience, and prior contact with migrant children predict teacher preparedness?
3. What pedagogical and structural challenges do primary school teachers identify in educating migrant children?
4. How do ecological systems, from the microsystem to the macrosystem, shape and constrain teacher preparedness?

THEORETICAL FRAMEWORK

This study is grounded in Urie Bronfenbrenner's Ecological Systems Theory (EST), which views human development, and, by extension, professional growth and pedagogical capacity, as shaped by ongoing interactions between individuals and the layered environments in which they operate (Bronfenbrenner, 1979, 1994). EST provides a strong alternative to deficit-oriented views of teacher preparedness. Instead of focusing only on gaps in teachers' knowledge or skills, it shifts attention to the structural, institutional, and sociocultural conditions that enable or constrain effective teaching.

The Ecological Systems Model

Bronfenbrenner's model identifies four interconnected systems that shape individual experience. The microsystem refers to the immediate environment. In this case the microsystem refers to the classroom, where daily teacher-student interactions take place. The mesosystem includes the relationships between microsystems, such as connections between school and family. The exosystem comprises settings that do not directly involve the individual but still influence their context. For example, policies on admissions, curriculum, or teacher deployment. The macrosystem represents the wider cultural and ideological context, including societal attitudes towards migration, national education policies, and dominant ideas about what constitutes a 'normal' learner.

Later, Bronfenbrenner (1994) added the chronosystem, which captures the role of time. This is particularly relevant for seasonal labour migration, where recurring mobility patterns repeatedly disrupt children's schooling.

Application to Teacher Preparedness

Applying Bronfenbrenner's Ecological Systems Theory (EST) to teacher preparedness gives a layered framework for analysis. At the microsystem level, preparedness is reflected in everyday classroom practices such as using translanguaging strategies, reintegrating a child after a long absence, or adapting assessment to account for interrupted learning. At the mesosystem level, preparedness is shaped by the quality of school-family relationships. This depends on factors such as language differences, parents' work schedules, and the school's openness to linguistically and culturally diverse communities. At the exosystem level, broader administrative decisions influence what teachers can do. Policies related to curriculum flexibility, mid-year admissions, and the availability of language-support resources can either enable or constrain effective teaching. Finally, at the macrosystem level, societal attitudes towards migrant workers and their children shape both teacher beliefs and institutional practices. They influence how classrooms respond to diversity.

Scope of the Framework in This Study

The present study's data collection instruments were designed primarily to capture microsystem (classroom-level teacher preparedness and challenges), exosystem (institutional and policy-level constraints), and macrosystem (societal attitudes) dimensions. Mesosystem dynamics, specifically the quality of school-family communication, were not a primary focus of the survey instrument, though they were explored indirectly through the interview prompts. EST is used to interpret how these different levels of context interact in shaping teacher preparedness. Because the present study's instruments were not designed to measure all four ecological systems with equal depth, EST is applied here primarily as an interpretive framework for situating the quantitative and qualitative findings, rather than as a fully operationalised, multi-system measurement model.

METHODOLOGY

Research Design

This study adopts a convergent mixed-methods design (Creswell & Plano Clark, 2018), in which quantitative survey data and qualitative interview data are collected at the same time, analysed separately, and then integrated to provide a comprehensive understanding of teacher preparedness. This approach was chosen on the basis of the research problems, as it captures both breadth- patterns in preparedness levels and their predictors, and depth- teachers' lived experiences and interpretations of systemic challenges.

Research Site and Participants

The study was conducted in government primary schools in a labour-destination district of Eastern Uttar Pradesh, India. Twenty government primary schools were selected purposively because they enrolled a substantial proportion of children from seasonal or circular labour migrant families and were therefore information-rich settings for addressing the study objectives. Schools were identified through consultation with the district education office and head teachers, who identified schools with consistently high migrant enrolment based on admission and attendance records. A total of 100 teachers from Grades 1-5 participated in the survey across these 20 schools. The achieved sample size was adequate for the planned multiple regression analysis with three predictors, consistent with commonly recommended sample-size guidelines for multiple regression.

Participants included both early-career teachers (less than three years of experience) and experienced teachers (more than 15 years), with representation across Grades 1-5. For the qualitative

component, 10 teachers were purposively selected to reflect variation in gender, teaching experience, school location (urban-adjacent and rural), and self-reported preparedness levels.

