

Influence of Institutional Characteristics on Learners' Academic Achievement in Selected Public Day Secondary Schools in Kenya

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Abstract

Rapid growth in Education as an investment has necessitated and heightened interest in the determination of institutional influence on Learners' Academic Achievement in Kenya. This is observed in regular Curriculum reforms in the recent past to align the curriculum to learners' academic aspirations. This study sought to determine the extent to which teachers' characteristics and teaching learning resources influence students' academic achievement as measured by the Mean Kenya Certificate of Secondary Education Examination score and grade. The sample size of 109 Teachers and 384 Learners was obtained from the targeted population of 2830 people. Ex-post Facto Design and Correlational Design were adopted in the investigation. Questionnaires for teachers and learners, interviews schedule and document analysis were utilized to gather data. The Questionnaire instrument reliability co-efficient of 0.8 for Teachers and 0.75 for Learners was obtained following a pre-test based on split half technique. Inferential and Descriptive statistics using Chi square interactive facilitated data analysis. The study showed that favourable institutional factors positively correlates with learners' academic achievement and vice versa. The study recommended that Day school learning facilities and teacher-student ratio be improved as this will facilitate attainment of a higher mean score by learners in the Kenya Certificate of Secondary Education Examinations.

Keywords: Institutional Characteristics, Students' Academic Achievement.

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1. Introduction

The quest for provision of quality basic education is today termed a basic right for children whose parents ought to facilitate it as a matter of policy UNESCO (2008)

Although schools are expected by parents to ensure learners achieve better grades than they obtained in Kenya Certificate of Primary Education (KCPE), this is far from being the case as most learners obtain even poorer grades in Kenya Certificate of Secondary Education (KCSE). The KCPE entry grade and the learners' attitude to education could perhaps be responsible for dismal KCSE performance (KNEC 2011, 2012, and 2013). Parents continue to pay extra fees to motivate the teachers in order to facilitate effective remedial classes for weaker learners, but, all the learners are provided with holiday tuition, perhaps substituting remedial teaching classes with general syllabus coverage. Schools' inputs are expected to add value to the candidates in summative evaluation-achievement in Kenya Certificate of Secondary Education.

Quality education cannot be realized in a school, unless co-operation exists among parents, learners, management, employers and policy makers. Where the stakeholders work together, even a rural day secondary school can improve and offer quality education, leading to positive improvement of learners in their KCSE Examination.

A number of studies in the developed countries (Rubic 2010; Weinstein 2002 and Chapman 2003) show that school favourable characteristics contribute to successful learning and subsequently improved learners' academic achievement in tests and examinations. Studies conducted in Nigeria (IKE, 1997) concur on the influence of positive school factors on students' academic success. For instance, a research on teacher qualification has been cited as a major factor that influence teachers' job motivation and satisfaction which have a positive correlation with learners' academic performance in Mathematics (Blocker Jacob, 2004). In another study in Kenya, quality

of teaching and learning resources have been cited as having favourable influence on teacher and learner interaction in class (Odundo, 2005). These findings on adequacy of teaching and learning resources was conducted in Public Boarding Secondary schools which are generally considered to be well equipped as compared to Public Day Secondary schools, where majority of learners are admitted.

1.1 Statement of the problem

The foregoing scenario prompted the researcher to investigate how teachers and learning resources characteristics influence effective and efficient learning and subsequently quality academic results by day schools' candidates. The Kenya Government is committed to ensuring that schools offer affordable and quality education as noted in the Sessional Paper on Quality of Education in Institutions (Republic of Kenya, 2005). It is in the light of the foregoing that this study sought to investigate the influence of institutional characteristics on learners' academic achievement. The trend of low academic achievement by Day Secondary school learners, if not checked, could ultimately discourage learners and, or parents from investing in education even as day schools are considered as cost effective in a teaching and process (Republic of Kenya, 2005). Since institutional characteristics are a crucial subject in the teaching-learning process, there is need to establish the extent to which such characteristics influence the overall learners' academic achievement. This study therefore attempted to fill a knowledge based gap, relationship between variables, methodological and theory based gaps in order to inform theory and practice in education. It is in this regard that the study set out to investigate the relationship between variables', teachers' educational background and school characteristics on students' academic achievement.

1.1.1 Purpose of the study

The purpose of this study was to investigate the influence of Institutional Characteristics on students' Academic Achievement in Public Day Secondary schools as measured by Kenya Certificate of Secondary Education Examinations.

