

**INFLUENCE OF ADEQUACY OF LEARNING RESOURCES ON LEARNER'S
ACADEMIC PERFORMANCE IN PUBLIC PRIMARY SCHOOLS IN SAMBURU
COUNTY, KENYA**

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Abstract

Educationists aspire to achieve quality learning outcomes within the free education system in Kenya certificate primary education curriculum. This study aims at investigating influence of classroom size on learner's performance in primary school; a case study of Samburu County; Kenya. The study examined the influence of adequacy of learning resources on learner's academic performance in public primary schools of Samburu County. The study adopted Socio-Constructivism theory interpretation the influence of variables leading to low performance in overcrowded classes in public primary schools. The research was based on a descriptive research design for both qualitative and quantitative approaches to data collection and analysis. The target population was 1359. The sample size was generated using Nassiuma's (2000) formula was to calculate the exact sample size of (197) respondents. In order to select the appropriate respondents for the study, both stratified random sampling was used for learners and class teachers and purposive sampling technique for both headteachers. Data collection was done using structured questionnaires. Generated data was analysed through descriptive and inferential statistics. The study concludes that overcrowded classrooms, as illuminated by the study, disrupt the school schedule, making it imperative to reduce class sizes and achieve an optimal student-to-teacher ratio. The study underscores the critical need for equitable access to learning resources to create a conducive learning environment, thereby enhancing academic performance. Prioritizing equitable access to learning resources is essential.

Keywords: *Adequacy of Learning Resources, Academic Performance, Public Primary Schools*

INTRODUCTION

Since inception of free primary education, there has been a budding acknowledgement that Public Primary schools are facing the challenge of increasing class size as a result of free primary education and 100 percent transition which has brought about 100 plus percentage in school enrolment programs. Kenya continues to pursue its Vision 2030 goal of becoming an industrialized and middle-income country, and education is expected to drive that growth and sustain development. Currently, the Net Enrolment rate (NER) for Primary stands at 88% which means that's the primary school age for learners attending school while 79% of primary learners complete their primary education course (ACADEMIC). (NESP 2013-2018) This is significant that there are high possibilities of overcrowded classes not only in

Samburu County but across the nation.

Introduction of Competency Based Curriculum (CBC) has attracted many parents enrolling their children to Public learning institutions for CBC Early Years education for their children. This has posed serious challenges relating to the size of the class one teacher can manage at a time compared to the national ration of 1:45. Large classes are a consequence of schools admitting more students than their infrastructure was originally intended to support. This phenomenon often occurs in regions with rapidly growing school-age populations or where the number of schools is insufficient to meet the demand. In the Kenyan context, overcrowded classes are typically defined as those containing 51 or more students (as per MOEST, 2018 standards). Large classrooms cause disruptions, annoy teachers, and negatively impact their health. They also result in poor planning and assignment completion, inefficient student discipline, bad classroom management, and higher teacher workloads (Kenya's Ministry of Education, 2013). The issue of low performance of learners in Samburu County has been of much concern to County education stakeholders. Low performance has led to the decline in transition from lower levels of education to higher levels due to poor performance. In three years consecutively starting 2018, 2019 and 2020 Samburu County ACADEMIC mean scores has been declining. 2018 Mean score for the county was 232.98, 2019 was 219.83 and 219.57 for 2020 respectively. Three thousand and twenty-five (3025) candidates sat for ACADEMIC in 2020 and managed to get a lower means score of 219.57 a negative deviation of -0.26. The Kenya National Examination Council results (KNEC) shows poor learning outcomes in overcrowded schools.

Large classes have increased mass failure which propels learners to lose hope and interest in education. This was witnessed as individual learners do not get direct attention from the class teacher which leads to low performance (Author, 2022). It is of increasing concern that the current status of public primary school's class size fails to capture the devastating collateral effects on learner's performance. This includes the loss of many generations through poor performance, economic dependency and higher rates of unemployment due to low skills in the community.

