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ABSTRACT

This study aimed at finding out the influence of quality improvement practices on students' academic performance in secondary schools in Makueni, Kenya. Quality improvement practices are a set of activities designed to bring about a desired superior performance. In school management, they are geared towards improvement of learning abilities that leads to better results in national examinations. This study aimed at finding out the influence of selected quality improvement practices to academic performance. The study targeted a population of 668 teachers. A sample of 108 teachers was used. Descriptive research was used with stratified sampling being adopted to ensure that schools at all levels were well captured in the study. Primary data was collected by use of closed ended questionnaires. Quantitative data was analyzed using descriptive statistics and correlations done using Pearson's moment correlation coefficient to establish if there existed a relationship between the independent and the dependent variables. Regression analysis was done to establish effect of the independent variables to the changes in the dependent variable. From the questionnaires received, it was found out that 89 teachers responded representing about 82.41% of the targeted sample population. Among the findings, it was realized that extra contact time with students, practical work in sciences and timely syllabus coverage was among the three top strategies that enhance improvement of academic performance. In addition it was found that the mean of quality improvement strategies were higher in highly performing schools that were found in the extra county and county categories. The sub-county category schools had lower means on their responses on quality improvement practices. The research recommended that the government train all school administrators on strategic management and leadership skills that are necessary in enabling teachers identify and formulate suitable practices for improvement of academic performance.

Key words: *Quality improvement, academic performance, remedial teaching, syllabus coverage, strategic management*

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INTRODUCTION

The continuous change in the external environment has made strategic management be very important in pursuit for excellent performance in firms (Pearce & Robinson 2009), which is the main goal of every organisation (Okwako, 2013). Effective quality improvement practices form a key component in strategic management (Okwako, 2013). Ndiritu (2012) adds that in modern day management leaders must possess change-oriented behaviour. This consists of scanning and interpreting external events, articulating an attractive vision leading to proposing of innovative programs. This will enable a firm to respond to changes in its external environment in pursuit of a desired competitive advantage (Minyu, 2010). Performance is dependent on effectiveness and efficiency (Lawrence, 1999). It refers to the extent to which formulated objectives are achieved (Pearce & Robinson 2009). Focus on customer satisfaction is therefore critical especially in terms of having quality academic improvement programs (Ruinge & Kimani 2015).

Academic performance of students is influenced not only by learner's abilities but also by effectiveness of the systems that exist in a school Ibrahim and Orodho (2014). It is therefore important for managers in all schools to adopt practices that will enhance academic performance. Conditions in the 21st century are different from conditions at the turn of the 20th century when modern educational systems were being set up. Therefore, learning and expectations of students in this era require creativity, ingenuity, and critical thinking in addressing the complex issues of a connected world (Hargreaves, 2001).

In Kenya, the K.C.S.E results for 2016 and 2017 in the entire nation revealed a declining trend in performance of secondary school students. In 2017, 615773 students sat for the national exams. Out of these only 70,073 qualified to join the university by attaining a mean grade of C+ and above. This represented 11.38% of the total candidature (David, 2017). In Makueni Sub-County only 540 students out of 3135 candidates qualified to join the university representing 17.22% of the total candidature in 2017 (MOE, 2017). As shown in Table 1.

Table 1 : K.C.S.E Analysis for Makueni SubCounty in K.C.S.E 2017

	Schools		Output to university C+ and above		Poor Grades D, D- and E	
Category	No	%	No.	%	No.	%
Extra-county schools	5	10.86	409	75.74	7	0.46
County schools	6	13.04	102	18.88	161	10.69
Sub-county schools	35	76.08	29	5.37	1337	88.83
Totals	46	100	540	100	1505	100

Source: SCDE Makueni Sub-county

From Table 1 it was evident that out of the 540 students, 75.74% came from extra county school, 18.88% came from county schools and 5.37% came from sub-county schools. In considering the number of schools per category, it can be observed that 35 sub-county schools managed to produce only 29 students in total who were qualified to go to the university. It is therefore evident that some schools in this category did not have any student attaining the qualifying grades. In light of the above observations it is important to ascertain the exent to which quality improvement practices have been adopted in schools in this sub-county.

