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**THE INFLUENCE OF INSTRUCTIONAL RESOURCES ON ACADEMIC
PERFORMANCE IN MIXED DAY SECONDARY SCHOOLS IN KISUMU
EAST DISTRICT, KENYA**

Hellen Ahawo Adhiambo and Lucy Stella A. Juma

THE INFLUENCE OF INSTRUCTIONAL RESOURCES ON ACADEMIC PERFORMANCE IN MIXED DAY SECONDARY SCHOOLS IN KISUMU EAST DISTRICT, KENYA

^{1*}Hellen Ahawo Adhiambo

¹Post Graduate Student: Maseno University

*Corresponding Author's Email: aahawohellen69@gmail.com

²Lucy Stella A. Juma

Lecturer: Rongo University

Abstract

Purpose: The purpose of this study was to find out how instructional resources influence academic performance in mixed day secondary schools in Kisumu East District. The objective of the study was to examine how the instructional resources affect the academic performance in mixed day secondary schools in Kisumu East District. The study was based on a conceptual framework showing how academic performance is influenced by instructional resources.

Methods: The study employed descriptive survey research design. The study population consisted of 32 Head teachers, 32 Heads of examination departments and 1045 form four students. Simple random sampling technique was used to select 10 head teachers, 10 heads of examination departments and 348 students. Questionnaire and in-depth interviews were used to collect data. Qualitative data obtained from in-depth interviews were transcribed and analyzed on an on-going process according to themes as they emerged. Quantitative data collected from closed-ended questionnaire items were tallied and presented using descriptive statistics in the form of bar graphs, percentages and frequencies.

Results: The major findings of the study was that instructional resources had positive and negative influence on the academic performance of students in mixed day secondary schools in Kisumu East District.

Unique contribution to theory, practice and policy: Recommendation from the study includes further research should be done on the role of parents on the education of their children. Although educational policies play a big role in academic performance, Guidance and counseling, parental support helped to improve students' performance. The findings of this study will be useful to the administrators, parents, teachers and students in improving academic performance in mixed day secondary schools

Keywords: *Influence, instructional resources, academic performance, mixed day secondary schools, Kenya, Kisumu East district*

1.0 INTRODUCTION

1.1 Background of the Study

Education is one of the effective instruments a nation has at its disposal for promoting sustainable social and economic development (Republic of Kenya, 1999). The continued growing demand for education and high competition, for limited vacancies in public universities have led to increased expenditure on education by many parents (Eshiwani, 1993). According to the World Bank (1988) the establishment of day secondary schools are ways of reducing financial constraints in education. Republic of Kenya (1999), recommended that day secondary schools should be established within reasonable, walking distances and if possible, be developed on the precinct of existing primary schools in order to share common facilities. The report also noted that schools are cheaper to develop and maintain if communities and parents are encouraged to develop day secondary schools and provide them with adequate facilities and equipment to enable them maintain high standards of teaching and learning. The establishment of such day schools is a more cost effective way of providing and expanding secondary education. The day secondary schools will reduce parent and community borders and enable the Government of Kenya to expand accessibility to secondary education. A study conducted by Owoeye (2010) looked at the provision of facilities as it relates to academic performance of students in agricultural science in Ekiti State of Nigeria between 1990 and 1997. The study established that facilities were potent to high academic achievement of students. Owoeye's study is in line with Musungu's study who asserts that the Head teacher is the instructional leader who influences provision and management of instructional resources in the school (Musungu, 2007).

1.2 Research Objective

The research objective was to investigate influence of instructional resources on academic performance in mixed day secondary schools in Kisumu East District.

2.0 LITERATURE REVIEW

2.1 Synthesis of Literature on Instructional Resources

The quality of the instructional process experienced by each student determines school efficiency as Luvega (2007) observed that instructional materials are critical ingredients in learning and the intended curriculum cannot be easily implemented without them. Olendo (2008) stated that the availability and effective use of teaching and learning resources highly contribute to performance of students in Kenya Certificate of Secondary Education Examination. She further explains that resources help the teacher to provide quality education to the students.

