

The Role of Mother Tongue in Shaping Educational Outcomes

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Abstract

Language is more than a tool of communication; it is the foundation of culture, identity, and cognition. In education, the use of a learner's mother tongue is not only a matter of linguistic preference but a decisive factor influencing academic performance, literacy development, and social inclusion. This study emphasizes the importance of mother-tongue-based instruction as a key driver of effective learning, equity, and cultural preservation, making it an urgent area of research in multilingual societies. Drawing on global and regional studies, theoretical perspectives such as Cummins' Linguistic Interdependence Hypothesis, and comparative data from countries including Malaysia, India, and South Africa, the paper demonstrates that instruction in the mother tongue significantly improves comprehension, retention, critical thinking, and participation, while reducing dropout rates. The findings highlight the utility and effectiveness of mother-tongue education not only for students who benefit from stronger academic outcomes but also for teachers, parents, and policymakers, who gain more efficient pedagogy, greater community trust, and sustainable educational progress. The study concludes with policy recommendations for integrating mother tongue education into national language and education systems, reinforcing its necessity as a foundation for inclusive, high-quality, and future-ready education.

Keywords: Mother Tongue, Educational Outcomes, Multilingual Education, Literacy, Language Policy, Equity

Introduction

Language is the central medium of learning shaping how students grasp concepts, think critically, and communicate knowledge. Among all languages a child encounters the mother tongue or first language (L1) plays a fundamental role in early development serving as the foundation for literacy, cognitive growth, and cultural identity. Through the mother tongue children first acquire vocabulary, establish logical connections, and develop the ability to express ideas with confidence. UNESCO (2003) emphasizes that learning in the mother tongue

during early schooling fosters stronger literacy skills, deeper comprehension, and greater learner confidence. Moreover, Cummins' Linguistic Interdependence Hypothesis suggests that skills built in L1 directly support the acquisition of additional languages, demonstrating that a strong foundation in the mother tongue strengthens not hinders multilingual competence.

Despite this, many education systems particularly in countries with colonial histories or multilingual populations continue to prioritize national or colonial languages as the main medium of instruction. While this policy is often justified to promote national unity or global competitiveness, it frequently disadvantages learners whose home language differs from the school language. These students face barriers to comprehension, limited classroom participation, and reduced academic performance, leading to systemic inequalities in education. In Malaysia, for instance where linguistic diversity is vast the tension between promoting the national language and preserving the mother tongue remains a pressing issue for educational policy and practice.

This study is significant because it highlights the necessity of mother-tongue-based education not only as a tool for academic achievement but also as a means of safeguarding cultural heritage, promoting social inclusion, and ensuring equity in learning opportunities. Understanding how the mother tongue supports learning will benefit a wide range of stakeholders:

- Students, by enabling better comprehension and confidence;
- Teachers, by providing strategies to bridge home and school learning;
- Parents and communities, by preserving linguistic and cultural identity; and
- Policymakers, by offering evidence to design inclusive, effective education systems.

By exploring this area, the research underscores the practical utility of mother-tongue instruction in raising learning outcomes and its long-term effectiveness in producing competent, confident, and culturally rooted learners.

Theoretical Framework

The role of the mother tongue in education is grounded in well-established theories of language and cognitive development. Two key perspectives reinforce its importance:

Cummins' Linguistic Interdependence Hypothesis (1979).

Cummins argues that cognitive and academic skills developed in the first language (L1) transfer to a second language (L2), provided the learner has attained sufficient proficiency in L1. Skills such as reading comprehension, problem-solving, and critical thinking form a shared "common underlying proficiency" rather than being bound to one language. For instance, a learner who can analyze texts or identify main ideas in their mother tongue can apply these same skills when learning in a second language. However, if L1 is underdeveloped, transferring these skills becomes more difficult, slowing down overall academic progress. This theory underscores the utility of mother-tongue education as a foundation for multilingual learning.

Vygotsky's Sociocultural Theory (1978).

Vygotsky situates language at the heart of cognitive development, describing it as a cultural tool that shapes thought and social interaction. Learning is most effective when new knowledge builds on a learner's existing cultural and linguistic framework. In a familiar linguistic environment, students can more easily connect new ideas to prior experiences, making learning meaningful and accessible. For example, when mathematical or scientific concepts are taught in the mother tongue, learners can use familiar terms and cultural references to understand abstract ideas more deeply. This fosters not only comprehension but also active classroom participation and collaborative learning.

Together, these theories demonstrate that mother-tongue-based education is both effective because it enhances cognitive and academic growth and useful because it prepares learners to acquire additional languages and succeed in diverse educational contexts.