Problem Statement

The management of resources allocated to the education sector is placed in the hands of school

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managers with an expectation that these managers will bring about the desired academic performance (Lydia and Nasongo 2015). Academic Performance is demonstrated by results obtained from national examinations. The role of educational administrators therefore is the planning, directing, organizing and controlling the resources provided to ensure that desired academic results are obtained (Ibrahim & Orodho, 2014).

However, over the years it had been observed that though resources were allocated to secondary schools in Kenya the desired results were not being realized. With the current trend in the world, where continuous change in the external environment is demanding formulation of innovative practices to drive firms towards excellent performance (Pearce and Robinson 2009), secondary schools in Kenya need not be left behind. With resources being available, it remains to be seen what the schools do to ensure that better results are obtained. The formulation of strategies such as sound leadership, team work, quality improvement, staff involvement and motivation are very vital. It was therefore important to ascertain the extent to which quality improvement practices had been carried out in secondary schools and the impact this had on academic performance.

The purpose of this study was to establish the influence of quality improvement practices on academic performance in secondary schools. The study provided enriching information to school administrators that can assist policy makers to identify areas that need improvement in management of schools to enhance academic performance. The specific objectives of the research were:-

- To establish the relationship between quality improvement practices and school academic performance
- Establish the most suitable academic improvement practices in enhancing academic performance

LITERATURE REVIEW

The study was based on the capital theory of school effectiveness and improvement. This theory was derived by Hargreaves (2001) who stated that an effective school mobilizes its intellectual capital (especially its capacity to create and transfer knowledge) and its social capital (especially its capacity to generate trust and sustained networks) to achieve the desired educational outcomes, with leverage strategies and innovative practices. An improving school therefore increases its performance by use of higher leverage strategies based on evidence of 'what works'.

The theory bases its work on four main concepts that form school effectiveness and improvement. These are outcomes, leverage, intellectual capital, and social capital (Hargreaves, 2001). The theory advocates for the concept of a transformative school, which has an ability to provide services that address students' and teachers' complex and multifaceted needs (Galindo , Sanders & Abel, 2017).

According to this theory, outcomes of a school represent both the extent to which it meets its goals in both moral outcomes and cognitive outcomes (Hargreaves, 2001). In this case, the theory suggests that schools are said to be effective by the measure of how the learners develop their cognitive and moral skills. Intellectual capital is defined as the sum of knowledge and experience the school stakeholders possess and deploy to achieve its goals (Hargreaves, 2001). It describes how school improvement processes brings about student academic achievements across all learning areas (Hargreaves, 2001). In this case, it addresses the important role that principals play in carrying out strategic management practices that ensure the school does what it is supposed to do.

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Social capital on the other hand refers to the structural and cultural components of the organization. Galindo, Sanders and Abel (2017) refer to social capital as the bonding, the bridging, and the linking of different individuals in an organisation. Minckler (2014) defines social capital as the resources embedded in a social structure that are accessed in purposive actions . Nzoka and Orodho (2014) describes it as professional relationships of trust and respect, dynamics within school's parallel leadership and student wellbeing. High levels of social capital strengthen its intellectual capital through sharing (Hargreaves, 2001).

The theory according to Nzoka and Orodho (2014) is applicable in this study because outcomes in our case is the dependent variable that is measured by the individual student performance and their value added progress in national examinations. According to Hargreaves (2001), cognitive outcomes are measured by performance in national examinations. The theory also supported the independent variable of quality improvement practices. Nzoka and Orodho (2014) argue that leverage is the relationship between teacher input and educational output, or changes in students' intellectual and moral state resulting from the teacher's effort. Hargreaves (2001) argues that effective schools concentrate on effective strategies that result to great contribution towards better results with relatively low effort. In this case according to Nzoka and Orodho (2014) outstanding schools use combinations of high leverage strategies. This dimension supported the independent variable of quality improvement practices.

