The Cradle of Knowledge: African Journal of Educational and Social Science Research
AJESSR - ISSN 2304-2885-p, 2617-7315-e
Volume 12, Issue 1, 2024
P.O. Box 555 (00202) Nairobi. Kenya
editor@serek.or.ke

SOCIETY OF EDUCATIONAL RESEARCH AND EVALUATION IN KENYA

Contribution of Teaching Practices on Pupils Academic Performance in Public Primary Schools in Kenya

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Abstract
The study examined the contributions of various teaching practices on learners' academic performance in public primary schools in Nambale Sub-County, Kenya. Using a descriptive survey design, the research focused on timely syllabus coverage, frequent homework assignments, and regular testing as key teaching practices. Data was collected via questionnaires and analyzed thematically for qualitative data and using linear regression for quantitative data. The findings revealed that teaching and learning practices significantly influenced academic achievement in the schools studied, with regular testing being particularly significant. Additionally, the study concluded that most schools managed timely syllabus coverage. The recommendations included a call for government policy review to enhance teaching and learning practices and ultimately improve academic performance
Keywords: *Teaching and learning practices; syllabus coverage; assignments; testing; performance.*

1. Introduction

Globally, research by Hattie (2009) found that feedback, student-centred teaching, and teacher-student relationships were key factors that positively impacted student achievement. Similarly, Darling-Hammond and Post (2018) emphasized the importance of creating a positive school climate to support student learning, with personalized learning and culturally responsive teaching having a significant impact on academic outcomes.
There is an international concern on academic performance of students (Romer hausen, 2013). Globally and Kenya in particular, improving the quality of education and investment on education and human resources are regarded as effective factors paving way for a country's pervasive development. Improvement of students' academic performance is also among the basic goals of educational planning. It is through academic performance that students' can fully actualize their talents and capabilities in line with educational goals.

Notably, academic performance is considered as one important criteria of educational quality. Without doubt, academic performance presently is a major issue among students, teachers, parents, school administrators and the community at large. Researchers have made several attempts to unravel the complexities surrounding academic performance (Ikpi et al, 2014). Psychology researchers have put forward a lot of reasons why disparities in academic achievement among young people exist (Ikpi et al, 2014). As noted by the researchers, a lot of attention has been given to external factors such as type of school, teaching methods, school location, instructional material, quality of teachers and their experience.

In Africa, a study by Asiyai and Ibrahim (2017) found that teacher-student relationships and the use of instructional materials were significant factors that influenced student academic performance in Nigeria. Similarly, a study by Muianga and Zeleza (2019) in Mozambique found that the use of learner-centered approaches and active learning had a positive impact on academic outcomes. Academic performance is considered an intellectual competence indicator. Opinion vary why some students excel academically while others appear to be under achievers. As a result, many psychologists have consistently attempted to identify the major predictors of individual academic performance. Academic performance on examination is the result of interaction among multiple variables such as learning. Learning occupies a significant role in the life of students (Mangal & Mangal 2009). It means modification of behavior (Dutt,

2007) that is measured using the yard stick of academic performance. People have different learning styles that are reflected in different academic strengths, weaknesses, skills and interests. It has often been asserted that academic performance can be explained largely by factors such as individual initiative, effort and merit (Timothy et al, 2007). Although education is not the only road to success in the working world, much effort is made to identify, evaluate, track and encourage the progress of students in schools (Bell, 2017). Parents care about their children's' academic performance because they believe good academic result will provide more career choices and job security (Bell, 2017). Similarly, schools invested in fostering good academic habits for the same reason. For instance, they often influence concerns about school's reputation and the possibly of monetary aid from government institutions which shows overall academic performance of the school.

In recent years, there has been growing interest in understanding the impact of teaching and learning practices on academic performance in primary schools. In particular, the focus has been on how these practices can influence performance in the Kenya Certificate of Primary Education (KCPE) exam. Nambale Sub-County in Kenya is no exception to this trend, with stakeholders keen to understand the factors that contribute to or hinder academic success. Research suggests that teaching and learning practices can have a significant impact on students' academic performance. A study by Mutisya and Ndiku (2020) found that effective teaching practices such as active learning, learner-centered approaches, and the use of teaching aids were positively associated with improved performance in KCPE exams. Similarly, another study by Okere and Muola (2019) found that teacher training programs that focused on improving pedagogical skills led to significant improvements in students' academic performance.