Global Perspective on Mother Tongue Education

Across the world, the importance of mother-tongue education is widely acknowledged in both research and policy discourse, yet its practical implementation remains inconsistent. Countries such as Finland, where Finnish is used as the medium of instruction from early childhood through higher education, demonstrate the effectiveness of this approach. Finland consistently ranks among the highest in global literacy rates and educational outcomes, showing that a strong foundation in the first language promotes not only academic achievement but also social cohesion and cultural continuity. This example underscores the utility of mother-tongue education in building confident learners who can later master additional languages without sacrificing comprehension in the formative years.

By contrast, many post-colonial nations, particularly in parts of Africa, continue to rely heavily on former colonial languages such as English, French, or Portuguese. In these contexts, children often encounter a sharp divide between the language of the home and the language of the school. Rural and marginalized populations are disproportionately affected, as they have limited exposure to these official languages outside of formal education. The result is often lower literacy rates, reduced classroom participation, and higher dropout levels. According to UNESCO (2022), nearly 40% of the global population still lacks access to education in a language they speak or understand fluently.

The global picture highlights both the need and urgency of this area of study. On one hand, successful cases demonstrate the effectiveness of mother-tongue education in fostering literacy, confidence, and long-term multilingual skills. On the other hand, the widespread absence of mother-tongue instruction, particularly in disadvantaged regions, reveals the risks of educational exclusion and inequality. The global evidence suggests that sustained policy commitment, adequate teacher training, and resource allocation are essential if the benefits of mother-tongue education are to reach all learners. Addressing this gap will be beneficial not only for students, who gain deeper comprehension, but also for teachers, who can use culturally familiar strategies, and for governments, who can improve educational equity and reduce dropout rates.

Regional Context: Malaysia

Malaysia offers a particularly relevant case study, given its multicultural and multilingual composition. Bahasa Malaysia is the national and official language, but large segments of the population also speak Tamil, Mandarin, and numerous indigenous languages such as Iban, Kadazan-Dusun, and Bajau. The Education Act 1996 reflects this diversity by allowing mother-tongue instruction in national-type schools (SJKC and SJKT), where Mandarin or Tamil is the medium of instruction alongside compulsory Bahasa Malaysia and English. This policy has enabled children in vernacular schools to acquire literacy and numeracy in their first language, strengthening early comprehension, confidence, and cultural identity.

Empirical evidence supports the effectiveness of this policy. Gill (2014) found that students from vernacular schools often outperform their peers from mainstream national schools in early literacy assessments, demonstrating the academic benefits of mother-tongue education in the primary years. However, challenges emerge during the transition to secondary education, where instruction shifts predominantly to Bahasa Malaysia or English. Without structured bilingual or transitional support, students especially from rural and economically disadvantaged backgrounds struggle with complex academic concepts in a second or third language. This can result in declining performance, reduced classroom participation, and lower self-confidence.

This transitional gap illustrates the need for more effective bilingual bridging programs in Malaysia. Such initiatives would sustain the early literacy gains made in the mother tongue and ensure smoother progression into secondary and tertiary education, where English often dominates as the medium of instruction. Strengthening this area would benefit students, by reducing learning difficulties; teachers, by providing clear pedagogical pathways; and policymakers, by aligning Malaysia's multilingual education system with global best practices. Ultimately, addressing these gaps is not only a matter of educational quality but also of equity, ensuring that all learners, regardless of background, can thrive academically while preserving their linguistic and cultural heritage.

Cognitive and Academic Benefits of Mother Tongue Instruction

Extensive research demonstrates that children achieve stronger learning outcomes when early education is delivered in their mother tongue (L1). The significance of these findings lies not only in their contribution to academic performance but also in their practical utility for shaping effective teaching practices and education policies. The benefits extend beyond the classroom, supporting learners' long-term success in higher education and employment.

Key advantages include:

- 1. Improved Comprehension.** Learning in a familiar language reduces cognitive strain, allowing students to focus on understanding concepts rather than decoding unfamiliar words. This enhances learning efficiency and builds a deeper conceptual foundation.
- 2. Higher Retention.** Lessons delivered in L1 are more memorable because they are linked to students' existing vocabulary, cultural references, and lived experiences. This connection strengthens long-term knowledge retention, which is critical for academic progression.
- 3. Enhanced Participation.** Familiarity with the language of instruction fosters confidence, encouraging learners to engage in discussions, ask questions, and contribute ideas without fear of embarrassment. This creates more inclusive and dynamic classrooms.