Empirical Review

According to (Hargreaves (2001) there is a linking between school effectiveness and school improvement. In effective schools teachers look outside their own school for ideas and practices that promote excellence in students and enrich the quality of the professional lives of the teachers themselves. In their studies on total quality management and students performance, Ruinge and Kimani (2015) found out that quality management is a source of enhancing organizational performance through continuous improvement in organization's activities. In this respect, remedial teaching helps to improve general academic performance in students as various obstacles that hinder effective curriculum implementation are removed during the extra contact time.

In addition giving individual attention by handling students' needs creates an enabling environment for learning and performance. Ngware, Wamukuru and Odebero (2006) on the other hand outlined that setting of targets by students, delegation of leadership to teachers, efficient use of remedial teaching to eliminate weaknesess, supervision of syllabus coverage and benchmarking are practices that determine the extent to which quality will be improved in the school.

Mitchell and Sanckney (2016) state that a performing school focuses its activities towards effective student learning. In this respect, effective management in secondary schools in Kenya must embrace practices such as efficient work processes, people systems, open and honest communication, employee empowerment, team building, and performance based management to make sure quality is improved(Sande, Walela & Wamukoya(2015).

In addition Ocham and Okoth (2015), brings about a new dimension in quality improvement. They state that the world is changing and technology is defining how things should be done to sustain high level of performance. According to Awanchukwu et al (2015), leadership is a creative enterprise involving innovation and initiation . It is about looking at the horizon rather than just the bottom line. In devising quality imporevement practices it is important therefore to consider innovations. Innovation comes by being different and looking at things at a different persepctive (Mitchell & Sanckney, 2016). While

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studying this concept Kipsoi, Chang'ach and Sang (2012) found out that students benefit more with analytical, creative, and collaborative power of ICT that enables them to map up and analyze the assumptions present.

Mwangi (2013) points out that some schools perform exceptionally well while others perform poorly. However the good performance does not just happen, it is made to happen by good teaching and good leadership. This dimension according to Jonyo and Bonn (2017) is important in enhancing quality of teaching and ultimately improved performance in the institutions, by building a performance oriented culture with instilled accountability.

Ndiritu (2012) used 2005-2009 KCSE performance to establish how leadership behaviour influences academic performance. KCSE results are therefore used as a measure of determining school's academic perfomance by considering the overall means of all the students. According to Ruinge and Kimani (2015) students' average mean grade for the years under review are considered to reflect schools performance. At the same time, students scoring above C+ reflect the output of the school by showing the number of students a given school takes to the university. A mean grade of C+ is the minimum requirement for entry to Kenyan universities and C is the minimum entry requirement to a diploma college.

METHODOLOGY

This study used a descriptive survey design. The area of study was Makueni Sub-county. The Sub-county had 46 schools out of which two were private schools and the rest were public schools. The study focused only on the 44 public schools. Out of the 44 schools, five were extra-county schools or above, six were county schools and 33 were sub-county schools. The schools had about 668 teachers. The target population was the teachers. The population was stratified into different strata according to school category while in each stratum simple random sampling was done. The formation of the strata was done by observing homogeneity in the schools. The researcher realized that 27 schools in the sub-county would form a good representative sample. This accounted to 60% of the schools in the sub-county. From our target population of 668, a sample above 66 respondents was still sufficient. However, Kothari (2009) argues that the larger the sample the greater the accuracy of the findings. The researcher therefore decided to obtain a larger sample of 108 respondents by targeting four teachers per school. Once the population had been stratified in some meaningful way, a sample of members from each stratum was drawn using simple random sampling.