Table 1
Demographic Characteristics of Survey Participants (N = 100)

Characteristic	Category	N	%
Gender	Female	63	63
	Male	37	37
Teaching experience	Less than 3 years	22	22
	3-15 years	53	53
	More than 15 years	25	25
Primary teaching grade	Grade 1	22	22
	Grade 2	20	20
	Grade 3	19	19
	Grade 4	20	20
	Grade 5	19	19
School location	Urban-adjacent	47	47
	Rural	53	53

Table 2
Characteristics of Qualitative Interview Participants (N = 10)

Participant	Gender	Teaching Experience (in years)	School Location	Preparedness Level
P1	Female	11	Rural	Moderate
P2	Male	6	Urban-adjacent	Low
P3	Female	2	Rural	Low
P4	Male	9	Urban-adjacent	Moderate
P5	Female	7	Urban-adjacent	High
P6	Female	15	Rural	Low
P7	Male	4	Rural	Low
P8	Female	1	Urban-adjacent	Low
P9	Male	13	Rural	Moderate
P10	Female	5	Urban-adjacent	Moderate

Interview participants were purposively selected from the survey respondents to ensure variation in gender, teaching experience, school location, and reported preparedness. This approach enabled the inclusion of diverse perspectives on teaching children from seasonal and circular labour migrant families.

Ethical Considerations

All participants provided informed consent and were informed of their right to withdraw at any stage without consequence. Confidentiality was ensured through pseudonymisation. Interview questions were framed in non-evaluative language. Participants were clearly informed that the study aimed to understand systemic challenges, and not their competence.

Data Collection Instruments

The survey instrument was developed by the researchers and piloted with 15 teachers outside the main sample. Items were developed based on the study objectives and a review of literature relevant to teacher preparedness, professional development, teacher self-efficacy, and teaching culturally and linguistically diverse learners (Darling-Hammond et al., 2017; Gay, 2018; Klassen & Tze, 2014). The instrument combined items informed by established measures with new items developed specifically to address the challenges of teaching migrant children. A panel of five reviewers- three teacher educators and two researchers with expertise in migration and inclusive education assessed the items for relevance and clarity using a structured rating process; items considered relevant by fewer than four of the five reviewers were revised or removed. Following the pilot, three items were reworded for clarity and one item was removed from the Teacher Self-Efficacy subscale because of a low item-total correlation.

The survey consisted of five components- four multi-item Likert subscales and one background item measuring prior exposure to migrant children. The four subscales were (a) teacher preparedness (TP; 15 items), (b) training exposure (TE; 8 items), (c) teacher self-efficacy (TSE; 10 items), and (d) perceived structural challenges (PSC; 12 items, reverse-scored so that higher scores indicate greater constraint). All items were rated on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). A single background item captured prior exposure to migrant children, asking teachers to report (on a 0-5 scale) the number of years they had taught classes with substantial migrant enrolment. This variable was used as a predictor in the regression analysis. Internal consistency was assessed using Cronbach's alpha for each subscale, with the resulting coefficients reported in Table 3.

Subscale A: Teacher Preparedness (sample items)- (1) 'I feel confident adapting my lesson plans for children with interrupted schooling histories' (2) 'I know how to assess the prior learning of a child who has joined my class mid-year' (3) 'I am able to use peer-based strategies to support the social integration of migrant children.'

Subscale B: Training Exposure (sample items)- (1) 'My pre-service teacher education programme included content on teaching linguistically diverse learners'; (2) 'I have received professional development specifically addressing the challenges of teaching migrant children' (3) 'Training I have received has given me practical strategies I can use in the classroom for migrant learners.'

Subscale C: Teacher Self-Efficacy (sample items)- (1) 'I am confident in my ability to teach effectively even when faced with students with very different learning needs'; (2) 'I am capable of managing a classroom with a high degree of student diversity'; (3) 'I can build positive relationships with students even when communication is difficult.'

Subscale D- Perceived Structural Challenges (sample items, reverse-scored): (1) 'The administrative duties assigned to me leave insufficient time for differentiated instruction'; (2) 'The curriculum I am required to follow does not accommodate children who have missed significant schooling'; (3) 'Government policies do not adequately recognise or address the educational needs of migrant children.'

