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Language of Instruction under the Competency-based Curriculum of Kenya: Policy, Practice and Performance

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Abstract:
In Kenya, the educational language policy stipulates that the language of instruction in lower primary Grade 1 to 3 in rural settings should be the learners' First Language or Mother Tongue. In urban settings, the language of the school's catchment area (usually English or Kiswahili) should be used as the language of instruction in Grade 1 to 3. Kiswahili and English are to be taught as subjects. English becomes the medium of instruction in all settings from Grade 4 onwards. This policy creates problems for teachers and learners considering that Kenya is linguistically heterogeneous. The purpose of this study was to establish the actual language practice in lower primary school Grade 1 to 3 in relation to declared policy and to evaluate its relationship with learners' academic achievement. The objectives of the study were to establish the actual status of educational language policy and language practice in lower primary schools; to assess the relationship between the language of instruction and English subject scores of learners at Grade 4; to assess the relationship between the language of instruction and Mathematics subject scores of learners at Grade 4. The study area was Kakamega County, which was selected based on being a county with a fair mix of urban, rural and semi-urban schools. The study adopted a correlational design. The study population comprised 1,120 primary schools and 10,767 Grade 4 learners. Multistage sampling was used to select a sample of 175 schools from the population. Questionnaires were administered to 75 teachers and mean scores of Grade 4 assessment results were obtained from 1,076 learners from the sampled schools as part of a different, larger study. The data were analysed using descriptive statistics. Inferential statistics were used to test the hypotheses. The findings of the study indicate that there is a gap between policy and practice in lower primary school. The study revealed that there is a strong correlation between the language of instruction at lower primary school and learners' academic achievement at Grade 4 in English and in Mathematics subjects. A policy shift is recommended to unify the language of instructions in the new CBC framework. This is imperative for equality of outcome in the learners' Grade 4 school-based assessment under the CBC.

Keywords: Language policy, language and learning, curriculum, competency-based curriculum

1. Introduction

The issue regarding which language should be used, when, and where, in the lives of people is often controversial. In the educational context, the selection of an appropriate language of education has historically been a complex matter in many countries. Governments have been known to shift back and forth between policies while trying to balance national goals of education while retaining global competitiveness. At the centre of the education system is the language policy in education which dictates the language used in disseminating knowledge at varying levels.

In Kenya, the educational language policy prescribes a multilingual approach to the language of instruction used in primary schools. The educational language policy stipulates that the language of instruction in lower primary Grade 1 to 3 in rural settings should be the learners' First Language or Mother Tongue. In urban settings, the language of the school's catchment area (usually English or Kiswahili) should be used as the language of instruction in Grade 1 to 3. Kiswahili and English are to be taught as subjects. English becomes the medium of instruction in all settings from Grade 4 onwards. This policy creates problems for teachers and learners considering that Kenya is linguistically heterogeneous(Mose, 2017). Little attention has been paid to the effects of the differential implementation of language policy in lower primary school

Grade 1 to 3 and whether this affects learners' academic achievement at Grade 4 level. This is more so in the recently instituted reforms on curriculum which have seen the introduction of the Competency-Based Curriculum (CBC). Under the CBC, learners are expected to undergo a national and standardized assessment at Grade 4, which is referred to as School-Based Assessment (SBA).Some learners commence education in lower primary with English as the language of instruction right from Grade 1.Others are beneficiaries of instruction carried out in Mother Tongue and Kiswahili through lower primary from Grade 1 to 3. At Grade 4, they are all expected to undergo the same national assessment, set in the English language.

Could one group be disadvantaged concerning learner-to-learner communication, instruction and academic achievement especially atGrade 4 level when the English language is the sole medium of instruction in all subjects? Do schools within a particular catchment area uniformly implement the educational language policy in lower primary school? What is the actual practice with regard to the language of instruction in lower primary schools? These questions need to be answered from a research-based viewpoint.

It is necessary to delineate the relationship between educational language policy and actual language practice in lower primary school. It is also necessary to establish the relationship between actual language practice in lower primary school and learners 'academic achievement at Grade 4 level, where the transition is made to English as the language of instruction.

2. Literature Review

2.1. Background of Kenya's Competency-Based Curriculum

Presently, Kenya is in the early stages of implementing a new curriculum referred to as the Competency-Based Curriculum (CBC). This system is an overhaul of the previous '8-4-4' curriculum. TheCBC comprises Pre-primary (2 years),Primary (6 years), Secondary (6 years) and University education (3 years).Implementation ofCBC started in the year 2017 with Early Years Education (EYE), which consists of Pre-Primary 1 and 2, and Grades 1, 2 and 3 and is gradually transitioning as these learners move up the grades.

Under the CBC, learners join Grade 1 and spend three years in this level at "Lower Primary", exiting at Grade 3. During those three years, they study various subjects covering Literacy, Kiswahili Language Activities/Kenya Sign Language for learners who are deaf, English Language Activities, Indigenous Language Activities, Mathematical Activities, Environmental Activities, Hygiene and Nutrition Activities, Religious Education Activities, Movement and Creative Activities.

The learners then move on to "Middle School Education" which entails three years of upper primary school and three years of lower secondary school. At this level, the subjects covered are English, Kiswahili or Kenya Sign Language, Home Science, Agriculture, Science and Technology, Mathematics, Religious Education, Creative Arts, Physical and Health Education, Social Studies.

