

## EGRA Teachers' Capacity-Building Interventions on Reading Abilities of Early Grade Learners in Public Primary Schools in Kiambu County, Kenya

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### ABSTRACT

*Early Grade Reading activities is an initiative implemented in Kenya with the aim of improving reading among learners in grades one to three. This programme encompasses various interventions. This study sought to investigate the influence of the Early Grade Reading Activities (EGRA) teachers' capacity-building interventions on the reading abilities of learners in public primary schools in Kiambu County. The specific objective of the study was to examine the influence of teachers' capacity-building interventions on reading abilities of early grade learners in public primary schools in Kiambu County. The study utilized the descriptive survey research design. The study was guided by the Vygotsky's Socio-cultural Cognitive Development Theory. The target population was 26,156 individuals from the 576 public primary schools in Kiambu county. This population comprised 1,408 grade one to three teachers and 24,748 grade 3 learners in the public primary schools in Kiambu County. A sample of 1066 individuals comprising of 57 lower grade teachers and 1009 grade 3 learners were selected using the cluster sampling technique. Teacher's Questionnaire were used to collect data from the teachers while an achievement test was used to collect data from learners. Data were analysed using frequencies, percentages, means, and standard deviation while the linear regression method was used to test the relationships between variables. Results showed that teachers' capacity building ( $\beta = 0.474$ ,  $t = 4.055$ ,  $p < .001$ ) had a positive and statistically significant influence on learners reading abilities. The study concludes that interventions that seek to build teacher capacity are effective in improving early grade reading abilities. This information could be of great significance in designing future programmes that reflect good practices and implementation. The study recommends that the Ministry of Education should sustain EGRA teachers' capacity building approaches at the end of the EGRA programme.*

**Keywords:** Capacity-Building, Early Grade, Kenya, Kiambu, Learners, Reading, Teachers

### I. INTRODUCTION

Reading skill form the basis of all learning as it is a crucial achievement in lifelong learning since it is a tool that cuts across the school curriculum (Tomas et al., 2021). The reading skills particularly of learners in the early grades play a critical role in their academic performance and ability to meet educational benchmarks. However, many learners in the early grades struggle with reading, which can have a range of negative implications for their educational and broader future prospects. The United Nations Educational, Scientific and Cultural Organization (UNESCO, 2016) reported that 250 million children globally are not learning basic literacy skills of which 57 million are from disadvantaged backgrounds. The school readiness among learners under seven years remain low and desperate (Uwezo, 2015).

In most African countries, the majority of children are not reading at grade level by the end of primary school (Phala & Hugo, 2022). One of the main challenges in Africa is low levels of literacy and insufficient reading instruction, which contribute to poor reading outcomes (Dagada, 2022). In addition, many children in Africa speak languages other than the official language of instruction, which puts them at a disadvantage in learning to read (Akkari, 2022). Generally, early grade learners in Africa struggle with basic reading skills such as letter recognition, phonics, vocabulary, and comprehension (Phala & Hugo, 2022). Many learners struggle with interpreting and making meaning from what they read, which is critical for effective learning across all subjects. Most learners show difficulty reading fluently, which results in slow and laboured reading with little understanding of the text. The reading abilities of early grade learners in Africa are a cause for concern, and the need to address this issue is critical (Dagada, 2022).

The situation in Kenya has not been very different from that of other African countries. The majority of learners in Kenya are still not reading at grade level by the end of primary school (Mandillah, 2019). Learners face language barriers as they are required to learn in English, the official language of instruction, while many learners speak local languages and only learn English in school. This makes it difficult for learners to comprehend and

interpret what they are reading. The Uwezo (2016) report stated that nationally, 8% in Standard Eight learners could not do Grade-two work across the country while 92% of Standard Eight learners could do Grade two work in English, Kiswahili or Mathematics but only 91% could do the three subjects combined. This shows no significant improvement in learning outcomes (Uwezo, 2016), indicating that children in Kenya complete standard eight without acquiring the basic competences expected of a learner in Grade two.

