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**Effectiveness of Mother Tongue Instruction on Literacy Rates in
Primary Education in Kenya, Examining the Transition from
Indigenous Languages to English in Urban and Rural Settings**

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Purpose: The aim of the study was to analyze the effectiveness of mother tongue instruction on literacy rates in primary education in Kenya, examining the transition from indigenous languages to English in urban and rural settings

Methodology: This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

Findings: Studies on the effectiveness of mother tongue instruction in Kenya's primary education reveal that using indigenous languages in early education significantly improves literacy rates, particularly in rural areas. In these settings, children who learn in their native languages during the early grades develop stronger foundational literacy skills compared to those taught in English from the start.

Unique Contribution to Theory, Practice and Policy: Sociocultural theory, Cummins' linguistic interdependence theory & transitional bilingual education theory may be used to anchor future studies on the effectiveness of mother tongue instruction on literacy rates in primary education in Kenya, examining the transition from indigenous languages to English in urban and rural settings. Schools, particularly in rural areas, need more resources like textbooks and teaching aids in indigenous languages to support early literacy development. Policymakers should implement flexible language policies that consider the different linguistic needs of urban and rural populations.

Keywords: *Mother Tongue Instruction, Literacy Rates, Primary Education, Indigenous Languages, Urban, Rural Settings*

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INTRODUCTION

Literacy rates in developed economies, such as the USA and Japan, are typically measured by students' proficiency in reading and writing by primary school age. In the USA, approximately 79% of fourth graders achieved or exceeded basic reading proficiency in 2019 (National Center for Education Statistics, 2020). However, disparities exist, with students from low-income families showing significantly lower literacy rates compared to their more affluent peers. In Japan, literacy rates in primary education are among the highest globally, with over 95% of students achieving proficiency in reading and writing by the age of 10 (OECD, 2019). Despite this, recent trends in Japan suggest a growing concern about the quality of literacy, as digital distractions contribute to a decline in sustained reading habits (Matsuda & Takahashi, 2020).

In the United Kingdom, literacy rates among primary school students are high, with 86% of students meeting or exceeding basic reading proficiency by age 11 (Department for Education, 2020). However, there are disparities, particularly between students from affluent areas and those from disadvantaged backgrounds, with a literacy gap of 13% between these groups. In Canada, literacy levels among primary school children are also strong, with 90% of students in Grade 4 achieving or surpassing expected reading proficiency (Council of Ministers of Education Canada, 2019). Despite this, literacy challenges persist for students from Indigenous communities and rural areas, where literacy rates are lower. Both countries have adopted strategies focusing on early intervention and improving reading engagement to further enhance literacy levels (Brown & Gordon, 2021).

In Australia, literacy rates among primary school students are generally high, with 94% of students in Year 5 meeting or exceeding national reading standards (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2020). However, there is a noticeable gap between students from urban areas and those from rural and remote regions, where literacy levels are lower. Indigenous students in particular face challenges, with only 75% achieving expected reading proficiency compared to their non-Indigenous peers (Warren & Young, 2020). In Germany, 89% of students in Grade 4 demonstrate reading proficiency, though regional disparities exist between former East and West Germany, with lower rates in eastern states (OECD, 2020). Both countries have implemented literacy interventions focused on addressing socioeconomic and geographic disparities in education outcomes.

In developing economies, literacy rates are often lower, though significant progress has been made in recent years. In India, the literacy rate among primary school students has improved, with 74.4% of children in rural areas able to read at least a simple sentence by Grade 5, according to the Annual Status of Education Report (ASER, 2020). However, gender and regional disparities persist, particularly in rural settings. In Brazil, literacy rates among primary students reached 92% in urban areas, but only 70% of students in rural areas achieved the same level of proficiency (World Bank, 2021). These statistics highlight the ongoing challenges developing economies face in achieving universal literacy, particularly in underserved regions.