If equality of education outcome is to be attained, then there has to be an equality of input. In the previous curriculum regime, primary school learners undertook one summative examination at the end of Class 8. They were all expected to have gained adequate competency in the subjects they were taught over the8 year-period. The CBC introduces a new school-based assessment at the end of Grade 4, which contributes to 20% of the overall score of the learner's primary education. All the learners are expected to have some level of required competency and skills at this stage.

The concept of competence has been discussed by various researchers. Ford (2014) narrows it down to "an intensive focus on what learners can do as opposed to what they are taught." The Kenya Institute of Curriculum Development (KICD) defines competency as "the ability to apply appropriate knowledge and skills to successfully perform a function." (KICD, 2017).

According to the KICD, (KICD, 2016) the seven core competencies to be achieved by every learner in basic education are Communication and Collaboration, Self-efficacy, Critical Thinking and Problem Solving, Creativity and Imagination, Citizenship, Digital Literacy and Learning to Learn. This is in an apparent departure from the previous system, which had on several occasions been blamed for being "examination-centred".

Under the CBC, assessment adopts a more formative approach with diagnostic measures to enhance and improve learning outcomes. It is argued that the previous curriculum regime focused on comparing learners with each other (Mackatiani, 2017) since the assessment was in reference to a normal distribution or a given mean score.

The tools for Competency-Based Assessment include observation schedules, checklists, rating scales, projects, orals, written tests and rubrics (KNEC, 2020). The learners' achievement, or competence, in this case, is reported in an Assessment Sheet which is a tool to record the learner's performance on each task. There are four performance levels, namely; Level 4 (Exceeding Expectation), Level 3 (Meeting Expectation), Level 2 (Approaching Expectation), and Level 1 (Below Expectation).

At Grade 4, a standard, national assessment is known as the School-Based Assessment (SBA) is carried out. In the School-Based Assessment, schools are expected to administer the assessment tools obtained from the National Examinations Council. They then score and upload the Grade 4 learners' assessment scores on the KNEC Competency-Based Assessment portal.

Coincidentally, the newly implemented CBC introduces a School-Based Assessment for all learners in Grade 4, at which stage some learners will have made a shift to a different language of instruction. All learners at Grade 4 are expected to have attained some certain level of competence in the nationally administered School-Based Assessment. The implication of this expectation has not been studied, and this is subsumed in the objectives of this study.

The availability of credible empirical data, therefore, is crucial as the government continues to implement education reforms at primary school levels. Particularly, this study provides key insights to guide policy direction as educationists continue with the implementation of the Competency-Based Curriculum (CBC).

2.2. Historical Perspectives of Kenya's Educational Language Policy

Educational language policy in Kenya has been characterized by ambivalence and uncertainty. The policy has been changed from time to time in response to the political and educational demands of the people which were always tied to

socio-economic expectations. Because of differences in objectives and personal attitude, there have been not fewer than 15 committees making language policy in Kenya.

During the colonial period, the language policy was mainly determined by missionaries and education officials. The first committee, the United Missionary conference of 1901, suggested that the mother tongue be used in village schools in the first three years and Kiswahili in classes four and five. Missionaries preferred mother tongue and were prepared to accommodate Kiswahili because they saw it as a primary duty to provide translations of parts of the Bible and to equip children in schools to read the Bible in their own languages. The missionaries adhered to the British policy of adaptation and believed that Africans would only be converted to Christianity by Africans themselves. Missionaries emphasized mother tongue because of four reasons. First, they subscribed to the principle that the language best known and understood by the child on his entry to school is the most effective medium of instruction during initial education. Second, it was argued that through the use of mother tongue then 'whatever is good in native customs, ideas and ideals would be preserved'. Third, the use of a lingua–franca was suited to reach the innermost thoughts of those to be converted to Christianity. Fourth, Kiswahili was associated with the "spirit of Islamisation" because of its Arabic and coastal origins.

Soon, there developed a conflict between missionaries and administration officials. While missionaries advocated for mother tongue instruction because through it, they would easily impart religious ideas to the native people, the colonial administration officials wished to nurture through education, a cadre of local people who would help administer the colony as clerks and as skilled workers. Government officials, settlers and traders, therefore, urged the teaching of a language of wider communication – English. In 1929 an important conference on the aims of education was held in Dar-es-Salaam. Thereafter the Legislative Assembly discussed the Dar-es-Salaam recommendations. As a result of the deliberations, the Department of Education issued instructions to the effect that:

- The mother tongue will be used for the first four years of school life.
- Kiswahili will be introduced as a subject during the first four years.
- English may be taught in those classes where there are competent teachers.
- After the first four years, Kiswahili would become the medium of instruction.
- In those schools that English has been taught, English may be used as the medium of instruction.
- After the completion of six years of study, English will be introduced as soon as possible.

Following these instructions, a revised primary school syllabus came into force in 1935. However, the situation did not remain stable for long. By 1937, the Commission for Higher Education was already pushing for the complete use of English as a medium of instruction – because, in their view, the local people would themselves push for the earlier introduction of English.

