TEACHERS' PARTICIPATION IN DECISION-MAKING AND STUDENTS' ACADEMIC PERFORMANCE IN PUBLIC SECONDARY SCHOOLS OF KENYA

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ABSTRACT

Academic success in secondary schools is normally attributed to the principal who is expected to involve teachers in implementing and monitoring school programmes to enhance students' academic performance. There was a 5-year decline in the percentage of the Kenya Certificate of Secondary Education (KCSE) examination candidates from Kakamega County who were selected to join public universities. This was contrary to the national rising trend. The declining trend could hinder the realization of Sustainable Development Goals (SDGs) and the Kenya's vision 2030. This study intended to establish the relationship between teachers' involvement in decision making and students' academic performance. The study was guided by the Transformational leadership model and a conceptual framework. Correlational and descriptive survey designs were adopted. Respondents were sampled by simple random sampling. Pre-testing of questionnaires for teachers and students was undertaken to ensure validity and reliability of the instruments. Data was collected from 30 principals, 199 teachers and 393 Form 4 students by use of questionnaire and interview schedule. Research experts determined validity of the instruments. Data was analysed using descriptive statistics, frequencies, percentages, means, cross tabulation and Pearson's correlation. Hypothesis was tested through regression analysis at 0.05 level of significance. Results show that teachers' involvement in election of staff representatives, freedom of expression, management of academic activities, academic counseling and discipline of students had positive correlations. Regression analysis revealed that teachers' inclusion in decision-making explained 31.0% of the variation in academic performance. Leadership styles such as involvement of teachers to manage academic activities, teachers carryig out academic counselling, teachers allowed to elect staff leaders/representatives. It is recommended that principals should involve teachers in decision making especially in areas that significantly enhance academic performance. This study would be significant to policy makers, principals, teachers and other education stakeholders in Kenya. The study would also form baseline information for future research.

Key words: *Teachers, Participation, Decision making, Academic performance*

1.0 INTRODUCTION

1.1 Background to the Study: Educational Management involves the application of management principles in designing, developing and effecting resources towards achievement of educational goals. The school principal has always been looked upon as a leader and so much is expected of him/her (Agkeampong, 2006). Complex organisations such as schools need principals with leadership characteristics to play an active role in steering the organisation towards excellence (Abrar et al., 2010). This is because the significant proportions of key decisions made within the schools are made with the consent of the principal (AITSL, 2011). Teachers play a crucial role in ascertaining whether or not the desired educational results are achieved. For instance, Chimombo (2009) and Dakar Forum (2001) note that to improve students' performance, principals are required first to improve the management of the schools. This can be done by setting a clear vision for the schools and communicate this vision to the students, support its achievement by giving instructional leadership, provision of resources and being visible in every part of the institution. In a constantly changing social, economic, and technological environment, leadership is a more important attribute of management today than before (Musera, Achoka & Mugasia, 2012). Therefore, the overall management of school rests with the principal working with and through the teachers to maximize their capabilities in the profession and achieve the desired educational goals.

According to Nandwah (2011), education stakeholders in Kenya have very high expectations of public secondary school principals because they believe that the success of a school is measured in terms of good performance in national examinations and the person responsible for this is the principal. According to Mobegi, Ondigi and Oburu (2010), the quality of principals is a relevant indicator of quality in schools and therefore underscored the importance of head teachers in school administration. To this extent, the Ministry of Education introduced a Diploma in Educational Management for principals. The course administered by the Kenya Education Management Institute (KEMI) is meant to equip the school managers with requisite skills to manage and implement educational policies in a contemporary education sector (MoE, 2011).

Kenyans who have a stake in education expect schools to be effective and successful in a bid to achieve the educational goals. To effectively run a school, the principal is central in setting the tone of the school employing various management styles, which ensures effective teaching and learning by teachers and students respectively. One of the hailed leadership skill is participatory where subordinates have a stake in decision-making, there is good communication and delegation of responsibility and authority. This study therefore sought to establish the relationship between principals' leadership styles and students' academic performance in Kakamega County of Kenya.

