EXPLORING THE RELATIONSHIP BETWEEN REMEDIAL INSTRUCTIONS AND GRADE THREE LEARNER’S READING ABILITIES IN PUBLIC PRIMARY SCHOOLS IN RUARAKA NAIROBI CITY COUNTY, KENYA

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Abstract:
Research has shown that a substantial number of school-age children experienced significant difficulties in learning how to read. Despite numerous interventions implemented in many Western countries to address this issue, children in Sub-Saharan Africa, such as Kenya, continued to struggle with poor reading capabilities. Specifically, the research focused on the influence of remedial instructions in addressing reading disabilities among grade three learners in Ruaraka, Nairobi County. The study was based on the Communicative Language Teaching Theory. A descriptive survey research design, employing a mixed-method research approach, was utilized. The research targeted 1,023 grade three learners, 12 head teachers, and 24 teachers within 12 primary schools in the Ruaraka sub-county. Purposive sampling was employed to select 5 schools with known interventions for learners with reading difficulties. Grade three learners were selected using the census method, while two teachers and one head teacher were conveniently sampled from each school. Data collection involved using questionnaires for grade three teachers, interview guides for head teachers, and the Kenya National Examinations Council (KNEC) test for grade three learners. Quantitative data were analyzed using frequency distribution, percentages, chi-square, and correlations with the assistance of Statistical Package for Social Sciences (v23). Qualitative data were analyzed thematically, adhering to all ethical guidelines throughout the research process. The findings revealed that Remedial Teaching, while promising, did not exhibit a statistically significant impact.

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on reading performance. The study concludes that selecting the right intervention strategy when seeking to improve the reading abilities of grade three students. The study recommends that a rigorous and detailed investigation be undertaken to discern the specific strengths and weaknesses of Remedial Teaching as an intervention strategy. This in-depth analysis can provide valuable insights into its efficacy in addressing reading disabilities.

**Keywords:** remedial instructions, grade three learner, reading abilities, public primary

1. Introduction

Reading is important for children to decode information and gain new information and notions through reading (Singer, 2024). However, more serious are the challenges arising among learners with reading disabilities, defined as the “unexpected underachievement characterized as a discrepancy between achievement and intellectual aptitude, despite adequate opportunity to learn and in the absence of sensory difficulties or cultural deprivation” (Unlu, 2024). In the United States, the National Assessment of Education Progress (NAEP) revealed that 2.3 students are diagnosed with specific learning disability, with 70-80% of these learners having basic deficits in reading and language. Children with reading difficulties, if not fixed, face life-long challenges such as difficulties identifying words, sounds, oral fluency, comprehension, and phonetic knowledge (Hudson *et al.*, 2020).

Al Otaiba *et al.* (2024) claim that additional instructions as interventions are initially not part of the normal instructions but can assist learners with reading disability to attain the desirable level of literacy they need for their academic life in school and communication after school. In Australia, Nation (2019) also reported that up to 38% of learners have reading disabilities and have difficulty fluently reading simple passages, which is attributed to poor instruction from teachers. In response, the local governments and school management set aside funds for remedial programs and educational programs for teachers to adopt teaching methods that can address individual student’s problems in learning how to read.

In Singapore, Samsudin (2015) reported that the government invested in peer learning programs, including the Focused Language and Assistance in Reading, which cost up to $4 million annually to help pre-school learners develop oral and aural abilities. The move followed increasing stakeholder concerns about poor reading comprehension among learners with reading disabilities and poor mastery of letter naming, letter sounds, phonemes, and passage reading. The move sought to reduce disparities in reading abilities among the children and smooth their transition into higher education levels. In South Africa, it was found that limited interaction between the learners during reading activities due to the use of lecture methods limited the learners’ oral reading fluency (McBride, 2019). The research also found challenges with the learners’ comprehension of simple words and letters when enunciated by the teachers.
In Kenya, Ngure, Mwoma, and Buma (2019) found that about 50% of pupils were below average in reading and recognizing the sounds of letters. They established that 50% of the pupils were below average in reading and letter sound recognition. In reading sentences and paragraphs, only 57.1% could do so, only 53.6% could read stories, and 60.7% had below-average comprehension skills. This shows a serious challenge in the reading outcomes among Kenyan learners. Kiplagat (2018) also found that in Kenya, learners in Kenyan primary schools, especially in the lower primary, had challenges naming the letters, sounds words, and the majority were not familiar with phenomes. Reading comprehension was also found to be a major issue among learners in public schools.