The anticipated demands were soon manifested in the independent school's movement. Africans, starting around 1925, began to set up their own schools to teach an education similar to the one taught to European children in English. The independent schools aside, the period from 1945 to 1963 saw Kiswahili gradually replaced by Mother Tongue and English within the colonial education system. The African Education Commission Report of 1949 made the following recommendations:

- That Africans be taught in their respective mother-tongues in lower primary schools.
- That English was to be the medium of instruction from std. IV onwards.

The policy of replacing Kiswahili as a medium of instruction became difficult to implement in many areas basically because of the lack of suitable school texts in the various mother-tongues and the lack of qualified teachers to teach English. A pre-condition for using English as the medium of instruction at the time was that there had to be sufficiently trained teachers and that syllabi and schemes of work had to be submitted to the Education Department for approval. Despite the challenges posed by the shortage of personnel, English became, in 1953, the compulsory medium in the examination held at the end of standard eight. Kiswahili, no longer a medium of examination, was used less widely as a medium of instruction in lower classes in areas where it was not itself a mother tongue.

Then in 1957 began an experiment that was to have far-reaching consequences on the medium of instruction in Kenya. It was occasioned by a need to investigate problems arising from the changeover from mother tongue instruction to English for Asian children. The project was also charged with the task of finding solutions to problems caused by multilingualism in Asian schools. In the project, 25 teachers began instruction of children in English from standard one. This was against the prevailing educational belief that early education should be provided through the language children knew. Interestingly, the phrasing of the 'language the children know' is on the assumption that a child's first language is necessarily the same as the first language of their parent. This may not always be the case. The result of the experiment greatly impressed the project organizers. (Gorman, 1971)

In their report titled Report on Asian and European education in Kenya, 1958, the project organizers put forward several arguments in support of the use of English as a medium of instruction. Three of these were that:

- The incentive to learn English becomes greater when English is the only medium.
- The general progress in the higher classes where English is a must is most likely to be faster.
- The younger the child, the less conscious is the effort required to learn a foreign language and the less the change demanded in his pattern of thought when he has to replace one language with another.

Gachukia(1969)saw yet another advantage of the English medium: the use of English brought with it more adequate texts and materials for both teacher and pupils and, increased supervision. Immediately after independence, a committee was appointed to review the education system. The Kenya Education Commission Report of 1964 recommended the use of English as a medium of instruction from standard one citing the following reasons:

- The English medium makes possible a systematic development of language study and literacy which would be very difficult in mother tongues.
- As a result of systematic development possible in the English medium, quicker progress is possible in all subjects.
- The foundation laid in the first three years is more scientifically conceived and therefore provides a more solid basis for all subsequent studies than was ever possible in the vernaculars.
- The difficult transition from mother tongue to English medium which can take up much time in primary four is avoided.
- The resulting linguistic equipment is expected to be much more satisfactory, an advantage that cannot fail to expedite and improve the quality of post-primary education of all kinds.
- Advantage has been taken of the new medium to introduce modern infant techniques into the first three classes, including activity and group work and balanced development of muscular coordination.

The Commission's recommendations reflected the mood of the time. Kenyans wished to receive education in the form they thought had been denied to them during the colonial period. English was progressively introduced in schools becoming the medium of instruction in 1,920 schools by 1965.

English was used as a medium of instruction until 1976 when the National Committee on Educational Objectives and Policies recommended a reversal to mother tongue during the first three years of school, Kiswahili and English to be taught as subjects, and English taking over as the medium of instruction from Grade 4 (then known as Standard 4). Although this policy recognized the role of Mother Tongue in education, its practicality was wanting considering that teachers who were expected to implement the policy came from diverse linguistic backgrounds.

The policy remains to date, even after the implementation of a new curriculum which now has a crucial School-Based Assessment at Grade 4. All learners in Grade 4 are expected to undergo an examination conducted in English. Their performance is critical in them moving on to the upper grades. Yet, not all of these learners were instructed in the same language of instruction in lower primary as some learners will have made a shift to a different language of instruction. As such, it was necessary to investigate factors surrounding the educational language policy and language practice and to find out the extent to which these affected the academic achievement of lower primary school learners at Grade 4 level.

2.3. Effects of Language of Instruction on Learning and Academic Achievement

It is widely accepted that language is important for learning, and researches show the effects of teachers' diverse language practices on learning. However, very little attention has been paid to the effects of the differential implementation of language policy in lower primary school Grade 1 to 3 and whether this affects learners' academic achievement at Grade 4 level. One study demonstrates a significant difference in English and general academic performance among learners who had initial instruction in mother tongue and eventual learning of other subjects in English. The study argues that whilst it is generally agreed that a child's first language is an effective tool for early learning, it becomes an impediment in learning English and therefore an impediment in performance in English in the latter stages of learning.

According to Muthwii (2002) many speech communities are linguistically heterogeneous, so they mainly choose English as the language of instruction in lower primary school. Since English is the language of education higher up the education ladder, those that choose English as the language of instruction from primary Grade 1 have presumably a head start over those that use Mother Tongue or Kiswahili. In most Ugandan rural schools, for instance, pupils preferred mother tongue to learn difficult words but the urban pupils found it unnecessary since their indigenous languages do not qualify as their first language. Past studies have attempted to find out the extent to which language policy and language practices encourage or hamper the acquisition of desirable learning competencies, with varying results.