Data was collected by use of questionnaires. Questionnaires allow a researcher to reach a larger sample within a short time, obtain a more objective response, and allow retention of some form of confidentiality. The questions were close ended along a Likert scale continuum with 1-5, where 1 stands for lowest rating and 5 stands for the highest rating. The questionnaires were presented to the supervisors for scrutiny and expert advice. The suggestions obtained from the supervisors were used to refine and improve the questionnaires. Reliability was determined by first piloting questionnaires before the actual administration was done. Secondary data was obtained from the ministry of education on performance of schools for years 2016 and 2017. The use of secondary data in this study was important in determining the actual academic performance of the schools under investigation. This would eliminate bias that can occur when the same information is sought from respondents. A descriptive method of data analysis was used as it involved the study of distributions of responses within a variable (Kothari, 2009). The data collected was first tabulated in a spread-sheet and checked to ensure that errors of entry were eliminated. The data was then keyed into the S.P.S.S statistical software. Pearson correlations

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were then generated for the independent and the dependent variables.

RESULTS

The study obtained data on the school academic performance for 2016 and 2017 K.C.S.E. From the questionnaires, the researcher also obtained data on cut off requirements for all the schools. It is expected that the output from each school should so much correspond to the entry behaviour. As shown in Table 2 all schools in the three categories performed below the cut off means. An average of academic performance for 2016 and 2017 for all the schools that responded was compared with the mean of their cutoff points.

Table 2: Average cutoff mean for the sampled schools in their categories Compared with their average KCSE mean for 2016 and 2017

School category	N	Cut off mean	Average KCSE mean
Sub-County	12	3.75	2.94
County	2	5.50	5.00
Extra-county	3	8.50	7.16

In the extra-county schools, the cut off mean was 8.5 but the K.C.S.E. results were at a mean of 7.16. In the county schools, the cut off mean was 5.5 while the KCSE mean was 5.0 while in the Sub-county schools the cut off mean was 3.75 while the KCSE mean was 2.94. This indicated that there was less or no value addition.

Pearson Product Moment correlation coefficients were used to determine correlations between various variables and academic performance as shown in Table 3. Results from the test showed that there was a correlation between school cut off mean as students enter into form one and performance at KCSE.

Table 3: Pearson correlation analysis on schools' cut off marks and performance in KCSE

		Mean of KCSE 2016-2017	School cut off
Mean of KCSE 2016-2017	Pearson Correlation	1	.922**
	Sig. (2-tailed)		.000
	N	17	17
School cut off	Pearson Correlation	.922**	1
	Sig. (2-tailed)	.000	
	N	17	17

**. Correlation is significant at the 0.01 level (2-tailed).

There was a positive and strong correlation with a coefficient (r) of 0.922 and p of 0.00 as shown in Table 3. A p vale of 0.00 showed that the data was statistically significant. This showed that the entry behaviour of a child will have an effect on the performance of the same child at KCSE. These results were in line with a study made by Ibrahim and Orodho (2014) who stated that success in secondary school though measured by results obtained at KCSE, is a result of the environment in which learning takes place and the ability of the student. It showed that the ability of the child has a part in the overall performance after passing through the four-year secondary school course.

Teachers were also asked to rate how various academic improvement strategies contributed to academic performance in their schools. A scale of 1-5 where 1 stands for lowest contribution and 5 for highest contribution was used. The data obtained from the teachers was analyzed and descriptive ranking of the practices done as shown in Table 4.

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Table 4: mean responses for each of the variables