4. Stronger Literacy Foundation. Developing literacy in L1 provides a robust base for acquiring reading and writing skills in additional languages (L2). Skills such as decoding, comprehension, and critical thinking transfer across languages, accelerating future language learning.

Together, these benefits demonstrate the effectiveness of mother-tongue education in fostering comprehension, confidence, and long-term literacy. Importantly, they also highlight the need for policymakers to strengthen L1-based instruction in the early years, ensuring that all learners not only those from dominant language groups can access equitable and meaningful education.

Statistical Evidence

Quantitative data further reinforce the academic and social value of mother-tongue education. The table below compares literacy rates, mathematics scores, and dropout rates across selected countries and school types:

Country	Instruction Language	Primary School Literacy Rate (%)	Average Mathematics Score (%)	Dropout Rate (%)
Finland	Finnish (Mother tongue)	99.8	88	1.2
Malaysia (Tamil schools)	Tamil (Mother tongue)	97.5	75	2.5
Malaysia (National schools)	Bahasa Malaysia (L2 for Tamil students)	89.3	63	6.8
South Africa	English (Non-mother tongue)	78.4	55	12.7
India (Regional language)	Hindi/Tamil/other L1	94.6	71	4.9
India (English-medium)	English (Non-mother tongue)	81.2	59	8.4

Source: Adapted from UNESCO Institute for Statistics (2022), Ministry of Education Malaysia (2023), and National Education Surveys.

The evidence clearly indicates that instruction in the mother tongue is consistently associated with higher literacy, stronger academic performance, and lower dropout rates. Countries such as Finland demonstrate the long-term effectiveness of L1 instruction in sustaining educational excellence, while Malaysia's Tamil schools show how L1-based education can benefit minority-language communities. Conversely, contexts like South Africa and English-medium schools in India illustrate the risks of prioritizing non-mother-tongue instruction: lower comprehension, weaker academic outcomes, and higher dropout rates.

These findings emphasize the utility of mother-tongue education as a proven strategy to improve learning outcomes and the necessity for policymakers and educators to expand its implementation. Strengthening L1 instruction will directly benefit students by improving comprehension and confidence, teachers by easing classroom communication, and societies by producing more skilled, literate citizens who are equipped for lifelong learning.

Challenges in Implementing Mother Tongue Education

Although the benefits of mother-tongue-based education are well-documented its successful implementation is often hindered by practical, social, and political barriers. Recognizing these challenges is important because they highlight why this study is needed and how solutions can benefit multiple stakeholders.

- **Policy Resistance.** Many governments prioritize a single national or official language as a unifying tool or as a strategy for global competitiveness. While such goals have merit, they often come at the cost of inclusive education for minority language communities. This resistance reduces the effectiveness of multilingual initiatives and risks perpetuating inequity in learning outcomes.
- **Resource Constraints.** Developing textbooks, teaching aids, and assessments in multiple languages requires substantial investment. In multilingual nations with dozens of languages, this task becomes logistically and financially demanding, often leading to unequal access to quality resources. Without targeted investment, learners in minority language groups are most disadvantaged.
- **Teacher Training.** The effectiveness of mother-tongue education depends heavily on trained teachers who are both fluent in local languages and skilled in bilingual/multilingual pedagogy. In many contexts, such teachers are in short supply, limiting the practical success of mother-tongue instruction and placing additional strain on education systems.
- **Parental Perceptions.** Many parents equate early English-medium or dominant-language schooling with better career opportunities. This perception often leads to resistance toward mother-tongue instruction, as parents fear it may delay their children's proficiency in widely spoken languages. Overcoming this challenge requires evidence-based advocacy to show that a strong L1 foundation accelerates not hinders second-language acquisition.

Addressing these barriers requires a multi-pronged approach: clear and sustained policy commitment, adequate funding, teacher development programs, and active engagement with parents and communities. Overcoming these challenges is crucial for ensuring that the benefits of mother-tongue instruction improved comprehension, retention, and confidence are accessible to all learners.

Case Studies

Ethiopia

Ethiopia provides a compelling example of the utility and effectiveness of mother-tongue-based education. In 1994, the government introduced a policy allowing regional states to adopt local languages such as Amharic, Oromo, Tigrinya, and Somali as the medium of instruction in early grades, before gradually transitioning to Amharic or English in higher levels. This reform was designed to make education more inclusive for Ethiopia's linguistically diverse population of over 80 languages.