In 2020, the National Assessment System for Monitoring Learner Achievement observed that 86.9% and 87.5% of learners did not attain Level-1 competencies in English and Kiswahili respectively (Kenya National Examinations Council [KNEC], 2020). Level-1 competencies mainly entail the application of knowledge on alphabet to organize words in alphabetical order. Similarly, 58.8% and 51.3% of the learners did not attain Level-4 competencies in English and Kiswahili respectively, which entails reading with comprehension and making inferences. There was high correlation between literacy and numeracy suggesting that learners who fail to develop the required competency in reading are more likely to struggle in other areas of study such as numeracy (KNEC, 2020).

The Early Grade Reading Activities (EGRA) was initiated by development partners in collaboration with the government of Kenya with aim of improving reading ability among early grade learners (United States Agency for International Development [USAID], 2022). Its aim was to improve reading among children in lower grades and featuring new approach to teaching, reading, increased teacher support, supervision and learning environment (Uwezo, 2016). The materials include lesson plans, storybooks, and other resources that promote reading comprehension. In this context, this study sets out to examine the influence of EGRA teachers' capacity-building interventions on reading abilities of early grade learners in public primary schools in Kiambu County, Kenya.

### 1.1 Statement of the Problem

Reading outcomes have been low and static, thus an issue that necessitated EGRA interventions. The EGRA interventions aimed at improving English and Kiswahili reading for learners in Grades one to three in Kenya and teachers in these grades have been implementing the programme since 2015. The midline evaluation conducted in 2017 showed that the programme had led to notable improvement in learners reading skills. However, the level of improvement varied from one region to another. Despite having a high teacher- classroom ratio of 1:2, the proportion of Grade 3 learners in Kiambu who could do Grade 2 task was 39.5% as compared to 51.8% in Nyeri and 50.5% in Nairobi. It was also noted that early grade learners in public primary schools in Kiambu County had lower reading fluency than their counterparts in the private primary schools. The study further showed that only 36.4% of grade-3 learners could read at least 80 words per minute, which is the standard reading speed for grade 3 learners globally. These statistics raise questions regarding the effectiveness of the interventions of the EGRA programme within Kiambu County. This study, therefore, sought to investigate the influence of the EGRA teacher capacity building intervention on learners' reading abilities in lower public primary schools in Kiambu County.

### 1.2 Objective of the Study

- i. To examine the influence of teachers' capacity-building interventions on reading abilities of early grade learners in public primary schools in Kiambu County.

### 1.3 Research Hypothesis

$H_{01}$ : EGRA teachers' capacity-building interventions do not have a statistically significant influence on the reading abilities of early grade learners in public primary schools in Kiambu County.

## II. LITERATURE REVIEW

### 2.1 Theoretical Review

The study was guided by the Sociocultural Cognitive Development theory by Lev Vygotsky (1978) suggests that cognitive abilities are socially guided and constructed. According to Vygotsky, culture serves as a mediator for formation and development of specific abilities such as learning, memory, attention and problem solving. Vygotsky proposed that children learnt through their interaction with more knowledgeable peers or adults. Vygotsky theory helped to interrogate the relationship between EGRA teacher capacity building intervention and reading abilities of early grade learners (Porta et al., 2022). According to the theory, the learner need to interact with the teachers who are more conversant in literacy so that they can provide guidance and encouragement to the learner until the learner can get to the point of reading by themselves. Teachers thus need to be equipped with necessary skill, knowledge and pedagogy to enhance the reading outcome. The capacity of teachers become a vital determinant of the reading abilities of learners. According to Vygotsky, teachers can foster the cognitive development of learners by engaging them in meaningful and challenging activities. Therefore, interventions that seek to improve early grade reading abilities should focus on enhancing the capacity of teachers to engage learners in challenging and meaningful improving early

grade reading outcomes (Attah, 2021). The study also adopted the Theory of Literacy Development by Holdaway (1979).