Ngang’a (2018) found that learners in Kasarani Sub-County performed poorly in reading as compared to other sub-counties in Nairobi (Uwezo, 2012: 2016). Only 70% of learners were found to be able to read a paragraph (Uwezo, 2016). Moreover, there has been limited focus on the learner’s reading outcomes despite the persistent low levels of performance in English in the area. A recent study by Muronga, Mwoma and Ouko (2020) found that pre-literacy skills were lacking among most children born to teenage mothers. According to the Uwezo (2021) report, 70% of Grade 3-7 learners living in urban areas showed Grade 2-level competencies in reading as compared to those living in rural areas. Therefore, Ruaraka Sub-County, as an urban area, was targeted in this study to examine the factors that result in poor reading outcomes among learners.

Learners have challenges identifying letters and sounds, oral reading fluency, poor phonemics awareness and low reading comprehension. Parker (2016) also focused on the poor outcomes from literacy outcomes for learners with learning disabilities despite its prevalence in schools. They reported no specific interventions in the Kenyan curriculum to assist, but non-governmental organizations and volunteers have developed interventions to address these challenges. However, none of the studies have focused on the reading outcomes among learners with reading disabilities. Therefore, this study was designed to examine the interventions deployed by schools in lower primary classes and their effectiveness in addressing reading disabilities. Moreover, no studies in Ruaraka focus on learning difficulties among learners with reading disabilities in lower primary education. The study at hand, therefore, focused on interventions within the precinct of the schools. The study sought to identify the role of interventions concerning remedial instructions on reading outcomes in the Ruaraka Zone of Kasarani Sub-County.

1.1 Purpose of the Study
The study's purpose was to establish the relationship between remedial instructions and grade three learners' reading abilities in Ruaraka Nairobi City County.
2. Literature Review

2.1 Theoretical Review
The study was anchored on the Communicative Language Teaching Theory, postulated by American Linguists Wilkins and Hymes in the late 1960s (Savignon, 2018). According to the theory, language is seen as transmitting knowledge and meanings through communication between the speaker and the listener. The theory further regards learners as active participants in communication, whereas teachers are viewed as passive participants. The theory, therefore, requires teachers to utilize captivating learning experiences to encourage learner participation in the learning process. Any disconnect in the learning process activities results in adverse outcomes such as poor reading or inability to grasp information relayed from other sources correctly. About this study, the fact that grade three learners in Ruaraka, are reported to face high levels of reading difficulties, according to Uwezo (2016), is an indication of an exciting disconnect in the activities of the learning process. The relevance of the theory is seen in the study as it sought to assess the relevant intervention strategies that address the challenges faced by grade three learners with reading difficulties in Ruaraka, hence putting them on the path of enjoying the benefits of proper education.

2.2 Empirical Review
Schwartz (2017) set out to examine the use of remedial strategies to determine their influence on the student's reading outcomes. The researcher focused on the low-income communities in Washington State to determine the effectiveness of special intervention programs on the phonemic awareness and reading comprehension competencies of learners in the early grades. The researcher randomly sampled 12 schools and targeted grade 4 learners. The findings revealed that learner support, individualized educational approaches and practical reading are effective, more so for students who receive instruction of poor quality and who fail to honour the routine classroom learning process. They highly benefit from the remedial programs as they learn at their own pace while catching up with their peers. The findings are like those by Abeberese, Kulmer, and Linden (2015), who found that remedial strategies help learners with learning disabilities learn in a conducive environment where the teachers can concentrate on their weaknesses and help them catch up with their peers. The study was, however, conducted in the U.S., which has different socio-economic factors from Kenya, which may render the study’s findings un-generalizable to the sub-Saharan and more so, the Kenyan context.

Munene, Kimiti, and Njoka (2017) sought to establish the impact of teachers' attitudes towards using remedial programs on learners in Nyahururu District. The researchers utilized a study design of a descriptive nature and randomly selected 138 research participants. Using questionnaires and interview schedules, the researchers found that using targeted reading opportunities, extra schedule arrangements, and home follows creates a meaningful learning environment, which is a practical approach to improving students’ achievement. Melton (2016), in his/her study, found that the use of
remedial strategies helps bridge the achievement gap among the students. However, the study is limited in its scope as it focuses on what learners achieve overall, while the study at hand focuses on the reading achievement of learners with learning disability.

