

RELATIONSHIP BETWEEN SCHOOL BASED FACTORS AND STUDENTS' PERFORMANCE IN KENYA CERTIFICATE OF SECONDARY EXAMINATION, IN MASABA NORTH DISTRICT, KENYA

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ABSTRACT

The study sought to determine the relationship between school based factors and students' performance in public secondary schools in KCSE in Masaba North District. The objectives of the study were: To examine the relationship between teacher qualification and students' performance in K.C.S.E.; To establish the relationship between school facilities and student performance in K.C.S.E; To determine the relationship between head teachers' supervisory roles on school performance in KCSE. The target population for the study was 24 Principals and 24 teachers from 24 public secondary schools in Masaba North District in Nyamira County. Simple random sampling technique was used to sample 24 teachers while census was used to gather information from the 24 Principals. Three schools from Masaba South District were used for the pilot study to test validity and reliability. Data was collected using semi-structured questionnaires. Descriptive statistics was

used to analyze data using the statistical package for social science (SPSS) version 19. Data was presented in charts and tables. The Findings of the study revealed that teacher qualifications, teaching resources and head teachers supervisory role were positively correlated with students' performance. However, the results of the study indicated that there was a negative correlation between school facilities and students' performance in K.C.S.E. The results from the multiple regression analysis showed that there was a positive but a weak relationship between school based factors and students' academic performance. Therefore, this study concluded that there was no statistically significant relationship between school based factors and students' performance in K.C.S.E in Masaba North District.

Key words: *Millennium development goals, Universal Basic Education, Kenya Certificate of Secondary Education, students' performance, Masaba North District*

1.1 Introduction

According to Global Action for Children (GAC, 2005), education is a globally recognized basic human right thus it is a form of investment that contributes to development of both individuals and the society. It is generally believed that the basis for any development must begin with the development of human resources. Formal education remains the main avenue for social-economic development and social mobilization in any society (World Bank Group, 2009). Performance in examinations has invaluable contribution to the area of human resource development of any nation (World Bank, 2009; & UNESCO, 2007). The main goal of education is to prepare individuals for the job market by transmitting knowledge, skills, attitudes and cultural norms of the adult world to the younger generations (Griffin, 1998).

According to UNESCO (2008), 90 million children in the world had not accessed adequate education by 2006. The 2007 UNESCO and UNICEF reports addressed three interrelated rights that must be addressed in order to provide Education for All (EFA). These rights include: right to access quality education and respect within the education environment. The report noted that the barriers to be removed in the provision of EFA include: funding by parents (cost sharing), inadequate and unqualified teachers, inadequate physical facilities, resources and lack of effective supervision. A study by Alkens & Barbarin, (2008) found that school conditions contribute more to the social economic difference in learning rates than family characteristics. Schools in low social economic status communities, suffer from high levels of unemployment and migration of the best qualified teachers. The school systems in low social economic communities are often under resourced, negatively affecting students' academic performance (Alkens & Barbarins, 2008). Inadequate educational facilities and resources greatly affect students' academic performance. However, improving school systems and earlier intervention programs through supervision channels may help to reduce these risk factors hence increase students' academic achievements.

According to performance reports available at the County Education Office, secondary schools in Masaba North district have been performing poorly in KCSE (DEOs, 2011). The 2011 KCSE results depict this, owing to the fact that no school from Nyamira County was ranked top among the leading 20 schools nationally. The county has six districts among those in thirty lower districts (Kisii central, Gucha South, Gucha, Manga, Nyamira and Masaba North in this order). Table 1.1 shows the performance of Masaba North District on a more or less the same constant performance level as compared with neighboring districts which shows improvements over the years. In addition the performance of all public secondary schools has been wanting as per the school mean standard scores.