The theory proposes that reading literacy development is a natural process that mimics a child's natural development of oral language skills (Holdaway, 1979). The theory asserts that reading literacy development starts at an early age as the child is developing oral language skills. The theory suggests that children develop appropriate skills by interacting with individuals that provide encouragement and motivation (Kleeck & Schuele, 2010). According to Holdaway, literacy development affective teacher capacity building programmes and thus should focus on providing teachers with knowledge and skills in the areas of phonemic awareness, phonics, fluency, vocabulary, and comprehension (Kleeck & Schuele, 2010). The programmes should provide teachers with opportunities to observe and reflect on effective literacy practices and engage in professional development to for best practices. Thus teacher-capacity building provide support required to improve reading literacy development of the early grade learners.

## 2.2 Empirical Review

Capacity in teaching is perceived as abilities, skills and expertise of teachers to accomplish learning. Teachers need professional learning that cares for their need and build their skills, knowledge and confidence (Tomas et al., 2021). According to Rahman et al. (2011), quality of education and training largely depend on the quality of teachers' academic qualification, professionals' training, commitment and dedication as teachers are central to any successful implementation of education change. Banda (2019) further opined that teachers' capacity is particularly important for early literacy instructions with many studies detecting a disconnect between teachers' content knowledge and the knowledge needed in early education domain.

According to Zeng (2023), teachers who engage in capacity building programme exhibit improvement in their teaching practices. Teacher capacity-building initiatives, whether formal or informal, brings about positive changes in teachers' instructional skills and knowledge in their subject area. Teacher capacity building exercises helps teachers to acquire new instructional knowledge and skills and polish their instructional practices. Many teachers in early grade classrooms are not equipped with the necessary skills and strategies to teach reading effectively. Teacher capacity building interventions can provide these teachers with training and support to use evidence-based teaching methods that have been shown to be effective in improving reading abilities.

The effect of teacher capacity building intervention on instructional strategy was demonstrated in the study by Anyiendah et al. (2020), which used the Solomon Four non-equivalent group design on 361 learners from public primary schools in Vihiga. Teachers in the study group were trained on how to correctly apply interactive instructions. The researcher then observed comprehension reading lessons for both the study and the control groups. Results showed that learners in the study group had better prediction skills than those in the control group. Prediction skills enhanced these learners reading comprehension. These results imply that the training providing to the teachers improved the teachers instructional skills leading to enhanced prediction skills by the learners. Teacher capacity building also enhances instructors confidence in teaching reading skills (Banda, 2019).

On the other hand, research has noted that many teacher capacity-building initiatives fail to deliver a change in teachers instructional practices. According to Banda et al. (2023), teacher capacity building interventions should be both efficient and effective. Effective interventions are those that encompass both pedagogical and theoretical contents as well as opportunity to practical application of knowledge and instructional strategies. A well-designed teacher capacity building interventions should increase teachers' chance of embracing and practicing new instructional strategies.

Research indicates insufficient focus on reading In Pre-Service Education and Training (INSET) (Piper et al, 2016). In addition, the Kenyan national curriculum policy does not prescribe precise approaches for teaching early grade reading but rather stipulates that teaching methods be based on learners' needs, objective of lessons, and support creativity and sustainable development (Wawire, 2020). Wawire further noted that the pre-service training curriculum for early grade teachers in Kenya does not equip teachers with adequate skills for effective early grade reading instruction. The curriculum had only one language course that covers the four language skills: writing, listening, speaking, and reading. Teacher lecture and whole class oral repetition in lower grades are found to be the most common teaching and learning methods in the Kenyan context (Piper & Zuilkowski, 2015).

Kitainge (2022) observed that while most teachers in the Kenyan education sector had the skills and competency to teach their subject areas, most had no capacity to impart soft skills such as problem solving and communication. In addition, the majority of teacher had little capacity to train core values. This scenario highlights the need for continual in-service training to equip teachers with skills needed to implement the CBC, which emphasizes on values (Akala, 2021). Improving the capacity of teachers is one of the interventions of the EGRA programme.

The programme sought to modify the delivery of classroom instruction to make them more effective in delivering missing reading skills (Dubeck & Gove, 2015). Teacher capacity improvement is done through training, group teacher workshops, and pedagogical coaching offered through classroom support visits done on monthly basis.