2.3 Conceptual Review

![Conceptual Framework]

Figure 1: Conceptual Framework

3. Methodology

3.1 Study Area
The study was carried out in public primary schools within the Ruaraka Zone in Nairobi, Kenya. Public schools have been chosen because they generally record poor academic performance in national exams (Kwayera, 2015). Ruaraka was chosen because it is in the urban setting, and learners in urban areas have been reported to have lower reading abilities in later grades than those in rural areas (Uwezo, 2021). KICC (2020) also reported that most urban parents reported their children having reading difficulties. Therefore, Ruaraka Sub-County represents different socio-economic and ethnic groups due to its diverse population. The constituency hosts a population of about 192,620 people, covers an area of about 7.20 km², and is in the Kasarani Sub-County of Nairobi County. Ruaraka has 12 public primary schools, which was the central focus of this study.

3.2 Research Design
The research design utilized by the study was a correlational study. A correlational study examines the relationship between two variables using statistical analysis to see how the variables interact (Fraenkel & Wallen, 2000). It helped gather, summarize, report, and determine how the variables correlate.

3.3 Study Population
The study targeted grade three learners, head teachers and teachers from the Ruaraka sub-county. The reason for selecting the third grade was because it is a crucial stage in the learner’s reading development as a period where they should be making inferences or finding relevant information to back up their comprehension of a text. Grade three represents the final stage where children are learning to read. From the fourth grade onwards, the learners read to learn. Therefore, proficiency in reading among grade three
learners is vital for later learning in life. The Ruaraka sub-county has 12 public primary schools with grade three public school learner populations of 1,023 children across the sub-county.

3.4 Sampling Procedures and Sample Size
A purposive sampling procedure was opted by the researcher to select the schools and the grades with interventions in place. Census was used to select the grade three learners since their population is manageable, while purposive sampling was considered to select the teachers and head teachers. Therefore, out of the 12 schools in the area, only 5 were a part of the sample. In the schools, all three learners in the class took part in the study as the head teachers in the five schools.

Table 1: Sample Size

<table>
<thead>
<tr>
<th>School</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>35</td>
<td>37</td>
<td>72</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>21</td>
<td>34</td>
<td>55</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>37</td>
<td>62</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>35</td>
<td>58</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>21</td>
<td>18</td>
<td>39</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>125</td>
<td>161</td>
<td>286</td>
<td>10</td>
</tr>
</tbody>
</table>

3.7 Tools and Techniques for Data Collection
Grade three teachers were administered the questionnaires. The questionnaires were used to answer the four objectives of the study and collect quantitative data. They were given to respondents to answer on their own and collected at a later date. The interview schedules were for the head teachers and provided the qualitative data for the study. The role of interviews was to gain more information on the interventions, where the researcher employed probing techniques to obtain more information that may be relevant in addressing the research questions. The KNEC test was developed by the Kenya National Examination Council to monitor the progress of Grade 3 learners in 2020. The test was made in collaboration with the World Bank, Kenya Vision 2030, and the Global Partnership for Education.

Approval was first sought from the university before being submitted to the National Commission of Science Technology, and Innovation (NACOSTI) to obtain a permit to conduct the research. Once the permit was obtained, the county offices at Nairobi were visited to formally inform the county commissioner and sub-county commissioner of the study. Letters were then drafted and dispatched to the respective schools requesting permission to conduct the study. First, the researcher commenced introductions with the teachers, explaining the nature of the study and their role in data collection. The researcher then agreed on the most convenient date for the tests to be administered to the learners. The administration of the test was done with the help of the teachers who aided in supervising and marking the findings. Once the exams had been collected, immediately the researcher issued self-administered questionnaires to the...
teachers and collected them the same day. The last step was the interviews with the head teachers, which took approximately 30 minutes each.

3.8 Reliability and Validity of the Research Tools
Before the study, the researcher issued questionnaires to education experts at the university to evaluate the instruments for content validity. The experts to be used have extensive experience in academic writing and can easily detect flaws in research instruments. After this, the tools were readjusted accordingly (Fraenkel, Wallen, 2000). This followed a focus on what is contained in the conceptual framework to ensure that items in the content of the instrument and its structure match. The researcher rephrased and replaced the questions to ensure no ambiguity in the questions. The coefficient for the reliability test in this study was tested using the Cronbach test at 0.7. To achieve this, a 10% level of the sampled questionnaires was tested to ensure they were relevant to the research.