Table 1: Comparison of Masaba North District MSS in KCSE in relation to the neighboring Districts in Kisii and Nyamira Counties (2008-2010)

<i>County</i>	<i>District</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Kisii County	Kisii Central	4.266	3.832	4.798
	Gucha South	3.691	4.102	4.488
	Gucha	3.962	3.953	4.292
Nyamira County	Manga	4.387	4.653	4.978
	Nyamira	3.832	3.702	4.464
	Masaba North	3.909	3.368	4.089

Source: Provincial Director Education (Nyanza)

According to Ministry of Education (2004) the Free Primary Education and consequently Free Day Secondary Education has only addressed the issue of levies, failing to raise issues of infrastructural provisional, staffing among others. A study conducted by Waudu & Ouya (2010) looked into the influence of academic staffing, physical facilities and enrollment of primary school pupils' academic achievements but little is known on how these factors relate to academic performance of students in secondary schools. It is against the above background that this study will seek to find out whether there is a relationship between school facilities, teacher qualifications and Head teachers' supervisory roles and student performance in KCSE in Masaba North District.

1.2 Statement of the Problem

The rapid increase in enrolment in Kenya's public schools due to FPE and FDSE has triggered widespread concern over its implication on pupil's academic performance in national examinations. There is concern that the available classrooms and teachers are unlikely to cater for the large number of pupils currently in public schools. Since the introduction of FDSE, students' academic achievements have emerged as an issue of concern among parents and other stakeholders in education. According to DEO, enrolment in secondary schools has gone up in Masaba North District from 5966 to 8185 with no corresponding increase in academic staffing and physical facilities in Nyamira County where Masaba North is found, its academic performance has been wanting over the years it takes position 40s out of 47 counties. This owes to the fact that when institutions are not keen on instructional provision and supervision, it provides avenues for low performance in final examinations. Until now, no study has been carried out on school based factors focusing on performance in KCSE in Masaba North district. This study therefore, sought to establish the relationship between school based factors, namely: adequacy of teaching/ learning resources, teacher qualification, and Head teacher's Supervisory practices and how they relate to academic performance in public secondary schools in Masaba North district, Kenya.

1.3 Literature Review

The main goal of education is to prepare individuals for the job market by transmitting knowledge, skills, attitudes and cultural norms of the adult world to the younger generations (Griffin, 1998 & Ellis 2006). Performance in examinations has invaluable contribution to the area of human resource development of any nation (World Bank, 2005; UNESCO, 2007; & UNICEF, 2008). Literature review focused on what various scholars have cited as the causes of high or low performance in educational institutions.

1.3.1 Performance Indicators in Schools

When thinking about the quality of education it is useful to distinguish between educational outcomes and the processes leading to them. People who seek particular, defined outcomes may rate quality in those terms, ranking educational institutions according to the extent to which their graduates meet 'absolute' criteria concerning, for example, academic achievement, sporting prowess, musical success, or pupil behavior and values. The standard of comparison would be in some sense fixed, and separate from the values, wishes and opinions of the learners themselves. Focusing on absolute output characteristics of education programmes does not preclude a 'value-added' approach that takes differences in ability into account (UNESCO, 2005).

According to Waudo and Ouya, (2010), Schools that are able to perform well have managed to do so through the following interventions: First, the teaching methods employed should be planned based on science of participatory learning and encourage the spirit of enquiry among learners. This results to more learning, reasoning, self confidence and outstanding performance in the national examinations. The performing schools have also realized that the existing student assessment system is inadequate to increase the competence and gauge the different degrees of excellence achieved by students. The administration of various schools ensures that there is physical infrastructural growth and all round development. They further ensure that there is productive use of available facilities. Libraries and laboratories should be improved by purchasing appropriate and adequate stores (Waudo and Ouya, 2010).

1.3.2 The Concept of School Based Factors and Performance

According to Robert (2005), Performance is a multidimensional process. Therefore no one aspect can justify its attainability. Different scholars have identified different factors that contribute to low examination performance in schools. To the secondary school teachers, the KCSE result performance indicates about the validity of their qualification as teachers and the quality of their practice. To the management focuses on the head teacher's efficiency and effectiveness on the part of his supervisory task (management strategies).

