

## **Preparedness in Instructional Materials for the Implementation of the MTE Policy in Public Lower Primary School Education in Meru County, Kenya**

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### **Abstract**

In 2019, the Kenya Basic Education Curriculum Framework (BECF) introduced indigenous languages as a subject in lower primary education. Consequently, a policy was developed regarding the use of vernacular as an instructional medium for lower primary education. Nevertheless, there is uncertainty regarding the readiness of teaching and learning resources to support its implementation. This study aims to examine the influence of instructional materials on implementation of the MTE policy in lower primary school education in Meru County, Kenya. The study used a descriptive survey design, and adopted a mixed-method approach. The target population comprised 773 grade three class teachers and 773 head teachers. From this population, a sample of 155 head teachers and 155 grade three class teachers was selected through simple random sampling and purposive sampling techniques. Data was collected using questionnaires administered to grade three class teachers, and focus group discussions for the head teachers. A pilot study was conducted in Maara Sub-County in Tharaka-Nithi County. The reliability and validity of research instruments were ascertained; where the reliability of the data was ascertained by computing Cronbach's Alpha coefficients which stood at 0.725. The quantitative data were analyzed using SPSS to derive descriptive statistics. Qualitative data was analyzed thematically. The findings revealed shortage of textbooks, reference materials, and instructional materials for teaching indigenous languages. Additionally, learners struggle with existing orthographies, while teachers encounter difficulties in utilizing available materials in language skills development. A significant correlation between preparedness in instructional materials and mother tongue policy implementation were noted. Adequate native language textbooks and learning materials are essential and stakeholders need to pprioritize instructional materials for successful execution of mother tongue language policy in lower primary. The study recommends pprovision of adequate and relevant resources to support MTE policy implementation.

**Keywords:** *Instructional materials, Culturally relevant curriculum support, Mother tongue, Language policy implementation*

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## **1.0 Introduction**

There is an ongoing debate and tension surrounding language of instruction (LoI) across the globe, with advocates for mother tongue-based education citing discrepancies between language policies and practices (Piper & Miksic, 2011). Researchers, like Trujillo (2020) emphasize that academic performance improves when teaching is conducted in a language familiar to learners; which is ideally their first language (L1).

In countries like Sweden, children speaking languages other than Swedish have the right to first language classes. Cambodia, in collaboration with non-governmental organizations has initiated projects to deliver education in indigenous languages, including the development of orthographies and curriculum materials (Lartec et al., 2014). However, challenges such as a lack of instructional materials and translations still persist.

Many Sub-Saharan African countries adopted colonial languages for instruction, though some, like Ethiopia, have successfully implemented mother tongue instruction at lower primary levels (Mbah, 2012; Alemayehu, 2021). In Zambia and South Africa, insufficient teacher training hampers the implementation of mother tongue instruction, leading to code-switching practices (Magocha et al., 2019).

In Uganda, a language policy enacted in 1989 emphasizes mother tongue instruction in the first four years of education, while Kenya has a legal framework supporting mother tongue education, yet faces challenges in implementation due to teacher preparedness and resource availability (Chebet et al., 2018). Strategies such as teacher training, resource provision, and institutional support have been proposed to improve implementation of MTE policy (Specia et al., 2022).

## ***Statement of the Problem***

Kobia (2017) highlights the invaluable benefits of establishing instruction in the first language. This is reinforced by the Kenya Basic Education Curriculum Framework (BECF) of 2019, which introduced Indigenous languages as a subject in lower primary education. However, uncertainty persists regarding the readiness of teaching and learning resources to support implementation of this policy (Mandilla, 2017). Additionally, the Kenya Institute of Curriculum Development (KICD), which is responsible for developing instructional materials, is yet to incorporate mother tongue into the curriculum. This gap underlies the motivation to investigate preparedness in instructional materials for the implementation of the MTE policy in Meru County, Kenya.

## ***Purpose of the Study***

The study aimed to examine the preparedness in instructional materials for the implementation of the MTE policy in lower primary school education in Meru County, Kenya.

## ***Research Hypothesis***

H<sub>01</sub>: Preparedness in instructional materials does not significantly affect the implementation of the MTE policy in public lower primary school education in Meru County, Kenya.

