# A Comparison of Academic Performance of Learners in Day Secondary Schools and Those in Boarding Secondary School in Kenya

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Abstract: Given the rising cost of education, there has been a growing consensus of establishing Day Secondary School to provide school places for the increasing number of learners joining secondary level of education. Day schools have been associated to low performance at the national examinations. This study compares\_academic performance of learners in Day Secondary Schools and those in Boarding Secondary Schools in Nandi County, Kenya. This study was guided by Cost Function derived from the Education Production Function theory. This study employed a cross-sectional survey as a research strategy. This study targeted all the principals in 186 public secondary schools in the Nandi County. It employed stratified random sampling so as to achieve representation from the school types. The sample size was determined by use of the published table by Krejcie and Morgan. Questionnaire and document analysis were the main instrument of data collection. A pilot study was used in determining the reliability while validity of the research tool was achieved through a carefully and critically examination of the instruments by experienced team of supervisors. Data was analyzed using frequency, means, range, percentages and t-test. It was found out that, academic performance for the period (2012-2015), recorded an average mean of 7.1184 and 4.7391 for Boarding and Day secondary schools respectively. This study found out that, there was a significant difference in academic performance between Boarding and Day secondary schools (t(121) = 9.990, p = 0.000); The findings of this study will generate ideas for better and more resourceful cost management in secondary schools, which is useful for policy makers and managers in education sector. The study makes recommendation that, there is need to improve effectiveness and efficiency of school management, effectively utilize monetary resource, appropriately allocate resources and practice prudence in financial management.

Key words: Academic Performance, Type of Schools, Learners

# I. INTRODUCTION TO THE STUDY

Education remains the greatest inheritance and valuable mechanism a nation can give to its youth (Republic of Kenya, 2007; Digolo, 2006). Education is one of the most central pillars of socio-economic development in Kenya. Kenya's Vision 2030., The route to vision 2030 is to provide quality education so as to empower citizens and make them responsible, productive and entrepreneurial. To achieve the vision, deliberate areas namely; access, quality and equity, have been issues of great concern to all education stakeholders. In Kenya, cost of secondary school level of

education has continued to rise (Ngetich, Wambua & Kosgei, 2014). To address the question of rising cost of secondary education, there has been rising demand for the establishment of Day Secondary schools with expectation that it will allow low income groups to take their children to school. The only fear with Day Secondary Schools is on the performance at the national examinations.

All over the world, education is taken to be a means of solving problems in society and uplifting the quality of life among individuals in the society. Performance at the national examinations internationally is a sensitive matter because it determines the course and expectations of an individual. Each country's nationwide examinations are based on nationalized curricula and content principles (Mbugua, Kibet, Muthaa, & In the Kenyan situation, academic Nkonke, 2012). performance in secondary education remains an issue. Most of the schools producing very few graduates with a grade of C+ which is a minimum requirement for university education in the country. This is principally so for schools that is Sub-County and County schools in the country. Factors relating to the learner, the teachers, schools themselves and the greater society play a important role in influencing academic performance of the learners this factors are seen in the context of teacher motivation, academic qualification experience of teachers, learner characteristics, accessibility of instructional resources, school management as well as teaching learning methods and strategies that are being applied. Although World Bank (2008), notes that, retention and quality of education depends solely more so on how schools are managed and not on the availability of plenty resources. Lack of basic teaching and learning resources and facilities and poor administration of schools resources affects performance (Ohba, 2009). According to Ohba (2009), poor performance at the national examinations have been attributed to a variety of factors which include shortage of trained teachers, lack of essential resources, neighborhood interferences, inappropriate teaching methodologies and poor management of the little available school resources.