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Use of extra contact time in evenings , mornings and weekends	89	2	5	4.03	.845	.715
Syllabus coverage by end of second term	89	3	5	4.01	.776	.602
Regular practical activities in sciences	89	2	5	3.99	.885	.784
Use of external examinations at all levels	89	1	5	3.90	.966	.933
Academic days where parents visit to discuss learner's progress	89	1	5	3.74	.995	.989
Good reward system for best performers at all levels	89	1	5	3.61	1.124	1.264
Inviting subject specialists to coach difficult areas in subjects	89	1	5	3.54	1.012	1.024
Having formal group discussions	89	1	5	3.52	.931	.866
Student mentorship programs	89	1	5	3.46	1.088	1.183
Having topical revision in all subjects	89	1	5	3.39	1.094	1.196
Topical testing in all subjects	89	1	5	3.09	1.073	1.151
Having subject champions for class peer mentorship	89	1	5	2.89	1.162	1.351
Phasing out poor performers from schools	89	1	5	2.88	1.468	2.155
Organizing subject symposia	89	1	5	2.78	1.277	1.631
Use of talent days to stimulate creativity	89	1	5	2.64	1.281	1.642
Giving weekly rapid tests	89	1	5	2.64	1.121	1.256
Bench marking in highly performing schools	89	1	5	2.61	1.154	1.332
Valid N (list wise)	89					

From Table 4 it was observed that having extra contact time with students, timely syllabus coverage, regular science practical activities and use of external examinations ranked highly with a mean of 4.06, 4.01, 3.99 and 3.90 respectively. These strategies according to the teachers lead in enhancing good performance. On the other hand, benchmarking, use of talents and use of rapid tests were considered the three weakest strategies with means of 2.61, 2.64 and 2.64 respectively.

These results confirmed the position of the capital theory of school effectiveness and improvement. The theory bases its work on the concept of transformative schools, which has an ability to provide services that address students' and teachers' complex and multifaceted needs (Galindo , Sanders & Abel, 2017). According to this theory, outcomes of a school represent both the extent to which it meets its goals in both moral outcomes and cognitive outcomes (Hargreaves, 2001).

These findings also concurred with conclusions made by Ruinge and Kimani (2015) that identification of weak students in various subjects and having extra instructional assistance helps to improve general academic performance in students. This is because various obstacles that hinder effective learning are eliminated during remedial teaching.

When a Pearson Correlation test was carried out it as shown in Table 5, it showed a modest correlation between students' academic performance and extra contact time with r=3.72 and p=0.00, syllabus coverage with r=3.84 and p=0.00 and regular practical with r=2.19 and p=0.04. The p-values for the best practices showed that the data was statistically significant. However, there was no correlation between academic performance and having subject

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champions, academic days, formal discussion groups and inviting subject specialists.

Table 5: Pearson correlation analysis

AVERAGE MEAN OF 2016-2017 KCSE	Pearson Correlation	1
	Sig. (2-tailed)	
	N	89
Syllabus coverage by end of second term	Pearson Correlation	.384**
	Sig. (2-tailed)	.000
	N	89
Use of extra contact time in evenings , mornings and weekends	Pearson Correlation	.372**
	Sig. (2-tailed)	.000
	N	89
Having subject champions for class peer mentorship	Pearson Correlation	.143
	Sig. (2-tailed)	.182
	N	89
Phasing out poor performers from schools	Pearson Correlation	.495**
	Sig. (2-tailed)	.000
	N	89
Academic days where parents visit to discuss learner's progress	Pearson Correlation	.200
	Sig. (2-tailed)	.061
	N	89
Student mentorship programs	Pearson Correlation	.393**
	Sig. (2-tailed)	.000
	N	89
Regular practical activities in sciences	Pearson Correlation	.219*
	Sig. (2-tailed)	.040
	N	89
Having formal group discussions	Pearson Correlation	.208
	Sig. (2-tailed)	.051
	N	89
Organizing subject symposia	Pearson Correlation	.385**
	Sig. (2-tailed)	.000
	N	89
Use of talent days to stimulate creativity	Pearson Correlation	.453**
	Sig. (2-tailed)	.000
	N	89
Giving weekly rapid tests	Pearson Correlation	.218*
	Sig. (2-tailed)	.040
	N	89
Topical testing in all subjects	Pearson Correlation	.247*
	Sig. (2-tailed)	.019
	N	89
Inviting subject specialists to coach difficult areas in subjects	Pearson Correlation	.081
	Sig. (2-tailed)	.448
	N	89
Good reward system for best performers at all levels	Pearson Correlation	.225*
	Sig. (2-tailed)	.034
	N	89