1.1.2 Objectives of the study

To fulfill the purpose of the study, the following objectives were explored,

- a. To establish the extent to which teachers' attitude towards day schooling influences learners' achievement in Kenya Certificate of Secondary Education.
- b. To examine the extent to which adequacy of teaching and learning resources in day secondary schools influences learners' academic achievement in Kenya Certificate of Secondary Education.

1.1.3 Research Hypotheses

Based on foregoing objectives on Institutional Characteristics on learners' Academic Achievement, the following null hypotheses were formulated and used to guide the study:

- a. There is no significant relationship between teachers' attitude towards day schooling and learners mean Kenya Certificate of Secondary Education score.
- b. There is no significant relationship between level of adequacy of learning and teaching resources in day secondary schools and learners' mean Kenya Certificate of Secondary Education Examinations score.

2. RESEARCH METHODOLOGY

2.1 Research design

Ex-post facto and Correlation Designs were used to guide the study. The Correlation Design established the extent of the influence of independent variables on the dependent variable whereas the Ex-post facto Design was appropriate in investigating events that had already occurred without manipulating the variables of the study (Kerlinger, 2007). The design answered questions on the extent to which teachers and school characteristics influence students' KCSE academic achievement in Public Day Secondary schools.

2.1.1 Target population

The target population consisted of 2830 people among whom 270 were teachers, 2500 students and 30 head teachers.

2.1.2 Sample size and sampling procedure

Purposive and stratified sampling procedures were used to obtain a sample of 384 students, 79 teachers and 30 head teachers from sampling frames of 2500 learners and 270 teachers.

2.1.3 Research instruments

Data was collected using questionnaires which were administered to form four students and their teachers. The questionnaires comprised structured and open ended questions. Both quantitative and qualitative information on institutional characteristics which influence KCSE performance was solicited.

2.1.4 Instrument validity

The questionnaire was scrutinized, pretested and approved after undertaking appropriate corrections following the pretesting of instruments on a target population constituting 10% of the targeted sample size.

2.1.5 Instrument reliability

The reliability test for questionnaire items was determined by test-retest of the items in a pilot study and subsequently ascertaining that there was no contradiction in the responses obtained (Wanjala, 2001). The reliability with the r value of 0.8 and 0.75 for learners and teachers was respectively established.

3. Findings and discussion

Table 1

3.1. Teachers KNEC training

Statement	Response	West Pokot		Trans-Nzoia	
		No	%	No.	%
Are you a professionally trained Teacher?	Yes	13	(100)	63	(95.5)
	No	0	(0)	3	(4.5)
Are you KNEC trained examiner?	Yes	3	(23)	14	(21.2)
	No	10	(77)	52	(78.8)

It is noted in Table 1 that teachers in West Pokot are professionally trained while 77%, (10) are not trained KNEC examines. Only 23% (3) are trained as examiners. It is generally perceived by learners that teachers who mark KCSE pay great interest to learners' academic achievement. This is because it is believed such teachers acquire relevant current skills and competencies related to curriculum evaluation hence thereafter disseminate it to learners.

On the other hand, 95.5%, (63) teachers in Trans-Nzoia are teachers by profession with 21.2%, (14) also trained to mark national examinations as shown in Table 1. However, 78.8%, (52) indicated that they are not trained by KNEC to mark national examinations and a small percent 4.5%, (3) teachers are untrained. It is notable that only a handful of teachers, 21.2%, (14) are trained KNEC examiners in their respective teaching subjects as opposed to 78.8%, (52) teachers who are yet to train. This information is important to stakeholders in education since training as an examiner adds value, that is, skills and competencies, are necessary for teachers under the training and practice of marking national examinations for the sake of the development of the profession besides the concern for the success of their learners.

Table 2

The following data constitute teachers' teaching experience. Table 2 indicates teachers' professional experience.

3.2 Teachers' professional experience

Length of Service	West Pokot No. of teachers		Trans-Nzoia No. of teachers	
	No.	%	No.	%
1 – 3	7	53.8	24	36.4
4 – 6	6	0	13	19.7
Over 6 year	6	46.2	29	43.9
Total	13	100	66	100

In table 2, 53.8 % (7) teachers in West Pokot County have taught Form Four class for a period between 1-3 years and 46.2 % (6) with over 6 years' teaching experience. Previous studies by Mbwesa (2004), found that those teachers with long teaching experience are generally considered to have a passion for improved student academic achievement and often do extra work to make them excel in examinations, (Mbwesa 2004).