1.2 Statement of the Problem: Kenya like other countries is in the race to attaining Sustainable Development Goals (SDGs) alongside the Vision 2030 when it is expected to be an industrialized nation. Secondary schools continue to face pressure to attain these set standards and there are continuous efforts to improve student academic performance (World Bank, 2018). Therefore, management of secondary schools is an important aspect towards attainment of the set national and international obligations. Various educational stakeholders have blamed management styles adopted by principals. Numerous reports indicate that principals' leadership styles have direct influence on school effectiveness because both the teacher and student operate under the leadership of the principal (UNESCO, 2012). It is therefore imperative to move forward with ascertained understanding of which leadership styles are employed by principals in Kenya and to what degree

their co-workers (teachers) are involved in the management of schools. Quality education in Kenya and world over is measured in terms of performance in examinations among other aspects. The percentage of the KCSE candidates from Kakamega County who were selected for public university admission in the years 2019, 2020, 2021, 2022 and 2023 was 15.35%, 14.48%, 13.74%, 12.16% and 12.42% respectively. This shows that there has been a decline in the percentage of the KCSE candidates who were selected to join public universities contrary to the national rising trend. The declining performance is costly for any country and especially Kenya since education is a major contributor to economic growth. This trend if allowed to go on may easily hinder the realization of SDGs and the Kenya's vision 2030. This study therefore sought to establish the relationship between teachers' participation in decision making and students' academic performance in public secondary schools of Kenya.

1.3 Objective and Hypothesis of the Study: Establish the relationship between teachers' participation in decision-making and students' academic performance in public secondary schools in Kenya. This study was guided by the following hypothesis:

Ho_2. There is no significant relationship between teachers' participation in decision making and students' academic performance in public secondary schools in Kenya.

1.4 Scope of the Study: This study covered the Relationship between participation of teachers in decision making and students' academic performance in public secondary schools of Kenya. More specifically, it focused on public secondary schools in Kakamega County. The study involved principals, teachers and Form 4 students as respondents. Data was collected by use of questionnaire and interview schedule.

1.5 Significance of the Study: This study was expected to provide valuable insights on students' academic performance in public secondary schools to researchers in the education sector. This knowledge may also be used in evaluating the success of principals as leaders who involve their co-workers (teachers) in decision making and provide information to policy makers and implementers who can use the information in designing strategies that can be used to enhance students' academic performance by appointing appropriate teachers to become principals. The Government through the Ministry of Education may use the findings of this study to develop in-service training programmes at KEMI that may help the principals adopt strategies that can enhance students' academic performance.

2.0 LITERATURE REVIEW

2.1 Theoretical Framework: This study was based on the Transformational Leadership Model, which was conceived by Burns (1978) and improved on by Bass (1998). Burns (1978) first introduced the concept of transforming leadership in his descriptive research on political leaders, but this term is now used in organizational psychology as well. According to Burns, transforming leadership is a process in which "leaders and followers help each other to advance to a higher level of morale and motivation". Burns related to the difficulty in differentiation between management and leadership and claimed that the differences are in characteristics and behaviours. According to Burns, the transforming approach creates

significant change in the life of people and organisations. It redesigns perceptions, values and changes expectations and aspirations of employees.

Another researcher, Bass (1998), extended the work of Burns (1978) by explaining the psychological mechanisms that underlie transforming and transactional leadership. Bass also used the term "transformational" instead of "transforming." Bass added to the initial concepts of Burns (1978) to help explain how transformational leadership could be measured, as well as how it impacts follower motivation and performance. The extent, to which a leader is transformational, is measured in terms of his effects on the followers. The followers of such a leader have trust, admiration, loyalty and respect for the leader and because of the qualities of the transformational leader; they are willing to work harder than originally expected. These outcomes occur because the transformational leader offers followers something more than just working for self-gain; they provide followers with an inspiring mission and vision and give them an identity. The leader transforms and motivates followers through his or her idealized effects (earlier referred to as charisma), intellectual stimulation and individual consideration. In addition, this leader encourages followers to come up with new and unique ways to challenge the status quo and to alter the environment to support being successful. Finally, in contrast to Burns, Bass suggested that leadership could simultaneously display both transformational and transactional leadership.

2.2 Conceptual Framework: A conceptual framework that shows the interaction of variables in the relationship between teachers' participation and students' academic performance in public secondary schools.