MoEST (2003) remarks that academic performance is influenced by numerous factors ranging from availability of sufficient teaching and learning resources, quality of human resources available and the effectiveness of school management. Instructional materials determine the

effectiveness of teaching and learning and therefore the academic performance (MoEST, 2003). Chiuri and Kiumi (2005) observes that internal efficiency of an education system largely depends on the amount of resources used. In order to provide sufficient teaching and learning resources, physical facilities and employ required human resources, there are major cost implications; there is need for adequate finances. Finances go into paying salaries for human resources and for acquisition of other inputs required in the education process. In an event where the cost requirement has not been achieved, the consequences will in most cases, lead to poor performance.

The provision of adequate instructional resources is very important to teaching and learning. Learning can occur when learner's interaction with the environment, the environment here refers to resources that are within reach; that enable improved learning outcome (Owoeye & Yara, 2011). Mbugua et al., (2012) suggested the strategies on how to uplift performance in mathematics to include adequate staffing, providing teaching and learning resources, review of the curriculum effective motivation, addressing attitude issues and motivation to both teachers and learners. This findings agrees with the findings of Yeya (2002) who argued that facilities alone may not count other factors should always be considered in an attempt to improve performance. Mbugua et al., (2012) identified pupil-text book ratio has one other factor to be considered more so in rural areas.

School performance can be measured in many ways (Robert, 2005). Because of that no one characteristic can give explanation for its attainability. Scholars have different ways if identifying the variety of factors that contribute to good or poor performance in schools. To the secondary school teachers, the KCSE result performance point toward the legitimacy of their qualification as teachers and the worth of their practice and to the school management, result are useful with respect to head teacher's efficiency and effectiveness in his supervisory mission (Nyamongo et al., 2014). There is no doubt that the way a school performs in the KCSE which is a national examination is a function of school resources (Korir, 2011). Sigilai (2013) appropriately put out that students' academic performance cannot be achieved where there is lack of the required inputs in the teaching and learning process. Korir (2011) aptly put out that inputs that have a say to low learning attainment include immaterial, poorly expressed clogged curricula, insufficient teaching and learning resources, inadequate time for instruction and inappropriate learning environment.

According to a study by Sabitu, Babatunde and Oluwole (2012) to investigate the influence of school types and facilities on students' academic performance in Ondo State, Negeria, it was revealed that there was a significant difference in facilities available in public and private secondary schools in Ondo State and that there was no significant difference in academic performance of students in public and private secondary schools. In Kenya, private secondary school may

have better teaching and learning resources because they charge more fees than public secondary schools. Although this may translate to a higher unit cost, ability of private schools to provide teaching and learning resources may positively influence performance. Sabitu et al., (2012) recommended that there was need for procurement of more facilities in public secondary schools in order to enhance students' academic performance and that the government should encourage corporate organizations and individuals to donate educational facilities particularly for the core subjects in the public secondary schools. In Kenya the possibility of procuring adequate facilities means additional funding either from the government or fee paying parents/guardians, again this measures push up cost per students. They further suggested that education resource centres such as teacher centres should be established by the government and that teachers should make good use of available instructional resources and improvise where there is shortage.

About more than three decades ago, Keeves (as cited in Sabitu et al., 2012) in the approaches to the goal of educational equality in renewal of Australian schools, found out that the type of school, classified as public or private did not make any difference on students' academic performance. However, in a study by Ajayi (2006) on the influence of school type and location on resource availability and pupils learning outcome in primary schools in Ekiti state, Nigeria, it was found out that school type make a difference in student academic performance. This agrees with a study by Yara and Catherine (2011) who noted that the school category has effect on the academic performance of students in Mathematics.

Yeya (2002) noted that students in Boarding schools clear the syllabus in time and therefore get more time for remedial classes and serious revision because they are continually in school as compared to day scholars. Day schools are always affected by absenteeism of both the learners and their teachers. At the end of it all this absenteeism affects the completion of the required content in the syllabus in a particular year. Yeya (2002) further noted that students with remarkable marks at the end of their primary cycle keep away from day schools in preference to Boarding schools. This could then be the reason of better performance in Boarding schools in national examinations. Yara and Catherine (2011) observe that school category could be used to predict students' academic performance in mathematics. In their study they established that there is a positive relationship between mathematics and school category. Akaranga and Simiyu (2016) found out that students' poor performance in Christian Religious Education was affected by a number of factors which include: adequacy of resources. Mbugua et al., (2012) noted factors contributing to poor performance in Mathematics to include inadequate teaching and learning materials.