In Pakistan, literacy rates among primary school children are improving but still pose challenges, particularly in rural regions. Only 59% of Grade 5 students in rural areas can read at a Grade 2 level (ASER, 2020). The urban-rural divide is significant, with urban students faring much better due to better access to quality education. In Indonesia, literacy rates have seen a steady increase, with 81% of students achieving basic reading proficiency by the end of primary school (UNICEF,

2020). However, similar to Pakistan, rural and remote areas lag behind in literacy, with only 64% of rural students meeting basic proficiency, largely due to limited access to educational resources and trained teachers (World Bank, 2021).

In Bangladesh, literacy rates among primary school students have improved, with 65% of students able to read at a basic level by Grade 5 (UNICEF, 2020). However, significant challenges remain, particularly in rural areas where only 54% of students achieve the same literacy levels due to resource limitations and teacher shortages. In Mexico, the literacy rate in urban primary schools is 88%, but this figure drops to 64% in rural areas (World Bank, 2021). The Mexican government has implemented bilingual education programs, particularly in indigenous communities, to improve literacy outcomes, but progress has been slow due to language barriers and inadequate educational infrastructure (Valdez-Garcia & Mora-Ruiz, 2019).

In Sub-Saharan Africa, literacy rates remain a critical challenge. In Kenya, although the overall literacy rate is 81%, only 38% of students in rural primary schools achieve basic reading and writing proficiency by Grade 3 (Uwezo, 2020). This gap is primarily due to factors like lack of resources and instructional shifts between indigenous languages and English. Nigeria faces similar challenges, with 50% of primary students not meeting basic literacy standards, a problem exacerbated by poverty and conflict (UNESCO, 2019). Despite improvements, efforts to boost literacy rates in Sub-Saharan Africa must address resource allocation and effective language transition policies.

In Uganda, literacy rates among primary school students show significant gaps between urban and rural areas. Nationally, only 52% of students in Grade 3 meet basic literacy benchmarks, and in rural areas, this figure drops to 38% (Uwezo Uganda, 2020). The language of instruction, which transitions from local languages to English, often complicates the learning process, especially for students in rural settings. In Tanzania, 74% of Grade 3 students in urban areas can read basic texts, compared to just 47% in rural areas (UNICEF, 2020). The gap in literacy rates is attributed to inadequate school infrastructure, teacher shortages, and the complexity of switching from Swahili to English as the medium of instruction.

In Ethiopia, only 49% of primary school students demonstrate basic reading proficiency by Grade 3, with significant differences between urban and rural areas (UNESCO, 2020). Rural areas suffer from limited access to qualified teachers and educational materials, contributing to lower literacy rates. Zimbabwe has a higher literacy rate, with 77% of Grade 3 students able to read at a basic level, but this figure decreases in rural areas, where only 59% meet basic proficiency (World Bank, 2021). In both countries, the transition from indigenous languages to English as the medium of instruction presents a barrier to literacy, particularly for rural students who are less exposed to English outside of school.

Mother tongue instruction, which refers to the use of indigenous languages in primary education, has been linked to improved literacy outcomes, especially in early grades. One primary benefit is that students can grasp foundational literacy skills more effectively when taught in a language they are familiar with (Ball, 2019). Additionally, comprehension is enhanced when students learn to read and write in their native language, as it allows them to connect new knowledge with their lived experiences. Research also shows that cognitive development is strengthened when children receive instruction in their mother tongue, as they can engage in complex problem-solving without the added difficulty of language barriers (Heugh, 2020). Lastly, cultural relevance plays a

significant role in literacy development, with students more likely to stay engaged and motivated when their cultural identity is reflected in the language of instruction (Mackenzie & Walker, 2021).