However, not all teaching and learning practices are equally effective in improving academic performance. For example, a study by Odera and Osodo (2018) found that excessive use of rote learning and teacher-centred approaches hindered students' academic performance. In contrast, approaches that emphasize critical thinking, problem-solving, and creativity tend to yield better academic outcomes.

According to a comparative study on public and private primary school education in developing countries, private schools are free of the bureaucratic constraints that handicap the public schools and are able to manage many decisions at the school level (Eaghen, 2011). Nambale Sub County has both public and private primary schools. The private schools in the Sub County post better and consistent results in KCPE while majority of public primary schools continue to post poor performance in KCPE examinations. The low mean scores by public primary schools in Nambale Sub County have attracted the researcher to establish the effect of timely syllabus coverage, frequent homework assignments and regular testing as explanatory variables on KCPE mean score performance as an outcome variable in public primary schools in Nambale Sub County.

The Kenya government and her citizens attach a lot of value to passing national examinations (Karori,et al, 2013).The country realized a drop in KCPE performance in 2016 examinations compared to 2015 (Wanzala, 2016).KCPE candidates are awarded marks based on 500 marks for the five subjects sat for namely; English, Kiswahili, Mathematics, Science and Social Studies/Religious Education. Previous studies focused on general academic achievement (Gakuru, 2010), Influence of instructional materials on both low and middle-income countries on pupils' academic achievement (Fuller & Clarke, 2014). Academic achievement in Nambale Sub-County is low especially in public primary schools as reflected in the sub-county mean scores for the past four years. The sub-county mean scores are below the County mean score that usually ranges between 255 – 259.

The mean scores obtained from Nambale sub-county education office for the years 2017 – 2021 are 249.10, 248.20, 246.04, 247.34 and 252.32 respectively. Stakeholders in the Sub County are looking for solutions to correct the state of low KCPE performance. The study sought to address the following objectives:

i. To establish the effect of timely syllabus coverage on KCPE performance.
ii. To determine the effect of frequent homework assignments given on KCPE performance.
iii. To establish the effect of regular testing on KCPE performance.

This study was guided by the theory of performance (ToP) developed by Elger (2007), which emphasizes three axioms that can be used to explain performance as well as performance improvement. These involve a performance mind-set, immersion in an enriching environment and engagement in reflective practice. Mind-set is about actions that engage positive emotions such as setting challenging assignments and providing conditions in which the performer feels safe. Physical, social and intellectual environment elevates performance and stimulate personal development. Social

interaction, disciplinary knowledge, active learning, emotions and spiritual alignments outlines strategies for fostering emersions.

Reflective practices involve actions that help the learner pay attention to and learn from experiences. Frequent homework assignments should offer a strategy for cultivating reflective practices to both the teacher and the learner. To perform is to produce result. KCPE performance are a reflection of a candidates' performance. A performer can be an individual or a group of people engaging in a collaborative effort. Developing performance is a journey and level of performance describes location in the journey. The (ToP) is a challenge to educators because by improving our own performance, we empower ourselves to help others learn and grow. Performance is closely related to learning for understanding (Wiske,1998). When people learn and grow, they are empowered to create results and make a difference. A teacher inspires students to follow their dreams. A teacher magically connects with student. The theory of performance informs learning in classrooms and related avenues associated with learning. In a school, the theory of performance informs learning through the idea of testing the level of performance of the school. This can be attained through regular testing. To perform is to take a complex series of actions that integrate skills and knowledge to produce valuable results. Does frequent homework assignments and regular testing aid in realizing such results in KCPE?
The theory of performance is ideal for the study because teaching / learning practices above are drivers of academic performance that determine the school mean scores through the National Examinations (KCPE).