## ***Theoretical Framework***

Instructional materials refer to physical and electronic resources that are used to instill knowledge and skills in learners during the learning and training process (Choppin et al., 2020). The study was anchored on Cognitive development theory expounded by Jean Piaget in 1936. The theory examines how people develop, acquire, and use knowledge throughout their time. The acquisition of knowledge is done through instructional

resources. Piaget asserts that children need an education that supports their cognitive growth by teaching logical procedures and concepts. This theory will be significant to this theory as it will help demonstrate the significance of implementing the vernacular policy in the early years of a learner.

Globally, trainers encounter challenges in the enforcement of MT based instruction in multilingual classrooms. In Philippines, Lartec et al. (2014) established that among the challenges faced by trainers is inadequate vocabulary, and inadequate books written in the vernacular. Regionally, Bukoye (2019) examined the connection between instructional materials and students' academic excellence in both the government owned schools as well as private schools. Findings indicated that learners in private schools established adequate access to training materials in schools as compared to government-owned schools. In Kenya, Ngasike (2019) conducted a study in Turkana and noted that children lost interest and were bored with going through materials in school that they did not identify with in any way.

## **2.0 Materials and Methods**

The study adopted a descriptive survey design and incorporated a mixed-methods research design. The target population for the study was 773 government primary schools in Meru County; and the unit of observation was 263,892 Grade 3 learners and 773 grade three class teachers. From the target population, 335 respondents were sampled. The sample size comprised 155 class teachers and 155 head teachers. The sampling techniques adopted in the study included simple random sampling technique and purposive sampling technique. The tools for data collection in the study included questionnaires and focused group discussions.

*“The paper found severe shortages of curriculum support, textbooks, references and instructional materials in the Kimeru language”*

Data was collected through questionnaires administered to grade three class teachers, and focus group discussions for the head teachers. A pilot study was conducted in the Maara Sub-County in Tharaka Nithi County. Content and construct validity for the data collection tools were ensured. Reliability was calculated using Cronbach's Alpha coefficient. The analysis of quantitative data was done through descriptive statistics and inferential statistical methods. The data collected from focused group discussions were analyzed using descriptive methods involving thematic content analysis.

## **3.0 Results and Discussion**

Out of the 155 questionnaires distributed to grade 3 teachers, 125 were deemed valid for data analysis, representing 81.2% response rate. Similarly, 150 out of the 155 head teachers scheduled for focused group discussions attended, resulting in an overall response rate of 81.8%. This response rate exceeded the recommended threshold of 60.6%, indicating a high level of engagement and cooperation from the participants.

### ***Reliability of the Data***

The reliability of the data was ascertained by computing Cronbach's Alpha coefficients. The Cronbach's alpha coefficient was 0.725. This meant that the data collected for instructional material preparedness was dependable and suitable for subsequent analysis.

**Demographic Characteristics of the Respondents**

The study sought the demographic characteristics of grade three teachers and the results were presented in Table 1.

**Table 1**

*Demographic characteristics of grade three teachers*

Characteristic	Frequency	Percent
<b>Gender</b>		
Male	28	13.3
Female	183	86.7
Total	211	100.0
<b>Age bracket</b>		
26 – 30 years	21	10.0
31 – 35 years	19	9.0
36 – 40 years	20	9.5
41 – 45 years	21	10.0
46 – 50 years	48	22.7
Above 50 years	82	38.9
<b>Highest academic level attained</b>		
Diploma	187	88.6
Bachelors	24	11.4
<b>Years one has been a teacher</b>		
Less than 5 years	5	2.4
5 – 10 years	54	25.6
11 – 15 years	36	17.1
16 – 20 years	31	14.7
Above 20 years	81	38.4

The study found that most grade 3 teachers in Meru County public schools were female, elderly, and held diploma qualifications. The majority had over 20 years teaching experience. Schools predominantly had students from one ethnic group, mostly Ameru. Kimeru was the main mother tongue, but was only sometimes used for teaching. This shows a moderately homogeneous teacher and student profile in terms of demographics and language. However,

mother tongue instruction was not fully adopted. More diversity training and policies may be needed to support multilingual classrooms. Overall, teachers had adequate qualifications, but greater utilization of the indigenous language could further engage students.