Several African countries in the Southern parts of Africa like Malawi and South Africa have embraced learning in African languages, from the standpoint that it improves educational outcomes. There is a kaleidoscope of African languages such as Amharic, Swahili, Chichewa, Xhosa, Ndebele, Zulu and Venda which are overlain by 'international' languages that were introduced during colonial times (UNICEF, 2016). The argument is that the use of the child's home language has a positive link with learning outcomes. The study concludes that the use of mother tongue in classroom instruction improves the cognitive process.

This position is countered by another study(Obanya, 1999)which examined the widely held views of factors that impede the promotion of African languages as media of instruction in classrooms. In his paper, he postulates that research and analysis of examination results indicate poor performance of students in English.

The opinion on which language to use for instruction remains divided. What is not in contest is the effect that language has on learning outcomes. In Kenya, this effect is compounded by the differential implementation of the language policy. Further, the learners at Grade 4 are expected to all acquire the same competencies, yet they undertook to learn in Grade 1 to 3 in different languages. While some were taught in English, others were taught in Mother Tongue and others in Kiswahili or a mix of these. The School-Based Assessment is undertaken in the English language across the board.

This study attempted to look at performance after being exposed to one of the languages of instruction: English or mother tongue or Kiswahili. As such, there is a distinction between the focus of these two studies.

3. Objectives of the Study

The study addressed the following objectives:

- To establish the actual status of educational language policy and language practice in lower primary schools;
- To assess the relationship between the language of instruction and English subject scores of learners at Grade 4;

- • To assess the relationship between the language of instruction and Mathematics subject scores of learners at Grade 4.

4. Research Hypotheses
- • HO1:   There is no significant difference between the language(s) used for instruction in lower primary school Grade 1 – 3 and the language(s) prescribed in the language policy;
- • HO2:   There is no significant relationship between the language of instruction in Grade 1 to 3 and the academic achievement of learners *in English* at Grade 4;
- • HO3:   There is no significant relationship between the language of instruction in Grade 1 to 3 and the academic achievement of learners *in Mathematics* at Grade 4.

5. Methodology

5.1. Research Design

This study adopted a correlational survey design into educational language policy and practice and their relationship to learners' academic achievement in lower primary school. Correlational survey design is a type of research that involves investigating one or more characteristics of a given group to discover the extent to which the characteristics vary together (Walliman, 2010). This enables the researcher to establish a statistically corresponding relationship between two or more variables.

This study sought to determine the relationship between the educational language policy and practice and learners' academic achievement in Grade 4 assessment in lower primary schools in Kakamega County. The premise of the study as stated in the objectives is that the language of instruction may affect learners' academic achievement. As such, a correlational research design was found to be appropriate for the study.

To achieve the objectives and to test the hypothesis, quantitative and qualitative methods were used. Quantitative research is a study done by measuring quantities and assigning numerical values to them (Vogt, Gardner, & Haeffele, 2012). Quantitative data is obtained when a dependent variable is measured against a scale that shows "the amount" of that variable. The collected data is reported in form of scores, where higher scores indicate that the variable is present whereas lower scores indicate less of that variable.

On the other hand, qualitative research entails collecting and analysing non-numerical data to infer concepts and opinions. It is useful for the generation of in-depth insights into a research question. Qualitative research is common in education and social sciences (Vogt, Gardner, & Haeffele, 2012).

The mixed methodology approach was found suitable as it was important to combine the quantitative data obtained from assessment results, while data obtained from questionnaires that focused on the qualitative aspect.

5.2. Study Population

The location of the study was Kakamega County in Western Kenya.

Kakamega County has a population of 1,867,579 making it the third most populous County in Kenya, after Nairobi and Kiambu Counties (KNBS, 2019). Kakamega County has 13 sub-counties, among which are Navakholo and Kakamega Central Sub-Counties. Sub-Counties (formerly called districts) are the administrative regions of the counties, under which administrative functions such as education fall.

The study area was selected as a suitable location for the reasons that it comprises urban and rural settlements whose demographics are mixed linguistic groups. These provided a variety of language backgrounds and possible language practices. Learning facilities in Kakamega County of Kenya are well established and they serve a fairly large population. According to data obtained from the 2019 Kenya Population and Housing Census Results, Kakamega County had 555,021 persons aged 3 years and above that are enrolled in primary schools. This number is followed second by Bungoma County, which had 500,157 learners in primary schools at the time of the 2019 census (MoE, 2019).

Kakamega County has a good mix of urban and rural learning institutions giving a variety of potential languages used as a medium of instruction, a factor which is subsumed in the broader focus of this study.

Based on the general population size, the number of learners in primary school and the mix of urban and rural setups in Kakamega County, the region qualified as a suitable study area whose results could statistically be representative of the rest of Kenya. Table 1 below is extracted from data obtained from the County Government of Kakamega, and it shows the number of learning institutions in Kakamega County. Of relevance is the number of primary schools in the County.