1.3.3 Teachers' Qualification on Student Performance

The teacher is an integral aspect of the teaching and learning process and performance of a school. Therefore all the teachers' characteristics and their quality contribute to student performance. The National Committee of Education Objectives and Policies (1976) observed that all the qualitative attributes of teachers are of paramount importance in determining the quality of education on which intellectual development of a child is based.

Muluki (2003) in a study on factors that influence performance in KCSE in private individual secondary schools in Nakuru noted that professional qualification of teachers is deemed important in improving the quality of teaching techniques (skills). These findings were echoed by Onguti (1987) who noted that a trained and a qualified teacher is an asset to the school and teachers. Eshiwani (1983), noted that it was not only the professional qualification of the teacher that matters but also the academic qualification. The "credentials of teachers both in pre-service education attainment and the type of professional training given maybe a major determinant of the quality of Kenyan schools."

Metzler, et al. (2010) revealed that more qualified and experienced teachers are more sensitive to public examinations and thus were more likely to hook into their main strategy of guidance and use test oriented materials in presenting candidates for KCSE and the strategy he / she has advocated to withstand the wash back effects of examination results feedback. Murnane (1985) argued that

student learning is heavily influenced by teachers' effectiveness and their years of experience. Inexperienced teachers (those with less than three years of experience) are typically less effective than more senior teachers and that the benefit of experience appear to level off after about five years, especially in con-collegial work settings (Metzler, et al., 2010).

Kamau (2010) in a study on the impact of pre-school program on mathematics performance in the lower primary school of Makuyu zone of Murang'a district noted that less teaching experience of teachers was a factor working against children's performance. However in this study he failed to state what should be done to address the problem. According to NACECE (2002) trained and qualified teachers are well skilled to use and manipulate the learning resource / materials as well as navigating them in stimulating learning process thus resulting into better academic performance. The teacher's attained academic and professional qualification are therefore a prerequisite in ensuring the teachers competence qualification for student's better performance.

According to Muyera (2002) in a study on communication strategy by head teachers and their effects on academic performance in public secondary schools in Cherangani division Trans Nzoia district noted that teachers qualification may often create clusters among teaching and students thus influencing their performance both in classrooms deliberation and national exams as some may feel more qualified and experienced than others thus the duration a teacher stays in a school may be profound effect on performance.

1.3.4 School Facilities as Resources for better Performance

The development and maintenance of school facilities in educational institutions by communities, parents and sponsors should continue to be encouraged. This is because lack of such facilities interferes with learning process (Republic of Kenya, 1988). The evidence from research in other parts of the world points to the great importance of school facilities would be seen to account for difference in achievement. The school facilities include both the physical and the teaching/ learning facilities. Physical resources include classrooms, administrative block, libraries, laboratories, workshops, playgrounds, assembly halls, and kitchen, toilets and staff quarters.

Sallis (2002) argued that an educational programme cannot be effectively implemented using only policy guidelines even if teachers were trained and committed without adequate and appropriate physical facilities such as classrooms, toilets and playing grounds. MOEST (2005) explains the importance of ensuring that there are adequate and appropriate facilities for teaching- learning so that educational programmes could be implemented effectively. According to Eckstein et al (2001) schools that lack adequate class rooms for instance, hold their lessons outside or under trees. During bad weather such lessons are postponed or are never held altogether. This interferes with syllabus coverage and students from such schools do not perform well in examinations.

Republic of Kenya (1988) identified that Kenya's schools are characterized by variety in the size and quality of buildings. Some schools share classrooms and science laboratories, which are too small for current classes of forty and above students. On the other hand new schools have teaching rooms which are too small because they were not built to specifications. Moreover, most school buildings and other facilities are poorly maintained. Such facilities hamper the teaching and learning process and eventually affect student performance in examinations. Eshiwani (1983) argued that lack of laboratory facilities was a major contribution to poor performance of some schools in KCSE, because candidates could not answer questions in practical science subjects. The generalization of an education innovation is accompanied by the need for new resources which

should be available for a sufficiently long time in order that the innovation becomes part of the daily life of educational establishment.