Table 3
3.3 Mean Teachers' attitude towards day schooling and academic achievement

Statement N = 79	Min. Score 1	Max. Score 5	Mean	SD
Day secondary education system offers a learner an opportunity for all round education.	1	5	3.4557	1.1413
Day schools are not conducive for academic achievement .	1	5	3.2911	1.3316
Day secondary schools provide quality education.	1	5	3.5316	1.0480
Day schools offer learners less time to prepare for KCSE.	1	5	3.3797	1.2122
Learners feel at ease in day secondary Schools.	1	5	3.8987	1.1389
Day schooling is not conducive without organised school transport.	1	5	3.2275	1.3296
Day school learners have sufficient time to receive guidance and counselling from parents on daily basis.	1	5	3.4810	1.1752
Day schools are meant for learners who did not score high marks at KCPE.	1	5	3.2278	1.1088
A day school system allows parents adequate time to take care of the needs of their children.	1	5	3.2785	1.2904
Day secondary schools do not provide learners with adequate study time guided by teachers.	1	5	2.9114	1.4779

Table 3 shows that more than average number of teachers in Trans-Nzoia and West Pokot County day schools have a favourable attitude towards day school in relation to KCSE performance as indicated by the mean score 3.4557 out of 5 on the variable. There is adequate evidence that day schools accord learners a conducive atmosphere/extensive motivation and quality education. However, day schools are not considered conducive for effective study as a result of time constraints that lead to learners getting too tired to study effectively at home. Day schools offer learners less time for study as indicated by 3.3797 mean score, just slightly below average. Day schools deny teachers adequate time to provide supervised study for learners.

The table 3 shows that teachers have slightly above average (3.2278) favourable attitude towards day schooling. However, they indicated a more favourable attitude (3.4810) towards day schooling on the basis that it enables learners' sufficient time to receive guidance and counselling from parents daily. The feedback from teachers' mean score of 3.2278 further indicates that, day schools are not generally meant for learners who score low marks in KCPE. On a mean score of 3.2785 out of 5 teachers indicated that day schools offer adequate time to take care of their learners' immediate needs. It is notable in a mean score of 2.9114 that day schools are rated just slightly above the mean on adequacy of time for learners' study. It is thus important to note that day school learners do not have sufficient time for study hence the need for a strategy that could create more time for learners.

The following table presents teachers' attitude towards day schooling in respect to students' academic achievement.

Table 4
Status of teachers' attitude towards day schooling in relation to students' academic achievement

Attitude statement	Strongly Disagree (SD)	Disagree (D)	Undecided (U)	Agree (A)	Strongly Agree (SA)
Day schools offer a learner all round education.	4 (5.1)	19 (24.1)	3 (3.8)	43 (54.4)	10 (12.7)
Day schools are not conducive for academic achievement.	16 (20.3)	27 (34.2)	9 (11.4)	18 (22.8)	9 (11.4)
Teachers' perception whether day schools provide quality education	2 (2.5)	16 (20.3)	10 (12.7)	40 (50.6)	11 (13.9)
Teachers' response on whether day schools offer learners less time to prepare for KCSE	4 (5.1)	18 (22.8)	0 (0)	39 (49.3)	18 (22.8)
Teachers' response on whether learners feel at ease in day schools.	7 (8.9)	29 (36.7)	13 (16.5)	25 (31.6)	5 (6.3)
Teachers' response on whether day school is not conducive without organised school transport	15 (19.0)	26 (32.9)	9 (11.4)	20 (25.3)	9 (11.4)
Whether day scholars have sufficient time to receive guidance and counselling from parents on daily basis.	6 (7.6)	14 (17.7)	7 (8.9)	40 (50.6)	12 (15.2)
Day schools system allows parents adequate time to take care of the education needs of their children.	14 (17.7)	30 (38.0)	6 (7.6)	22 (27.8)	7 (8.9)
Day secondary schools do not provide learners with adequate teacher guided study time.	0 (0)	14 (17.7)	4 (5.1)	29 (36.7)	32 (40.5)

Legend percentage in parenthesis ()

Influence of institutional characteristics of day schools on academic achievement was studied using teachers' perception of the institutions' characteristics as provided in the foregoing Table 4.

Table 5
Summary of teachers' attitude towards day schooling in relation to students' KCSE Performance

Categories of Attitude	Number of Respondents	Percent
Negative	23	29.2
Neutral	3	3.8
Positive	53	67.0
Total	79	100

Table 5 shows that 67.0% (53) teachers indicated that day schooling is favourable for KCSE academic achievement while 3.8% (3) were undecided and 29.2% (23) indicated otherwise.