EGRA teacher capacity building initiative is done through a cascaded process. It begins with the initial training of pedagogical leaders that are leveraged to offer instructional support to teachers (World Bank, 2018). These pedagogical leaders are government employees that go by the Title Curriculum Support Officers (CSOs). The EGRA programme engages the CSOs in 10-day training at the beginning of the school year where they receive training on instructional coaching, use of Information and Communication Technology (ICT), use of the teacher guides, management of the monitoring and evaluation tablet and the Tangerine application, and supervision of book delivery (USAID, 2022).

The CSO collect data from teachers using the tablet and Tangerine application by visiting the teachers assigned to him or her at least once per month (World Bank, 2018). During the visit, the CSO conducts classroom observations, engages in a 10-15 minute feedback conversation with the teacher, who is expected to integrate the feedback into the next lesson. The teacher also undergo an induction training as well as the termly observation and coaching by the CSOs. The coaching and training further focuses on the use of EGRA textbooks and teacher guides. It also sought to re-emphasize the incorporation of student-centered elements in the learning process (Piper et al., 2017).

### III. METHODOLOGY

#### 3.1 Research Design

The study adopted descriptive survey research design. The descriptive survey research design was appropriate for the study as the researcher had no control over the study variables and it is an effective and efficient guide to collect data from a wide range of respondents (Kothari, 2023).

#### 3.2 Study Area

Kiambu County is located in the central region of Kenya and covers an area of 2,496.1 square kilometres (Kenya National Bureau of Statistics, 2020). It has a population of 2,417,735, making it the second most populous county in the country. The county is known for its agriculture, with tea, coffee, and vegetables as the main cash crops. Additionally, Kiambu is dotted with tourist attraction sites such as Kiambethu Tea Estate, Karura Forest, and Limuru Golf and Country Club, among others. (Kenya National Bureau of Statistics, 2020). This study location was selected because the EGRA midline evaluation showed that it was lagging behind other counties in central region in terms of reading abilities.

#### 3.3 Target Population and Sampling

The population of the study were 26,156 individuals who consisted of teachers and learners in public primary schools. This population comprised 1408 lower grade teachers (grade 1-3), and 24,748 Grade three learners in all public primary schools in Kiambu County (Kiambu County Director of Education Office, 2019). The sample size was determined using the Slovin sample size formula (Rivera, 2007).

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample size

N = Total population (in this case, 26,156)

e = Margin of error (in this case 0.03)

The sample size will thus be determined as:

$$n = \frac{26,156}{1 + 26,156(0.03)^2}$$

$$n = 1065.83 \approx 1066 \text{ individuals}$$

The 1006 individuals that formed the sample for this study were proportionally allocated to the two categories of respondents as shown in Table 1.

**Table 1**

*Distribution of Sample Across the Two Categories of Respondents*

| Category                    | Population (N) | Proportion of N (%) | Sample Size |
|-----------------------------|----------------|---------------------|-------------|
| Grade one to three teachers | 1,408          | 5.38                | 57          |
| Grade 3 learners            | 24,748         | 94.62               | 1009        |
| <b>Total</b>                | <b>26,156</b>  | <b>100.00</b>       | <b>1066</b> |



The study adopted the clustered random sampling method to select the 1066 individuals from the target population. The target population was clustered according to the 12 sub-counties that make-up Kiambu County. Four sub-counties were then selected randomly from the 12 sub-counties. The number of schools that were selected from each of the four sub-counties was proportional to the population of schools in the sub-counties. The sampling plan for schools was summarized in Table 2.

**Table 2**  
*School Sampling Plan*

| Sub-County   | No. of Schools (N) | Proportion of N (%) | Sample Size |
|--------------|--------------------|---------------------|-------------|
| Kabete       | 26                 | 24.5                | 6           |
| Kiambu       | 21                 | 19.8                | 5           |
| Kiambaa      | 23                 | 21.7                | 5           |
| Thika        | 36                 | 34.0                | 7           |
| <b>Total</b> | <b>106</b>         | <b>100</b>          | <b>23</b>   |

The required number of schools in each of the four sub-counties were also selected using the random method. A total of three lower grade teachers were selected randomly from 10 schools with high number of teachers while two lower grade teachers were selected randomly from the remaining 13 schools. To make up the sample of 1,009 grade-3 learners, a total of 44 grade-3 learners were selected randomly from each of the 23 schools.