Use of external examinations at all level	Pearson Correlation	.169
	Sig. (2-tailed)	.113
	N	89
Bench marking in highly performing schools	Pearson Correlation	.209*
	Sig. (2-tailed)	.050
	N	89
Having topical revision in all subjects	Pearson Correlation	.093
	Sig. (2-tailed)	.385
	N	89

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

A regression analysis illustrated in Table 6, showed that having extra contact time with learners had a beta =0.134, t=3.972 and p=0.00. The data was therefore statistically significant for this variable. It showed that an increase of contact time by a point led to improvement of academic performance by 0.528 points. Syllabus coverage had a beta=0.134 but the p=-2.31 hence in the regression the data was not significant. Regular practical in sciences produced negative values with beta at 0.241 and t= -1.505, hence in the regression analysis it had no effect on academic performance.

Table 6: Regression analysis

	Standardized Coefficients -Beta	t	Sig
(Constant)		-1.495	.139
Syllabus coverage by end of second term	.134	1.209	.231
Use of extra contact time in evenings , mornings and weekends	.528	3.973	.000
Having subject champions for class peer mentorship	.081	.561	.576
Phasing out poor performers from schools	.394	2.672	.009
Academic days where parents visit to discuss learner's progress	-.206	-1.369	.175
Student mentorship programs	.110	.636	.527
Regular practical activities in sciences	-.241	-1.505	.137
Having formal group discussions	-.016	-.121	.904
Organizing subject symposia	.016	.111	.912
Use of talent days to stimulate creativity	.084	.517	.607
Giving weekly rapid tests	-.289	-1.742	.086
Topical testing in all subjects	.246	1.679	.097
Inviting subject specialists to coach difficult areas in subjects	-.103	-.736	.464
Good reward system for best performers at all levels	.260	1.696	.094
Use of external examinations at all level	-.117	-.665	.508
Bench marking in highly performing schools	-.042	-.255	.799
Having topical revision in all subjects	.160	1.075	.286

These results showed that teachers were well conversant with what exactly drives performance. The findings concurred with Mitchell and Sanckney, (2016) in their study on high performing schools. They stated that a performing school focuses its activities towards effective student learning. This is by having practices that are important to academic improvement anchored well in its strategic plan. In designing strategies schools focus on their external and their internal environments to come up with activities that suits them best.

Ruinge and Kimani (2015) found out that there is significant relationship between quality improvement practices such as meeting of student's needs, establishing of performance objectives, and effective

communication and performance at KCSE. This means that deliberate strategies laid by the school on improving the quality of services offered to learner's influences academic performance.

Lydia and Nasongo (2015) concluded that use of quality improvement measures influenced results of schools. High performing schools strongly put into consideration frequent testing and giving of feedback, remedial teaching, and controlled entry mark to enhance excellence in academic performance. When case summaries were done to determine responses per school category the analysis obtained was presented as shown in table 7.