The purpose of this study was to compare academic performance of learners in Day secondary schools and those in boarding secondary schools in Nandi County, Kenya. Specifically, this study was set to achieve the following objectives:

- To examine the academic performance of learners in Day and Boarding secondary schools in Nandi County, Kenya.
- Compare academic performance of learners in Day and Boarding secondary schools in Nandi County, Kenya

This study tested the following hypothesis:

*HO*<sub>2</sub>. There is no statistically significant difference in academic performance of learners in Boarding and Day secondary schools in Nandi County, Kenya.

The underlying reason for this study was the fact that the budgetary allocation to education sector has been increasing in the recent past due to increasing demand for secondary school place. To meet the rising demand and rising cost, government and other stakeholders are supporting the idea of Day schools. With the introduction of subsidy for secondary Education and increasing demand for more teachers due to rising enrolment, has led to increase in education cost. The burden is felt by all the stakeholders in the education sector. With enormous resources allocation to education sector and more specifically to the secondary school sub-sector, performance of learners in the national examinations is expected to respond in equal measure. This study was delimited to public secondary schools in Nandi County, Kenya. Secondary schools selected are those which had sat for the KCSE for at least once. Due to the large number of secondary schools in the area of study, school were sampled using systematic random sampling so as to achieve representation from the school types namely; Day secondary schools and Boarding secondary schools. This study was guided by Cost Function derived from the Education Production Function theory. Psacharopoulos and Woodhall (1985) put forward that Production Function Theory considers production as the process that transforms inputs into outputs. Because of that, it follows that there is a relationship between inputs and outputs of education. A Production Function identifies the output of a firm and industry or an entire economy for all combination of inputs (Hanushek, 2007). In other words, Productions Function in education or otherwise, describe the minimum level of outcome that can be possible from all possible alternative combinations of inputs. It gives a digest of technical relationships between and amongst inputs and outcomes.

### II. RESEARCH DESIGN AND METHODOLOGY

The study was conducted in Nandi County of Kenya. Nandi County is in North Rift of Kenya, occupying an area of 2,884.4 square kilometers with its headquarters as Kapsabet town. It is believed that the study area gives a wide and varied

view of the problem of this study. However, it should be observed that the choice of the area of study did not render other parts of the country less significant. This study employed survey research as a research strategy. Creswell (2013) suggest that survey enables taking a sample of population to generalize results for the whole population, resulting to in-depth, rich and meaningful research findings. This study specifically employed cross-sectional survey. A cross-sectional survey is intended to make a comparison of numerous population groups at a particular point in time. This study collected data using questionnaire and document analysis so as to compare academic performance of learners in the types of secondary schools in Nandi County, Kenya. Target population refers to an entire group of individuals, events or objects having a common observable characteristic (Nworgu 1991; De Vos 2002). This study targeted all the principals of all the public secondary schools in the Nandi County, Kenya. This study therefore collected data from the principals of these public secondary schools.