According to a report by the High Life Foundation in 2016, sub-Saharan countries grapple with a challenging student-teacher ratio, often exceeding 60 students for every teacher. This situation, while varying from one nation to another, places a substantial demand on teachers' attention, and their capacity may not always suffice to ensure that every student receives the necessary instructional support they require (High Life Foundation, 2016). Olaleye (2017) highlights the issue of poor performance in public schools in Lagos, characterizing it as a significant societal concern necessitating intervention. He identifies several factors contributing to the underperformance of students in public schools, including aspects related to the physical environment, classroom size, overcrowding, teaching methodologies, and the absence of essential instructional materials. These challenges collectively hinder the quality of education and call for comprehensive reforms and improvements in the public education system. Lynda Gozales, a student specializing in Journalism and Latin American studies, posits that smaller seminar-style courses or laboratory sections provide an environment that fosters increased student engagement and participation when contrasted with larger lecture classes. In such intimate settings, students often find it more conducive to actively engage in discussions and activities, contributing to a richer learning experience. Larger classrooms do not hold learners accountable for actually paying attention in class. Phil Tsekouras (2021) also indicates that Toronto parents wants their children to be in a class not exceeding 38 class size. Therefore, this study is designed to investigate the impact of class size on students' performance in Kenya.

Statement of the Problem

For quality learning outcomes, class size remains a critical phenomenon for learners learning

in the realization of FPE programme. Since the introduction of these programmes, enrolment of learners in primary schools have been increasing annually for the past two decades. MOE (2012) and (2019) survey conducted across the country indicates that enrolment of learners in public schools supersedes the available physical and human resources. According to United Nations (2017) survey report on education in Kenya, a part from providing financial resources, class size remains the a vital challenge for the success of both free education programmes in Kenya. Various evidences provided by MOE reports indicates that class size not only affects learner's academic performances but also constrains teachers on delivery couples low academic performances. In Samburu County, schools operates in unfavorable environment due to hostility faced by education operations in the region. The ministry of education has made a lot of efforts to improve the education standards through programs such as free education and transition policy is always faced by scarcity of resources.

Despite working on enrolment for learners in Samburu, school administrators consider class size as a major concern in relation to available resources such as classrooms and teachers. The ministry of education basic act 2013 which requires a teacher to manage 45 learners at a time to avoid situations where learners lack interaction, accountability of learners in a class. Samburu records overcrowded classes which ultimately leads to poor academic performance. The present situation shows that available classes overflow with learners surpassing the needed class size to teacher's ratio. Management of class size has been a critical issue not only for teachers but also for school administration with approximately 75% of public school in Samburu are experiencing the same problem. Thus why the researcher needs to undertake the research influence of classroom size on learner's academic performance in primary school; a case study of Samburu County; Kenya

Empirical Literature Review

One of the major factor in implementation of FPE programmes remain to be provision of adequate learning resources for learners. Many primary schools continue to enroll learners as the free primary education entails but face obstacles in providing them with enough materials for learning. Learning resources encompasses any material that acts as a guide to facilitate the learning process of the learners. Thus entails textbooks, writing materials, physical tools or any other learning aid. According to UNESCO (2018) reports, almost 35.2% learner's enrolled in primary schools face scarcity of learning materials. Therefore, they end up either sharing or missing the content of the lessons. Due to class size, few learning materials shows that the learning may be sluggish or syllabus may not be adequately achieved (Muhammad & Mushtaq, 2019; Favour, 2017).

Referring to Muhammad and Mushtaq (2019) research on overcrowded classroom problems faced by school teachers, the study highlight on scarcity of learning resources as one of the impediments connected to managing large class sizes. On the findings, 43.1% of the learners were found to share learning and writing materials during class lessons. On the same report teachers were found to constraint a lot on classroom management especially where learners exceeded more than 55 in a classroom. Similarly, OECD (2019) reports on the teachers and school learner's assessment on success of Free Primary education, suggests that any government working on such programmes should ensure that all learners are well equipped with adequate learning resources.