3.9 Data Analysis
Data obtained through questionnaires and KNEC tests were analyzed quantitatively. The quantitative data underwent cleaning, and then coding and analysis were done using the Statistical Packages for Social Sciences. Frequencies and percentages were used to analyze data obtained from the questionnaires descriptively. The inferential analysis was done using chi-square goodness of fit and Pearson correlations to establish whether there is a relationship between the interventions and the learner's reading outcomes. Data from interviews were analyzed qualitatively. The qualitative data was analyzed thematically, where patterns and themes were identified. Before doing this, the researcher was familiarised with the data before coding and recoding were done and reading through to understand the recurring themes. Those identified as being major themes were part of the qualitative data.

4. Findings and Discussion

4.1 Demographic Characteristics
The study obtained demographic information from the respondents, presented in Table 2.

4.1.1 Gender of the Teachers
The researcher requested the teachers to indicate their gender. The results are illustrated in Figure 2 below:
Based on the findings, 90% of the teachers in the study were female, while male teachers constituted only 10% of the sample. This suggests that data was collected from both male and female respondents without gender bias.

4.1.2 Teaching Experience
The researchers requested teachers to specify their years of teaching experience. The results are visualized in Figure 3, which is presented below.

Interpreting the findings, it is evident that 50% of the teachers possessed over 10 years of teaching experience, while 20% had between 6-10 years of experience. Another
20% fell within the range of 1-5 years of teaching experience, and the remaining 10% had less than 1 year of teaching experience. These results indicate that the study encompassed a comprehensive range of teaching experience, ensuring representation across various professional tenure periods.

### 4.1.3 Teachers’ Training on Identifying Learners with Disability

Additionally, the teachers were queried about their training in identifying students with reading disabilities. The outcomes are visually represented in Figure 4.3, which is presented below.

![Figure 4: Training on Identifying Learners with Reading Disabilities](image)

Analyzing the findings presented above, it becomes evident that 50% of the teachers had received formal training in the identification of students with reading disabilities, while the remaining 50% had not undergone such training. This indicates that approximately half of the respondents possessed the necessary knowledge and skills to effectively recognize and support students with reading disabilities.

### 4.2 Remedial Teaching and Reading Disability

The study focused on examining the effectiveness of remedial strategies in enhancing students’ reading abilities in Ruraka, Nairobi City County. It aimed to understand the influence of these strategies on students’ phonemic awareness and reading comprehension skills in early grades.
Table 2: Remedial Teaching

<table>
<thead>
<tr>
<th>Intervention strategy</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted readings provide support to learners who have difficulties in reading</td>
<td>F 0.0%</td>
<td>F 0.0%</td>
<td>F 80.0%</td>
<td>F 20.0%</td>
</tr>
<tr>
<td>Individualized educational approaches target the learner’s needs and abilities, which promotes the acquisition of reading skills</td>
<td>F 0.0%</td>
<td>F 0.0%</td>
<td>F 80.0%</td>
<td>F 20.0%</td>
</tr>
<tr>
<td>Extra schedule arrangements help the learners consolidate basic knowledge in different aspects of reading</td>
<td>F 0.0%</td>
<td>F 0.0%</td>
<td>F 50.0%</td>
<td>F 50.0%</td>
</tr>
<tr>
<td>Home follow-ups help the learners strengthen their confidence in reading comprehension</td>
<td>F 0.0%</td>
<td>F 0.0%</td>
<td>F 40.0%</td>
<td>F 60.0%</td>
</tr>
<tr>
<td>Individualized educational programs promote learning reading skills</td>
<td>F 0.0%</td>
<td>F 10.0%</td>
<td>F 50.0%</td>
<td>F 40.0%</td>
</tr>
<tr>
<td>Remedial classes offer meaningful learning situations that promote the learner’s reading abilities</td>
<td>F 0.0%</td>
<td>F 0.0%</td>
<td>F 40.0%</td>
<td>F 60.0%</td>
</tr>
</tbody>
</table>

The survey findings reveal a notable consensus among the respondents regarding the effectiveness of various remedial strategies for learners with reading difficulties. As shown in Table 4.3 above, a significant 80% of respondents agree that both targeted readings and individualized educational approaches provide vital support, underscoring their value in promoting reading skills. Additionally, 50% agree that extra schedule arrangements aid learners in consolidating their reading knowledge. Home follow-ups and individualized educational programs, each with 60% and 50% agreement, respectively, are perceived to strengthen learners' confidence and promote reading skills. Furthermore, with 60% agreement, remedial classes are seen as providing meaningful learning experiences that enhance reading abilities. These findings collectively emphasize the significance of tailored, individualized approaches and supplementary support mechanisms in addressing reading difficulties and fostering reading outcomes among learners. To answer the second question, "What is the relationship between remedial instruction and grade three learner's reading abilities in Ruaraka Nairobi City County?" a chi-square analysis was done.