Silverman, (2016) argues that sampling in education research is usually conducted in order to sanction in-depth the study of part, rather than the whole of population. Kothari & Garg (2014) argues that a complete enumeration of all items in the population is known as a census inquiry and that when a universe is small it is not necessary to resorting to a sample survey. However, this study did not enumerate all the items in the population but rather did sample. In this study, the sample size was determined by use of the published table by Krejcie and Morgan (1970). Krejcie and Morgan (1970) presented sample sizes that would be required for a given permutation of accuracy and assurance levels. The table was therefore suitable in determining sample size from a given population which was finite (known). Information available at the office of the Nandi County Director of Education indicated that the County had a total of 186 secondary schools in the year 2015. Based on the table by Krejcie and Morgan (1970), a population of 186 secondary schools yielded a sample of 123 secondary schools. A total of 123 secondary schools and therefore the same number of principals of the sampled secondary schools in Nandi County were the respondents in this study. This study used both questionnaire and document analysis as tools of data collection so has to grant a comfortable base for data analysis. Closed and open ended questionnaire which was developed in consultation with research supervisors and colleagues to capture data on enrolment and performance in KCSE examinations. Open ended questions were considered appropriate because they permitted a greater depth of response and enables respondents to give an insight into their decisions. In addition to the questionnaire, this study used document analysis for data collection. In this study, the sources of documentary data used in this study included data on KCSE scores: these documents were found complete, in correct form and adequate. These documents were analyzed for information relevant to this study. KCSE performance for the schools visited were

analysed to corroborate information collected in the questionnaire.

Validity of the research tool for this study was determined by having experienced team of supervisors and researchers in the School of Education-Moi University, who carefully and critically examined the questionnaires to evaluate the exactness of the items contained in the two instruments. In view of their suggestions, the research instrument was revised to remove any ambiguity, errors and add any omissions, weight and clarity before administering the instruments to the respondents. In the pilot study test-retest technique was used in determining the reliability. To identify the number of participants for the pilot study, this study adopted the views of Creswell (2008) who suggested that, a pilot study participants should be ten per cent of the sample. Consequently, the questionnaire as the research instrument was administered twice to the same respondents with a time difference of three weeks between the first and the second test. Using the two sets of scores, Pearson Product Moment correlation Coefficient (r) was computed to establish the extent to which the instruments gave consistent measures.

This study deployed the usefulness of the Statistical Package for Social Science (SPSS) version 20. Descriptive and inferential statistics were used to analyze and present results. The null hypothesis  $(HO_I)$  was tested using Independent Sample T-test. The independent t-test, also called the two sample t-test, independent-samples t-test or student's t-test, is an inferential statistical test that determines whether there is a statistically significant difference between the means in two unrelated groups. In this study independent t-test was used to determine if there was significant difference in academic performance of Boarding and Day secondary schools. The study considered all the respondents equally. Furthermore the researcher enumerated how privacy and confidentiality concerns would be addressed. Open and unrestricted atmosphere for free exchange of ideas and information were cultivated and sustained. The respondents were given an opportunity to ask for any clarification from the researcher.

# III. RESULTS AND DISCUSSIONS

Enrolment in the Type of Secondary Schools

In this study, enrolment in the sampled schools was one of the indispensable items for analysis; this study analyzed enrolment in terms of school type for the years 2012-2015. The result of this analysis is shown in Table 1 below.

Table 1 Enrolment Based on the Type of Schools (2012-2015)

Type of School	2012	2013	2014	2015	Average	Percentage
Day Schools	12,60 0	13,87 8	14,83 3	16,11 9	14,356	65.6
Boardin g Schools	4,430	6,569	8,401	10,75 0	7,538	34.4
Total	17,03 0	20,44 7	23,23 4	26,86 9		100

From Table 1 above, Boarding Schools enrolled a total of 4,430 students in 2012, 6,569 students in 2013, 8,401 student in 2014 and 10,750 students in 2015. Yearly average enrolment stood at 7,538 students this being 34.4 percent of the total enrolment. On the other hand, Day secondary schools enrolled 12,600 students in 2012 and 13,878 learners in 2013. The numbers enrolled in Day schools rose to 14,833 and 16,119 for the years 2014 and 2015 respectively. For Day schools, yearly average enrolment stood at 14,356 this enrolment represented 65.6 percent of the total enrolment. From this it can be revealed that Day schools enrolled majority of the students in each of the four years under study. It can also be established that total enrolment in both school types increased by 57.7 percent from 17,030 students in 2012 to 26,869 students in 2015. This increase in enrolment depicts the national trend where enrolment rose by 33.6 percent between 2012 and 2015 (Republic of Kenya, 2016). Increase in the number of learners means access is improving. However this increase has a cost implication to the state. This is because additional human and physical resources will be needed in order to provide quality education to the increasing numbers.