Anderson (1991) as cited in Olendo (2008) asserts that any meaningful improvement in the quality of education that students receive is highly dependent on the quality of instructions that teachers provide. One reason for teacher emphasis is that teachers have immense power over innovation and change even in the most highly centralized systems of education. Fuller (1985) argues that factors associated with the instructional process include textbooks, teacher quality, teaching practices and classroom organization, school management and structure, school library activity, teachers' correction of students' exercise books and frequency of homework.

Odhiambo (2000) maintains that textbooks also provide the first reading experience to many learners. In the Republic of Kenya (1998) emphasis put on textbooks indicated that textbooks are fundamental to education and all children deserve the very best. This is in line with Odhiambo (2000) who maintains that textbooks also

provide the first reading experience to many learners. In his words Farombi (1998) reiterated that school libraries may not be effective if the books therein are not adequate and up to date as its impact may only be meaningful if the library could be opened to the students, always for a considerable length of time in a school day. This means failure to provide these facilities result in low performance of students in academic performance.

A study conducted by Faize (2011) which investigated the effect of the availability and the use of science laboratory equipment on academic achievement of students in Punjab (Pakistan). Science laboratories play a very important role in teaching – learning process of science subjects. Population of the study comprised all secondary and higher secondary schools, secondary teachers and secondary students in Punjab. The sample of the study was a total of 288 schools, 20 students and 10 teachers from each school which were randomly selected. The study employed questionnaire and interviews in data collection. The study of Faize investigated effect of the availability and the use of science laboratory on academic achievement of students in all school schools in the whole of Pakistan while the present study was out to establish the effects of instructional resources on academic performance of students in mixed day secondary schools in only a District in Kenya.

2.2 Conceptual Framework

The conceptual framework illustrated in Figure 1 shows how the academic performance in Kenya Certificate of Secondary Education is influenced by domestic chores, resources and students' commitment. The management of resources, the formulation and implementation of education policies do influence the academic performance of students at Kenya Certificate of Secondary Education. Teaching /learning activities play a very important role in the performance of students in mixed day secondary school. For example, teacher preparation and commitment in lesson attendance is likely to change the attitude of students towards their work in the school. Team teaching also makes teachers own the academic results of the school. The education policies such as target setting and retaining of teachers also motivate the teachers. Resources, domestic chores, and students' commitment are all interrelated and all play diversified roles, which either hinder or facilitate good performance in any school.