Single item: Prior Exposure to Migrant Children- 'For approximately how many years have you taught a class that included a substantial number of children from labour-migrant families? (0 = never; 5 = five or more years).'

Semi-structured interviews were conducted individually with each of the 10 qualitative participants, lasting between 35 and 55 minutes. The interview guide included prompts addressing: teachers' descriptions of migrant students' learning needs, specific challenges encountered and strategies employed, reflections on training preparation, and perceptions of institutional and policy-level support. Interviews were conducted in the language preferred by each participant (mostly Hindi). Hindi interviews were transcribed and translated into English and back-translation verification was applied to three randomly selected transcripts.

Data Analysis

Descriptive statistics were used to summarise preparedness levels and subscale scores. Pearson product-moment correlations examined bivariate relationships. A multiple linear regression model was used to identify independent predictors of teacher preparedness. Training exposure (TE mean score), years of experience (YoE, continuous), and prior exposure to migrant children (0-5 scale) were entered simultaneously as predictors. Before conducting the multiple regression analysis, the assumptions of multiple regression were examined. Multicollinearity was assessed using variance inflation factors (VIFs), normality of residuals using Q-Q plots and the Shapiro-Wilk test, and homoscedasticity by inspecting plots of standardised residuals against predicted values.

Qualitative data were analysed using reflexive thematic analysis (Braun & Clarke, 2006, 2021). Reflexive thematic analysis was selected because it is well suited to exploring rich, context-specific accounts of teachers' experiences while recognising the interpretive role of the researchers throughout the analytic process. Unlike codebook thematic analysis or qualitative content analysis, which focus on structured coding frameworks and coding consistency, reflexive thematic analysis supports an in-depth interpretation of meaning, making it appropriate for the present study's small, purposively selected sample and Ecological Systems Theory framework. The process followed six stages: familiarisation, coding, theme development, review, definition, and reporting. To strengthen the analysis, an external research colleague reviewed emerging themes, and member-checking was conducted with three participants. Consistent with reflexive thematic analysis, the qualitative sample was considered adequate when it provided sufficient depth and interpretive richness to address the study objectives.

FINDINGS

Level of Teacher Preparedness

Descriptive analysis of the preparedness subscale showed a mean score of 2.66 (SD = 0.62) on a five-point Likert scale, indicating a moderate-to-low level of preparedness among teachers. The distribution further highlights this pattern. 69% of teachers scored below the midpoint (3.0), 20% scored between 3.0 and 3.49, and 11% scored 3.5 or above. This suggests that relatively few teachers feel adequately prepared to teach migrant children. Table 3 presents the descriptive statistics and internal consistency coefficients across all four subscales.

Table 3

Descriptive statistics and reliability across survey subscales (N = 100)

Subscale	M	SD	Min	Max
Teacher Preparedness (TP; $\alpha = 0.86$)	2.66	0.62	1.51	3.85
Training Exposure (TE; $\alpha = 0.82$)	2.19	0.65	1.00	3.80
Teacher Self-Efficacy (TSE; $\alpha = 0.80$)	2.93	0.59	1.41	4.27
Perceived Structural Challenges (PSC; $\alpha = 0.78$)	3.87	0.44	2.62	4.92

The Perceived Structural Challenges subscale recorded the highest mean (M = 3.87, SD = 0.44), indicating that teachers widely recognise substantial systemic barriers, regardless of their individual preparedness levels. Comparatively, self-efficacy scores were moderate (M = 2.93), suggesting that general confidence in teaching does not necessarily extend to confidence in working with migrant children.

Predictors of Teacher Preparedness

Pearson correlations showed significant positive relationships between teacher preparedness and training exposure ($r = 0.49$, $p < .001$), prior exposure to migrant children ($r = 0.43$, $p < .001$), and years of teaching experience ($r = 0.36$, $p < .001$). The multiple regression model was statistically significant, $F(3, 96) = 18.00$, $p < .001$, with an R^2 of .36 (Adjusted $R^2 = .34$), indicating that the predictors explain 36% of the variance in teacher preparedness. Table 4 presents the full regression output.