Table 3: Chi-square Results, Remedial Teaching and Performance in Reading

<table>
<thead>
<tr>
<th>Intervention strategy</th>
<th>Performance in reading</th>
<th>Chi-square results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BE F %</td>
<td>AE F %</td>
</tr>
<tr>
<td>Remedial teaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>25 40.3</td>
<td>21 33.9</td>
</tr>
<tr>
<td>Disagree</td>
<td>155 30.4</td>
<td>181 35.5</td>
</tr>
<tr>
<td>Agree</td>
<td>0 0.0</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>0 0.0</td>
<td>0 0.0</td>
</tr>
</tbody>
</table>
The analysis of remedial teaching and its impact on students’ reading performance reveals several important insights. This strategy aims to provide additional support to students struggling with reading skills. The analysis categorizes students into four performance groups, including "Below Expectation" (BE), "Approaching Expectation" (AE), "Meets Expectation" (ME), and "Exceeds Expectation" (EE). Notably, the Chi-Square test, with a value of 3.300 and 3 degrees of freedom, suggests that there may not be a statistically significant relationship between remedial teaching and reading performance. Within the performance categories, a substantial number of participants fall into the "Disagree" and "Strongly Disagree" groups, with 35.5% and 33.9% of participants, respectively. This indicates a prevalent scepticism regarding the effectiveness of remedial teaching in improving reading skills. Moreover, the absence of any participants in the "Agree" and "Strongly Agree" categories underscores the overall lack of confidence in this intervention strategy, as also reported in a study by Abeberese et al. (2011).

The relatively high percentage of students classified as "Below Expectation" (40.3%) indicates a significant number of learners who are experiencing significant reading difficulties. This finding highlights the challenges educators and policymakers face in effectively addressing reading difficulties. The p-value of (Sig) of 0.348 further suggests that the observed differences in reading performance across these categories may be due to factors other than a direct relationship with remedial teaching. Expectations for the success of this intervention strategy are relatively low among the participants (Schwartz, 2017). The analysis suggests that the observed differences in reading performance may be influenced by factors other than a direct relationship with remedial teaching, given the non-significant p-value.

The findings within the class highlight the prevailing consensus that remedial strategies, particularly targeted readings and individualized educational approaches, offer crucial support to learners facing reading difficulties. In both cases, 80% of the respondents agree that these strategies are effective. This alignment with the class’s perceptions resonates with the study conducted by Schwartz (2017) in low-income communities in Washington State. Moreover, the class’s findings also emphasize the perceived benefits of extra schedule arrangements and home follow-ups, both receiving 50% agreement. This is congruent with Munene, Kimiti, and Njoka’s (2017) study in Nyahururu District, which found that such strategies, along with targeted reading opportunities, create a meaningful learning environment and effectively enhance student achievement. The findings within the class also acknowledge the value of individualized educational programs and remedial classes, with 50% and 40% agreement, respectively. These strategies, like the findings in Munene, Kimiti, and Njoka’s study, are seen as effective in promoting reading abilities and creating a bridge between student weaknesses and their peers.
5. Conclusions and Recommendations

5.1 Conclusion
The first objective focused on evaluating the impact of Remedial Teaching. While the findings showed some promise, it was observed that Remedial Teaching did not exhibit a statistically significant impact on reading performance. This implies that its effectiveness may vary depending on specific contexts. Educators and policymakers should consider the nuances of implementing Remedial Teaching and tailor it to the specific needs and circumstances of the learners. In conclusion, this study underscores the importance of selecting the right intervention strategy to improve the reading abilities of grade three students. While Remedial Teaching exhibits potential, its effectiveness may vary and, therefore, should be used judiciously.

5.2 Recommendations
Comprehensive Examination of Remedial Teaching. A rigorous and detailed investigation should be undertaken to discern the specific strengths and weaknesses of Remedial Teaching as an intervention strategy. This in-depth analysis can provide valuable insights into its efficacy in addressing reading disabilities.

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Conflict of Interest Statement
The authors declare no conflicts of interest.

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