Beyond the Primary Gap of Implementing Mother Tongue Pedagogy in Tribal Secondary Classrooms: A Policy-Practice Analysis

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Abstract

A major challenge in implementing the National Education Policy 2020 in tribal secondary schools is that, while the policy supports multilingual education and teaching in the mother tongue, secondary schools still depend on single-language assessment systems. This disconnect, where the aim of incorporating many languages contrasts with the reality of monolingual board exams, affects the opportunities and outcomes for tribal students. In India, where many languages are spoken, language differences often reflect economic disparities. Language policies determine who can go to school and how well they can engage. The National Education Policy 2020 suggests teaching in the mother tongue at least until Grade 5, and ideally until Grade 8. However, efforts to promote multiple languages in secondary schools are still not fully developed or widely used. This article examines mother tongue teaching in tribal secondary schools. It looks at how the aims of the policy align with what happens in classrooms and what changes are needed to support multilingual education beyond primary grades. Data from interviews, observations, and student discussions show that consistent use of the mother tongue enhances understanding, builds disciplinary literacy, and reinforces identity. However, institutional barriers, such as monolingual exams, a lack of textbooks, and gaps in teacher training, hinder broader structural change. The article argues that effective multilingual reform at the secondary level requires coordinated changes in curriculum design, assessment methods, teacher education, and community involvement. When mother tongue teaching is recognized by institutions, it not only helps with academic success but also promotes fairness and continuity in language use.

Key words: Mother Tongue Education, Tribal Secondary Education, Language Policy Implementation

1.Introduction

The National Education Policy 2020 marks a key change in recognizing the cognitive and cultural importance of teaching in a student's native language. The policy views multilingualism as an asset instead of a hindrance. However, its implementation mainly focuses on the foundational and preparatory levels. Secondary education, which involves more complex subjects, receives little guidance for practical application. In secondary school, the demand for language increases. Students need to grasp scientific reasoning, historical analysis, algebraic concepts, and persuasive writing, all of which require a strong vocabulary. When students must rely solely on dominant languages, they often fail to truly understand concepts. They memorize information without internalizing it. So, the main question is not

whether teaching in a mother tongue helps students, but how to maintain it effectively in secondary education. This study targets policymakers, educators, and researchers dedicated to building fair and effective multilingual education systems in India's tribal secondary schools. By stating the intended audience upfront, the study aims to influence policy development and classroom practices while also adding to academic discussions. Language is more than just a way to communicate; it shapes thoughts, helps with abstract ideas, and influences participation. In India's tribal areas, students often learn in languages they do not know well. This gap creates mental strain, limits classroom engagement, and marginalizes students' identities. While multilingual education in early grades has shown positive results, moving to secondary school often brings back language challenges.

2. Theoretical Framework

2.1 Socio-Cultural Mediation and Cognitive Development

Vygotsky (1978) conceptualised language as a mediational tool in the development of higher mental functions. Learning occurs within social interaction, were language structures reasoning and abstraction. When instruction aligns with the learner's linguistic repertoire, scaffolding becomes meaningful. In tribal secondary classrooms, explaining abstract disciplinary content in the mother tongue allows learners to anchor new concepts within existing cognitive frameworks.

2.2 Linguistic Interdependence

Cummins (2000) proposed that proficiency in the first language strengthens acquisition of additional languages. This additive bilingualism model challenges the assumption that early transition to dominant languages enhances academic outcomes. Instead, sustained L1 engagement supports deeper metalinguistic awareness. For secondary learners, where disciplinary literacy demands increase, maintaining the mother tongue as a cognitive resource becomes essential.

2.3 Linguistic Capital and Power Structures

Bourdieu (1991) described language as symbolic capital embedded within power relations. In Indian secondary education, English and dominant regional languages carry institutional legitimacy. Tribal languages lack examination recognition, textbook presence, and certification value. This structural imbalance positions indigenous learners as linguistically disadvantaged. Mother tongue instruction thus becomes a redistributive mechanism challenging the symbolic hierarchy.

2.4 Culturally Relevant Pedagogy

Ladson-Billings (1995) argued that effective pedagogy affirms learners' cultural identities. Tribal education must incorporate oral traditions, ecological knowledge, and community epistemologies into disciplinary frameworks. Secondary schooling, therefore, should not simply translate dominant curricula but integrate indigenous knowledge systems into formal academic discourse.