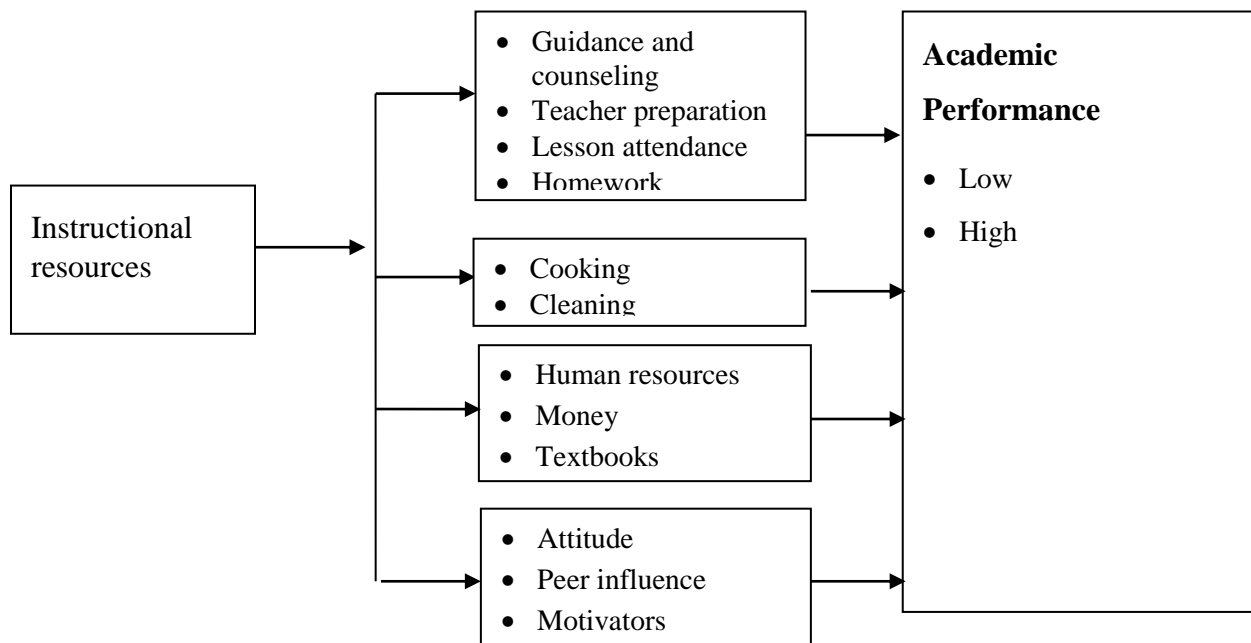


Figure 1: Conceptual Framework on Factors that affect Performance at Kenya Certificate of Secondary Education Examinations

This conceptual framework guided the researcher in data collection and data analysis. Aspects of the conceptual framework such as resources, domestic chores, teaching /learning activities and students /parents attitude were examined in the course of data collection. This showed how they impacted on academic performance on mixed day secondary schools in Kisumu East District.

3.0 RESEARCH METHODOLOGY

The study employed descriptive survey research design. The study population consisted of 32 Head teachers, 32 Heads of examination departments and 1045 form four students. Simple random sampling technique was used to select 10 head teachers, 10 heads of examination departments and 348 students. Questionnaire and in-depth interviews were used to collect data. The validity of the instruments was ascertained by presenting them to three experts in the faculty of Education, Maseno University while their reliability was gauged through piloting in two schools that were not part of sample before commencement of the study. Qualitative data obtained from in-depth interviews were transcribed and analyzed on an on-going process according to themes as they emerged. Quantitative data collected from closed-ended questionnaire items were tallied and presented using descriptive statistics in the form of bar graphs, percentages and frequencies.

4.0 RESEARCH FINDINGS AND DISCUSSIONS

4.1 Findings

Table 1 Effects of Instructional Resources on Academic Performance as indicated by Head teachers (n=10), Head of Departments (n =10) and Students (n =348)

Instructional Resources	Head teachers		Heads of Department		Students	
	(f)	(%)	(f)	(%)	(f)	(%)
Exercise books	10	100	10	100	348	100
Laboratory equipment	10	100	8	80	170	78.8
Teaching Aid	10	100	8	80	160	66.6
Stationeries	10	100	6	60	160	66.6
Set books	7	70	5	50	150	62.5
Textbooks	6	60	4	40	100	41.6

Key: F = Frequency % = Percentage

Table 1 shows instructional resources that were established by the study as vital for academic performance in mixed day secondary schools. During the interviews with the head teachers all (100%) underscored the importance of exercise books for any academic performance to be realized. The head teachers maintained that without adequate books for the students teaching would not take place. They further maintained that the exercise books enabled the students to note down what they had covered during lessons and it was through the exercise books that the Head of Examination Department were able to get the feedback after every lesson. However (65%) head teachers noted that their schools had inadequate instructional resources by providing only exercise books for the students. This they blamed on the high cost of printing the books with their school names and also the piecemeal way in which the government was releasing funds to schools. The head teachers also explained that the population of the students in their schools was low that the funds they were receiving purchase of exercise books.