### 3.4 Research Instruments

The study used the following instruments: teachers' questionnaires and achievement test for learners.

#### 3.4.1 Teachers' Questionnaire

The study used the questionnaire for the teachers to gather teachers' views regarding the implementation of EGRA intervention in their workstations and its impact of learners reading outcomes. The Questionnaire for the Teachers contained closed-ended Likert type questions in order to facilitate comparison using statistical methods. Respondents were presented with a set of statements and asked to indicate their agreement with each on five point scale (5= Strongly Agree, 4: Agree, 3= Not Sure, 2= Disagree, and 1= Strongly Disagree).

#### 3.4.2 Achievement Tests for Learners (AL)

An achievement test was administered with the aim of assessing the reading skills of grade three learners in the sampled schools. The achievement test assessed the learners' English reading skills including passage comprehension, reading fluency, sight recognition, word attack skills, and letter identification. It was marked out of a highest possible score of 44 points. The reliability of the achievement test was examined using the test retest method.

### 3.5 Data Analysis

The researcher collected the filled in questionnaires and assessed them for completeness; questionnaires that had many unanswered questions were left out of the analysis. The researcher then numbered the questionnaire in a systematic way, with questionnaires from each school being given a unique school code to enable matching of the questionnaire data and learners English test achievement data for the school.

After coding, responses in each questionnaire was entered into the SPSS software. Results of the achievement test were sorted and entered into the software. The test results were not coded because the data was already in a numerical format. Descriptive statistics were used to summarize the quantitative data on each of the variables that are essential to the study. The linear regression technique was used to conduct the inferential analysis.

## IV. FINDINGS & DISCUSSIONS

### 4.1 Response Rates

A total of 56 questionnaire were returned to the researcher making a response rate of 98%. However, three questionnaire had quite a number of questions left blank and thus these questionnaires excluded from the analysis. Consequently, the teacher sample was reduced to 53 respondents. The sample size for learner also reduced from 1009 to 961 because some schools had less than 44 grade-3 learners. However, all the 961 learners that were approached manage to complete the study. Since the drop in numbers were not due to respondents refusal to participate or them dropping out, the risk for non-response bias was substantial reduced.

**Table 3***Respondents' profile*

| Variable            | Categories     | Frequency | Percent |
|---------------------|----------------|-----------|---------|
| Teachers' Gender    | Male           | 4         | 7.5     |
|                     | Female         | 49        | 92.5    |
| Age brackets        | Below 23 years | 2         | 3.8     |
|                     | 24-33          | 15        | 28.3    |
|                     | 34-43          | 20        | 37.7    |
|                     | 44-53          | 13        | 24.5    |
|                     | Over 54        | 3         | 5.7     |
| Teaching experience | Below 5 years  | 7         | 13.2    |
|                     | 6-10 years     | 10        | 18.9    |
|                     | 11-15 years    | 17        | 32.1    |
|                     | 16-20 years    | 12        | 22.6    |
|                     | Over 20 years  | 7         | 13.2    |

**4.1.1 EGRA Teacher Capacity-Building Interventions in Kiambu County**

The study sought to establish how effective the teachers' capacity building interventions have been implemented within the public primary schools in Kiambu County. Teachers were presented with a set of seven statements related to teacher capacity-building interventions and asked to indicate their level of agreement with each on a five point scale (1=strongly disagree to 5 = strongly agree). Table 4 presents the findings.