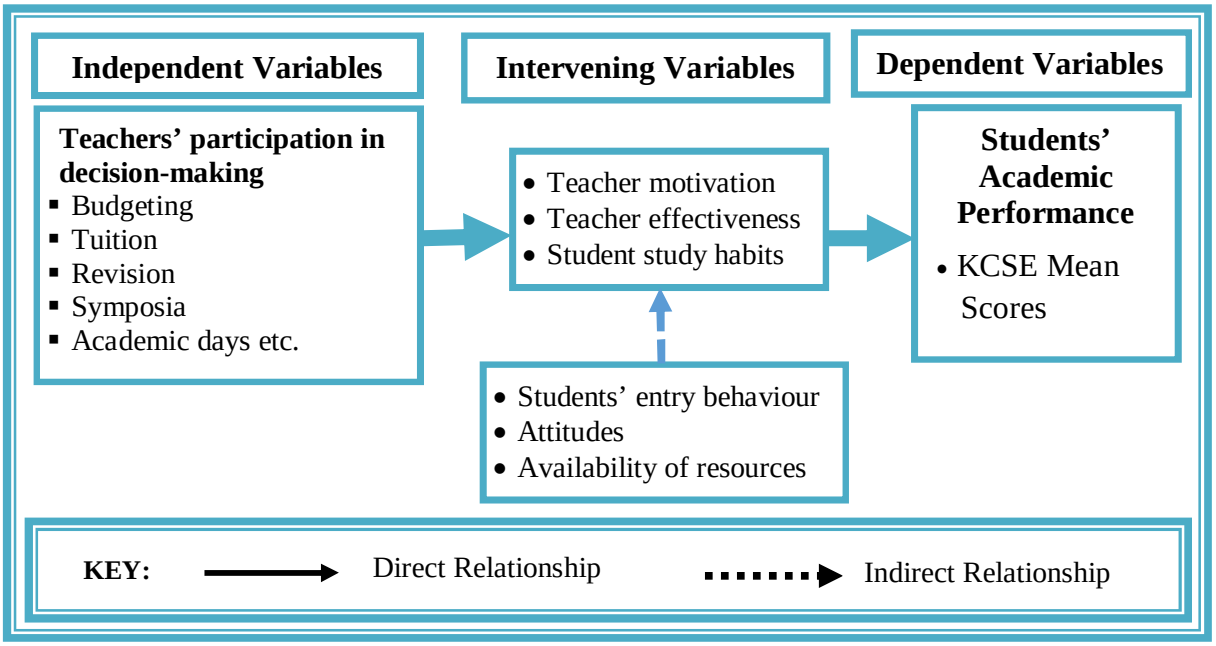

Figure .1: Relationship between Teachers' Participation in Decision Making and Performance in Secondary Schools in Kenya

Figure 1, displays interaction of variables between participation of teachers in decision-making. These then influence teacher motivation, teacher effectiveness and student study habits that in turn influence the dependent variable that is students' academic performance was measured by the mean

scores in Kenya Certificate of Secondary Education examination. However, independent and dependent variables do not occur in a vacuum. They operate in an environment. Therefore, intervening variables such as attitude, entry behaviour and availability of resources come into play and indirectly affect the students' academic performance. These factors when they complement teachers' inclusion in decision-making, there is higher teacher motivation, effective teachers and good student study habits, which lead to good mean scores and quality student grades in KCSE examinations are realized. However, the opposite would occur when there is weak entry behaviour, negative attitudes and inadequate resources leading to low teacher motivation, less effective teachers and poor student study habits. This ultimately would contribute to poor academic performance in KCSE examinations.

2.3 Empirical Framework: Okwori and Ede (2012) was of the opinion that a school administrator is one saddled with the responsibility of administering and managing school by making things happen and by organizing human, financial and material resources in order to achieve the objectives of the institution within the targeted period. Due to this highly complex and demanding task, the administrator is required to possess professional skills and competent management techniques in order to design and implement academic activities that can help achieve the educational goals of the school. The successful implementation of the school curriculum and other programmes depend largely on management ability to carry out the task or assignment effectively.

Decision-making is a key administrative function. Different writers have argued in favour of participatory decision-making. Marks and Printy (2003) arguing in support of teacher inclusion in decision-making say that if we accept the tenet that in a democracy those who are affected by decisions should participate in making decisions, the demands of the professional staff form a significant part in the decision-making process in the School system. The day of the principals' paternalism are fast coming to an end and in a democracy the school, like government, is of the people and by the people. Nelson and Sassi (2005) observed that raising the flagging morale and motivation of teachers in most sub Saharan African countries is a major challenge because many teachers lack self-esteem and commitment to their profession. They attribute this lack of self-esteem and commitment partly to lack of participatory management styles, which they claim are poorly understood or applied in Africa.