All 10 (100%) head of examination department also maintained that the provision of exercise books by schools as a way of improving the academic performance of the students. The head of examination department maintained that the responsibility of providing exercise books to the students were the priority number one since the exercise books were the most essential resource for teaching. Most 6 (60%) head of examination department however maintained that the head teachers in their schools were not providing enough exercise books and a times the students were being forced to buy their own exercise books especially graph books. The Head of examination department blamed the head teachers for not being concerned on the issue of provision of adequate exercise books to enhance learning.

On their part, all (100%) head teachers during interviews noted that since the Kenyan system of education was Science based, it was mandatory to have a well equipped laboratory to enhance good performance on Science

based subjects. The head teachers further explained that laboratory equipments were vital since it was mandatory in Kenyan education system that every student must have taken two science subjects and that at the time of their final (Kenya Certificate of Secondary Education) examinations were being graded the two subjects were to be included to give them mean grade. Most head teachers noted that their school laboratories were ill equipped because of insufficient funds and the high cost of the laboratory equipments. They also noted that the funds they were receiving from the government was not enough for the provision of exercise books and laboratory equipments hence the short supply in their various schools. Lack of adequate laboratory equipments they acknowledged indeed, negatively affected their academic performance since their student did not have many practical and were only meeting some apparatus during their national examinations.

On the other hand, Head of Department noted during interviews that in order to enhance good academic performance, it was not enough to have a structure called a laboratory but it was better if the structure were well equipped with the apparatus chemicals and specimens were necessary for the students practical. They further explained that the students were able to carry out several experiments hence would not be confused come the national examination period. Majority 8(80%) of Head of Department however indicated that their schools lacked most of the equipments, chemicals and specimens. They attributed the shortage to their head teachers whom they noted were reluctant to purchase the required facilities. The Head of Department also noted that the poor performance in Science subjects was due to lack of such facilities to enhance practical and that most of their science subjects were taught theoretically. This they noted did not improve the students' performance. The need to provide laboratory equipments was also experienced by all (100%) students who participated in view that the 8-4-4 system of education was practical and system largely science based system.

Teaching aid (charts and models) was providing emphasis on what the students were hearing from their Head of Department. All (100%) head teachers under scored the impact once of the teaching aid since they enlightened the students on what they were hearing but could not see or understand how for example intervals organs looks like or they could not understand how the earth look like. Some (70%) head teachers however revealed that the teaching aid was lacking in their schools and this was due to their cost. They also noted that the funds which were to be used for buying them were not enough even for buying books and so mostly they were priorities to books and not the teaching aid. All (100%) Head of Department maintained that there were some topics in their subjects that required them to use teaching aid so as to give better illustrations to the students. They emphasized that teaching the topics without teaching aid were like doing nothing since the students were not getting the concepts. Some (80%) Head of Department noted that their schools were lacking teaching aids and most of the topics which required teaching aid were either untaught or were taught up hazard for they could not be cleared to the students without the models or teaching aid. They blamed their head teachers for laxity and not putting their teaching aid in their priority. This they noted was greatly contributed to the poor academic performance in their schools.

Most (70.8%) students expressed their disappointment for lack of supply of the teaching aid in their schools. They noted that some topics in their syllabuses were captured poorly because they needed teaching aid for better explanations. Like their Head of Examination department, they blamed their head teachers for not seeing the need to purchase the teaching aid which were necessary for better illustration of some topics. The students noted that their performance in academics were poor because of lack of teaching aid among other factors which were not catered for by school head teachers. According to all (100%) head teachers, the school stationeries were very important for the students' assessment to be carried out by the subject head of examination

department. They noted that for better performance, the students required constant assessment so as to familiarize themselves with various styles of examination setting as well as to revise constantly what they had captured with their head of examination department in the classroom.