Table 4

Multiple linear regression output: predictors of teacher preparedness (N = 100)

Predictor	B	SE(B)	β	t	p	95% CI Lower	95% CI Upper
(Constant)	0.81	0.21	-	3.86	< .001	0.40	1.22
Training Exposure (TE)	0.35	0.05	0.42	6.91	< .001	0.25	0.45
Prior Exposure to Migrant Children	0.27	0.06	0.31	4.50	< .001	0.15	0.39
Years of Teaching Experience (YoE)	0.013	0.010	0.09	1.32	.191	-0.007	0.033

All predictors showed acceptable tolerance ($VIF = 1.19$ - 1.38), indicating no evidence of problematic multicollinearity. Residuals were approximately normally distributed (Shapiro-Wilk $W = 0.98$, $p = .25$) and showed no discernible pattern in the plot of standardised residuals against predicted values, indicating homoscedasticity.

Training exposure ($\beta = 0.42$, $p < .001$) and prior exposure to migrant children ($\beta = 0.31$, $p < .001$) emerged as the strongest independent predictors of teacher preparedness. However, years of teaching experience was not significant once these variables were controlled for. This indicates that context-specific experience such as targeted training and direct engagement with migrant children plays a more important role than overall years of service in shaping preparedness.

Qualitative Findings

Thematic analysis of the interview data generated four themes.

Theme 1: The Wall of Language

The most consistently reported challenge across all 10 participants was the language barrier between teachers and migrant students. Teachers described a persistent communication gap that affected not only instruction but also relationship-building and emotional support. As Participant 1 (11 years of experience) explained: “When a child is emotionally vulnerable and seemingly needs help, and I cannot understand what they are saying, I feel helpless. I cannot teach someone I cannot communicate with in their mother tongue. And I have not been trained to teach in multiple languages in classroom.”

Participants noted that children migrating from other states such as Jharkhand, Chhattisgarh, and Bihar spoke languages which differ significantly from the school’s medium of instruction. In the absence of translation support, bilingual materials, or trained language staff, teachers relied on peer translation and improvised explanations, strategies they viewed as limited and unsustainable substitutes for structured language support.

Theme 2: The Moving Target: Irregular Attendance

Participants described migrant children's irregular attendance as a major challenge for both curriculum progression and teacher-student relationships. The seasonal nature of labour migration meant that children attend school for a period, leave for months during harvest or festival seasons, and then return expecting to resume from where they left off. "They disappear for months and then come back. When they come back, the class has moved on. I cannot stop the whole class to restart. There is no time and no system for this" (Participant 2).

Teachers expressed frustration not with the children or their families, towards whom they showed considerable empathy, but with the lack of system support. They highlighted the absence of structured mechanisms such as bridge courses, re-entry protocols, or flexible curriculum guidelines to support students' reintegration into the classroom.

Theme 3: Inadequate Preparation for Migrant Contexts

A third recurring theme was the limited relevance of teacher training- both pre-service and in-service for working with migrant children. Many participants described their first encounters with migrant learners as professionally disorienting. "In my (Bachelor of Education) B.Ed., they taught us about slow learners, gifted students, children with disabilities. But nothing about children who have moved from another state and speak another language and have three years of missing schooling. We were never trained for this situation" (Participant 3).

Teachers consistently reported that in-service programmes focused on curriculum delivery, technology use, or subject updates. They rarely addressed the pedagogical and relational skills needed to teach linguistically and educationally diverse, mobile learners.

Theme 4: Structural and Administrative Constraints

The fourth theme highlights the structural conditions that limit teachers' ability to respond effectively to migrant children, even when they have the intent and some capacity to do so. "I know what this child needs. He needs extra attention, maybe 30 minutes every day just with me. But I have 48 other students. And tomorrow I have to submit attendance data and next week is the district inspection. There is just no time" (Participant 4).

Participants described a work environment dominated by record-keeping, administrative compliance, and other non-instructional duties, leaving little time for differentiated teaching. They also pointed to a broader institutional culture in which migrant children's needs are treated as secondary.