In a Kenyan secondary school, the principal is in charge all major decisions: curriculum and instruction, management of student discipline, school organisation and staff personnel matters, financial matters, school and community relations among others are centred on his/her office (Kariga, 2007). This makes the principal wield a lot of power in line with the view that, 'I have the responsibility I must have the power'. To assist the principal in policy formulation and implementation is the Board of Management, which deliberates on important decisions like hiring of support staff and budgeting for the school. This kind of structure leaves out the inputs of key implementers of the school policies, the teachers, in making decisions, a gap that is study sought to fill by establishing relationship between involvement of teachers and students in decision-making and students' academic performance.

3.0 RESEARCH METHODOLOGY

3.1 Research Design: This study employed both descriptive survey and correlational research designs. Descriptive survey is an observational research design that focuses on determining the

status of a defined population, phenomenon, situation or condition being studied (Mugenda & Mugenda, 2009). It establishes the pertinent facts that the research intends to establish without necessarily manipulating the variables of the study (Koul, 1992). Blaxter (1996) states that survey research in education involves the collection of information from members of a group of students, teachers or other persons associated with the educational process and the analysis of this information to address important educational issues while Bell (1999) indicates that descriptive survey necessitates data collection to provide information about existing status of the phenomenon on the ground. According to Orodho (2009), correlational design analyses the relationship between variables with the aim of establishing between the dependent and independent variables. These designs were deemed appropriate because they have been found to offer to social scientists and educators a systematic and logical method of collecting data for the purpose of measuring sample characteristics and establishing facts that result in formulation of important principles of knowledge about populations that are too large to be observed directly (Mugenda & Mugenda, 2009; Koul, 1992).

3.2 Study Population: This study targeted 292 public secondary schools of Kakamega County. Therefore, the target population of the study consisted of 292 principals, 1,984 teachers and 18,741 Form 4 students drawn from 292 public secondary schools in Kakamega County of Kenya bringing the total to 21,017 individuals.

3.3 Sampling Procedure: According to Kothari (2004) and Kerlinger (1993), 10% to 30% of a population is considered a good representative of the population. In the current study therefore, 10% of 292 schools is 30 while 10% of 1984 teachers is 199. Sampling of schools involved writing names of all schools on pieces of paper and putting them in three containers, the first one with a series of high performing schools, the second one with average performing schools and the third one with low performing schools. The pieces were rolled into balls and thoroughly mixed. Ten pieces were then randomly drawn from each of the containers. This procedure was used because it provided an efficient mechanism for capturing the heterogeneity that existed in the target population (Kothari, 2004; Mugenda & Mugenda, 2009; Blaxter, 1996). Therefore, 30 principals were sampled by purposive sampling because of the offices they held. Simple random sampling was used to give each of the teachers and students an equal chance to respond and involved the use of a table of random numbers to select 199 teachers and 393 Form 4 students to respond. The 393 Form 4 students were determined based on Israel (1992)'s formula of determining sample size as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where, n = sample size, N = population size, e = the level of precision

$$n = \frac{21741}{1 + (0.05)^2 21741} = \frac{21741}{55.35} = 393 \text{ Form 4 Students}$$

This formula was considered appropriate based on the view of Israel (1992), that the formula could be used to determine a sample size for a larger population of over 2000. Form 4 students were selected because they had more experience with the principals and teachers in their schools and could give necessary information compared to the students in the lower classes who had less experience.

3.4 Sample Size: Sample size is affected by such factors as the number of variables in the study, the type of research design, the method of data analysis and the size of the accessible population and

one has to balance between systematic bias and sampling error (Ghauri & Gronhaug, 2005; Kothari, 2004; Israel, 1992). A total sample of 622 respondents was used in the study. In constructing the sample, the researcher embraced the recommendation of Kathuri and Pals (1993) that the minimum thresholds of 100 cases in major subgroups and 20 – 50 cases in minor subgroups was appropriate for surveys. Students and teachers in the schools constituted major subgroups from which 393 and 199 students and teachers were picked respectively. On the other hand, principals constituted a minor subgroup from which 30 principals were picked to respond.