Enrolment in schools is useful give the need to have optimal class size which is always issues of consideration in an attempt to have effective utilization of resource inputs in a school system. Number of learners enrolled in a school and more so class size are consider in analyzing efficiency and effectiveness of a school. Hanushek (2007); Kosgei and Rono, (2004); Ngetich et al., (2014) made recommendation that secondary schools should always strive to increase enrolment to the optimal level in order to enjoy the economies of scale and thus saving on cost. Hinda (as cited in Geraint, 1993) found out that instructional expenditures per pupil in the primary school sector are related to enrolment. Given that majority of the learners were in Day Schools, effective learning may have been affected. This is because students in Day schools have limited time for study as compared to those in Boarding Schools. Day scholars spend some of their time traveling to and from school. However, majority of the learners might have attended Day Schools because of the cost. Fees charged in Day schools are far much less compared to those charged in Boarding schools. This is mainly because of the boarding charges.

Performance in the Kenya Certificate of Secondary Education (KCSE) in the years 2012-2015

The second objective of this study was to examine the academic performance of learners in the types of secondary schools in Nandi County, Kenya. Academic performance is measured by the grades attained at the KCSE examinations which are done after four year of secondary education. Secondary school Principals in Nandi County were asked to indicate the performance (mean score) in their schools for the period 2012 to 2015 at the KCSE examination. In addition, document analysis on the performance at the KCSE was done. The findings are presented in four sub sections that follow.

Analysis of KCSE Performance for the School Types (2012-2015)

In this study, analysis of the performance at the KCSE according to the schools type where learners sat their KCSE examinations for the years 2012-2015. Learners were considered in the following types of schools; Day School or Boarding School. Table 2 below shows the results of this analysis.

Table 2 Summary Analysis of KCSE Performance for the School Types (2012-2015)

Schools type	2012	2013	2014	2015	Average
Boarding schools	6.9874	6.8956	7.1548	7.4358	7.1184
Day schools	4.8153	4.6334	4.9612	4.5464	4.7391

From Table 2, Boarding secondary schools sampled for the study recorded a mean score of 6.9874 in the year 2012, 6.8956 in the year 2013, 7.1548 for the year 2014 and 7.4358 in the year 2015. Day secondary schools recorded a mean score of 4.8153, 4.6334, 4.9612 and 4.5464 for the year 2012, 2013, 2014 and 2015 respectively. The average for the four years was a mean of 7.1184 for Boarding secondary schools and 4.7391 for Day secondary schools. it is important to note that, for all the years, it can be established that Boarding secondary schools performed better than Day secondary schools. Furthermore, the highest mean that was attained in the four years was 7.4358 for Boarding secondary schools and 4.9612 for Day secondary schools.

The lowest mean scored in the four years was 6.8956 for Boarding secondary schools and 4.5464 for Day secondary schools. Given that the possible attainable mean score stands at 12, which is a grade 'A', Boarding secondary schools perform at a mean grade of C plus for the entire four year period (2012-2015). On the other hand, for the same period, Day secondary schools performance was at just at grades C and C minus. These performances therefore, had not been improving for the four year period. Education stakeholders, more so those who finance education have an interest in improvement in results because that is the best way they can get returns of their investment.

Furthermore, this study made analysis of the performance at the KCSE for the two types of secondary schools for the year 2015, by comparing average mean score, highest mean score and lowest mean score. The findings are tabulated in Table 3

Table 3 Analysis of Performance for the School Types (KCSE 2015)

School type	Entry	Average Means Score	Highest Mean Score	Lowest Mean Score	Range	
Boarding schools	2,824 (43%)	7.4358	11.162	4.040	7	
Day schools	3,705 (57%)	4.5464	8.045	2.559	5	

Table 3 above shows a result of analysis for the 2015 KCSE performance in the sampled Day and Boarding secondary schools. From the table, it is revealed that Boarding Schools which registered 2,824 KCSE candidates in 2015 this being 43 percent of the total candidature, attained an average mean score of 7.4358, the highest mean score for Boarding Schools was at 11.162 and the lowest mean was at 4.040. The range in this type of school was wide at 7 points. On the other hand, Day School entered 3,705 candidates this represented 57 percent of the total candidates in 2015. Day Schools had an average mean score of 4.5464 while the highest mean score and the lowest mean score were 8.045 and 2.559 respectively giving a range of 5 points.