Evidence suggests that mother tongue instruction has a direct impact on literacy rates among primary school students. In classrooms where indigenous languages are used, students tend to achieve higher reading and writing proficiency levels in the early years, compared to those taught in a second language (Benson, 2021). The transition from mother tongue to a second language, such as English, can be smoother when children have strong literacy foundations in their native language, thus improving long-term literacy outcomes (Heugh, 2020). Furthermore, using a familiar language reduces dropout rates and increases retention, as students are more likely to succeed in their literacy development when they are taught in their first language (Trudell & Piper, 2019). Therefore, implementing mother tongue instruction in primary education is a critical factor in raising literacy rates, particularly in multilingual and rural communities.

Problem Statement

Despite Kenya's language-in-education policy that promotes mother tongue instruction in early primary education, there are challenges in its implementation, particularly regarding its effectiveness in improving literacy rates. In rural areas, students often face a sudden transition from learning in indigenous languages to English, which negatively impacts their literacy development, as they struggle to achieve proficiency in both languages (Piper et al., 2018). Conversely, urban schools often bypass mother tongue instruction entirely, prioritizing English from the outset, leading to lower literacy levels in indigenous languages and creating a disparity between urban and rural literacy outcomes (Trudell & Piper, 2019). This inconsistency in language instruction policies raises concerns about the overall literacy rates in the country, particularly in reading and writing proficiency among primary school students. Understanding how mother tongue instruction affects literacy rates, and how the transition to English can be better managed, is crucial for improving educational outcomes in both urban and rural settings in Kenya.

Theoretical Framework

Sociocultural Theory

Originated by Lev Vygotsky, Sociocultural Theory emphasizes the role of social interactions and cultural context in cognitive development. This theory suggests that learning is more effective when instruction aligns with a child's cultural and linguistic background. In the context of Kenya, using indigenous languages in early education helps students make connections between their home language and school literacy, supporting their cognitive development and literacy skills (McCarty & Nicholas, 2019). This theory is relevant to understanding how mother tongue instruction can bridge the gap between home and school environments, facilitating better literacy outcomes.

Cummins' Linguistic Interdependence Theory

Proposed by Jim Cummins, Linguistic Interdependence Theory posits that skills learned in a first language (L1) can transfer to a second language (L2), especially in literacy development. For Kenyan students, proficiency in indigenous languages can support their transition to English as the language of instruction. This theory is critical in exploring how strong literacy foundations in

mother tongue can ease the transition to English, enhancing overall literacy rates in both languages (Heugh, 2020).

Transitional Bilingual Education Theory

Transitional Bilingual Education Theory suggests that students should initially be taught in their mother tongue before transitioning to a second language, in this case, English. This approach allows students to build foundational literacy skills before shifting to English instruction. In Kenya, this theory is particularly relevant in examining the different outcomes between urban and rural settings, where the speed and effectiveness of this transition vary (Trudell & Piper, 2019). It helps explain how gradual transitions from indigenous languages to English can improve literacy rates across diverse educational environments.

Empirical Review

Piper (2018) conducted a comprehensive study on the effectiveness of mother tongue instruction on literacy rates in Kenyan primary schools, focusing on the relationship between early instruction in indigenous languages and reading and writing proficiency. The study's purpose was to assess whether mother tongue instruction in the early grades leads to better literacy outcomes compared to instruction in English. Using a quasi-experimental design, the researchers compared literacy rates between students in schools that implemented mother tongue instruction and those that used English from the beginning. They collected data from literacy tests administered to students across various grades in both rural and urban schools. The findings revealed that students who were taught in their mother tongue during the first three years of schooling had significantly higher literacy rates than those taught only in English. This was particularly evident in reading proficiency, where students performed better when learning in a language they were familiar with. The study concluded that mother tongue instruction allows students to build strong literacy foundations before transitioning to English, improving their long-term academic success. The researchers emphasized the importance of scaling up mother tongue instruction policies, particularly in rural areas, where literacy rates are lower. They recommended that policymakers focus on providing adequate resources, including textbooks and trained teachers, to support the use of indigenous languages in early education. Additionally, the study highlighted the need for a gradual transition to English to ensure students do not lose their literacy skills when they shift languages. Piper et al. also noted that teacher training should focus on equipping educators with the skills to manage the transition effectively. Furthermore, the researchers suggested that future studies investigate the impact of mother tongue instruction on other academic subjects. The study provided strong empirical evidence supporting the use of indigenous languages in improving literacy rates in Kenya. Overall, it called for sustained efforts to implement mother tongue instruction as a means of addressing literacy challenges in Kenyan primary schools.