Musau (2004) posits that lack of library facilities was one of the most serious problems standing on the way of achieving high education standards in learning institutions. Ayoo (2002) carried out a study on the effects of school physical facilities on academic performance and established that availability of facilities had a direct link with performance of learners in examination. This concurs with many research finding which have shown that the success of any educational endeavor rest on the availability of physical facility on the school building. Nyang'au (2008) argued that the availability of the school building and other plans contribute to good academic performance as they enhance effective teaching-learning activities. He further stated that well stated school buildings aesthetic conditions, playground, latrines etc. usually contributes to achieving high educational attainment by the students.

Monari (2007) in an analysis of factors contributing to students' poor performance in KCSE in Nyacheki division revealed that lack of facilities and resources compromised supervision control and contributed to 71% of poor performance in KCSE in Gucha district. The study also revealed that only 51.2% of head teachers checked teachers' professional records once a term. The study also revealed that the majority of teachers were qualified thus attributing poor performance to teachers' negligence.

1.3.5 Head teacher Supervisory role on Performance

Supervision has been defined as the attempt through a second party intervention to ascertain, maintain and improve the quality of work done (Olembo *et al*, 1992). Thus in a school situation all the activities that are undertaken by the head teacher to help teachers maintain and improve their effectiveness in the classroom, characterize instructional supervision. The role of the head teacher in instructional supervision is therefore indispensable

Okumbe (2001) contends that in carrying out supervisory tasks, the head teacher should have clear specification of goals and targets. Katana (2007) in his study asserted that most head teachers did not have objectives and mission targets to guide their schools. His study revealed that 80% of all the head teachers interviewed had not attended any lesson thus were not aware of what was going on in their classes but only waited for final KCSE results, this resulted in their schools posting low results.

1.4 Methodology

The study adopted a descriptive survey design. In order to obtain study respondents in the schools, the study targeted the head teachers and Heads of departments of public secondary schools in Masaba North District. The head teachers were purposively sampled while the Heads of departments were selected using simple random sampling. A semi-structured questionnaire was used to collect data from the respondents. The questionnaire was pilot tested in three schools in Masaba South District to test for validity while Cronbach's Alpha (KR20) method was used to test reliability. The reliability co-efficient was computed from the formula

$$\alpha = KR20 = k \frac{(S^2 - \sum s^2)}{S^2 (k-1)}$$

Where k = number of items in the instrument
 S^2 = variance of all scores
 s^2 = variance of individual items

A score of more than 0.7 was assumed to reflect acceptable reliability (George and Mallery, 2003). The reliability coefficient from the piloted instruments was 0.86. Since this figure is above 0.7, the questionnaire was taken to be reliable. Correlation was used to determine the direction of association between Selected School factors and Examination performance while regression was used to test the strength and significance of the relationship between the dependent and independent variables. The following linear equation model was used:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where: **Y**= KCSE performance, **X₁** = Teacher Qualification, **X₂** = Physical facilities, **X₃**= Teaching/Learning resources, **X₄**= Supervisory Role, **β₀**=Intercept explaining the level of performance when no benchmarking technique is applied, **β₁,...β₄** =Co-efficient representing the contribution of the various types of factors, **ε** =Error

1.5 Results

In order to determine the relationship between school based factors and students performance in secondary schools, the study sought to establish the relationship between school facilities, teaching resources, head teacher’s supervisory roles

1.5.1 Relationship between teacher qualifications and Students Performance

To achieve the first objective, a Pearson correlation analysis was conducted in order to determine the relationship between teacher qualifications and students’ performance. In addition, a t test (2-tailed) was conducted so as to test the significance of the relationship between the two variables. Table 1 below shows the results of correlation analysis as well as the t-test results.