**Results on Implementation of the Mother Tongue Education Policy**

Information on the implementation of MTE policy in public lower primary school in Meru County was gathered from grade three

class teachers, head teachers, County Director of Education, MOE Curriculum Support Officer and Quality Assurance and Standards Officer. Their responses were presented in a tabular format, as shown in Table 2.

**Table 2**

*Descriptive results on implementation of the MTE policy*

Subjects taught in Kimeru Language	Rating					Med	Mod
	Never (0)	Rarely (1)	Sometimes (2)	Most of the time (3)	Always (4)		
Mathematics	16(7.6%)	48(22.7%)	114(54%)	33(15.6%)	0	2	2
English	37(17.5%)	101(47.9%)	59(28%)	14(6.6%)	0	1	1
Kiswahili	44(20.9%)	101(47.9%)	50(23.7%)	7(3.3%)	9(4.3%)	1	1
Science	16(7.6%)	27(12.8%)	123(58.3%)	41(19.4%)	4(1.9%)	2	2
Social studies	13(6.2%)	26(12.3%)	136(64.5%)	36(17.1%)	0	2	2
Christian religious studies	13(6.2%)	25(11.8%)	131(62.1%)	42(19.9%)	0	2	2

The study found that Mathematics is predominantly taught in Kimeru Language in Meru County public primary schools, with a majority of respondents (54.0%) reporting this practice, indicating a commitment to local language education corroborated by Umar (2018). However, English and Kiswahili instruction in Kimeru was infrequent, potentially impacting language proficiency (Simiyu & Lwangale, 2020; Mwanza, 2009). Science and social studies were occasionally taught in Kimeru, while using indigenous languages moderately affected syllabus completion (Darmody et al., 2014). Head teachers noted that code-switching between English, Kiswahili, and Kimeru to aid comprehension was common.

Measures for effective implementation of mother tongue education were identified, but they were relatively weak; including qualified teachers and refresher training, appropriate curriculum and materials for teachers and learners, community involvement, and using mother tongue as a medium of instruction. The absence of coordinated government guidelines, conflicting policies on teacher syllabus, and instructional materials hindered implementation. On the overall, while Kimeru was integrated into teaching, policies and resources supporting mother tongue instruction were insufficient.

***Instructional Materials and the Preparedness to Implement MTE Policy***

Instructional materials play a crucial role in the preparedness and successful implementation of mother tongue education policies. Data for this construct was obtained from grade three teachers and head teachers through statements to be rated on a Likert

scale. The construct was measured through several statements such as curriculum and syllabus provision, adequacy of textbooks, availability of reference materials, teacher access to instructional materials, and relevance of orthographies in mother tongue education. The results are presented in Table 3.

**Table 3**

*Instructional Materials Preparedness*

Statement on instructional materials	SD	D	MA	A	SA	Median	Mode
a) Kenya Institute of Curriculum Development has provided schools with Kimeru language curriculum and syllabus to guide teachers in lesson preparation	78(37%)	81(38.4%)	11(5.2%)	25(5.2%)	16(7.6%)	1	1
b) The Kimeru language course text books for teachers and learners are adequate	117(55.5%)	81(38.4%)	4(1.9%)	5(2.4%)	4(1.9%)	0	0
c) There are adequate reference materials for supporting teaching in Kimeru Language in our school	98(46.4%)	92(43.6%)	14(6.6%)	3(1.4%)	4(1.9%)	1	0
d) Teachers in our school have access to instructional materials in Kimeru Language at our school	99(46.9%)	98(46.4)	14(6.6%)	0	0	1	0
e) The orthographies in the Kimeru language instructional materials is relevant	88(41.7%)	95(45%)	8(3.8%)	18(8.5%)	2(9%)	1	1
f) Learners do not struggle with the orthographies in the Kimeru language instructional materials	73(34.6%)	53(25.1%)	59(28%)	24(11.4%)	2(9%)	1	0
g) I don't have difficulty teaching using the orthographies in the Kimeru language instructional material	56(26.5%)	43(20.4%)	40(19%)	57(27%)	15(7.1%)	2	3