Objective 1: To establish the extent to which teachers' attitude towards Day Secondary schooling influences students' mean KCSE score.

To achieve this objective, the researcher identified a null and a corresponding research hypothesis. The data obtained was based on a statement to the respondents that was used to generate results for the obtained Chi-square value in relation to the critical Chi-square at 0.05 level of significance. A contingent Table 6 given below, was used to give details of the data and the resultant test that led to substantiation of the hypothesis.

Data from the respondents on the following statement was utilised in computing Chi-square value and hence the results given in the Table, 6 below.

Testing the Null Hypothesis Ho1

Ho1 there is no significant relationship between teachers' attitude towards Day schooling and the students' mean KCSE score.

Ha1 there is significant relationship between teachers' attitude towards Day schooling and the students' mean KCSE score.

To determine whether there is a substantial relationship between variables, data based on two statements given below was computed as given in Table 6 using Chi-square interactive calculation made.

- (i) Day schools are not conducive for academic achievement.
- (ii) Day school leads to quality mean KCSE score.

Table 6
Teachers' and learners' attitude towards day schooling and students' academic achievement

Categories	Agree	Disagree	Undecided	Total
Observed i	53	23	3	79
Observed ii	255	75	44	374
Df = 2				SL= 0.05
Obtained Chi- square value		= 6,477		P-value = 0.0392
Critical Chi-square value		= 5.334		

From the results of testing the null hypothesis, the obtained Chi-square is greater than the critical Chi-square. In this regard, the null hypothesis is rejected in favour of the alternative hypothesis which states that there is a significant relationship between the teachers' attitude towards Day schooling and the learners' KCSE performance. Related studies by Hopkins (2003) and Kamindo (2008) on classroom research support the findings that there is a relationship between teachers' attitude towards the type of learning style and learners' academic achievement.

Adequacy of teaching and learning resources and students' academic achievement

Data in Table 6 a. is teachers' responses on adequacy of teaching/learning resources and services provided by the schools.

Table 6 a.

Level of adequacy of teaching and learning resources

Item	Level of adequacy			
	West Pokot		Trans-Nzoia	
	Available F %	Not available F %	Available F %	Not available F %
Library Services	48 (72.7)	18 (27.3)	245 (79.5)	63 (20.5)
Laboratory	57 (86.4)	9 (13.6)	239 (77.6)	69 (22.4)
Text books	36 (54.5)	30 (45.5)	248 (80.5)	60 (19.5)
Supervised study	22 (33.3)	44 (66.7)	171 (55.5)	137 (44.5)
Career guidance	41 (62.1)	25 (37.9)	219 (71.1)	89 (28.9)
Guidance and counselling	58 (87.9)	8 (12.1)	282 (91.6)	26 (8.4)

Table 6 a. shows that only 33.3% (22) supervised study in West Pokot is available for day scholars as opposed to 66.7% (44) that is not provided. This scenario implies that 87.9% (58) of students receive guidance and counselling service and 62.1% (41) on career guidance services are not adequately guided to improve academic achievement in Kenya Certificate of Secondary Examination.

Objective 2: To examine the extent to which adequacy of Teaching and Learning Resources in Day Secondary schools influence learners' academic achievement as measured in KCSE. This objective led to the formulation of hypothesis based on the fact that over the past four years most day secondary schools may have improved teaching and learning resources as a result of Constituency Development Fund and Subsidised Secondary Education Fund and parental contribution in response to the cost sharing policy, stakeholders, development partners, and government. Hence, it is expected that the learning environment has been enhanced through the various financial sources given above. The null hypothesis identified is given here below.

Testing Null Hypothesis, Ho2

Ho2 There is no significant relationship between level of adequacy of learning and teaching resources in Day Secondary schools and learners' academic achievement as indicated in KCSE.

Ha2 There is a significant relationship between level of adequacy of learning and teaching resources in day

secondary schools and learners' academic achievement as indicated in KCSE.

Data based on the response of the respondents to the statement provided here below was used to determine the correlation, In order to test the null hypothesis, data was obtained using the items given here below.

1. How do you rate the adequacy of the following facilities in relation to KCSE performance?
2. How do you rate learners' KCSE performance?

Table 7 provides data on adequacy of teaching/learning resources that was used to test the hypothesis on whether there is a relationship between adequacy of teaching and learning resources and learners' academic achievements.

Table 7

Teaching and learning resources and academic achievement.