On their part 60% of the head of examination department blamed the head teachers for not providing enough stationary. They further explained that their head teachers were providing few stationary and were restricting their usage. As such they were not allowed to give several assessments leased the stationary get finished before the end of the term. The head of examination department maintained that the few assessment they made to the students were also at time met with shortage of some stationary for printing, this the head of examination department noted were contributing to the poor performance of the students. Most (66.6%) students noted that their school had inadequate stationeries and this was causing their performance to be poor as they were not assessed to many times as they would need, to make them well prepared for their final examinations. The students concurred with their head of examination department that their head teachers were restricting the usage of the stationeries and that they were in short supply in their schools.

Set books were vital for the teaching of languages that is both English and Kiswahili. All 100% head teachers and all (100%) Head of Examination Department explained that it was not possible for the students to pass the language subjects if they did not have the required set books. The head teachers further explained that, the set books were supposed to be bought by the parents and not the schools according to the Ministry of Education guidelines on Free Secondary Education.

In most (70%) mixed day secondary schools, they study established that the parents were not buying the required set books, hence making the teaching of the languages difficult for the Head of Examination Department. Some (60%) Head of Examination Department explained during interviews that set books were vital but the parents were reluctant to buy citing the fact that they were only supposed to buy uniforms, pay for lunch and development levies. This laxity was costing the students their academic performance, the Head of Examination Department maintained. In order for students to perform well in any subject, they needed to have read widely and consulted various textbooks. All (100%) head teachers and Head of Examination Department maintained that the textbooks were vital for academic success. They maintained that even the Ministry of Education underscored the importance of books by including their purchase under the tuition vote head sent to schools under Free Secondary Education program.

All (100%) head teachers noted that their schools had bought a number of textbooks which were kept in their school libraries for the students to read and borrow. This they maintained was to enhance further reading and research as students were to cover the syllabus a head of their Head of Examination Department. Some (60%) head teachers however noted that their schools were not having enough textbooks as they were still at the ratio of one textbook per 5 students. The head teachers blamed the shortage due to various series of the series of books in the market to be brought, the higher prices of text and the less funds send to schools by the Ministry of Education.

All (100%) Head of Examination Department noted that textbooks and the existence of a library were very vital for better academic performance. The Head of Examination Department further noted that schools needed to have varieties of various series of books for better performance. Some (60%) Head of Examination Department however noted that their schools had inadequate textbooks and many times they were forced to share books with the students. The Head of Examination Department sentiments were also shared by some (59.4%) students who maintained that their schools lacked adequate textbooks and that they were at times forced to share their

Head of Examination Department books. The inadequate provision of textbooks and inexistence of libraries in most mixed day secondary schools were summarized on the figure.

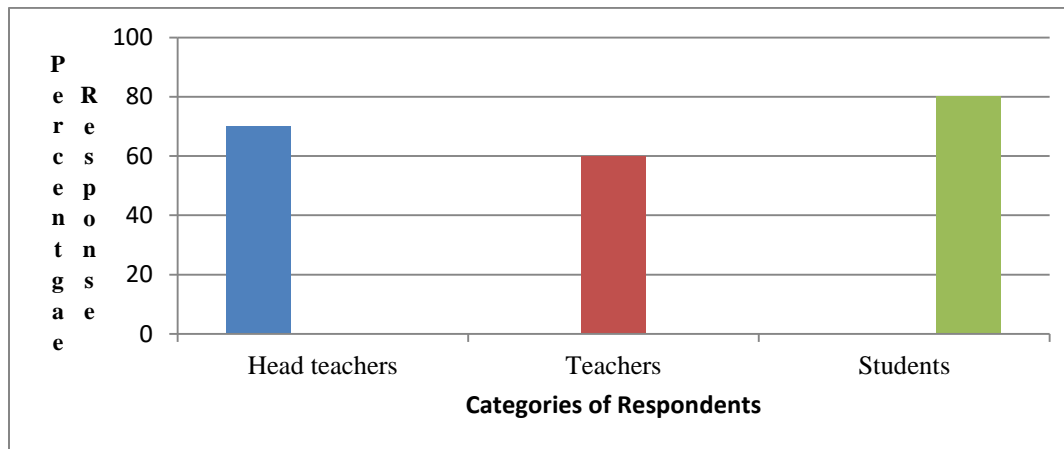


Figure 2: Inadequate supply of instructional materials as indicated by head teachers, head of departments and students