From the finding, Day Schools had a lower average mean score compared to the average mean score of Boarding Schools, the difference between average mean score for Day Schools and Boarding Schools stood at 3 points. Although allocation per student under the government subsidy for secondary education are the same for both Day schools and Boarding Schools, learners in Boarding Schools pay additional funds mainly for their boarding expenses. Learners in Boarding Schools have reasonable enough time to study as compared to those in Day Schools who consume some of the valuable time travelling to and from school. Day School registered the highest number of candidates as compared to the Boarding Schools. Based on the average mean score, Boarding Schools performed better than Day Schools, but the range stood at about 1 point when we consider the lowest mean score between the two types of schools. This means the lowest performing schools in the two types of schools have relatively the same performance. However day scholars pay far much less in terms of school fees compared to boarders.

# Testing the Hypothesis

In addition to the descriptive statistics on the analysis of students' academic performance for Day schools and students' academic performance for Boarding schools, this study sought to establish whether there was a significant difference in academic performance between Boarding secondary schools and Day secondary schools in the area where the study was done. Students' academic performance was measured in ratio scale where the student's average mean scores obtained in examination were used. The minimum score was 1 and the highest score was 12 as used by the Kenya National Examination Council (KNEC). The hypothesis of this study was therefore stated as:

*HO:* There is no statistically significant difference in academic performance of learners in Boarding secondary schools and academic performance of learners in Day secondary schools.

The hypothesis was tested using Independent Samples T-test. This test was appropriate for this hypothesis because the sampling method was systematic random sampling, the samples were independent and that there was homogeneity of variance. The output is presented in Table 4

Table 4 Independent Samples Test for Testing HO<sub>2</sub>

Independent Samples Test

		Levene's Test for of Variance			t-test fo			for Equality of Means			
		F S	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Ů						Lower	Upper	
Performance	Equal variances assumed	8.889	.003	9.990	121	.000	2.889494	.289243	2.316861	3.462126	
	Equal variances not assumed			8.160	37.641	.000	2.889494	.354098	2.172436	3.606551	

The output shown in Table 4 reveals that the level of academic performance was normally distributed for both groups and that there was homogeneity of variance as assessed by Levene's Test for Equality of Variances. After running the independent t-test on the data with a 95% confidence interval for the mean difference, it was found that there was a significant difference in academic performance between Boarding schools and Day schools (t(121) = 9.990, p = 0.000). Therefore the null hypothesis was rejected since the p-value was less than the significance level of 0.05. This implies that academic performance was different in Boarding schools and Day schools where the study was done.

The findings of this study is that, academic performance of learners in Boarding schools are different from academic performance of learners in Day schools and that performance of learners in Boarding schools were better than those in Day schools. These findings are in agreement with Yeya (2002) who noted that students in Boarding schools clear the syllabus on time and therefore get more time for remedial classes and serious revision because they are continually in school as compared to day scholars. Day schools are always affected by absenteeism of both their teachers and the learners. At the end of it all this absenteeism affects the completion of the required content in the syllabus in a particular year and eventually this is reflected in the academic performance. Yeya (2002) further noted that students with remarkable marks at the end of their primary cycle keep away from Day schools in preference to Boarding schools. This could then be the reason for better performance in Boarding schools in national examinations. It is also not lost that all National, Extra County and County schools are Boarding school. Furthermore, given that entry behavior of learners in Boarding schools (based on the KCPE marks) are better than those joining Sub-County school which are the Day schools. Yara and Catherine (2011) also found out that school category was to be significant and can be used to predict students' performance in mathematics. Munda and Odebero (2014) are of the same views and

Observe that, given that, better funding in many ways, affect the quantity and quality of educational resources which schools acquire, these disparities between County and District schools could explain the better students' performance in County schools.