Category	Sufficient/Moderate/Insufficient			Total
	Good	Average	Poor	
Observed 1	11	29	39	79
Observed 2	30	46	3	79
Df = 2				SL = 0.05
Obtained Chi-square	13.818			P-Value 0.0009
Critical Chi-square	12.705			

The study rejected the null hypothesis and accepted the alternative hypothesis that there is a significant relationship between adequacy of learning resources and learners' academic achievement. These findings are in agreement with findings in related studies by Kimani (1992), Nyagah (1997) and Onyango (2010). However, this study makes an additional contribution to knowledge since it established that adequate resources and an effective teacher-learner ratio, besides parental facilitation of home study influence learners' academic achievement. The compute χ^2 is greater than the critical value necessary for the rejection of the null hypothesis at the 0.05 level, the null hypothesis is the rejected and thus the alternative is accepted. It is held that there is a significant relationship between adequacy of teaching/learning resources and learners' academic achievement (KCSE).

Table 8

Challenges encountered by learners as reported by school heads in West Pokot and Trans-Nzoia Counties.

Category of challenge	West Pokot		Trans - Nzoia	
	Yes	No	Yes	No
Trek to school/live over 2 km away from school	4 (80)	1 (20)	20 (80)	5 (20)
Inadequate peer teaching/mixed ability Environment/ academic role model	4 (80)	1 (20)	18 (72)	7 (28)
Lack adequate academic guidance	3 (60)	2 (40)	16 (64)	14 (36)

Legend: Percentages in parenthesis ()

Table 8, shows that 80%, (4) schools in West Pokot County have learners who live more than 2 kilometres from school hence they trek long distances to school. It is further noted that 80%, (4) schools' learners are of lower ability hence limited peer teaching in day schools due to few academic role models in day school setting. Learners' academic achievement is further undermined by inadequate academic guidance and counselling whose adequacy is rated at 40%, (2) schools while the inadequacy is at 60%, (3) schools. It is notable in Table 8, that 80%, (20) schools in Trans – Nzoia County are situated more than 2 kilometres away from where learners live hence majority of learners trek to school as opposed to a few, 20%, (5) schools where learners live closer to school or spend little time on commuting. It is notable that there are limited mixed ability classes as indicated by 72%, (18) schools that indicated peer teaching. Academic role models are limited in such schools hence learners lack effective peer teaching. Only 28%, (7) schools' learners have adequate peer teaching environment that could have a favourable influence on learners' academic achievement in a school.

Furthermore, 64%, (16) schools have insufficient academic guidance which is an important ingredient in a learning environment. It is notable that 36%, (14) schools have adequate academic guidance and counselling support service. This scenario of inadequate academic guidance could lead to poor learning environment especially in schools where majority of learners are of lower academic ability.

The findings on the need for adequate study time for learners in day schools is a matter that requires curriculum review input. It is evident from this study that day schools experience time constraint in planning for supervised learners' study at school due to inadequate reliable transport arrangements for day scholars.

This table presents teachers' responses on the adequacy of learning resources.

Table 9
Level of teaching and learning resources.

Statement	Response	Trans-Nzoia N=66		West Pokot N=13	
		No	%	No.	%
What is the teacher-learner Ratio in your class?	1:40	60	90.9	11	84.6
	1:80	6	9.1	2	15.4
Indicate text book-learner Ratio in the class	1:2	50	75.8	7	53.8
	1:3	8	12.1	2	15.4
	1:4	8	12.1	4	30.8

According to this Table 9, 90.9 % (60) teachers in Trans – Nzoia County indicated teacher- learner ratio is at 1:40 as opposed to 9.1%. (6) teachers who reported a 1:80 ratio 75.8% (50) teachers indicated text book to learner ratio is 1:2 while 12.1% (8) teachers put it at 1:3. However, 12.1%, (8) indicated that text book-learner ratio is 1:4. This ratio 1:4 is very low considering that two learners share a desk. The implication here is that half of the class in such a school have inadequate text books for effective learning, hence this is likely to affect their participation in class and subsequently influence negatively their performance in the particular subject. On the other hand, the table indicates that 84.62%, (11) teachers in West Pokot reported that teacher to learner ratio is 1:40 while 15.4%, (2) teachers put the ratio at 1:80. It is notable that 53.8%, (7) teachers stated that text book-learner ratio is 1:2, 15.4%. (2) teachers indicated the ratio at 1:3. Another 30.8% (4) teachers indicated that text book-learner ratio is 1:4, this ratio is low considering two learners share a desk and hence having one book among four learners show that text books are inadequate in the particular subject (s). The implication here is that parents ought to be involved to raise text book-learner ratio in order to ensure learners have sufficient resources for a teaching/learning process. The challenge of inadequate learner-textbook ratio calls for a monitoring and evaluation procedure for teaching and learning resources to ensure the short fall is addressed on time to avoid negative impact of the short fall on educational service provision.