The study however established that the instructional resources were inadequately supplied or purchased by head teachers and parents where necessary. This made the Head of examinations department not to be adequately prepared as some (70%) heads of examination department explained that without set books, it was hard to achieve better results in the languages. This finding concur with Achola (2012) who established that textbooks to a large extent determines the quality of education and lack of enough textbooks, hampers the teaching /learning of mathematics and languages.

4.2 Discussions

The students however expressed dissatisfaction on the laboratories in their schools was equipped. They noted that some of them were reaching the fourth form without seeing some chemicals or after having done not more than six practical in the laboratory. Inadequate practical was due to short supply of the apparatus, chemicals and specimen that were necessary for their study. The students hence indicated that their performance were tempered by lack of laboratory facilities given that it was a must for them to take two Science subjects. They finally noted that the checking of their laboratories by the Ministry officials was really wanting if they were to complete fairly with students from other schools.

In practical lessons, it is established that an object handled impresses itself more firmly on the mind than the object merely seen from a distance or in an illustration. It is therefore true that practical work forms an important feature in any Science and Mathematics course (UNESCO, 2008). The argument is that there is a problem when both laboratory equipment and chemicals are not adequately provided, the students do not have the necessary confidence in carrying out experiments using available apparatus and during the Kenya certificate of secondary education they panic due to inadequate training in their four year course. This means that students perform poorly in Science subjects and Mathematics due to the fact that the teaching is incomplete without some practical work.

The study revealed that in the newly established schools, the laboratory equipment were provided but new teachers did not use them due to ignorance. This is in agreement with the findings of Birgen (2005) who asserted that experience and qualification is the best asset for handling a task. The implication here is that teaching require both qualification and experience for better delivery of the content for quality education. This means that principal need to use the resources well with the aim of providing enough resources for good academic performance.

All head teachers maintained that their schools do have enough school supply of the stationery and that it was the head of examination department who never make proper use of them. The head teachers blamed the head of examination department for laxity in using the stationary since they feared constant marking of the student work. This activity of the head of examination department were the major factors towards poor academic performance since the students were not exposed to the various setting styles and it also made the students to develop phobia for examinations.

It was established by this study that instructional resources were very vital in the improvement of students' academic performance. The finding of this study is supported by Odhiambo (2000) who maintains that textbooks provide the first reading experience to many learners. This is true particularly in the third world countries where other forms of print materials such as Newspapers, magazines and posters are difficult to come by especially in many homes. The instructional materials right from exercise books, laboratory equipments, teaching aids, stationery, set books, textbooks and library were established to have been necessary for the teaching and finally good academic performance.

The findings of this study agree with those of Mutahi (2006) who asserted that learning is strengthened when there is enough stationeries such as printing papers for production of many regular examinations papers. He further explains that academic performance illustrates per excellence the correct use of the teaching /learning resources like photocopying papers. This implies that provision of photocopying papers can positively change teachers' attitude to the teaching particularly when learners improve due to a lot of exercises given and corrected at the correct time.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

The study concluded that adequate supply of exercise books, set books and text books to students enhances academic performance. Further, the study found out that provision and adequate use of laboratory equipment and teaching aid enhances academic performance.

5.2 Recommendations

The Ministry of Education should ensure uniform provision of instructional resources to all schools so that the students compete on the level at Kenya certificate of secondary education.

Head teachers should pull resource and buy set books for schools so that all students are in a position to read them well before Kenya certificate of secondary education examination. All the head teachers should put priority on the provision of laboratory equipments since they play a vital role on the performance of students at Kenya certificate of secondary education

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