Category	Public	Private	Total
Number of Schools	908	212	1120
Total Enrolment	519,857	35,164	555,021
No. of Teachers	10,664	1,825	12,489

Table 1: Primary Schools in Kakamega County 2019
Source: Ministry of Education, 2019

The study sample was drawn from the 1,120 schools within Kakamega County, from which the target sample area of Kakamega Central Sub-County and Navakholo Sub-County was drawn. In total, Kakamega Central Sub-County has 65

public and 28 private primary schools. Navakholo Sub-County has 65 public and 17 private primary schools. These made the overall population of 175 primary schools (County Government of Kakamega, 2020).

5.3. Sampling procedure and Selection Strategy

The key subjects in this study were headteachers, teachers and pupils from selected schools within Kakamega Central Sub-County and Navakholo Sub-County, which were purposively selected from the 13 sub-counties in the County. Overall, the population comprised 175 primary schools which had 10767 learners and 741 teachers. Guided by Mugenda and Mugenda(2003), the researcher established that 10% of a study population is adequate for a sample. It has also been argued that the sample size should be guided by the availability of respondents and the cost implications (Hancock, Mueller, & Stapleton, 2010). Therefore, the researcher adopted a random sample size of 1075 learners within the strata, which meets the criteria established by Mugenda and Mugenda.

For the schools' samples, stratified sampling was used. Each school was assigned to one of the categories rural, urban or suburban schools. According to the Urban Areas and Cities Act, 2011, an "urban area" means a municipality or a town. For this research, an urban area was considered as an area located within a town, which is characterized by human-created structures. The density of these structures and populations is higher relative to other areas around them.

The Kenya National Bureau of Statistics delineates urban centres in terms of population and built-up structures. KNBS has listed several areas of Kakamega County as "urban areas". Rural areas, on the other hand, are large and isolated areas of an open country with low population density. Semi-urban schools were considered to be schools that are located within proximity of town, but not in town.

The advantage of sampling each sub-group into homogeneous strata is that the bias or error in the sampling technique is minimized. The sample size for learners was then proportionally designated based on the percentage composition of the strata. The Grade 4 scores of 1075 learners were obtained. These consisted of 258 learners from urban schools, 430 from rural schools, and 387 from semi-urban schools. For the teachers polled, the sample size (n = 75) was equal to the 10% population (N = 741). Of these, 11 were teachers in urban schools, 35 were teachers in rural schools and 29 were in semi-urban schools.
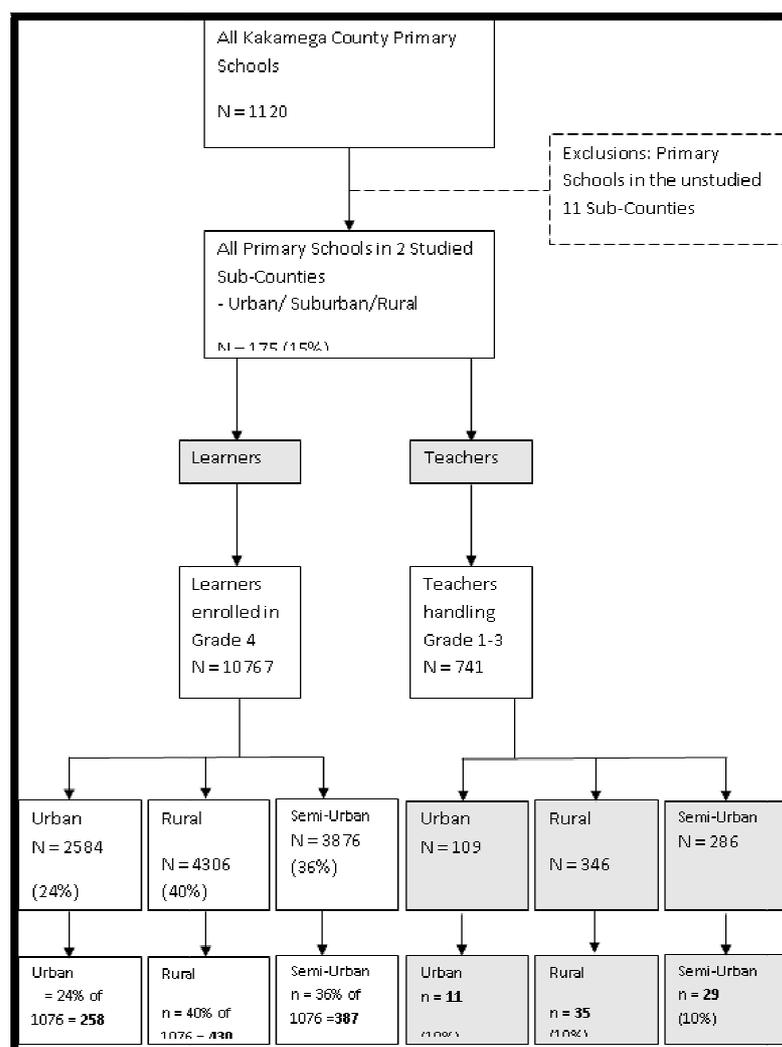

Figure 1: Sampling Strategy

5.4. Research Instruments and Data Sources

The researcher developed three (3) research instruments to collect the quantitative and qualitative data used in the research. These comprised:

- Questionnaire for Grade 1-3 teachers
- Results analysis template for Mathematics Assessment
- Results analysis template for English Assessment

Further to the above, Headteachers were orally interviewed to obtain information on supervisions structure, administrative structures and assessment structures unique to the school.