According to Olaleye and Ajayi (2017) reports for the impacts of overcrowded classroom on academic performance of students, the finding indicates that there is a disparity gap between offering free primary education and how the learning process is undertaken. For instance, in Lagos, the ministry of education has implemented a 100% workable policy on provision of learning materials for learners. The study indicates the every learner in primary school get his or her own learning materials before getting to any lesson. In comparison with Samburu, many learning may get to class with or without learning and writing materials. This

ultimately constraints teachers on course delivery. Word Bank report, (2012) suggests that planning before enrolment in primary schools serves as the best practice to avoid high enrolment where learners get to class with inadequate learning resources.

Theoretical Framework

The socio-constructivist learning theory that was developed by Vygotsky in 1978 is used in this investigation. The socio-constructivist theory not only acknowledges the individuality and complexity of the learners, but it actively promotes, uses, and rewards the learner as the most significant component of the learning process. This is because the socio-constructivist theory views the learner as the most important aspect of the learning process. Learners are encouraged by the idea to form their judgments based on their experiences and the context in which they find themselves. Learners are members of a certain culture, and as such, they inherit certain historical background, such as linguistic, logical, and mathematical systems, which they then on to study throughout the course of their lives. This highlights the significance of the social interactions that students have with their instructors, who are informed members of society. It is difficult to acquire the social meaning of significant features and learn how to use them if one does not have the opportunity for social contact with other individuals who have more knowledge, their learner colleagues, and instructors in an atmosphere that is favorable to such acquisition. Interaction with both other students and instructors is one of the most important ways in which young students may improve their thinking skills.

Throughout the whole process of learning, it is crucial, from the perspective of social constructivism, to take into consideration the history and traditions of the individual who is gaining knowledge. According to Vygotsky, this background contributes to the formation of the information and facts that the learner generates, finds, and acquires during the course of the learning process. In Von Glasersfeld's (1989) opinion, the responsibility for learning should be placed more and more squarely on the shoulders of the learners, provided that the atmosphere for learning is conducive. As a result, social constructivism places a strong emphasis on the student's active participation in the learning process. This is in contrast to traditional educational perspectives, which placed the onus of education squarely on the shoulders of the instructor while the learner was expected to take in information in a more receptive and passive capacity. He went on to underline that in a productive learning environment, students develop their own knowledge and do not only reflect and react to what they read. This is because students in such an atmosphere are able to construct their own understanding. Glasersfeld also explored the degree of motivation for learning as well as the sources of that motivation. In this discussion, he said that the amount of motivation for learning is reliant on the learning environment as well as the learner's confidence in a classroom setting. Those sensations of competence in a class and the conviction in the capacity to solve new difficulties are formed from first-hand experience of mastery of problems in the past. These feelings are far more powerful than any external acknowledgment and incentive. This correlates with Vygotsky's "zone of proximal development," which is a learning environment in which students are given challenges that are near to, but somewhat beyond, their present level of comprehension.

METHODOLOGY

The researcher utilized a descriptive research methodology for the survey since it provided the opportunity to employ a specific sample to represent the complete population. There were 99 schools in Samburu Central, with 706 headteachers and teachers; 99 schools in Samburu East, with 353 headteachers and teachers; and 42 schools in Samburu North, with 300 headteachers and teachers. A sample of 94 respondents was achieved using the selection formulas from Nassiuma (2000). After deciding on the sample size, the research was based on the stratified random sampling. To gather primary data for the research, structured

questionnaires were employed. Descriptive and inferential statistics were used. To perform data analysis, the Statistical Package for the Social Sciences (SPSS) was employed after the data had been entered and processed within the SPSS environment. Results were presented in tabular form.

FINDINGS AND DISCUSSIONS

Response rate

The researcher issued 94 questionnaires to the respondents for the study, of the 94 questionnaires 89 (94.68%) were returned while 5 (5.32%) of the respondents did not return the questionnaires. The study therefore had a respondent rate of 94.68%.