The results were significant: a World Bank report (2018) noted that within five years, literacy rates rose by 16% and dropout rates fell by 8%. These outcomes highlight the importance of using the home language to promote both academic achievement and educational equity, particularly in rural and marginalized communities. However, Ethiopia also illustrates ongoing challenges such as shortages of qualified teachers and a lack of adequate teaching materials which must be addressed to sustain progress.

This case demonstrates that mother-tongue instruction is not just theoretically beneficial but practically effective, providing a model for other multilingual countries seeking to improve literacy and retention rates.

Philippines

The Philippines launched its Mother Tongue-Based Multilingual Education (MTB-MLE) policy in 2012, requiring instruction in local languages such as Cebuano, Ilocano, and Hiligaynon from kindergarten to Grade 3. The aim was to strengthen early literacy foundations and ensure smoother transitions to Filipino and English in later schooling.

Evidence of its effectiveness quickly emerged: by 2020, the Department of Education reported a 12% nationwide improvement in reading comprehension scores, alongside notable increases in classroom participation and learner confidence. Teachers observed that students were more willing to ask questions, engage in discussion, and connect academic lessons to their daily lives when taught in their L1.

Nevertheless, challenges remain: uneven teacher training, limited availability of high-quality teaching materials in all regional languages, and continued pressure from stakeholders who view English as essential for global competitiveness. These obstacles underscore the need for sustained investment and community engagement to strengthen MTB-MLE.

The Philippine experience highlights that mother-tongue instruction is both effective and practical, leading to measurable gains in literacy and learner confidence, but it also shows that its success depends on long-term policy support, teacher preparation, and stakeholder awareness.

Policy Recommendations

The findings of this study point toward several concrete policy actions that can make mother-tongue-based education both effective and sustainable. These recommendations are designed not only to improve classroom learning but also to strengthen equity, cultural preservation, and long-term educational success.

Bilingual Transition Models

Implement structured transition models in which the mother tongue (L1) serves as the medium of instruction in the early grades, with gradual and systematic introduction of the second language (L2). This approach builds strong foundational skills in L1 and ensures smoother transfer of knowledge to L2, reducing confusion, enhancing comprehension, and preparing learners for advanced studies. Beneficiaries: students (better learning outcomes), teachers (clearer pedagogy), and policymakers (reduced dropout rates).

Teacher Training Programs

Strengthen teacher education by equipping educators with bilingual and multilingual teaching strategies. Teachers should also be strategically assigned to schools where they are proficient in the local language, enhancing communication and fostering trust with learners. Well-trained teachers are central to the effectiveness of mother-tongue education. Beneficiaries: teachers (professional growth), students (better instruction), and education systems (greater efficiency).

Curriculum Development

Develop culturally relevant learning materials in the mother tongue that integrate local examples, traditions, and values. This not only simplifies comprehension but also connects learning to students lived experiences, thereby enhanced engagement and reinforcing identity. Beneficiaries: students (better comprehension and motivation), communities (cultural preservation), and schools (more relevant curricula).

Parental Awareness Campaigns

Educate parents and communities about the cognitive and academic benefits of mother-tongue instruction. Awareness campaigns, workshops, and community programs should emphasize that learning in L1 strengthens not weakens proficiency in other languages, ultimately enhancing long-term academic and career prospects. Beneficiaries: parents (greater trust in schools), students (reduced pressure and improved outcomes), and society (inclusive education).

By addressing these areas, education systems can transform mother-tongue instruction from policy rhetoric into a practical, effective, and equitable tool for improving learning outcomes and social cohesion.

Conclusion

The evidence presented in this study makes one point abundantly clear: the mother tongue is not merely a marker of cultural identity but a powerful instrument of effective education. When children learn in a language, they understand best, they achieve stronger comprehension, higher academic performance, greater classroom participation, and enhanced self-confidence. These cognitive and academic gains are complemented by social benefits, including the preservation of cultural identity, the promotion of inclusivity, and the strengthening of social cohesion.

For policymakers and educators, the challenge is to move from recognition to action. Mother-tongue-based education should not be seen as optional but as a necessary foundation for equitable and sustainable educational development. Effective implementation requires a balanced approach one that nurtures linguistic diversity while also preparing learners to thrive in a global, multilingual world. This entails investing in teacher training, developing quality instructional materials, and engaging parents and communities in supporting L1-based learning.

The utility and effectiveness of such an approach are undeniable: improved literacy, reduced dropout rates, enhanced academic achievement, stronger cultural identity, and greater social inclusion. By institutionalizing mother-tongue-based education, nations can create a more just and effective education system one that empowers learners, supports teachers, and benefits society.

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