The findings in Table 3 show that 78(37%) respondents strongly disagree (SD), 81(38.4%) disagree (A), with a median response of 1, indicating general dissatisfaction with the provided Kimeru language curriculum guidelines. In the statement that assessed the adequacy of

Kimeru language course textbooks, the findings show that 117(55.5%) respondents strongly disagree (SD), and 81(38.4%) disagree (A). On the same, 5(2.4%) strongly agree (SA), 4(1.9%) agree (A), and the median response is 0, suggesting that a minority view textbooks as sufficient. On the

availability of reference materials, 98(46.4%) respondents strongly disagree (SD), and 92(43.6%) disagree (A). Having limited access to reference materials not only affects the quality of education but also hinders the effectiveness of teachers in delivering the curriculum. A study that focused on language skills for preschool learners in Vihiga County reported similar results on the existence of difficulties for teachers to impact language skills on little pupils (Serede et al., 2021). Moreover, it was noted that the difficulties resulted from school environment which were poorly equipped with visuals, images, and information materials. The results indicate a significant disagreement with the availability and accessibility of instructional materials for the Kimeru language and inadequate reference materials. The median provide additional insights into the central tendency of the data. This indicates a need for

urgent attention to improve the provision of Kimeru language curriculum and instructional materials. In agreement, Trujillo (2020) also noted that a lack of translated learning materials, programmed training, reference materials, inadequate teaching resources, and audiovisuals in the teaching of native tongue, which was constraining MT learning to a great extent. These studies confirm that inadequate and outdated teaching resources are a key factor in the implementation of mother tongue language policy in Meru County, Kenya.

***Correlation Analysis***

A Spearman correlation was conducted to assess the hypothesized relationship between teacher preparedness and implementation of the mother tongue language policy. The correlation results are shown in Table 4.

**Table 4**

*Correlations between instructional resources preparedness and MTE policy*

		X1
Spearman's rho	X1	Correlation Coefficient
		Sig. (2-tailed)
		N
Y		Correlation Coefficient
		Sig. (2-tailed)
		N

The Spearman's rho correlation coefficient between X2 and Y was found to be 0.001. This suggests that the correlation between X2 and Y is statistically significant. The positive correlation between preparedness in instructional resources and the implementation of the mother tongue language policy suggests that as instructional resources preparedness increases, there is a

tendency for the implementation of the mother tongue language policy to also increase. However, the moderate correlation coefficient (0.221) indicates that the relationship is not extremely strong. Other factors not considered in this analysis may also influence the preparedness to implement mother tongue language policy. The results agree with some findings posited by Ngasike

(2019) who established a correlation between teaching and learning materials and learner retention.

#### **4.0 Conclusion**

The study found severe shortages of curriculum support, textbooks, references and instructional materials in the Kimeru language. The findings further show that learners struggled with existing orthographies, while teachers faced difficulties utilizing available Kimeru materials to build language skills, confirming an urgent need for instructional materials. These difficulties were attributed to failure by the Ministry of Education to supply vernacular curriculum books to schools as was the practice in the past. As a result, Kiswahili and English languages were prioritized over native languages, like Kimeru. Moreover, financial constraints hindered the possible purchase of necessary materials. Even where teachers have offered to prepare instructional materials, it was found that materials remained in manuscript form for lack of finances to develop them for school use. In the selection of teachers to participate in the preparation of Indigenous language course books, the Kenya Institute of

Curriculum Development picked representatives from Tharaka Nithi County, but Meru County was unrepresented. The findings indicate gaps in the preparedness of instructional materials, and is a systemic constraint in implementation. The results highlight the need for assessment and community collaboration in developing instructional materials to improve the situation. Furthermore, concrete policy changes, funding allocation, collaborative efforts, and teacher creativity are imperative in addressing this deficiency.

#### **5.0 Recommendations**

To successfully implement the mother tongue language policy, education authorities should ensure adequate native language textbooks and learning materials. Well-prepared teachers are key to unlocking the benefits of mother tongue education. In that connection, the Kenya Institute of Curriculum Development, the Ministry of Education, the Teachers Service Commission, and the policymakers should prioritize instructional preparedness in native languages to facilitate successful implementation of mother tongue language policy in lower primary schools

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