Table 2: Pearson correlation analysis on the relationship between teacher qualifications and students’ performance

Correlations		Teachers qualifications	Performance
Teachers qualifications	Pearson Correlation	1	.119
	Sig. (2-tailed)		.420
	N		48
Performance	Pearson Correlation		1
	N		48

Source: Research Data (2013)

From results in Table 2 above it is clear that there is a positive relationship between teacher qualifications and students performance. This is in agreement with the work of The National Committee of Education Objectives and Policies (1976) that observed that all the qualitative attributes of teachers are of paramount importance in determining the quality of education on which intellectual development of a child is based. These findings are also supported by the work of Muluki (2003) who did a study on factors that influence performance in KCSE in private individual secondary schools in Nakuru and noted that professional qualification of teachers are important in improving the quality of teaching techniques (skills). However, the relationship between the two variables was weak as indicated by the low Pearson’s value of 0.119 which was less than 0.5.

Furthermore, the results indicate that the 2 tailed significant value was 0.42. This implies that the relationship between teachers qualifications and students' performance is not statistically significant because the significance value was higher than 0.05. Thus, this study fails to reject the first hypothesis and concludes that there is no statistical significant relationship between teacher qualifications and students' performance. This implies that there are other factors other than teacher qualification which relate to students' academic performance in KCSE. This is in agreement with the work of Eshiwani (1983), who argued that it was not only the professional qualification of the teacher that matters in student performance but also the academic qualification. A significant finding from examining experienced and novice teachers by Metzler, et al. (2010) revealed that more qualified and experienced teachers are more sensitive to public examinations and thus were more likely to look into their main strategy of guidance and use test oriented materials in presenting candidates for KCSE and the strategy he / she has advocated to withstand the wash back effects of examination results feedback. Contrary to Adeyemi (2010); Yala and Wanjohi (2011) findings that teachers' experience and professional qualifications were the prime predictors of students' academic achievement, the study found that teachers' educational level and teaching experience were not statistically significant in explaining students' academic achievement.

1.5.2 Relationship between school facilities and Students Performance

The second objective of the study was to establish the relationship between school facilities and students' performance. Table 3 below shows the results of the Pearson's correlation analysis and a 2 tailed test on the relationship between school facilities and students' performance.

Table 3: Pearson Correlation analysis on the relationship between School facilities and students' performance

Correlations		School facilities	Performance
School facilities	Pearson Correlation	1	-.076
	Sig. (2-tailed)		.609
	N		48
Performance	Pearson Correlation		1
	N		48

Source: Research Data (2013).

From the results in Table 3, the computed Pearson value was -0.076. This implies that there exists a negative and a weak relationship between school facilities and student performance. Furthermore, the results indicate that the significance value was 0.609. This implies that the relationship between the two variables was statistically insignificant. Therefore, this study fails to reject the second hypothesis and concludes that there is no statistical significant relationship between school facilities and students performance in Masaba North District. This supports the work of Raju (1973) who revealed that lack of suitable teaching aids and facilities made privately owned secondary schools in Nakuru pathetic hence difficult to achieve higher performance in academics. The study also agrees with Barasa, J, M. & Nyongesa, (2007) who concluded that differences in school facilities such as library, text book, laboratories, dormitories, visual aids, and electricity, water and play grounds seemed to account for differences in performance in secondary schools in Kenya. He further asserted that the presence or absence of facilities distinguished high or low performing schools.

Monari (2007) in an analysis of factors contributing to students' poor performance in KCSE in Nyacheki division revealed that lack of facilities and resources compromised supervision control and contributed to 71% of poor performance in KCSE in Gucha district. The findings of Monari are in agreement with the study findings that indicate that school facilities & resources are key in influencing academic performance.

1.5.3 Relationship between teaching resources and students performance

In the second objective, the study sought to establish the relationship between school facilities and students' performance in KCSE in Masaba North District. These facilities include teaching/ learning resources. Table 4 below provides the results of Pearson correlation analysis and the degree of significance of the relationship between the two variables.

Table 4: Pearson correlation analysis on the relationship between teaching resources and students' performance

Correlations		Teaching resources	Performance
Teaching resources	Pearson Correlation	1	.002
	Sig. (2-tailed)		.991
	N	48	48
Performance	Pearson Correlation		1
	N		48

Source: Research Data (2013).