Influence of adequacy of learning resources

Table 1: Influence of adequacy of learning resources

	N	Minimum	Maximum	Mean	Std. Deviation
Managing classes influence teaching and learning process for learners	89	1.00	5.00	3.2022	1.50136
Overcrowded classes make learners to struggle for scarce learning materials	89	1.00	5.00	3.5843	1.35520
Shared teaching and learning influence learning outcome	89	1.00	5.00	3.5393	1.28855
Large class size make teachers struggle to complete syllabus on time	89	2.00	5.00	3.7978	1.13997
Large classes cause inadequacy of teaching and learning facilities	89	2.00	5.00	3.8876	1.16227

The study sought to examine the influence of adequacy of learning resources on learner's academic performance in public primary schools of Samburu County. The study found out that a mean of 3.2022 reflecting a standard deviation of 1.50136 of the respondents suggested that Managing classes influence teaching and learning process for learners, a mean of 3.5843 with a standard deviation of 1.35520 of the respondents revealed that Overcrowded classes make learners to struggle for scarce learning materials, the study also showed that a mean of 3.5393 with a standard deviation of 1.28855 of the respondents revealed that Shared teaching and learning influence learning outcome, the study further revealed that a mean of 3.7978 with a standard deviation of 1.13997 of the respondents revealed that Large class size make teachers struggle to complete syllabus on time while a mean of 3.8876 with a standard deviation of 1.16227 of the respondents suggested that Large classes cause inadequacy of teaching and learning facilities. Majority of the respondents revealed that Large classes cause inadequacy of teaching and learning facilities in the study carried out to investigate the influence of classroom size on learner's academic performance in public primary school; a case study of Samburu county; Kenya.

Learner's academic performances

Table 1: Learner's academic performances

	N	Minimum	Maximum	Mean	Std. Deviation
Increased influx of learners accessing FPE education	89	1.00	5.00	3.0899	1.47433
Unavailability and scarcity of teaching and learning materials	89	1.00	5.00	3.4494	1.36524
Low grade scores are recorded for learners	89	1.00	5.00	3.3933	1.45085
Disruption and lack of attention during learning in classes	89	1.00	5.00	3.7528	1.28170

Teachers inability to manage class sizes for learners	1.00	5.00	3.6742	1.30363
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The study investigated on the overall influence on learners academic performance, the study found out that a mean of 3.0899 with a standard deviation of 1.47433 of the respondents suggested that Increased influx of learners accessing FPE education has affected the overall performance of the learners, a mean of 3.4494 reflecting a standard deviation of 1.36524 of the respondents revealed that Unavailability and scarcity of teaching and learning materials has affected the overall performance of the learners, the study also showed that a mean of 3.3933 with a standard deviation of 1.45085 of the respondents ascertained that Low grade scores are recorded for learners has affected the overall performance of the learners, the study further suggested that a mean of 3.7528 reflecting a standard deviation of 1.28170 of the respondents revealed that Disruption and lack of attention during learning in classes has affected the overall performance of the learners while a mean of 3.6742 with a standard deviation of 1.30363 of the respondents revealed that Teachers inability to manage class sizes for learners has affected the overall performance of the learners. Majority of the respondents revealed that Disruption and lack of attention during learning in classes in the study carried out to determine the influence of classroom size on learner's academic performance in public primary school; a case study of Samburu County; Kenya.

Inferential Statistics

Regression Model Summary

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742 ^a	.550	.529	2.74445

a. Predictors: (Constant), adequacy of learning resources,

Model	Unstandardized Coefficients		Standardized Coefficients		t
	B	Std. Error	Beta		
1 (Constant)	2.997	1.794			1.670
Adequacy of learning resources	.700	.082	.705		8.515

The model summary revealed valuable insights into the predictive capacity of the specified factors on a dependent variable. The multiple regression model, with an R Square of .550 and an Adjusted R Square of .529, suggests that approximately 55% of the variance in the dependent variable can be accounted for by the independent variables, which include adequacy of learning resources, classroom management skills, time allocated, and student to teacher ratio. The model's goodness of fit is further supported by the low standard error of the estimate (2.74445). This information underscores the significant influence of the selected predictors on the outcome variable, providing valuable guidance for educational practices and policies.