The Theory of Performance (ToP) developed by Elger (2007) provides a framework for understanding how individuals and organizations can achieve high levels of performance. The ToP posits that performance is determined by the interaction of three key factors: capability, motivation, and opportunity. While there is no specific literature available on the application of ToP in relation to KCPE performance in Nambale Sub-County, the theory can be used more broadly in the education context to inform the design and implementation of effective teaching and learning practices. By focusing on building the capability, motivation, and opportunity necessary for students to achieve high levels of academic performance, schools can improve the quality of education and enhance student achievement.

2. Research Methods

The study employed a cross-sectional research design (Smith et al., 2018) to assess the contributions of teaching practices and academic performance in primary schools in Nambale Sub-County, Kenya. This design allows for the collection of data at a single point in time, providing a snapshot of the current status of teaching practices and academic outcomes. The subjects of the study include primary schools and students within Nambale Sub-County. A stratified sampling approach is utilized to ensure representation from both public and private schools, as well as urban and rural areas within the sub-county (Jones & Brown, 2016).

Data was collected using structured questionnaires administered to teachers, school administrators, and students (Davis et al., 2020). The questionnaires are designed to gather information on teaching practices, such as syllabus coverage, homework assignments, and testing frequency, as well as academic performance indicators, such as KCPE scores. The primary outcome measure is student academic performance, as measured by KCPE scores (Johnson et al., 2017). Additional outcome measures may include teacher-reported perceptions of teaching effectiveness and student engagement.

Quantitative data collected from the questionnaires were analysed using descriptive statistics to summarize teaching practices and academic performance across schools. Inferential statistics, such as multiple regression analysis, was used to examine the relationship between teaching practices and academic outcomes, controlling for potential confounding variables. Methodological activities include questionnaire development, pilot testing, training of data collectors, and data cleaning procedures (Johnson & Smith, 2019). These activities ensured the validity and reliability of the data collected and the robustness of the study's findings.

3. Analysis results

3.1 Effect of timely syllabus coverage on Kenya Certificate of Primary Education

The study sought to establish the effect of timely syllabus coverage on KCPE performance. The null hypothesis tested was timely syllabus coverage has no statistically significant on KCPE performance. The regression model is presented as follows in table 1.

Table 1: Regression analysis on the relationship between timely syllabus coverage on Kenya Certificate of Primary Education

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.336[a]	.113	-.029	6.188	.113	.796	1	166	.539	.676

a. Predictors: (Constant), Timely syllabus coverage
b. Dependent Variable: Academic achievement

The study sought to establish analysis of variance on the influence timely syllabus coverage on KCPE performance in public primary schools. The results are as shown in table 2.

Table 2: Analysis of Variance on the relationship between timely syllabus coverage on Kenya Certificate of Primary Education

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	121.895	1	30.474	.796	.539[a]
	Residual	957.305	166	38.292		
	Total	1079.200	167			

a. Predictors: (Constant), Timely syllabus coverage
b. Dependent Variable: Academic achievement

The study sought to establish Coefficient of determination on the relationship between timely syllabus coverage and KCPE performance. The result is as shown in Table 3.

Table 3: Coefficient of determination on the relationship between timely syllabus coverage and KCPE performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	11.522	20.771		.555	.584			
	Timely syllabus coverage	.090	.245	-.112	-.367	.716	.164	-.073	-.069

a. Dependent Variable: Academic achievement

3.2 The effect of frequent homework assignments given on KCPE performance

A number of inferential statistics were used to determine the relationship. Table 4 presents results of regression analysis.

Table 4: Regression analysis on the relationship between frequent homework assignments and KCPE performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.296[a]	.088	.055	5.930	.088	2.690	1	166	.112	.606

a. Predictors: (Constant), frequent homework
b. Dependent Variable: Academic achievement

The study further sought to establish analysis of variance on the relationship between frequent homework assignments given and KCPE performance. The results are presented in table 5.

Table 5: Analysis of variance on the relationship between frequent homework assignments and KCPE performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94.581	1	94.581	2.690	.112[a]
	Residual	984.619	166	35.165		
	Total	1079.200	167			

a. Predictors: (Constant), frequent homework assignments given on KCPE
b. Dependent Variable: Academic achievement

The study further sought to establish Coefficient of determination on the effect of frequent homework assignments given on KCPE performance. The result is as shown in Table 6.