**Table 4***Respondents view on Teacher Capacity-Building Interventions*

| S/N | Statement  | 1   | 2    | 3    | 4    | 5    | Mean | S.D.  |
|-----|--|-----|------|------|------|------|------|-------|
| TC1 | All lower grade teachers in my schools have gone through an induction training on the implementation of EGRA                 | 0   | 7.5  | 13.2 | 49.1 | 30.2 | 4.02 | .886  |
| TC2 | The lower grade teachers in my school have undergone termly coaching on how to improve reading instructional delivery        | 1.9 | 26.4 | 5.7  | 45.3 | 20.8 | 3.57 | 1.152 |
| TC3 | The training and coaching provided under EGRA is more practical than theoretical   | 0   | 11.3 | 18.9 | 49.1 | 20.8 | 3.79 | .906  |
| TC4 | The teacher development aspect of EGRA has created new expectation for teachers when it comes to learners' reading abilities | 0   | 0    | 17.0 | 56.6 | 26.4 | 4.09 | .658  |
| TC5 | Most lower grade teachers in my school are now meeting reading instruction expectations                                      | 0   | 3.8  | 22.6 | 49.1 | 24.5 | 3.94 | .795  |
| TC6 | Most lower grader teachers are now adhering to the sequence of lessons in the EGRA teachers' guide                           | 0   | 0    | 24.5 | 52.8 | 22.6 | 3.98 | .693  |
| TC7 | The reading instructional practices of lower grade teachers have improved substantially after the onset of EGRA.             | 0   | 3.8  | 17.0 | 58.5 | 20.8 | 3.96 | .733  |

Results in Table 4 show that 79.3% of the respondents either agreed or strongly agreed with statement TC1, which alleged that all lower grade teachers in their schools have gone through an induction training on the implementation of EGRA. 13.2% of the respondents were not sure while 7.5 refuted the claim. This finding suggest most of lower grade teachers in public primary schools in Kiambu have received induction training on EGRA implementation. Particularly, findings suggest that over three-quarters of the public primary schools in Kiambu County have received the induction training. The purpose of induction training is usually to introduce the EGRA programme to the teachers including enlightening them about its goals and benefits, activities and methodologies. Mwoma (2017) observed that effective induction training helps the teachers to understand EGRA and buy-in the concept of the programme leading to high level of support. Current findings suggest that most early grade teachers in public primary schools in Kiambu had received the induction training.

Similarly, 66.1% of the respondents either agreed or strongly agreed with statement TC2, which claimed that the lower grade teachers in their school have undergone termly coaching on how to improve reading instruction delivery. About 5.7% of the respondent were not sure while 26.4% refuted this claim. These results implies that lower grade teachers in over two-thirds of primary schools in Kiambu County had received termly EGRA coaching. Coaching is method of professional development that assist teachers to develop their skills. EGRA coaching is an interactive process that assist teachers to set goals, enhance classroom practices, overcome challenges, and celebrate successes (World Bank, 2018). It used a student centered approach that help classrooms to transition from having

learners who are passive recipient of information to having learners who are active participants in their own learning. The fact that most teacher now have access to this coaching suggest that there should be observable improvement in reading outcomes.

In addition, 69.9% of the respondents either agreed or strongly agreed with item TC3, which alleged that the training and coaching provided under EGRA was more practical than theoretical. This finding implies that more than two-thirds of lower grade teachers in public primary schools in Kiambu find the EGRA training and coaching method to be more practical than theoretical. This finding is congruent with EGRA guidelines, which stipulates that the programme uses a coaching model that is more practical and focused on key promoting instructions in key reading areas (World Bank, 2018). According to Kraft *et al.* (2018), coaching programmes that ignore the practical aspects of implementation often fails to deliver meaningful benefits. A practical-oriented capacity building programme helps teachers to develop practical skills, build critical thinking skills, and become more confident in their ability to teach.