## IV. SUMMARY AND CONCLUSIONS

This study examined the academic performance of learners in the types of secondary schools in Nandi County, Kenya. Academic performance is considered by the grades attained at the KCSE examinations. Boarding and Day secondary schools sampled for the study recorded a four year (2012-2015) average mean of 7.1184 and 4.7391 respectively. The highest average mean that was attained in the four years was 7.4358 and 4.9612 for Boarding and Day secondary schools respectively. On the other hand the lowest average mean scored in the four years was 6.8956 and 4.5464 for Boarding and Day secondary schools respectively. Boarding secondary schools perform at a mean grade of C plus while Day secondary schools performance was at just at grades C and C minus. On average therefore, boarding secondary schools performed better than Day secondary schools. Considering KCSE in the year 2015, Boarding schools attained an average mean score of 7.4358, while Day Schools had an average mean score of 4.5464. On testing the hypothesis, it was found out that there was a significant difference in academic performance between Boarding schools and Day schools. Therefore the findings of this study was that, academic performance of learners in Boarding schools are different from academic performance of learners in Day schools and that performance of learners in Boarding schools were better than those in Day schools. Majority of the secondary principals in Nandi County point out that the performance at the KCSE level in the year 2012-2015, were not satisfactory considering the financial resource inputs during this period.

This study makes the following recommendations; There is need to priorities expenditure so that there is appropriate allocation of financial and other resources for acquisition of teaching and learning resources and thus enhance learner achievements. Ministry of Education need to consult widely when setting secondary fees guideline so as to arrive at a reasonable amount to be charged per student. Again adherence to fees guideline issued by the Ministry of Education should be made a norm rather than exception; The government need to reinforce the audit wing of the Ministry of Education so that it can examine the effectiveness of utilization of monetary resources collected and allocated to secondary schools. It is therefore recommended that emphasis is given to prudent

management of resources rather than the question of how much resources can be channeled to the secondary school system.

## REFERENCES

- Ajayi, A. (2006). The influence of school type and location on resource availability and pupils learning outcome in primary schools in Ekiti State, Nigeria. Educational Thought, 5(1), 170-176.
- [2]. Akaranga, S., & Simiyu, P. C. (2016). Determinants of secondary school learners performance in Christian Religious Education in Lelan Sub County, Kenya. Journal of Education and Practice, 7(5), 125-130.
- Chiuri, L. W. & Kiumi, J. K. (2005). Planning and economics of education. Egerton University: Pengolin Publishers Ltd.
- [4]. Creswell, J. W. (2008). Educational research: Planning, conducting and evaluating quantitative and qualitative research (3rd ed). Upper Saddle Creek, NJ: Pearson Education.
- [5]. Creswell, J. W. (2009). Research design: Qualitative, quantitative and mixed methods approaches (3rd ed). University of Nebraska-Lincoln: SAGE Publications, Inc.
- [6]. Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.
- [7]. De Vos, A. S. (2002). Research at the crossroads, Pretoria: Van Schaik.
- [8]. Digolo, O. O. (2006), The Challenges of Education in Kenya in the 21st Century. Journal of the school of Education. The Educator, (l)1 Eldoret, Moi University Press.
- Geraint, J. (1993). The economics of education. The Macmillan Press Ltd: London.
- [10]. Government of Kenya. (2005). Kenya Education Sector Support Programme 2005-2010, Nairobi: Government Printer.
- [11]. Government of Kenya. (2007). Economic Survey. Nairobi: Government Printer
- [12]. Hanushek, A. E (2007). Education production function, Hoover Institution, Stanford University, Palgrave Encyclopedia.http://www.cdhowe.org
- [13]. Korir, T. P. (2011). Effectiveness of cost saving measures in improving KCSE performance in public secondary schools: case of Marakwet West District, Kenya (Doctoral dissertation).
- [14]. Kosgei, Z. K., & Rono, P. K. (2004). Determining the optional size and cost efficiency of Nandi District secondary schools. Journal of Education and Human Resources, 2(2), 33-49.
- [15]. Kothari, C. R., & Garg, C. (2014). Research methodology, Methods and Techniques (3rd ed). New Age International (P) Limited, Publisher.
- [16]. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30, 607-610.
- [17]. Mbugua, Z. K., Kibet, K., Muthaa, G. M., & Nkonke, G. R. (2012). Factors contributing to students' poor performance in mathematics at Kenya certificate of secondary education in