Table 4 shows that the correlation co-efficient value between teaching resources and student performance was 0.02. This means that there is a positive but a weak relationship between the two variables. The two tailed significance value on the relationship between teaching resources and student performance was 0.991. This indicates that the relationship between teaching resources and students performance is not statistically significant because the significance value was higher than 0.05. Thus, this study fails to reject the second hypothesis and concludes that there is no statistical significant relationship between teaching resources and K.C.S.E performance in Masaba North District.

These findings confirm the work of Ayoo, (2002), who argued that factors affecting the academic performance of students in public secondary schools were both within and outside the school environments. These were learning facilities, teachers, management of homework, parents' participation in school activities, and students' participation in home chores. Also Mbeche, (2012), revealed that lack of proper teacher training, lack of adequate resources and regular training lead to poor student performance. According to Psacharopolous and Woodhall (1985) textbooks are a major input for performance in examinations. This view is shared by Munda, et al, (2000) who observed that availability of and quality of textbooks in a secondary school was strongly related to achievement among children from lower income families especially those in rural boarding schools and those physical facilities contribute positively to students' academic performance.

1.5.4 The relationship between head teacher supervisory role and student performance

In the third objective, the study aimed to establish the relationship between head teacher supervisory role and student performance in K.C.S.E. Table 5 below shows the Pearson's correlation analysis results and the degree of significance of the relationship between the two variables.

Table 5: Pearson bivariate correlation analysis on the relationship between head teacher supervisory role and students' performance

Correlations		Headteacher supervisory role	Performance
Head teacher supervisory role	Pearson Correlation	1	.102
	Sig. (2-tailed)		.492
	N	48	48
Performance	Pearson Correlation	.102	1
	Sig. (2-tailed)		
	N		48

Source: Research Data (2013).

According to Table 5, there is a positive but a weak relationship between head teacher supervisory role and students' performance. This is because the correlation co-efficient value was 0.102 which was lower than 0.5. Additionally, the 2 tailed significance value was 0.492. This means that the relationship between head teacher supervisory role and students' performance was not statistically significant. Consequently, this study fails to reject the third hypothesis and concludes that there is no statistical significant relationship between head teachers supervisory role and K.C.S.E performance in Masaba North District. According to Katana (2007) in his study revealed that 80% of all the head teachers interviewed had not attended any lesson thus were not aware of what was going on in their classes but only waited for final KCSE results. This resulted in their schools posting low results in the final examinations. This view is shared by Campbell (1986) who observed that effective supervision was a basic prerequisite for stability and improvement of academic performance in secondary schools. The two studies agree with the study findings that Head teacher's supervision is very important in determining academic performance in schools.

1.5.5 Regression analysis

Since the study sought to establish the relationship between school based factors and students' performance in K.C.S.E in Masaba North district Table 6 below presents the linear regression analysis results on the relationship between the school based factors and students' performance.

Table 6: Multiple Regression analysis on the relationship between school based factors and students' performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	
1	.211 ^a	.045	-.044	.46938	.045	.503	4	43	.734	1.658

a. Predictors: (Constant), Head teacher supervisory role, Teachers qualifications, School facilities, Teaching resources

b. Dependent Variable: Performance

Source: Research Data (2013)

Table 6 above shows that the correlation co-efficient value (R) was 0.211. The R value was less than 0.5 and this means that there is a weak relationship between school based factors and students' performance. The results in Table 6 indicate that school based factors only explain 4.5% of the differences in performance as shown by the coefficient of determination value (R^2) of 0.45. Furthermore, the significance of the model was 0.734 meaning that school based factors cannot be used to reliably predict changes in students' performance alone. This is because the significance value was higher than the p value of 0.05. The Durbin Watson value was 1.658 and this implies that there was no autocorrelation among the independent variables because the value was within the acceptable levels of 1.5 to 2.5.

1.5.6 Test of Significance of the Relationship between School Based Factors and Students performance

An ANOVA test was conducted to determine the significance of the relationship between the individual school based factors and students performance. Table 7 below presents the results of the ANOVA test.