3. Review of Literature

3.1 Indian Scholarship

Indian research connects multilingual education to issues of social justice. A report by Behera, Rout, and Dash notes that many tribal learners in Odisha struggle with understanding and remembering lessons when taught in Odia, since it is not their native language. This suggests that starting instruction in their mother tongue can help tackle these issues. However, a break in continuity at the secondary level disrupts the knowledge they have built. The National Council of Educational Research and Training (NCERT, 2005; 2023) sees language as key to thought. However, how this is put into practice differs from state to state. The Central Institute of Indian Languages (CIIL, 2014) reports advancements in early multilingual programs but points out a lack of materials for secondary education. Ganesh Devy (2013) and Anvita Abbi (2012) emphasize the risks facing tribal languages. A 2017 report by Bharath Bhushan Mamidi states that language barriers and an unfamiliar curriculum are major factors causing high dropout rates among students from certain social groups. Indian scholarship, therefore, confirms two facts: instruction in the mother tongue improves learning, but structural continuity falls short in higher grades.

3.2 Western Scholarship

Research from North America and Europe offers clarity on theoretical issues. Cummins (2000) set out principles for cognitive transfer. Ofelia García reframed bilingual practice as translanguaging, highlighting integrated language use. Basil Bernstein studied institutional codes. Bourdieu (1991) linked language to power structures. Nordic countries encourage additive bilingualism within welfare programs. Research from Australia on Indigenous education shows improvements in identity through culturally responsive teaching. However, Western studies often focus on immigrant contexts or primary education. The integration of subjects at the secondary level is less developed. Three themes emerge across different contexts. First, cognitive research supports maintaining the first language. Second, sociological analysis reveals language-based inequality. Third, while translanguaging boosts participation, it lacks a structured approach to different subjects. These gaps call for a focused study at the secondary level in tribal settings.

4. Research Gap

Existing literature supports early multilingual education but leaves ongoing sustainability underexplored. Few long-term studies follow students from primary to higher grades. Disciplinary literacy in algebra, physics, or historiography is still not well studied in tribal contexts. There is limited policy analysis of NEP 2020 at the secondary level. Examination reform gets little attention from scholars. Teacher agency is noted but not deeply examined as part of institutional design. Language revitalization through academic development still needs more investigation. Comparative analysis across multiple states is uncommon. The link between multilingual instruction and board examination results is not well established. The main issue is structural continuity. The multilingual goal is greater than the operational setup at the secondary level.

5. Statement of the Problem

Despite policy recognition of linguistic diversity, tribal secondary schools often transition abruptly from mother tongue-supported primary education to dominant-language instruction. This shift may hinder conceptual comprehension, academic achievement, and learner engagement. There is insufficient empirical evidence examining whether structured mother tongue integration at the secondary level improves educational outcomes in tribal contexts.

6. Research Questions

1. How is the mother tongue integrated into secondary classroom instruction?

2. What pedagogical strategies do teachers employ?

3. How do students perceive mother tongue instruction at this stage?

4. What institutional challenges affect implementation?

7. Research Design and Methodology

This study uses a qualitative case study approach. The goal is to understand lived classroom experiences instead of measuring isolated variables. The research is interpretive. It assumes that meaning comes from social interaction and the context of institutions. A tribal-majority district was chosen through purposive sampling. The selection criteria included high tribal enrollment, a dominant-language medium of instruction, and evidence of bilingual classroom interaction. Data collection involved four methods. First, non-participant classroom observations recorded language shifts, patterns of participation, and moments of conceptual clarification. Second, semi-structured interviews with teachers explored their beliefs, constraints, and examination pressures. Third, student focus groups looked at confidence, vocabulary challenges, and learning preferences. Fourth, document analysis examined textbooks, lesson plans, and policy guidelines, including the National Education Policy 2020. The study aims for analytical generalization rather than statistical universality.

8. Findings

8.1 Conceptual Access through Mother Tongue

Teachers reported that scientific and mathematical concepts became clearer when first introduced in the mother tongue. Observations confirmed higher student participation during bilingual explanation. Translanguaging allowed movement between indigenous conceptual schemas and formal terminology.

8.2 Identity and Classroom Confidence

Students expressed pride when indigenous idioms and narratives were integrated into lessons. Participation increased, and hesitation decreased. Mother tongue use reduced anxiety associated with speaking in dominant languages.

8.3 Pedagogical Innovation

Teachers developed bilingual glossaries, translating technical vocabulary. Community elders

were invited to contextualise historical and environmental topics. Peer discussions were encouraged in indigenous languages before formal presentation.