Integration of Quantitative and Qualitative Findings

From the integration of quantitative and qualitative findings emerge three key points. First, the quantitative finding that training exposure is the strongest predictor of teacher preparedness ($\beta = 0.42$) is strongly supported by the qualitative data. All 10 interview participants reported a lack of migration-focused content in their pre-service training as a major reason for feeling unprepared (Theme 3).

Second, the non-significant effect of years of experience ($\beta = 0.09$, $p = .191$) is clarified by the qualitative findings. For example, Participant 6, teacher with 15 years of experience, reported low preparedness and described increased experience as adding to administrative workload. This indicates that experience alone does not lead to preparedness without relevant training.

Third, a divergence appears in the higher-preparedness group (11% of the sample, $TP > 3.5$). While the quantitative data identifies this group, it does not explain it. Qualitative evidence from one such participant, P5, shows that her preparedness stemmed from an NGO-led workshop on culturally responsive

pedagogy and a shift towards asset-based thinking rather than formal training. This suggests that informal professional development may also play an important role in shaping preparedness.

Table 5 below presents a joint display integrating the quantitative and qualitative findings. The display brings the quantitative results into conversation with the corresponding qualitative themes, identifies the ecological system(s) implicated, and illustrates how the qualitative findings confirm, explain, or expand the quantitative results

Table 5
Joint Display Integrating Quantitative and Qualitative Findings

Quantitative Result	Qualitative Evidence	Ecological System	Integration Type	Interpretation
Training exposure was the strongest predictor of teacher preparedness ($\beta = 0.42, p < .001$).	Theme 3: All participants described the absence of migration-focused content in pre-service or in-service teacher education.	Exosystem	Confirmation	The qualitative findings support the quantitative result by showing that access to relevant professional development is an institutional factor shaping teacher preparedness.
Years of experience not significant ($\beta = 0.09, p = .191$)	An experienced teacher (15 years) described feeling unprepared to teach migrant children and explained that experience had improved general classroom management but had not provided migration-specific knowledge or skills.	Exosystem, Microsystem	Explanation	The qualitative findings explain the non-significant quantitative relationship by showing that teaching experience alone does not necessarily develop competencies for working with migrant children in the absence of targeted professional learning opportunities.
A small subgroup of teachers demonstrated comparatively high preparedness (TP > 3.5).	A participant attributed their confidence to participation in an NGO-led workshop on culturally responsive and asset-based approaches to teaching migrant children.	Exosystem	Expansion	The qualitative findings suggest an additional pathway to teacher preparedness that was not captured directly in the survey, highlighting the potential contribution of NGO-led professional development alongside formal teacher education programmes.

The integrated findings indicate that teacher preparedness is shaped primarily by institutional opportunities for professional learning more than teaching experience alone. The qualitative findings explain why training exposure emerged as the strongest quantitative predictor by showing that migration-related content was largely absent from formal teacher education. They also expand the quantitative findings by identifying alternative forms of professional learning, such as NGO-led training, as contributors to teacher preparedness that were not directly measured in the survey. Viewed through the Ecological Systems Theory framework, these findings highlight the central role of exosystem influences in shaping teachers' preparedness to support migrant children while demonstrating how these institutional conditions are reflected in classroom practice at the microsystem level.

DISCUSSION

The findings show that teacher preparedness is shaped by systemic conditions and not only by individual capability. The researchers here interpret the results using Bronfenbrenner's Ecological Systems Theory (EST) and situate them within existing research.

Ecological Interpretation of Preparedness Levels

The moderate-to-low preparedness levels cannot be explained by focusing only on individual teacher deficits. The regression results reveal training exposure and direct experience with migrant children are the strongest predictors of preparedness. Years of teaching experience is not significant. This suggests that preparedness depends more on what the system provides than on what teachers gain independently. The observed relationship between training exposure and preparedness has competing interpretations. On

one hand, migration-focused professional development directly strengthens teachers' preparedness by equipping them with relevant knowledge and pedagogical strategies. On the other hand, teachers who are already more motivated or reflective are more likely to participate in professional learning opportunities, meaning that higher preparedness partly reflects pre-existing dispositions rather than the effects of training itself. The qualitative findings lend greater support to the former interpretation, as participants consistently described the absence of migration-related content in pre-service and in-service programmes. Cross-sectional design prevents a definitive causal claim, and both interpretations remain plausible. From an ecological perspective, this aligns with the exosystem, where decisions about teacher education are made. The consistent finding that teachers were “never trained for this” indicates a systemic gap in pre-service training.