Table 7 ANOVA Test

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.443	4	.111	.503	.734 ^b
	Residual	9.474	43	.220		
	Total	9.917	47			

a. Dependent Variable: Performance

b. Predictors: (Constant), Head teacher supervisory role, Teachers qualifications, School facilities,

Source: Research Data (2013).

The results in Table 7 above, shows that the significance value was 0.734. The significance value was higher than the alpha value of 0.05. Furthermore, the F statistic value was 0.503 which was greater than the ideal p value of 0.05. This implies that there is no statistical significance relationship between school based factors and students performance. As a result, this study fails to reject the fourth null hypothesis and concludes that there is no statistical significant relationship between school based factors and students performance in Masaba North District.

Table 8: Regression coefficients and collinearity statistics

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.021	.396		5.099	.000		
	Teachers qualifications	.081	.105	.119	.778	.441	.942	1.062
	School facilities	-.066	.079	-.150	-.830	.411	.678	1.475
	Teaching resources	-.025	.118	-.049	-.213	.832	.419	2.386
	Head teacher supervisory role	.085	.096	.189	.881	.383	.483	2.069

a. Dependent variable: performance

Source: Research data (2013)

Table 8 above shows the degree of significance of each of the school based factor in explaining students' performance in K.C.S.E as shown by the T value and the significance value. According to the results in table 8, the significance of teacher qualifications in explaining changes in students' performance was 0.441. This implies that there is no Statistical significant relationship between teacher qualifications and students' performance ($p > 0.05$). Additionally, the t value on the relationship between the two variables was 0.778 which was less than the ideal level of 3. This further indicates that the relationship between teacher qualifications and students' performance was not statistically significant. According to Table 8, the significance level on the relationship between school facilities and students' performance was 0.411 which was more than 0.05. Moreover, the t-value was -.830 which was higher than three. This means that school facilities were not statistically significant in explaining changes in students' performance.

According to table 8 above, the relationship between teaching resources and students' performance was not statistically significant because the degree of significance (0.832) was higher than 0.05. Furthermore, the t value on the relationship between the two values was less than the acceptable level of three. The significance value on the relationship between head teacher supervisory role and students' performance was 0.383 which was higher than 0.05. Moreover, their t value was 0.881 which was more than 3. This indicates that head teacher supervisory role was not statistically significantly related with students' performance.

Table 8 indicates that there was no multi-collinearity between the independent variables. This is because none of the variance inflation factors was around or equal to 5. This is further evidenced by the fact that all the tolerance values were more than 0.2.

1.6 Discussions

In relation to teacher qualifications, the study found out that 70.8% of the respondents had a bachelor's degree in education. Moreover, the majority of the respondents (31.3%) had taught for a period ranging between 4 and 7 years. The results of the study indicated that 93.8% of those who were included in the study taught two subjects with only 3 respondents teaching one subject.

Furthermore, most of the respondents (31.3%) had attended more than 6 workshops. The longer the period one has taught and number of workshops attended; the better the understanding on areas to pay attention to in order to give the best results in examinations.

The study results indicated that the majority of the respondents with the view that there were enough classes in their schools. However, 47.9% of those who were included in the study perceived that maintenance of facilities in the schools was highly valued. Furthermore, most of the respondents agreed with the fact that their school had a library that was well equipped. Nonetheless, only 10.4% of the respondents strongly agreed with the statement that their school had enough lockers and chairs as well as an ample playing field. A school with all the facilities required is assumed to be in a better position to do well in examinations as compared to those who don't have.

The majority of the respondents (45.8%) agreed with the notion that teachers were provided with the relevant books. Conversely, 56.3% of those who were interviewed disagreed with the view that there were enough teachers in their schools. Similarly, most of the respondents (41.7%) agreed with the idea that teaching aids were available in their schools. Furthermore, 64.6% of those who were included in the study agreed with the fact that teachers had access to the appropriate curriculum. However, most of the respondents (39.6%) disagreed with the statement that their school had the necessary and enough textbooks. Without any textbook, enough teachers and access to teaching aids, the school's performance will be affected in one way or the other.