8.4 Structural Constraints

Despite positive outcomes, systemic barriers persisted. Board examinations remained monolingual. Secondary textbooks in tribal languages were scarce. Teacher recruitment policies did not prioritise bilingual competence. As a result, multilingual innovation remained informal rather than institutionalised.

9. Discussion

Mother tongue instruction at the secondary level functions as epistemic mediation. Without sustained L1 engagement, abstraction becomes detached from lived meaning. Translanguaging practices illustrate additive bilingualism in action. However, institutional hierarchies reproduce dominant-language capital (Bourdieu, 1991).

Policy ambiguity further weakens continuity. While NEP 2020 signals commitment, operational frameworks for Grades 9–12 remain underdeveloped. Examination systems, textbook production, and teacher training must align with multilingual principles.

Secondary schooling can either accelerate language shift or support revitalisation. Institutionalising tribal languages within disciplinary literacy strengthens intergenerational transmission (Devy, 2013; Abbi, 2012).

10. Innovative Frameworks

While existing research highlights the cognitive and cultural value of mother tongue instruction, secondary education needs more than just support for this idea. The following conceptual and teaching innovations contribute to ongoing discussions by providing practical models that connect classroom practice, institutional change, and policy under the National Education Policy 2020 framework.

10.1. Disciplinary Translanguaging Framework (DTF)

Translanguaging in tribal classrooms usually happens informally, guided by teacher intuition rather than a clear plan. To improve this, this study proposes a structured Disciplinary Translanguaging Framework (DTF) designed for secondary subjects. The framework has three connected phases. The first phase, Concept Anchoring, situates new disciplinary ideas within local meanings. For example, ecological balance can be explained using local forest cycles that students know well. The second phase, Terminological Bridging, introduces formal academic vocabulary in the state or English language while keeping explanations in the mother tongue. The third phase, Academic Consolidation, gradually increases student use of the examination language, supported by bilingual glossaries and discussions with peers. This phased model applies Cummins' interdependence principle by maintaining cognitive continuity while developing academic language skills. It also addresses Bourdieu's concerns about linguistic capital by preparing students for institutional acceptance without losing their local knowledge. Instead of replacing one language with another, DTF encourages layered bilingual skills that fit the demands of secondary education.

10.2. Indigenous Knowledge-Integrated STEM Pedagogy

Secondary curricula often overlook tribal ecological and scientific knowledge. To innovate, we need to shift from simple translation to incorporating local knowledge. This study introduces an Indigenous Knowledge-Integrated STEM Pedagogy model that aligns local knowledge systems with formal subject frameworks. For instance, traditional water conservation methods used in tribal farming can relate to hydrological cycles in environmental science. Indigenous star stories can connect to topics like planetary motion and celestial mechanics. Classifications of plant diversity used by local communities can inform ecological taxonomy modules. This approach does not romanticise local knowledge but positions it as a valid analytical tool. By including indigenous perspectives in formal science education, secondary schooling becomes interactive instead of simply absorbing information. This change views tribal languages as channels for producing knowledge rather than just transitional aids.

10.3. Multilingual Academic Glossary Laboratories (MAGL)

A notable barrier identified by the Central Institute of Indian Languages is the lack of standardised secondary-level terms in tribal languages. Instead of relying only on central textbook production, this article suggests setting up Multilingual Academic Glossary Laboratories (MAGL) at the school cluster level. In this model, subject teachers, students, and community linguists work together to create bilingual or trilingual glossaries for technical subjects. These glossaries are digitised and shared within district networks. Regular review workshops refine terms to ensure accuracy and alignment with subjects. MAGL turns terminology development into a collaborative and ongoing effort. It decentralises knowledge production while keeping academic standards high. Over time, these labs help develop tribal academic resources that support advanced discussion.

10.4. Bilingual Parallel Assessment Model (BPAM)

Assessment methods shape how we view language practices. Without changes to examination systems, multilingual teaching remains marginalised. This article suggests a Bilingual Parallel Assessment Model (BPAM) for secondary education. With BPAM, students can answer conceptual questions in their mother tongue while key subject terms appear in the exam language. Oral presentations in indigenous languages can also accompany written assessments. Structured rubrics ensure fair evaluation standards. This model addresses institutional inequality without compromising academic rigor. It understands that mastering concepts and language skills are related but separate abilities. Trying this approach in selected districts could provide data for larger state-level changes.