Moreover, 83% of the respondents either agreed or strongly agreed with item TC4, which advanced that the teacher development aspect of EGRA has created new expectation for teachers when it comes to learners' reading abilities. These findings implies that 4 out of every 5 lower grade teacher in public primary schools is positive that the teacher development aspect of EGRA has created new expectation for teachers regarding their learners reading abilities. A study by Rosenthal and Jaconson (1992) revealed that the expectations that teachers have towards their learners affect the interaction between the teacher and the learners. Teachers tend to dedicate more time to learners whom they expect to success, give them more specific feedback, and greater approval. This kind of positive interaction has a reinforcing impact on the learners' academic outcomes. Resethal and Jaconson christened this phenomenon as the Pygmalion effect. Current findings suggest that the EGRA coaching has changed the expectation of most lower grade teachers regarding the reading abilities of their learners. As a result, it is expected that the interaction between the teachers and the learners would improve leading to enhanced reading outcomes.

In addition, 73.6% of the respondents also agreed or strongly agreed with item TC5, which claimed that most lower grade teachers in their school were meeting reading instruction expectations.

This finding also implies that over three quarters of lower grade teachers in public primary schools in Kiambu County are confident that they were observing the sequence of lessons in the EGRA teachers' guide. It implies that the EGRA teacher capacity-building component has been quite effective in promoting adherence to teachers' guide. The EGRA programme is very structured in that it encompasses guided lesson for teachers and prescribes specific instructional strategies and materials to be used at each stage. However, the programme can only have an impact if teachers are adequately trained to adhere to these guidelines. Current findings suggest that most early grade teachers in public primary schools have been adequately trained to follow the EGRA lessons.

Lastly, 79.3% of the respondents either agreed or strongly agreed with item TC7, which stressed that reading instructional practices of lower grade teachers have improved substantially after the onset of EGRA. This finding indicates that over three quarters of lower grade teachers in public primary schools in Kiambu are positive that the EGRA programme has led to notable improvement in reading instructional practices. The ultimate goal of the EGRA teachers' capacity building interventions was to improve the reading instructional practices of lower grade teachers (World Bank, 2018). Current findings suggest that this goal has largely been attained in most of the public primary schools in Kiambu County. This finding is congruent with EGRA 2022 annual progress report, which indicates that most of the teachers participating in the programme had acquired the skills that they needed to implement instructional changes leading to improved learners' reading outcomes.

#### 4.1.2 Learners' Reading Abilities in Public Primary Schools in Kiambu County

The dependent variable of the study was learners' reading abilities. This variable was measured by giving a short achievement test to grade-3 learners that sought to assess their reading skills. The test was marked out of a possible highest score of 44 marks but then converted into percentage score to facilitate comparison with performance of learners in other studies. Table 5 presents a summary of the learners performance on the test.

**Table 5**

*Summary of Learners Performance in the Reading Test*

|         |       |
|---------|-------|
| Mean    | 89.21 |
| Minimum | 0     |
| Maximum | 100   |
| N       | 961   |

Table 5 shows that a total of 961 learner completed the test and that their mean score was 39.25 out of a possible highest score of 44. This mean score is lower than the 97.14% that the study by Cherobon and Chepsiror

(2022), recorded among primary school learners in Nandi County. However, the discrepancy could be attributed to the fact that Cherobon and Chepsiror involved grade six and grade seven learners while the current study involved grade three learners. To further make sense of the data, the scores were classified into three categories: marks above 70% were classified as good, 50-69% were rated as fair, and below 50% were classified as below average. Table 6 presents this data.

**Table 6**

*Learners Distribution across Reading Abilities Category*

| Reading Abilities Category | Frequency  | Percent      |
|----------------------------|------------|--------------|
| Below Average              | 45         | 4.7          |
| Fair                       | 48         | 5.0          |
| Good                       | 868        | 90.3         |
| <b>Total</b>               | <b>961</b> | <b>100.0</b> |

Table 6 shows that 90.3% of the learners scored 70% or above and thus were categorized as having good reading abilities. This proportion is significantly higher than the 35% that was recorded by Uwezo (2016), when they administered the test countrywide. It is also higher than the 61% recorded by Uwezo (2016) in Kiambu County. The result suggest that there is a notable growth in the number of grade 3 learners who can read grade 3 English story. At first value, this finding could be interpreted to mean that the EGRA interventions have worked effectively in improving the reading abilities of learners in public primary schools in Kiambu County. However, Table 4.7 show that there is still about 5% of learners in public primary schools with reading abilities that are below average. It is paramount to ensure that these learners are not left behind.