3.5 Data Collection Instruments: This study used both questionnaires and interview schedules as instruments for collecting data from respondents. Questionnaires were used to collect information from students and teachers. Questionnaires have the advantage of having everyone in each sampled category answer exactly the same questions, thereby making it possible for a few people to administer the questionnaires without affecting the validity and reliability of the instruments (Ghauri & Gronhaug, 2005). It was therefore possible to reach out on a large number of respondents quickly, easily and efficiently using questionnaires. Interview schedules were used to collect data from principals who were helpful in clarifying issues that were not clearly articulated in questionnaires. As information collecting tools, interview schedules had inbuilt flexibility, since the interviewer had leeway to adapt to situations in order to get more detailed information. According to Kathuri and Pals (1993), interview schedules also outline questions that form the basis for and a guide to the interviewing process, which helps in standardizing the interview situation. Hague (1998) points out that primarily the role of questionnaire is to draw accurate information from the respondent. Bell (1999) noted that questionnaires are a good way of collecting certain types of information quickly and relatively cheaply. The questionnaire is an ideal instrument to gather descriptive information from a large sample in a fairly short time (Kothari, 2004). According to Kerlinger (1993), an interview is a face-to-face interpersonal role situation in which one person, the interviewer, asks the person being interviewed the responded some questions.

3.6 Pretesting of Instruments: Pretesting is the administration of data collection instruments with a small set of respondents from the population for full-scale survey. This is done to anticipate problems that may be encountered during data collection (Kothari, 2004). For instance, terminologies used in questionnaires and interview schedules may not be understood by respondents or information to be retrieved from documents may not be readily available. Reducing error to acceptable levels therefore requires pretesting of data collection instruments. According to Orodho (2009), piloting is carried out to ensure that there is clarity and efficiency of instruments before the real study is carried out. All instruments were pre-tested in three schools that were part of the target population for the study, but which had not been sampled for the actual study. By examining responses from subjects after piloting, shortcomings that may have posed threats to validity and reliability of the instruments were addressed. This improved the effectiveness of instruments in collecting relevant data.

3.6.1 Validity of Instruments: According to Zeller (1997), validity refers to the degree to which an instrument measures what it is supposed to measure for a particular purpose and a particular group. A measure is valid if it measures what it is intended to measure (Keeves, 1997). According to Bell (1999), validity tells us whether an item measures or describes what it is supposed to measure or describe. Research experts validated the instruments of data collection for this study. The instruments were presented to the research experts. The experts provided suggestions that were used

to revise the instruments. In addition, pre-testing was conducted and the responses from the respondents were used to improve the items.

***3.6.2 Reliability of Instruments*:** Quality of research is dependent on the consistency with which observations are made. Consistency is in turn dependent on the precision with which an observation is specified (Keeves, 1997). Kosecoff (1998) explained that reliability is the degree of consistency between measures obtained from a subject under similar conditions at different times. A reliable survey will provide a consistent measure of important characteristics despite background fluctuations. Test-retest method of estimating reliability was used to determine the reliability. This method administers the same instrument twice to the same group of subjects at different times.

A pilot study was done in 3 schools that were not part of the actual study. The researcher administered the instruments to the students, teachers and the principals. After a period of two weeks the researcher administered the instruments again to the same respondents. Responses from the respondents were thus checked for consistency. From their responses, changes were made to the structure and some of the questions. In the analysis, the sum variables were compared to a single variable (Bryman & Cramer, 2001). Cronbach's Coefficient, alpha, was computed to determine how the items correlated among themselves. This technique was preferred because it is known to give more conservative estimates of reliability as its estimated coefficient is always lower (Mugenda & Mugenda, 2009). It was better to underestimate than to overestimate reliability to avoid making erroneous conclusions. The reliability index of 0.82 and 0.87 was obtained for students' questionnaire and teachers' questionnaire respectively. According to Koul (1992) and Sarantakos (1998), reliability index of 0.70 or higher is acceptable threshold for making inferences in a study. Therefore, the reliability indices obtained were deemed appropriate for use in this study.

3.7 Data Collection Procedure: Data is collected for the purpose of gathering information to serve or prove some fact. This requires one to follow approved procedures which guarantee adherence to ethics during research. Central to these ethics is the need to inform respondents about the nature of information sought and the use to which it will be put. This enables respondents to make informed decisions to participate in the research. An application was made to The National Commission for Science, Technology and Innovation (NACOSTI) in Kenya for a research permit to enable unhindered collection of data in Kakamega County, Kenya. The schools were categorized into High Performing Schools (HPS), Average Performing Schools (APS) and Low Performing Schools (LPS). Schools were sampled based on their strata. The research instruments were piloted in 3 schools that were not part of the actual study. Principals in the sampled schools were approached where questionnaires were administered to the sampled teachers and students. Two research assistants were trained to be conversant with the study and involved in the collection of data. Interviews and document analysis were also used to collect data concurrently with the questionnaire administration. Confidentiality was upheld at all times. This was to address ethical issues during the research.