These findings are in agreement with those by Eshiwani (1983) on related studies on factors that influence academic achievement among primary and secondary learners that showed that learner-text book ratio had a significant impact on learners’ academic outcomes. Given that these findings validate previous findings, it is evident that adequate teaching/learning resources’ status has been established hence there is need to make necessary budgetary adjustments in allocation of funds to public schools to tackle the short fall in teaching/learning resources.

Results of multiple regression test

Regression analysis was conducted on institutional characteristics on learners’ academic achievement to ascertain the influence of independent variables on the dependent variable, learners’ academic achievement. The results are shown in Table 10 and 11 multi-regression analysis output. Multiple-regression analysis is the determination of statistical relationship between two or more variables. Table 10 shows the summary of the regression model on school and home based determinants of learners’ academic achievement.

Table 10
Regression of institutional and learners’ characteristics and students’ academic achievement

Model	R	R square (R ²)	Adjusted R	Std Error
1	0.545 (a)	0.297	0.206	0.642

Predictor: (constant), KCPE entry score, learners’ study time utilization, learners’ attitude, teaching/learning resources and teachers’ attitude.

Table 10, provides the R and R² values, regression analysis yields a statistics called coefficient of determinants or R². The R² refers to the amount of variation explained by the independent variable (s) in the equation. The values of R range from -1 to 1. The absolute value of R indicates the strength, hence the larger absolute values indicate the strength of the relationship. The R value is 0.545 which represents the multiple correlations and therefore indicates a significant degree of correlation. The R value indicates how much of the dependent variable, performance grade can be explained by the independent variables. Adjusted R² attempts to correct the R to more closely reflect the goodness of fit of the model in the population. In this case, R² is calculated to be 0.297 which means 29.7 percent of the variation in the students’ mean KCSE score (dependent

variable) can be explained/predicted by the institutional and learners' variables.

Table 11 presents data on regression of institutional and learners' characteristics and students' academic achievement,

Table 11
Institutional and learners' characteristics on students' academic achievement

Model	Unstandardised		Standardised		t	Significant
	Beta	Std Error	Beta	Std Error		
Constant (learners' KCSE grade)	3.476	2.309			1.505	.139
KCPE entry behaviour	-.199	.059	-.185		-3.389	.000
Learners' attitude	-.084	.036	-.123		-2.323	.021
Learners' time management	.116	.043	.138		2.700	.007
Teachers' attitude	-.913	.390	-.291		-2.340	.024
Teaching/learning resources	.115	.059	.112		-1.958	.051

Dependent variable: students' academic achievement (Mean KCSE score)

The coefficient table provides multiple regression information on each variable. This provides the information necessary to predict learners' KCSE mean score in respect to the institutional characteristics on learners' academic achievement. Table 11 shows that, both the constant (learners' mean score) and the variables contribute to the model by looking at the significance column as a confidence level of 0.05. According to the table, the most significant predictors are attitudes, KCPE entry score and learners' study time management, learners' attitude are generally low or equal to significance level of 0.021 at the confidence level of 0.05. A significance level of below 0.05, shows that there is a significant influence of the independent variables on the dependent variables. A significance level of more than 0.05 shows there is a reduced or minimal influence of the independent variable on the dependent variable.

Conclusion

The study showed that favourable institutional factors positively correlates with learners' academic achievement. These factors include adequacy of teaching and learning resources and attitude towards day schooling. The study demonstrates that teachers' and learners' favourable attitude towards day schooling contribute to overall learning environment and subsequently to adequate teacher-learner interaction that impact positively on learners' academic achievement.

Recommendation for policy and practice

Whereas teachers and learners have a favourable attitude towards day schooling, the study recommended that Day Secondary School learning facilities and teacher-student ratio, student-textbook ratio be improved as this will provide improved learning environment and subsequently a higher mean score by learners in the KCSE. That the Ministry of Education should monitor the implementation of a policy on teacher-student ratio and student-textbook ratio besides the transport service for all day scholars to and from school as a way of sustaining favourable learning environment in Public Day Secondary Schools.

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