Microsystem-Macrosystem Interface and the Higher-Preparedness Group

The qualitative data reveal tensions between classroom practice (microsystem) and broader societal beliefs (macrosystem). In many cases, schools implicitly define a “normal” student in ways that exclude migrant children, treating them as exceptions. These assumptions shape curriculum design, textbooks, and assessment practices, creating environments that do not align with migrant children’s learning needs. The small group of higher-preparedness teachers (11%) gives a useful contrast. Participant 5 attributed her confidence to an asset-based approach, where students’ linguistic and cultural backgrounds are seen as strengths. This aligns with Gay (2018), who emphasises culturally responsive teaching as recognising and using students’ cultural resources in instruction. This interpretation is also consistent with Ladson-Billings' (1995) concept of culturally relevant pedagogy, which emphasises recognising and building upon learners' cultural and linguistic identities, and with Villegas and Lucas' (2002) argument that teacher education should cultivate sociocultural consciousness among teachers. These perspectives suggest that preparedness includes the capacity to understand and respond to the social and cultural realities that shape migrant children's educational experiences.

Extending the Literature

This study both confirms and extends existing research. It supports Alcott and Rose (2017) in showing that teacher-level factors significantly influence migrant children’s learning. It also builds on Christine Sleeter (2012) by providing empirical evidence that structural constraints can limit the impact of individual teacher competence. The study contributes to the growing body of scholarship applying Bronfenbrenner’s framework to teacher professional development, demonstrating its analytical utility in a Global South context where internal labour migration operates at a scale and with dynamics distinct from the refugee and international migration contexts that dominate the Northern European and North American literature. An alternative reading of the qualitative findings is also possible. Rather than reflecting only limited institutional support for migrant education, teachers' emphasis on administrative responsibilities (Theme 4) also reflects a broader compliance-oriented schooling culture in which record-keeping, reporting, and inspection requirements take precedence over pedagogical flexibility for all students, not only migrant children (NUEPA, 2016). Under this interpretation, migrant children are disproportionately affected by a wider structural constraint rather than by a policy gap specific to migration. Both interpretations are consistent with the evidence presented in this study, and distinguishing between them would require comparative research involving schools with differing levels of migrant enrolment. Beyond the immediate study context, these findings suggest that the teacher-preparedness gaps identified here are unlikely to be unique to India. Wherever internal migration produces circular, seasonal school attendance patterns, the same exosystem-level absence of migration-responsive teacher training is likely to recur, regardless of the specific national policy context.

International Relevance and Transferability

Although this study is situated within the context of internal labour migration in India, its findings contribute to broader international discussions on migrant education, teacher preparation, and educational equity. Much of the international literature has focused on international or refugee migration in Northern European and North American contexts (Keddie, 2012; UNESCO, 2019), whereas the educational implications of internal, seasonal, and circular labour migration have received comparatively less attention. By examining teacher preparedness through the lens of Ecological Systems Theory, the present study highlights how institutional arrangements, professional learning opportunities, and wider societal assumptions interact to shape teachers' capacity to support migrant learners. Even when the specific policy and administrative contexts differ across countries, many education systems face comparable challenges associated with learner mobility, interrupted schooling, linguistic diversity, and uneven access to teacher preparation. In this respect, the study offers a perspective that would inform research and policy in other settings where internal migration shapes children's educational experiences. Rather than proposing solutions unique to the Indian context, the findings illustrate how Ecological Systems Theory can be used to examine the interaction between classroom practice, institutional support, and broader social contexts in understanding teacher preparedness for migrant education.

LIMITATIONS OF THE STUDY

The findings should be interpreted in light of a few limitations. The study was conducted in a geographically limited area. Reliance on teacher self-reports introduces the possibility of response bias. The cross-sectional design precludes causal inferences regarding the relationship between professional training and teacher preparedness, while the absence of a comparison group of schools with low migrant enrolment means that some structural challenges identified in this study cannot be attributed exclusively to migrant education. The international relevance discussed remains to be empirically established, and requires examination through comparative research across global migration contexts. The study focuses exclusively on teachers' perspectives. Taking into account the experiences of migrant children, their families, and school leaders would enrich the literature on migration and teaching practices, although doing so would require a broader research scope.