10.5. Community Knowledge Credit System (CKCS)

Community involvement in secondary education often feels superficial. To support real knowledge exchange, this study proposes a Community Knowledge Credit System (CKCS). Under CKCS, respected tribal knowledge holders—like forest experts, artisans, oral historians, and agricultural workers—are invited to help design modules with teachers. Their contributions are documented, assessed, and formally recognised within school systems.

Students can earn academic credits through community-based research projects conducted in their mother tongue. This innovation turns community knowledge into recognised academic value. It aligns with culturally responsive teaching and enhances the transmission of language across generations.

10.6. AI-Assisted Tribal Academic Corpus Development

Digital innovation opens new doors for keeping languages alive. In line with the digital goals of NEP 2020, this article suggests developing AI-assisted tribal academic resources. Speech-to-text technology can document local explanations of scientific concepts in indigenous languages. Algorithms can help find equivalent terms between tribal and state languages. Digital collections can store bilingual lesson materials and glossaries created through MAGL initiatives. This technological integration doesn't replace teachers but supports broader accessibility and preservation. It places tribal languages within modern knowledge systems rather than limiting them to heritage contexts.

10.7. Secondary-Level Language Vitality Index (SLVI)

To implement policies effectively, we need measurable indicators. This study proposes a Secondary-Level Language Vitality Index (SLVI) for tribal schools to track institutional changes. The index includes measurements such as: • Percentage of subjects taught in two languages. • Availability of exams in tribal languages. • Student work in their first language. • Frequency of integrating community knowledge. • Teacher certification rates in bilingual teaching. By quantifying language usage in academic settings, SLVI shifts multilingual education from a symbolic commitment to a measurable practice. It also enables comparison across different districts, addressing a significant gap in current research.

10. 8. Multilingual Teacher Professional Identity Framework

Teacher training often focuses on technical skills without considering professional identity. This article presents a Multilingual Teacher Professional Identity Framework, viewing secondary teachers as language facilitators, cultural translators, and knowledge bridge-builders. Professional development modules would combine sociolinguistic theory, translanguaging techniques, and indigenous knowledge systems. Teacher evaluation criteria would recognise bilingual teaching skills as a sign of professional excellence. This approach strengthens the legitimacy of multilingual education.

10.9. Hybrid Layered Textbook Architecture

Instead of creating separate monolingual textbooks, this study suggests a layered design for secondary textbooks. Each chapter would include: a main disciplinary explanation in the exam language; a parallel explanation in the indigenous language; bilingual term boxes; and examples from the community. This hybrid design keeps the curriculum consistent while incorporating local knowledge. It avoids superficial translation and instead makes multilingualism a structural part of textbook creation.

10.10. Longitudinal Multilingual Transition Roadmap

Finally, this article suggests a long-term plan extending from primary to higher secondary

education. Instead of sudden language changes, there should be a steady increase in dominant-language academic production while keeping the mother tongue as the foundation. This roadmap ensures ongoing cognitive support, addressing the transition challenges noted in existing studies. It transforms multilingual education from a short-term solution into a long-lasting academic journey.

11. Limitations and Future Research

The qualitative design limits statistical generalisation. The sample size was small and specific to a region. Long-term outcomes were not followed. Complex technical topics need more investigation. Future research should use mixed-methods designs in different states.

12. Conclusion

The findings of this investigation show that using tribal mother tongues in secondary schooling is a transformative educational approach, not just a stopgap. When students' languages are included in academic discussions, it improves understanding, boosts engagement with subject matter, and supports cultural continuity during important identity-forming years. In this way, including language in school empowers students academically and socially. Evidence from the study shows that students participate more actively, understand concepts better, and feel more confident when their home languages are recognized in the classroom. At the same time, teachers play a crucial role, navigating institutional challenges with flexible bilingual methods. Their work highlights both their commitment and the lack of solid support from the system. However, local teaching efforts alone cannot fix deep-rooted inequalities. Lasting change requires coordinated reform in several areas: curriculum design should include multilingual resources, assessment systems should acknowledge different language expressions, teacher education must prepare educators for responsive multilingual teaching, and community involvement should be part of school governance. Without this kind of integration, multilingual programs will stay fragmented and less effective. The study confirms that incorporating tribal languages into the formal secondary education system leads to a more inclusive and fair academic environment. By recognizing the value of indigenous languages, schools can move beyond a focus on assimilation and create a model of education based on dignity, participation, and equity. Ultimately, making mother tongue teaching a standard part of secondary education is crucial for promoting educational fairness and strengthening democratic inclusion in India's diverse language landscape.

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