The Grade 4 SBA data were obtained from the headteachers of the respective schools, with all due ethical considerations. The data from the questionnaires were coded and analysed statistically.

5.5. Data Analysis Techniques

Data computation was done using the software known as MS Excel for Windows on a personal computer and analysed on the software called IBM SPSS Statistics(IBM Corp. Released 2019. IBM SPSS Statistics for Windows, Version 26.0).

To test the first null hypothesis which states that there is no significant difference between the language(s) used for instruction in lower primary school Grade 1 – 3 and the language(s) prescribed in the language policy, the chi-square test for independence was performed.

To test the second and third hypotheses, which addressed the relationship between the language of instruction in Grade 1 to 3 and the academic achievement of learners at Grade 4 in mathematics and English subjects, the Spearman rank-order correlation coefficient was used.

6. Results and Findings

6.1. Educational Language Policy and Language Practice

The first hypothesis was:

- Ho1:   There is no significant difference between the language(s) used for instruction in lower primary school Grade 1 – 3 and the language(s) prescribed in the language policy.

To address this hypothesis, data from the questionnaire were evaluated and manipulated to form a contingency table.

One of the questions posed in the questionnaire sought to identify the typology of the school, in the opinion of the teachers, from among the categories of urban, rural and semi-urban. The response received in this question enabled the researcher to categorize the responses into three broad categories of urban schools, rural schools and semi-urban schools. This was in relation to the language policy, which prescribes the language of instruction as English in urban settings, Kiswahili or English in Semi-Urban settings, and the Mother Tongue of the catchment area in rural settings. The other sought to establish the language these teachers used for classroom instruction, and the teachers were given four options to select from English, Kiswahili, Mother Tongue or a mix of these.

The results are presented in Table 2.

Category of School	Frequency	Percentage
Urban	12	16.22%
Semi-Urban	28	37.84%
Rural	34	45.95%

Table 2: Typology of the Schools

From the data, 12 (16.22%) of the teachers categorized their schools as urban. 34 (45.95%) categorized their school as rural and the remaining 28 (37.84%) categorized their school as semi-urban.

These percentages are consistent with the categorization during sampling, where the objective was to obtain a representative sample of the respondents for the three categories that have a bearing on the language of instruction, which in turn has been identified as the independent variable.

The educational language policy is linked to the category of the school whether urban, rural or suburban. It is therefore important in the context of this study to delineate the category of the school at first instance. The 74 respondent teachers were surveyed and each was asked to report the language they used for instruction. The language of instruction was cross-tabulated against the category of school. This data was recorded in a contingency table of 4r × 3c. The data that resulted from the survey are summarized in Table 6.2:

	Urban	Rural	Semi-urban	TOTAL
Kiswahili	4	18	14	36
English	7	1	2	10
Mother Tongue	0	3	1	4
Mix	1	12	11	24
Total	12	34	28	74

Table 3: Contingency Table for Hypothesis 1

Using this table, a chi-square test of independence was performed to examine the relation between language practice and the prescribed language as per the policy. The relation between these variables was significant, χ2 (6, N = 74) = 26.407, p< .001.

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	26.407	6	0.001
Likelihood Ratio	21.302	6	0.002
N of Valid Cases	74		

Table 4: Chi-Square Test for Hypothesis 1

At a significance level of 0.05, we can infer that the relationship between the variables is statistically significant. The null hypothesis is therefore rejected. There is a significant difference between the language practised and the prescribed policy as per the category of school.

6.2. Language of Instruction and Learners' Performance in English Subject
The second hypothesis was framed thus:
- HO2:   There is no significant relationship between the language of instruction in Grade 1 to 3 and the academic achievement of learners *in English* at Grade 4.

To test this hypothesis, Spearman's correlation coefficient was used. The languages of instruction were assigned dummy variables with 1 = English; 2 = Kiswahili and 3 = Mother Tongue. The relationship between the language of instruction and learners score in Maths and learners Scores in English were the variables under investigation.

Correlations				
			Language of Instruction	Learner Score In English
Spearman's rho	Language Of Instruction	Correlation Coefficient	1.000	-.393[**]
		Sig. (2-tailed)		0.000
		N	1075	1075
	Learner Score In English	Correlation Coefficient	-.393[**]	1.000
		Sig. (2-tailed)	0.000	
		N	1075	1075
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 5: Correlations between English Score and Language of Instruction

The Spearman's Correlation test indicated a strong, negative correlation between the language of instruction and academic achievement in English, which was significant (R_s = -.393, p = .000).

The interpretation of the negative correlation is that when learners are taught in languages '2' and '3', being Kiswahili and Mother tongue on the dummy variables scale, their mean score in Grade 4 English SBA decreases. We, therefore, reject the null hypothesis. The results of the statistical test indicate that it is highly likely there is a significant relationship between the language of instruction in Grade 1 to 3 and the academic achievement of learners in English subject, at Grade 4.

6.3. Language of Instruction and Learners' Performance in Mathematics Subject
The third hypothesis was framed thus:
- HO3:   There is no significant relationship between the language of instruction in Grade 1 to 3 and the academic achievement of learners *in Mathematics* at Grade 4.