- Kenya: A case of Baringo county, Kenya. American International Journal of Contemporary Research, 2(6), 87-91.
- [18] Ministry of Education, Science and Technology. (2003). Draft on Education Sector Strategic Plan, 2003-2007, Nairobi, Government Printers.
- [19]. Munda, S, W., & Odebero, S. (2014). The influence of education cost on students' academic performance in Kenya: An empirical study of Bungoma County secondary schools. Asian Journamal of Educational Research, 2 (1), 1-11.
- [20]. Ngetich, S. K., Wambua, B. K. & Kosgei, Z. K. (2014). Determination of unit cost among secondary school in Kenya; A case of Nandi North District, Kenya. European Scientific Journal (ESJ) 10(16), 211-224.
- [21]. Nworgu, B. G. (1991). Educational research: Basic issues and methodology. Nigeria: Wisdom Publishers Limited.
- [22] Nyamongo, D. N., Sang, A., Nyaoga, R. B., & Matoke, Y. K. (2014) Relationship Between School Based Factors and Students' Performance in Kenya Certificate of Secondary Examination in Masaba North District, Kenya.
- [23]. Ohba, A. (2009). Does Free Secondary Education Enable the Poor to Gain Access?: A Study from Rural Kenya. Consortium for Research on Educational Access, Transitions and Equity.
- [24]. Owoeye, J. S., & Yara, P. O. (2011). School facilities and academic achievement of secondary school agricultural science in Ekiti State, Nigeria. Asian social science, 7(7), 64.
- [25]. Psacharapoulus, G. & Woodhall, M. (1985). Education for development. An analysis of investment choices. Washington DC: World Bank.
- [26]. Republic of Kenya.(2007). The Kenya vision 2030. Nairobi: Government Printer.
- [27]. Robert, J. Wilson. (2005). Dilemmas in classroom assessment, Winnipeg, Canada: portage & main press.
- [28]. Sabitu, A. O., Babatunde, E. G., & Oluwole, A. F. (2012). School types, facilities and academic performance of students in senior secondary schools in Ondo State, Nigeria. International Education Studies, 5(3), 44-48. www.ccsenet.org/ies doi:10.5539/ies.v5n3p44 URL: http://dx.doi.org/10.5539/ies.v5n3p44.
- [29]. Sigilai, R. M. (2013). A Review of Curriculum Related Factors Influencing Academic Achievements Among Students in Public Secondary Schools in Kenya. International Journal of Advanced Research, 1(3) 219-230.
- [30]. Silverman, D. (Ed.). (2016). Qualitative research. Sage.
- [31]. World Bank. (2008). Kenya-Data and Statistics. Retrieved from. http://web.world bank. org/pk:356509,00.html
- [32]. Yara, P. O., & Catherine, W. W. (2011). Performance determinants of Kenya certificate of secondary education (KCSE) in mathematics of secondary schools in Nyamaiya division, Kenya. Asian Social Science, 7(2), 107.
- [33]. Yeya, M. S. (2002). An investigation of the probable causes of poor performance in KCSE in Matunga District. Kwale district, MED project, Kenyatta University.