In regard to head teacher supervisory role, 54.2% of the respondents agreed with the idea that the principal supervised the schemes of work. Furthermore, the majority of the respondents (41.7%) agreed with the notion that the principal was mostly in school. Similarly, most of the respondents (39.6%) agreed with the statement that the principal attended all school. The results of the study indicated that 45.8% of the respondents agreed with the fact that teachers records were kept in the principal's office.

The results of the pearson's correlation analysis indicated that there was a positive but a weak relationship between teacher qualifications and students performance. However, 2 tailed tests indicated that the relationship between the two variables was not statistically significant. The Pearson value on the relationship between school facilities and students performance was -0.076. This meant that there was a negative and a weak relationship between the two variables. The degree of significance on the relationship between school facilities and students performance was 0.609. This indicated that the relationship was not statistically significant because the degree of significance was higher than 0.05.

The Pearson value on the relationship between teaching resources and students' performance was 0.02. This indicated that there was a positive but a weak relationship between the two variables. However, the significance value on the relationship between teaching resources and students performance was 0.991 which was higher than 0.05. This meant that the relationship between the two variables was statistically insignificant. The results of the correlation analysis revealed that there was a weak but a positive relationship between head teacher supervisory role and students' performance. Nonetheless, 2 tailed tests indicated that the relationship between the two variables was not statistically significant.

The results of the multiple regression analysis showed that there was a weak relationship between school based factors and students performance. This is because the correlation co-efficient value was 0.211 which was less than 0.5. However, the significance of the model in explaining the

relationship between the two variables was 0.734 which was higher than the p value of 0.05. This meant that there was no statistical significant relationship between school based factors and students performance in Masaba North District.

1.7 Conclusions

The aim of the study was to determine the relationship between school based factors and students performance in K.C.S.E examination in Masaba North District. Based on the results from the data analysis and discussions, one can make the following conclusions. The results of the study indicated that there is a positive relationship between teacher qualifications and students' performance. This means that increasing the qualifications of teachers' will have a positive impact on students' academic performance. The results are similar with the finding of Ollatunde at el (2011) who found a positive relationship between teacher qualifications and students performance in mathematics. Furthermore, the results of the study indicated that there was a negative relationship between school facilities and students' performance in K.C.S.E.

The researcher confirmed the research hypothesis two, that there is a positive relationship between teaching resources and students' performance in K.C.S.E. However, the relationship was not statistically significant. This suggests that improvement in teaching resources can improve the academic performance of students. Furthermore, the relationship between head teacher supervisory role and students' performance was positive. This implies that students' performance can be improved if the school principals perform their supervisory role more effectively.

The researcher confirmed the research hypothesis three, that there is a positive relationship between head teacher supervisory role and students' performance even though it is a weak one. This means that the relationship between head teacher supervisory role and students' performance was not statistically significant. Consequently, this study fails to reject the third hypothesis and concludes that there is no statistical significant relationship between head teachers supervisory role and K.C.S.E performance in Masaba North District

1.8 Recommendations

Based on the study findings and the conclusions, the researcher derived the following recommendations: The study found out that there is a positive correlation between teacher qualifications and students' performance. Thus, the study recommends that policy makers in the education sector should concentrate on enhancing the skills and qualifications of teachers in order to improve the academic performance of students. Furthermore, the results of the study indicate that there is a positive relationship between teaching resources and students' performance. Therefore, this study recommends that the government through the ministry of education should avail adequate teaching and learning resources in schools so as to promote students' performance in K.C.S.E. The study results indicated that there is a positive relationship between Head teacher supervisory role and students' academic performance. Consequently, for good academic performance, school principals should lay great attention in performing their supervisory roles. The Ministry of Education and schools managements should motivate teachers especially after the release of examination results. This includes recommendation for promotion, subsidizing of house rents. To mitigate on the inadequacy of teaching/learning materials and equipments the government needs to enhance their provisions to schools. It should extend loan facilities and bursaries to secondary school students from poor families.

1.9 References

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