Trudell & Piper (2019) explored how the transition from indigenous languages to English impacts literacy development in both urban and rural Kenyan schools. The study aimed to examine the effectiveness of mother tongue instruction in improving literacy rates and how quickly students can transition to English without negatively affecting their literacy skills. Using a longitudinal study design, the researchers tracked students from Grade 1 to Grade 4, collecting data on their reading and writing proficiency at each stage of their education. The study compared literacy outcomes in urban and rural schools, where different language policies were in place. Findings revealed that students in rural areas, where mother tongue instruction was used for the first three

years, had higher literacy rates than those in urban schools, where English was introduced earlier. Rural students who received mother tongue instruction maintained strong literacy skills even after transitioning to English, while urban students struggled more with reading and writing in both languages. The study emphasized the importance of a gradual transition from indigenous languages to English, particularly in rural areas where students face additional challenges in acquiring a second language. Trudell & Piper recommended that policymakers adopt flexible language policies that allow for slower transitions in rural settings and faster transitions in urban areas, where students are often exposed to English outside the classroom. The researchers also suggested that more resources be allocated to rural schools to support mother tongue instruction, including teacher training and curriculum development. Additionally, they called for further research into how other factors, such as socioeconomic status and access to educational resources, influence the effectiveness of language instruction. The study concluded that mother tongue instruction is crucial for improving literacy rates in Kenya, especially in rural areas where students benefit from learning in a language they understand. It recommended that schools carefully plan the transition to English to avoid negative impacts on literacy development.

Muthwii (2020) investigated the effectiveness of mother tongue instruction in improving literacy outcomes in multilingual classrooms in Kenya. The purpose of the study was to analyze how indigenous languages, when used as the medium of instruction in early education, affect reading and writing skills among primary school students. The study used qualitative interviews with teachers and parents, along with literacy assessments conducted with students in rural areas. Muthwii found that students who were taught in their mother tongue during the early years of schooling showed higher reading proficiency than those taught in English from the beginning. The study revealed that mother tongue instruction allowed students to understand concepts better and engage more actively in the classroom. Teachers noted that students were more confident in expressing themselves and participating in class discussions when taught in a familiar language. The findings also indicated that students who learned in their mother tongue performed better in literacy tests, even after transitioning to English in higher grades. However, the study found that the effectiveness of mother tongue instruction depended heavily on the availability of resources, such as textbooks in indigenous languages and trained teachers. Muthwii recommended that the Kenyan government invest in training teachers to manage the transition from indigenous languages to English effectively. The study also suggested that more emphasis be placed on developing educational materials in indigenous languages to support literacy development. Additionally, Muthwii highlighted the need for stronger policy implementation to ensure that mother tongue instruction is consistently applied across schools in both urban and rural areas. The study concluded that mother tongue instruction plays a critical role in enhancing literacy rates and should be a priority in Kenya's education system.