IMPLICATIONS OF THE STUDY

Pre-service teacher education programmes (Bachelor of Education [B.Ed.], Bachelor of Elementary Education [B.El.Ed.], Diploma in Elementary Education [D.El.Ed.], Integrated Teacher Education Programmes [ITEP] etc.) should include migration-sensitive pedagogy, covering multilingual teaching, culturally responsive practices, and support for interrupted learning. In-service training should shift from content delivery to practical classroom strategies. The positive role of NGO-led training indicates a need to formalise and scale such initiatives within the system.

Schools with high migrant enrolment should adopt re-entry support mechanisms, such as bridge courses, peer support, and flexible assessments. Introducing community liaison workers to support communication with migrant families, as suggested by UNESCO (2019), could strengthen inclusion. There is a need to implement flexible enrolment, portable records (like digital records), and targeted teacher deployment. Reducing teachers' administrative workload is essential to enable effective classroom practice.

CONCLUSION

This study examined teacher preparedness for educating children of labour migrants in government primary schools and identified the ecological factors shaping it through a convergent mixed-methods design guided by Bronfenbrenner's Ecological Systems Theory. The main finding is that teacher preparedness is moderate to low across the sample, and that this pattern is attributable not primarily to individual teacher inadequacy but to systemic failures across the exosystem. The main reasons are absence of migration-sensitive content in both pre-service and in-service training, and the macrosystem, wherein dominant educational discourses does not accommodate the heterogeneous learner. The study makes three contributions. It provides empirical evidence on teacher preparedness for migrant education in an Indian primary school context, it demonstrates the analytical utility of EST as an interpretive framework that moves towards systemic accountability, and it generates a set of concrete, ecologically grounded policy recommendations targeting teacher education, school-level practice, and national policy. These findings are bounded by a small sampling frame and the self-report nature of the instruments, and future research should extend the work across global contexts. It should incorporate classroom observation and student outcome data, and centre the perspectives of migrant children and their families, whose voices are essential to any complete ecological understanding of this pressing and growing educational challenge.

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REFERENCES

- Alcott, B., & Rose, P. (2017). Learning in India's primary schools: How do disparities widen across the grades? *International Journal of Educational Development*, 56, 42–51. <https://doi.org/10.1016/j.ijedudev.2017.05.002>
- Annual Status of Education Report [ASER Centre]. (2023). *Annual status of education report (rural) 2022*. ASER Centre. <https://asercentre.org/aser-2022/>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. SAGE.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
- Bronfenbrenner, U. (1994). Ecological models of human development. In T. Husen & T. N. Postlethwaite (Eds.), *International encyclopedia of education* (2nd ed., Vol. 3, pp. 1643-1647). Elsevier.
- Cashman, T. G. (2022). Teaching immigration issues in elementary school classrooms on the US/Mexico border: Transborder pedagogy and its significance. *Journal of Interdisciplinary Studies in Education*, 11(2), 133–153. <https://ojed.org/jise/article/view/4814>
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE.

- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). Effective teacher professional development. Learning Policy Institute. <https://learningpolicyinstitute.org/product/effective-teacher-professional-development-report>
- Deshingkar, P., & Farrington, J. (Eds.). (2009). *Circular migration and multilocal livelihood strategies in rural India*. Oxford University Press.
- Ejigu, F. B., Gutu, T. S., & Tarekegne, W. M. (2026). Examining multicultural awareness of primary school teachers in Addis Ababa. *Discover Education*, 5, 428. <https://doi.org/10.1007/s44217-026-01462-5>
- Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice* (3rd ed.). Teachers College Press.
- Hollins, E. R., & Guzmán, M. T. (2005). Research on preparing teachers for diverse populations. In M. Cochran-Smith & K. M. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 477-548). Lawrence Erlbaum.
- Hu, H., & Zheng, T. (2026). Reconceptualizing culturally responsive teaching: Teachers' situated understandings and practices in China and Singapore. *Teaching and Teacher Education*, 177, 105547. <https://doi.org/10.1016/j.tate.2026.105547>
- Issa, H. M., & Castulo, N. J. (2026). Investigating teaching practices in large classes: A case study of public primary schools in Tanzania. *Journal of Interdisciplinary Studies in Education*, 15(1), 1–28. <https://doi.org/10.32674/zr9wew97>
- Keddie, A. (2012). *Educating for diversity and social justice*. Routledge.
- Kite, M., & Durksen, T. L. (2026). Developing culturally nourishing pedagogies and teacher self-efficacy through a research-practice partnership. *The Asia-Pacific Education Researcher*. <https://doi.org/10.1007/s40299-026-01079-0>
- Klassen, R. M., & Tze, V. M. C. (2014). Teachers' self-efficacy, personality, and teaching effectiveness: A meta-analysis. *Educational Research Review*, 12, 59-76. <https://doi.org/10.1016/j.edurev.2014.06.001>
- Kumar, K. (2005). *Political agenda of education: A study of colonialist and nationalist ideas* (2nd ed.). SAGE Publications.
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32(3), 465-491. <https://doi.org/10.3102/00028312032003465>
- National University of Educational Planning and Administration [NUEPA]. (2016). *School education in India: Flash statistics, U-DISE 2015-16*.
- Singh, A., Pathak, V., Singh, P., & Gardia, A. (2026). Survival pedagogy, compliance inversion, and concurrent role fracture: conceptual insights from teachers working in Indian primary schools. *Education 3-13*, 1-14. <https://doi.org/10.1080/03004279.2026.2664550>
- Sleeter, C. E. (2012). Confronting the marginalization of culturally responsive pedagogy. *Urban Education*, 47(3), 562-584. <https://doi.org/10.1177/0042085911431472>
- Srinivas, K., Touthang, N., & Bika, S. L. (2026). Educational well-being of displaced children: An exploratory case study on displaced Kuki children in India. *Children & Society*, 1–12. <https://doi.org/10.1111/chso.70056>
- UNESCO. (2019). Migration, displacement and education: Building bridges, not walls. Global Education Monitoring Report. UNESCO. <https://en.unesco.org/gem-report/report/2019/migration>
- Villegas, A. M., & Lucas, T. (2002). *Educating culturally responsive teachers: A coherent approach*.
- Woodhead, M., Ames, P., Vennam, U., Abebe, W., & Streuli, N. (2009). *Equity and quality? Challenges for early childhood and primary education in Ethiopia, India and Peru*. Working Paper No. 55, Bernard van Leer Foundation.

Vinayak Pathak, M.Ed., is a doctoral student at the Faculty of Education, Banaras Hindu University, India. His major interest areas are Inclusive Education, Multicultural Education, and Education of Migrant Children. ORCID: <https://orcid.org/0009-0009-1413-9234>

Anamika Trivedi, M.Ed., is an Assistant Professor in the Department of Education at Central University of Punjab, India. Her major research interest areas are Teacher Education, History of Education, and Inclusive Education. ORCID: <https://orcid.org/0009-0000-9665-5332>

Ashish Singh, M.Ed., is a doctoral student at the Faculty of Education, Banaras Hindu University, India. His major interests broadly cover Elementary Education, and Foundational Literacy and Numeracy, and Indigenous Education. ORCID: <https://orcid.org/0009-0004-3957-6346>

Neha Yadav, M.Ed., is a doctoral student at the Vasanta College for Women, Banaras Hindu University, India. Her major research interest areas are Science Education, Pre-Service Teacher Education, and Gender Studies. ORCID: <https://orcid.org/0009-0005-1587-0433>

Alok Gardia, Ph.D., is a Professor at the Faculty of Education, Banaras Hindu University, India. His major research interests lie in the areas of Sociology of Education, Social Psychology, and Education for Democratic Citizenship. ORCID: <https://orcid.org/0009-0005-6982-7203>

Pankaj Singh, Ph.D., is an Assistant Professor at the Faculty of Education, Banaras Hindu University. His academic and research work focuses on the integration of emerging technologies in educational theory and practice, with special emphasis on ICT in Education, Big Data, Artificial Intelligence in Education, and Mathematics Education. ORCID: <https://orcid.org/0000-0002-2018-5343>