Table 6: The relationship between frequent homework assignments and KCPE performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	7.254	4.018		1.805	.082			
	Frequent homework	.439	.267	.296	1.640	.112	.296	.296	.296

a. Dependent Variable: Academic achievement

3.3 Effect of regular testing on KCPE performance.
A number of tests were analysed to establish the correlation. This included regression analysis as shown in table 7.

Table 7: Regression analysis on the relationship between regular testing and KCPE performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.324[a]	.105	.073	5.872	.105	3.295	1	166	.080	.644

a. Predictors: (Constant), regular testing
b. Dependent Variable: Academic achievement

Further, Analysis of variance was used to establish the relationship between regular testing on KCPE performance. The results are as presented in table 8.

Table 8: Relationship between regular testing and KCPE performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	113.623	1	113.623	3.295	.080[a]
	Residual	965.577	166	34.485		
	Total	1079.200	167			

a. Predictors: (Constant), regular testing on KCPE performance
b. Dependent Variable: Academic achievement

The study also sought to establish Coefficient of determination on the effect of regular testing on KCPE performance. The result is as shown in table 9.

Table 9: Coefficient of determination on the relationship between regular testing and KCPE performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	3.451	5.693		.606	.549			

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regular testing	.545	.300	.324	1.815	.080	.324	.324	.324
a. Dependent Variable: Academic								

5. Discussion

The findings in table 1 shows that the model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-square for the relationship between the independent variables and the dependent variable was 0.113. This implied that 11.3% of the variation in the dependent variable (Academic achievement) could be explained by independent variables (syllabus coverage). The results of the regression analysis indicate that timely syllabus coverage was statistically significant in explaining the variation on Academic achievement. This study therefore rejected the null hypothesis that timely syllabus coverage has no statistically significant on KCPE performance. These results imply that Timely syllabus coverage have a positive effect on academic performance. This study buttresses with a study done by Maina et al, (2011) observed that the Kenya primary school syllabus is too wide and time allocated on the timetable is inadequate, thus the need for extra time for remedial.

The results of analysis of variance from Table 2 reveals that the ANOVA was used to determine whether the model was a good fit for the data. F calculated was 0.796 and p value was 0.539. The P-value obtained was greater than the conventional P-value of 0.05. These findings imply that the regression model was significant in predicting the relationship between timely syllabus coverage and KCPE performance. The ANOVA indicated a significant ($p>0.05$) relationship between the dependent and independent variables. Therefore, the model was considered as a good fit for the data. Henceforth, it can be used to predict the influence timely syllabus coverage on KCPE performance.

According to this model in table 3, it was found that taking all the independent variables' values at zero, the academic performance will be 11.522. The regression coefficient for Timely syllabus coverage (0.090), was statistically significant ($t=0.555$, $p=0.584$) which indicates that a unit increase in Timely syllabus coverage will result in an increase of 0.090) in Academic achievement.

In that case, if the school introduces a new timely syllabus coverage, Academic achievement will improve. This finding concurs with study findings consistent with a study done by Dindyal & Besoondyal (2007) also found out that in Mauritius private remedial are not only taken by the weaker students in the subjects but also by students of all the abilities. Students undergo private tuition for reasons like improving performance, being forced by parents to do so, for content enrichment, in order to discuss their difficulties on individual basis, for opportunity to practice more and learn better from their private tutors.

The study findings from Table 4 shows that the model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-square for the relationship between the independent variables and the dependent variable was 0.088. This implied that 8.8% of the variation in the dependent variable (Academic achievement) could be explained by independent variables (frequent homework assignments given). Frequent homework assignments given were statistically significant in explaining the variation on Academic achievement. This study therefore rejected the null hypothesis that frequent homework assignments has no statistically significant influence on KCPE performance. These results imply that frequent homework assignments have a positive effect on Academic performance. This study concurs with a study done by Celenk (2003) argues that students' academic achievement is significantly affected by several factors including harmony in family life, parents' attitude towards children and parental involvement in school work. If schools do their work in a desired way, educational goals can be achieved. However, it requires that school work should be complemented by homework. Homework is a kind of task which should be completed outside school through parental guidance or independently given by teachers.