To test this hypothesis, Spearman's correlation coefficient was used. The languages of instruction were assigned dummy variables with 1 = English; 2 = Kiswahili and 3 = Mother Tongue. The relationship between the language of instruction and learners score in Maths were the variables under investigation.

Correlations			Language Of Instruction	Learner Score in Math
Spearman's rho	Language Of Instruction	Correlation Coefficient	1.000	-.659**
		Sig. (2-tailed)		0.000
		N	1075	1075
	Learner Score in Math	Correlation Coefficient	-.659**	1.000
		Sig. (2-tailed)	0.000	
		N	1075	1075
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 6: Correlations between Mathematics Score and Language of Instruction

The Spearman's Correlation test indicated a strong, negative correlation between the language of instruction and academic achievement in mathematics, which was significant (R_s = -.659, p = .000).We, therefore, reject the null hypothesis. The results of the statistical test indicate that it is highly likely there is a significant relationship between the language of instruction in Grade 1 to 3 and the academic achievement of learners in Mathematics, at Grade 4.

7. Discussion

7.1. The Actual Status of Educational Language Policy and Language Practice in Lower Primary Schools

The results revealed that the difference between the language of instruction and typology of school was significant, $\chi2$ (6, N = 74) = 26.407, p< .001.

This implies that the teachers do not in all cases practice the language of instruction as prescribed in the policy. The research thus revealed that there is a gap between language policy and language practice in schools. There is a notable difference in the language of instruction and the actual language practice in schools. The results were concomitant with those of previous studies (Gacheche, 2010) which observed that there are challenges in implementing the language of education policy in Kenya. Where schools are required to teach in Mother Tongue from Grade 1 to 3, the findings indicate that teachers use languages of their choice, for their convenience and that of learners.

7.2. Language of Instruction and English Subject Scores of Learners at Grade 4

Spearman's Correlation test indicated a strong, negative correlation(R_s = -.393, p = .000). between the language of instruction and academic achievement in mathematics.

This implies that the teachers who chose to teach in one language over another, the learner outcomes of the students in that subject are impacted. The interpretation of the negative correlation is that when learners are taught in languages '2' and '3', being Kiswahili and Mother tongue on the dummy variables scale, their mean score in Grade 4 English SBA decreases.

As such, learners who studied in English are at an advantage over their peers who studied in other languages from Grade 1 to 3, when they encounter school-based assessment at Grade 4. There is a significant difference in the mean scores of learners who were taught in English in Grade 1 to 3 and those who were taught in other languages. It is the supposition of the researcher that the learners who were taught in English in lower primary advance to Grade 4 with sufficient grasp of concepts in the language. Those who have been taught in other languages will first have to decode the concepts as delivered to them in the language of instruction or assessment, before proceeding to gain competence in the specific subject. Having learnt English as a subject in the earlier years, the students who learnt it in English are at an academic advantage over those who are encountering concepts, ideas and codes it for the first time.

7.3. Language of Instruction and Mathematics Subject Scores of Learners at Grade 4

Spearman's Correlation test indicated a strong, negative correlation(R_s = -.659, p = .000). between the language of instruction and academic achievement in mathematics. Notably, the level of co-relation is higher in Mathematics than in English.

This implies that the teachers who chose to teach in one language over another, the learner outcomes of the students in that subject are impacted. The interpretation of the negative correlation is that when learners are taught in languages '2' and '3', being Kiswahili andMother tongue on the dummy variables scale, their mean score in Grade 4 Mathematics SBA decreases. As such, learners who studied in English are at an advantage over their peers who studied in other languages from Grade 1 to 3, when they encounter school-based assessment at Grade 4.

This observation is sensible and in agreement with the findings of (CoE, 2012). Language is critical in imparting mathematical knowledge. Language is useful in the formation of concepts and understanding ideas. Learners need a certain level of competence to remember, understand, apply, analyse and evaluate the subject matter they are learning. Competence in English by the time the learner reaches Grade 4 evidently affects achievement in Mathematics, since the instruction is done in English from Grade 4 onwards. In addition, national assessments in all subjects apart from Kiswahili, are done in English language. For example, one question selected from the mathematics 2020 Grade 4 School Based Assessment reads:

"A trader had 234 pieces of clothes. On a certain day he sold 198 pieces of the clothes. Round off each number to the nearest 10 and then subtract to estimate the number of clothes that remained?"

This question requires the learner to carry out the operations of rounding off and subtraction, which are basic numeracy skills. However, the learner will definitely have to decode the context of the question, which has been framed in English. This calls for a learner to have a certain level of command of English for them to have the required level of cognitive development to tackle this question. The learner should have built the vocabulary to the level of knowing and applying the meaning of 'certain day' and 'estimate'. The learner should also have the linguistic capacity to know the technical meanings of 'round off' and 'subtract' to correctly answer this question. This would be difficult for a Grade 4 learner whose earlier years were spent learning these concepts in a different language.