The findings of the research's analysis of the coefficients provide essential insights into the nature of the interactions that exist between the independent variable and the variable that is the subject of the investigation. The constant term was estimated at 2.997 with a standard error of 1.794, resulting in a t-value of 1.670. Examining the predictor, it was revealed that adequacy of learning resources exhibited a substantial positive impact with a unstandardized coefficient of .700, a standard error of .082, and a Beta of .705, highlighting its considerable contribution to the dependent variable.

Discussions of Findings

The study's findings are well aligned with existing literature that highlights the importance of adequate learning resources in education. Learning resources serve as essential tools that

support the teaching process and enable students to engage with the curriculum effectively. When resources are scarce or inadequately distributed, a cascade of challenges can emerge. UNESCO's (2018) reports reveal that a substantial percentage of learners in primary schools face a shortage of learning materials. This scarcity can lead to students either sharing resources or missing out on critical content. The impact of this shortage is particularly pronounced in regions with large class sizes, as resources become even scarcer. When students have to share materials, the learning process can become sluggish, and the achievement of syllabus objectives may be compromised. The challenges faced by learners and teachers in such environments mirror the findings of the study in Samburu County. Muhammad and Mushtaq's (2019) research on overcrowded classrooms identifies the scarcity of learning resources as a significant impediment related to managing large class sizes. The study indicates that students often share learning and writing materials, and teachers face constraints in classroom management, especially when class sizes exceed a certain threshold. These findings highlight the interconnected nature of classroom management, resource availability, and class size. The OECD's (2019) reports emphasize the need to ensure that all learners are well-equipped with adequate learning resources. This recommendation underscores the importance of addressing resource shortages as part of education policies and initiatives.

Olaleye and Ajayi's (2017) reports shed light on the disparity between the concept of offering free primary education and the practical realities of the learning process. In some regions, policies are in place to provide each learner with their own set of learning materials, ensuring that every student has access to the resources they need. However, in areas like Samburu County, many students may arrive in class with inadequate learning and writing materials. This inequality can significantly constrain teachers in their course delivery. The World Bank report (2012) recommends proactive planning before enrollment in primary schools to avoid high enrollments in classrooms where learners may lack sufficient learning resources. Adequate planning is essential for ensuring that students have access to the materials they need to support their learning. The study's findings highlight the intricate relationship between the adequacy of learning resources and various aspects of the teaching and learning process. When learning resources are scarce or inadequately distributed, the quality of education is compromised, and the academic performance of learners is at risk. The availability of learning resources is not merely a matter of convenience; it is a fundamental factor in promoting effective teaching and learning. To address these challenges, education authorities and policymakers should prioritize the provision of adequate learning resources for all students. Ensuring that every learner has access to the necessary materials is a crucial step in enhancing the quality of education and supporting academic performance. Additionally, measures should be taken to manage class sizes and reduce overcrowding, as larger classes tend to exacerbate these resource-related challenges.

Conclusions

The study's findings suggest that learning resources, or the lack thereof, play a critical role in the learning process. A scarcity of resources hinders classroom management and negatively influences the teaching and learning experience. Inadequate materials and overcrowded classrooms lead to challenges in completing syllabi and impact overall educational quality. Equitable access to teaching and learning resources is essential for enhancing the learning environment and, consequently, improving academic performance.

Recommendation

The study recommends that adequate provision of learning resources should be a priority for schools in Samburu County. Equitable access to textbooks, writing materials, and other instructional aids should be ensured to support the learning process and improve overall educational quality. Special attention should be given to schools facing resource scarcity.

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