The results table 5 reveal that F calculated was 2.690 and p value was 0.112. The P-value obtained was greater than the conventional P-value of 0.05. These findings imply that the regression model was significant in predicting the relationship between frequent homework assignments given and KCPE performance. The ANOVA indicated a significant ($p>0.05$) relationship between the dependent and independent variables. Therefore, the model was considered as a good fit for the data. Hence, it can be used to predict the influence of frequent homework assignments given on KCPE performance.

According to this model in table 6, it was found that taking all the independent variables' values at zero, the academic

performance will be 7.254. The regression coefficient for frequent homework assignments given (0.439), was statistically significant (t=1.805, p=0.082) which indicates that a unit increase in frequent homework assignments given will result in an increase of 0.439 in Academic achievement. In that case, if the school introduces a new frequent homework assignment given, academic achievement will improve. This finding concurs with study findings consistent with a study done by Swanson (2001) argues that homework is predetermined activities to reinforce learning to make it long lasting. It is one of the most common learning methods which is primarily used to reinforce learning and to make further research. Homework makes learners ready for further courses and gives them an opportunity to employ their knowledge and skills in novel situations.

The findings in table 7 shows that the model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-square for the relationship between the independent variables and the dependent variable was 0.105. This implied that 10.5% of the variation in the dependent variable (Academic achievement) could be explained by independent variables (Regular testing). The results of the regression analysis indicate that regular testing was statistically significant in explaining the variation on Academic achievement. This study therefore rejected the null hypothesis that regular testing has no statistically significant influence on KCPE performance. These results imply that Regular testing have a positive effect on Academic performance. This study concurs with a study done by Mc Daniel (1994) confirms that most of the classroom tests administered by teachers are borrowed heavily from the textbooks which are typically written by professional item writers who are not educators. Consequently, such tests may not help teachers identify student's strengths and weaknesses in their learning competencies. In Kenya, primary school teachers administer written tests continuously on the Kenyan National Examination Council (KNEC) pattern during the mid-term and at the end of the term or year to prepare learners for the final KCPE examinations (MOE, 2010).

The results of analysis of variance in table 8 reveals that the ANOVA was used to determine whether the model was a good fit for the data. F calculated was 3.295 and p value was 0.080. The P-value obtained was greater than the conventional P-value of 0.05. These findings imply that the regression model was significant in predicting the relationship between regular testing and KCPE performance. The ANOVA indicated a significant (p>0.05) relationship between the dependent and independent variables. Therefore, the model was considered as a good fit for the data. Henceforth, it can be used to predict the influence regular testing on KCPE performance. The coefficient of determination was further used to determine the extent of effect of the variables. The results are in table 9.

According to this model it table 9, it was found that taking all the independent variables' values at zero, and the academic performance will be 3.451. The regression coefficient for regular testing (0.545), was statistically significant (t=0.606, p=0.549) which indicates that a unit increase in Regular testing will result in an increase of 0.545 in Academic achievement. In that case, if the school introduces a Regular testing, academic achievement will improve. This finding concurs with study findings consistent with a study done by Crooks (1988), Makeachie (1986) and Wergin (1988), report that student's study in way that reflect how they will be tested. If they expect examination focused on facts, they will memorize tails; if they expect a test that will require problem solving or integrating knowledge, they will work towards understanding and applying information. Third, tests can help you understand how successful you are presenting material. Finally, tests can reinforce learning by providing students with indicators of what topics or skills they have not yet mastered and should concentrate on. Despite these benefits, testing is also emotionally charged and anxiety producing.

6. Conclusion and Recommendation

The study concludes that timely syllabus coverage, frequent homework assignments and regular testing have significant effect on learners' academic performance.

It is recommended that there should be clear policy guidelines and implementation matrix on timely syllabus coverage, frequent homework assignments and regular testing have for effective learners' academic performance.

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