Table 7: Case summaries per school category

SCHOOL CATEGORY		Syllabus coverage by end of second term	Use of extra contact time in evenings , mornings and weekends	Having subject champions for class peer mentorship	Phasing out poor performers from schools	Academic days where parents visit to discuss learner's progress	Student mentorship programs	Regular practical activities in sciences	Having formal group discussions	Organizing subject symposia	Use of talent days to stimulate creativity	Giving weekly rapid tests	Topical testing in all subjects	Inviting subject specialists to coach difficult areas in subjects	Good reward system for best performers at all levels	Use of external examinations at all level	Bench marking in highly performing schools	Having topical revision in all subjects
EXTRA-COUNTY	Mean	4.43	4.46	3.25	4.14	4.04	4.18	4.32	3.79	3.46	3.57	3.11	3.57	3.71	4.11	4.25	3.07	3.61
	Std. Deviation	.634	.637	1.323	1.113	1.071	.945	.819	1.031	.999	1.260	1.13	.997	.937	.875	.752	1.086	1.19
COUNTY	Mean	4.50	4.33	2.33	2.67	4.33	3.00	4.50	3.83	3.33	2.83	3.00	3.67	4.33	4.00	4.33	2.67	3.50
	Std. Deviation	.837	.516	1.033	1.506	.516	1.265	.548	.753	1.211	.983	1.26	1.03	.516	.632	.516	1.033	.837
SUB COUNTY	Mean	3.75	3.78	2.76	2.25	3.53	3.15	3.76	3.35	2.36	2.15	2.36	2.78	3.36	3.31	3.67	2.36	3.27
	Std. Deviation	.726	.875	1.053	1.205	.940	.970	.881	.865	1.253	1.044	1.02	1.01	1.043	1.184	1.037	1.144	1.06
Total	Mean	4.01	4.03	2.89	2.88	3.74	3.46	3.99	3.52	2.78	2.64	2.64	3.09	3.54	3.61	3.90	2.61	3.39
	Std. Deviation	.776	.845	1.162	1.468	.995	1.088	.885	.931	1.277	1.281	1.12	1.07	1.012	1.124	.966	1.154	1.09

From the table, extra county schools ranked highly in quality improvement practices than the sub-county schools. For instance, in syllabus coverage the mean for extra-county schools was 4.43 with a standard deviation of 0.634, while that of sub-county schools was 3.75 with a standard deviation of 0.726. In use of extra contact time, extra county school schools had a mean of 4.46 while sub-county schools had a mean of 3.78 and in regular practicals extra county schools had a mean of 4.32 and sub-county schools had a mean of 3.76. This showed that performance and use of quality improvement practices is related to the school category and school academic performance.

CONCLUSIONS

From the study, it was realized that the entry marks of students correlated positively with the performance they got at KCSE. A Pearson correlation of 0.922 was obtained when comparing the cut off mean at entry and the schools means at KCSE. County and extra-county schools obtained learners with higher entry scores than the other schools. This was in line with a study made by Ibrahim and Orodho (2014) who stated that success in secondary school though measured by results obtained at KCSE, was a result of the environment in which a study studies in and the ability of the student.

It was also realized that quality improvement practices influence academic performance. Schools scoring highly in quality improvement practices were also found to have higher academic performance. This was evident with the high means realized in extra county schools category. The poorly performing schools were found in sub-county category and they rated poorly in quality improvement practices.

The study focused on 17 quality improvement practices that were adapted by schools in pursuit of improving academic performance. From the results, it was realized that having extra contact time with students, timely syllabus coverage, regular science practical activities and use of external examinations are the best practices used in schools in Makueni sub-county to enhance academic performance. Similarly, benchmarking, weekly rapid tests, use of talent days, organizing subject symposia and phasing out poor performers were found to be the least contributing practices in improvement of academic performance.

The following conclusions were derived:

- Laying down of quality improvement practices is critical in ensuring that academic performance in secondary schools was attained.
- Having extra contact time with learners is one of the best practices of enhancing improvement of academic performance. This is because the teacher-learner interaction enables identification and elimination of learning difficulties and offers assistance in areas of difficulties.
- Prompt syllabus coverage and regular science practicals are among the best strategies that improve academic performance.
- School academic performance is determined by the entry level of the learners and the academic improvement strategies that the school carries out.

The researcher recommended that the government train all school administrators on quality improvement to enhance their capacity to carry out activities that brings about better performance.

The researcher recommended that leadership training be embedded in training and development programs of school administrators. The government needs to invest more on training of teachers on innovative ways of teaching and ways of utilizing resources available to produce better results.

The study was carried in Makueni sub-county only. The same need to be done in other counties. The researcher was not able to get information on actual correlation between student's academic performance at entry and exit performance. This needs further investigation.

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