#### 4.1.3 EGRA Teacher Capacity-Building Interventions and Learners' Reading Abilities

Regression analysis was meant to test the relationship between teacher capacity building interventions and learners reading abilities. To conduct this analysis, composite scores were computed for teacher capacity-building interventions using the Likert scale data. This computation resulted in scores that are measured at the interval level of measurement. The corresponding data was obtained by computing the mean score for each of the 23 schools in which the reading test was administered. The mean score for a given school was then assigned to the teachers recruited from that school. Table 7 presents the findings:

**Table 7**

*Linear Regression Results*

| Variables                                | Coefficient | t      | Significance |
|--|-------------|--------|--------------|
| Constant                                 | 24.209      | 25.215 | .000         |
| Teachers' capacity building Intervention | 4.74        | 4.055  | .000         |
| R-squared = 82.5                         |             |        |              |

Results in Table 7 show that the standardized beta coefficient for EGRA teacher capacity-building interventions is 0.474. Since the coefficient is positive, it implies that there is a reinforcing relationship between EGRA teacher capacity-building interventions and learners reading abilities. Specifically, the beta coefficient means that when the implementation of EGRA teacher capacity-building intervention is improved by 1 unit, the reading abilities of learner improves by 0.474 units. The t-test shows that the change in reading abilities that would result from a unit change in the implementation of EGRA teacher capacity-building interventions is statistically significant at the 0.01 level of significance ( $t=4.055$ ,  $p<.001$ ). This finding leads to the rejection of the first hypotheses of the study, which stated that EGRA teacher capacity-building interventions do not have a statistically significant influence on the reading abilities of early grade learners in public primary schools in Kiambu County. The findings infer that EGRA teacher capacity-building interventions have a positive and statistically influence on the reading abilities of these learners.

This finding is congruent with Adhikari (2021), who noted that teachers' pedagogy, classroom management strategies and interaction with learners at classroom level can determines how much is learned. Consequently, improving the teachers' pedagogical practices and classroom management strategies is bound to have a positive and noteworthy effect on learner's reading abilities. Current findings are also congruent with Jaffe et al. (2019), who observed that learning outcome is contingent on the teachers' ability to create and sustain optimal learning environment. Consequently, interventions that are successful in enhancing teachers' ability to create and sustain an



optimal learning environment are bound to have a positive effect on learners' outcomes including their ability to read. Similarly, current findings agree with Banda (2019), who found that teachers who have good mastery of content, required knowledge and skills to perform ensure quality of outcome is maintained in literacy.

## V. CONCLUSIONS & RECOMMENDATIONS

### 5.1 Conclusions

The findings highlight importance of investing in the professional development of teachers. They suggest that ongoing support for teachers can improve their teaching quality and, in turn, enhance the reading outcomes of their learners. The findings also showcases the crucial role that teachers play in the reading progress of early grade learners. This position is congruent with Vygotsky theory, which proposed that learners acquire skills and develop cognitive abilities by interacting with knowledgeable others. In this case, the teacher-capacity building intervention enhance the subject knowledge of teachers reading to an impactful interaction with learners. Current findings also reinforce the position that teacher professional development programme must be on going. The EGRA teacher capacity building programme was typified by the provision of continuous support to teachers through regular visits by instructional coaches. Continuous training helps teachers to keep abreast with new evidence-based instructional practices and deliver robust reading instructions.

### 5.2 Recommendations

Educational planners and stakeholders need to invest more resources in designing and implementing high-quality teacher training programs that focus on evidence-based instructional practices and provide ongoing support to teachers to improve teaching quality and promote early grade reading skills. The Ministry of Education should prioritize building the capacity of teachers in order to improve early grade reading abilities. The ministry should enhance the training curriculum to incorporate the instructional practices captured in the EGRA programme. This will ensure that newly trained teachers will exit college having been equipped with requisite skills and capacity to teach early grade reading.

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