8. Conclusions and Recommendations

8.1. Conclusions

Educational language policy in Kenya stipulates the languages that teachers should use for language of instruction from Grade 1 to 3. There is differential implementation across different schools, and this affects learning outcomes in the nationally conducted, standardized assessment at Grade 4. A number of teachers and school managers do not implement the language policy as prescribed. The study adduced evidence to this effect. Majority of the teachers find it efficient to use different languages from those prescribed by the language policy. This could be for a variety of reasons. For instance, there may exist language differences between learner and teacher. It could also be due to language preference of the teacher or the need to employ different languages to effectively deliver content. These findings are consistent with the ideas in the study by Nabea(2009), which examined the language policy in Kenya from the colonial era to date.

It is also established that there is a difference in the academic performance between learners who studied in English from Grade 1 to 3 and learners who studied in Mother Tongue or Kiswahili. This difference exists in both the English subject and the Kiswahili subject. If equality is to be achieved, then the language of instruction ought to be the same across the board. There needs to be a balance between the national goals of education and the more specific individual goals of education, where learner outcomes are supreme.

8.2. Recommendations

Based on the findings and conclusions, the following recommendations are made:

- The Ministry of Education through the Kenya Institute of Curriculum Development should formulate and enforce a policy that ensures equity for learners who come from diverse ethnic and linguistic backgrounds. The policy should entail the use of a uniform language of instruction and assessment from lower primary onwards to upper primary levels and beyond.
- It is critical that learners are taught to acquire adequate vocabulary for competence in communication in English from an early age. Whilst there is a need to preserve the heritage of local languages, when it comes to learning the ability to interact globally is the foundation of social and economic development. This interaction is best done through a language that is widely spoken, such as English.
- It is critical that learners are taught to acquire adequate vocabulary for competence in numeracy. Mathematical activities at the lower primary level enable the learners to engage in cognitive analysis of problems and to process their logical and problem-solving capacity. The significance of language in this learning process must be underscored. The learners' acquisition of basic numeracy skills in the early years should be imparted in the language they are likely to use in their future, which is English.

8.3. Areas for Further Study

This study has revealed the need to study further the link between language of instruction and Grade 4 SBA assessment. A different research design, for example longitudinal research may be adopted.

9. Acronyms and Abbreviations
UNICEF   = United Nations Children's Fund
SBA   = School-Based Assessment
CBC   = Competency-Based Curriculum
KNEC   = Kenya National Examinations Council
KICD   = Kenya Institute of Curriculum Development
KNBS   = Kenya National Bureau of Statistics.

10. References
i. CoE. (2012). Items for a description of linguistic competence in the language of schooling necessary for learning/teaching mathematics. Strasbourg: Council of Europe.
ii. County Government of Kakamega. (2020). List of Primary Schools in Kakamega County. Kakamega: County Government of Kakamega.
iii. Creswell, J. W., & Creswell, D. J. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Thousand Oaks, California: Sage.

iv. Ford, K. (2014). Competency-Based Education: History, Opportunities, and Challenges. University of Maryland: UMUC Center for Innovation In Learning and Student Success.

v. Gacheche, K. (2010). Challenges in implementing a mother tongue-based language-in-education policy: Policy and practice in Kenya. POLIS J.

vi. Gachukia, E. (1969). The teaching of vernacular languages in Kenyan Primary Schools.

vii. Gorman, T. (1971). Language in Education. Oxford University Press.

viii. Hancock, G. R., Mueller, R. O., & Stapleton, L. M. (2010). The Reviewer's Guide to Quantitative Methods in the Social Sciences. New York : Routledge.

ix. KICD. (2016). Report on Needs Assessment for ECDE School Curriculum Reform in Kenya. Nairobi: Kenya Institute of Curriculum Development.

x. KICD. (2017). Basic Education Curriculum Framework. Nairobi: Kenya Institute of Curriculum Development.

xi. KNBS. (2019). Kenya National Census. Nairobi: Kenya National Bureau of Statistics.

xii. KNEC. (2020). Competency Based Assessment Framework for Early Years Education (EYE) in Kenya. Kenya: Kenya National Examinations Council.

xiii. Mackatiani, C. I. (2017). Influence of Examinations Oriented Approaches on Quality Education in Primary Schools in Kenya. Journal of Education and Practice, 51-58.

xiv. MoE. (2019). Basic Education Statistical Booklet. Nairobi: Ministry of Education .

xv. Mose, P. N. (2017). Language-in-Education Policy in Kenya: Intention, Interpretation, Implementation. Nordic Journal of African Studies, 26(3), 215-230.

xvi. Mugenda, O., &Mugenda, A. (2003). Research Methods, Quantitative and Qualitative Approaches. Nairobi: ACT Press.

xvii. Muthwii, M. (2002). Language Policy and Practices in Education in Kenya and Uganda. Nairobi: Phoenix Publishers.

xviii. Nabea, W. (2009). Language Policy in Kenya: Negotiation with Hegemony. The Journal of Pan African Studies, 121-139.

xix. Obanya, P. (1999). Popular fallacies on the use of African languages in education. A Journal of African Studies , 81-100.

xx. UNICEF. (2016). The impact of language policy and practice on children's learning: Evidence from Eastern and Southern Africa. Nairobi: UNICEF.

xxi. Vogt, W. P., Gardner, D. C., &Haeffele, L. M. (2012). When to Use What Research Design. New York: Guilford.

xxii. Walliman, N. (2010). Research Methods: The Basics (2nd ed.). Routledge.