Ngwaru (2018) focused on how Kenya's language policy influences literacy development in rural schools. The study aimed to explore how the use of mother tongue instruction in rural primary schools impacts students' literacy outcomes and whether policy implementation affects its success. Ngwaru conducted classroom observations and literacy assessments to evaluate the reading and writing skills of students in schools that adopted mother tongue instruction versus those that used English. The findings showed that students who received instruction in their indigenous languages in the early grades had higher literacy rates compared to those who were taught exclusively in English. However, the study also revealed inconsistencies in the implementation of mother tongue

instruction, with some schools only partially adopting the policy or switching to English prematurely. These inconsistencies were linked to lower literacy outcomes, as students struggled to transition from indigenous languages to English without adequate support. Ngwaru recommended that policymakers enforce a more standardized approach to mother tongue instruction across rural schools to ensure consistency in its application. The study also called for more investment in teacher training and resources to support mother tongue education, particularly in rural areas where schools are often underfunded. Ngwaru suggested that further research be conducted to explore the long-term effects of mother tongue instruction on literacy development, especially as students transition to higher grades. The study concluded that while mother tongue instruction has the potential to significantly improve literacy rates in Kenya, its success depends on consistent policy implementation and sufficient resource allocation.

Mugo (2019) evaluated the effectiveness of mother tongue instruction on literacy performance in rural Kenyan primary schools. The purpose of the study was to compare literacy outcomes between schools that used indigenous languages as the medium of instruction and those that started with English from Grade 1. The researchers conducted a cross-sectional survey of 400 students, assessing their reading and writing skills through standardized literacy tests. The findings showed that students in schools using mother tongue instruction had higher literacy proficiency than those who were taught in English from the beginning. This was particularly true for reading skills, where students demonstrated a stronger ability to comprehend texts in their indigenous language. The study also highlighted that students who learned in their mother tongue were better equipped to transition to English later in their schooling. Mugo et al. recommended that more schools in rural areas adopt mother tongue instruction, particularly in the early grades, to strengthen literacy development. The researchers also called for increased support from the government in providing textbooks and other learning materials in indigenous languages. The study emphasized the importance of teacher training to ensure that educators are prepared to effectively teach in both mother tongue and English as students progress through their education. The researchers concluded that mother tongue instruction is a critical factor in improving literacy rates in Kenya and should be prioritized in rural education policies.

Owino & Mwangi (2021) examined the relationship between teacher attitudes toward mother tongue instruction and student literacy outcomes in Kenyan primary schools. The study aimed to understand how teachers' perceptions of the use of indigenous languages in the classroom influenced the effectiveness of mother tongue instruction on literacy rates. Using surveys administered to 150 teachers and literacy tests conducted with their students, the researchers found that positive teacher attitudes toward mother tongue instruction were significantly correlated with higher literacy rates among students. Teachers who supported the use of indigenous languages reported that students were more engaged and confident in their learning, which translated into better reading and writing performance. Conversely, teachers who preferred using English from the beginning tended to have students with lower literacy outcomes, particularly in rural areas. The study recommended that teacher training programs emphasize the benefits of mother tongue instruction to shift attitudes and improve literacy rates. Owino & Mwangi also suggested that schools provide ongoing professional development for teachers to enhance their ability to teach in both indigenous languages and English. The researchers concluded that teacher attitudes play a crucial role in the success of mother tongue instruction and that fostering positive perceptions among educators is key to improving literacy outcomes in Kenya.

Wambua (2020) investigated literacy outcomes in urban and rural Kenyan primary schools, focusing on the transition from mother tongue to English. The study aimed to compare the literacy rates of students in schools that used mother tongue instruction in the early grades with those that used English as the primary medium of instruction. Wambua used a mixed-method approach, combining literacy assessments with interviews of teachers and school administrators. The findings revealed that rural students who received mother tongue instruction in the first three years of school had higher literacy rates than their urban counterparts, who were taught primarily in English. However, urban students were more proficient in English by the end of primary school, suggesting that while mother tongue instruction improves early literacy outcomes, it may slow the acquisition of English in urban settings. The study recommended that schools adopt a more balanced approach to language instruction, gradually transitioning from indigenous languages to English to support literacy development in both languages. Wambua also called for more research into how different regions of Kenya approach language instruction and how these approaches impact overall literacy rates.

METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low-cost advantage as compared to field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

FINDINGS

The results were analyzed into various research gap categories that is conceptual, contextual and methodological gaps

Conceptual Gaps: The studies emphasize the effectiveness of mother tongue instruction in improving literacy rates in Kenya. However, they mainly focus on reading and writing proficiency without exploring how this instruction affects other key academic areas, such as numeracy and critical thinking skills (Piper, 2018). Furthermore, there is limited research on the long-term academic impacts of mother tongue instruction after transitioning to English in higher education. Future research could explore how sustained literacy development in indigenous languages influences broader academic performance, cognitive development, and social integration, especially in diverse Kenyan communities.

Contextual Gaps: While several studies focus on rural and multilingual classrooms, the role of mother tongue instruction in urban schools is less explored, particularly regarding socioeconomic and linguistic diversity in cities (Trudell & Piper, 2019; Wambua, 2020). Urban students are often exposed to English at home and through media, which may reduce the relevance of mother tongue instruction. There is also a lack of research examining how teacher perceptions and attitudes toward language policies influence literacy outcomes, particularly in schools with resource disparities (Owino & Mwangi, 2021). Understanding how urban schools balance mother tongue and English instruction in multilingual settings remains an important contextual gap.

Geographical Gaps: Most studies focus on rural and central regions of Kenya, neglecting the unique linguistic and cultural dynamics in coastal and northern regions, where diverse indigenous languages and dialects are spoken (Mugo, 2019). These areas may have distinct language needs

and literacy challenges due to isolation and fewer educational resources. Additionally, the discrepancies between regions in policy implementation and resource allocation for mother tongue instruction are not well documented. Research is needed to explore how regional variations affect the success of language policies and literacy outcomes across different parts of Kenya (Ngwaru, 2018).

CONCLUSION AND RECOMMENDATIONS

Conclusions

Mother tongue instruction has been shown to significantly enhance literacy rates in primary education in Kenya, particularly in rural settings where students benefit from learning in a language they understand. Empirical studies demonstrate that students who receive early instruction in their indigenous languages develop stronger reading and writing skills, which form a solid foundation for later transitioning to English. However, the effectiveness of this transition varies between rural and urban areas, with rural students facing greater challenges when moving to English, while urban students tend to encounter English earlier and often have higher proficiency by the end of primary school. The success of mother tongue instruction largely depends on consistent policy implementation, adequate resources, and teacher training, particularly in underfunded rural schools. To maximize the effectiveness of language instruction across Kenya, a balanced approach that gradually transitions students from indigenous languages to English while addressing regional and contextual differences is essential.

Recommendations

Theory

Future research should expand on Sociocultural Theory and Linguistic Interdependence Theory by examining how early literacy development in mother tongue affects broader cognitive skills like critical thinking and problem-solving. Researchers should investigate the long-term academic outcomes of students who transition from mother tongue to English, exploring the link between early language instruction and success in other subjects. Additionally, contextual theories could be developed to analyze how sociolinguistic factors in urban versus rural settings influence the effectiveness of language transitions.

Practice

In practice, teacher training programs should focus on equipping educators with skills to effectively transition students from indigenous languages to English. This should involve not only language pedagogy but also strategies for engaging students in a multilingual environment. Schools, particularly in rural areas, need more resources like textbooks and teaching aids in indigenous languages to support early literacy development. Urban schools should consider integrating mother tongue instruction to reflect Kenya's cultural diversity, even for students exposed to English at home. Tailored instruction methods should be adopted to reflect the unique needs of rural and urban students.

Policy

Policymakers should implement flexible language policies that consider the different linguistic needs of urban and rural populations. In rural areas, policies should support a gradual transition from mother tongue to English, ensuring students build strong literacy foundations. For urban

settings, where students are often more exposed to English, policies should balance the use of both languages to promote cultural identity while enhancing English proficiency. Additionally, there should be increased investment in educational resources for rural schools, including teacher training and materials in indigenous languages, and more rigorous monitoring of policy implementation across regions to ensure consistency and effectiveness.

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