3.8 Data Analysis Procedures: The sources of analysed data included questionnaires, interview schedules and school records. The quantitative data obtained from close-ended parts of the questionnaire were coded in readiness for standardized statistical analysis techniques using statistical package for social sciences (SPSS) version 17.0 for analysis. Qualitative data was transcribed, grouped into themes and sub-themes as they emerged. Quantitative data was analysed

by descriptive and inferential statistics and presented in form of frequency tables, means and percentages. For better interpretations and pictorial view, data was further presented as bar graphs and pie charts. Cross tabulations, Pearson's correlation coefficient and Multiple Linear Regressions were used to establish relationships between variables. All statistical inferences were done at $\alpha = 0.05$.

4.0 DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Inclusion of Teachers in Decision-making: This study established the areas in which teachers are involved in decision-making in their schools and the findings were as indicated in Table 1 that follows.

Table 1: Teachers' Responses on Areas of Inclusion in Decision-Making

Area of involvement **n = 199**	Frequency (F)	Percentage (%)
Students admission process	172	86.4
Academic Counseling	161	80.9
Freedom of contribution/ expression during staff meetings	155	77.9
Requisition of academic requirements	146	73.4
Management of symposia/ contests	127	63.8
Management of revision programme	113	56.8
Management of academic days	103	51.8
Management of remedial teaching programmes	101	50.8
Management of joint examination	96	48.2
Election of staff leaders/ representatives	90	45.2
Management of academic awards	79	39.7
Principal positively taking criticism and correction from teachers	78	39.2
Making academic budgets	62	31.2

Results in Table 1 shows that 172 (86.4%) of the teachers reported that they were involved in student admission process while another 161 (80.9%) of them indicated that they were involved in academic counselling. At the same time, 155 (77.9%) of the teachers indicated that there had freedom of contribution/expression during staff meetings while 146 (73.4%) of them reported that they were involved in requisition of academic requirements. In addition, 127 (63.8%) of the teachers indicated that they were involved in management of symposia and contests while 113 (56.8%) of them reported that they got involved in management of revision programmes in their schools. Furthermore, 103 (51.8%) of the teachers reported that they were involved in management of academic days while another 101 (50.8%) of them indicated that they managed remedial teaching programmes. At the same time, 96 (48.2%) of the teachers reported that they got involved in managing joint examinations while 90 (45.2%) of them indicated that they were involved in election of staff leaders/ representatives. Furthermore, 79 (39.7%) of the teachers reported that they were involved in management of academic awards while 78 (39.2%) of them said that they were involved to criticize/correct their principals who took it positively. In addition, 62 (31.2%) of the teachers indicated that they were involved in criticizing/correcting their participants who took it positively.

One of the principals during interview said, "I always involve teachers in admission of students and coordination of all class activities." Another principal also revealed, "Teachers in this school are free to contribute new ideas." At the same time, one other principal said:

> *"Teachers help in management of symposia, contests, revision, academic days, remedial teaching and joint examinations……. we always hold general meetings at the beginning and end of the term where teachers are allowed to talk what they want but I must remain in-charge."*

However, another principal said, "I must have my way during meetings because some teachers are just there to oppose everything." On the other hand, another principal indicated, "I always welcome criticisms for they improve our programmes and I allow teachers to discipline students without interference."

These findings show that teachers were involved to manage and make decisions in many activities and programmes of the school. However, the findings show that most principals did not involve teachers in others especially management of academic awards, criticism and correction of the principals and making academic budgets. It is worth noting that these are as well key aspects of managing academic activities. For instance, if teachers are not involved in making academic budgets, there may be important components of the budget that may be left out either by ommission or commission. At the same time, the principal is not the know it all, he can make mistakes, so, there is need for corrections from fellow professional teachers. Finally, there may be need to involve teachers in managing academic awards though this must be done with caution since some teachers who may be beneficiaries of the awards may be biased to benefit themselves due to conflict of interest which may end up being counter productive in terms of increasing academic productivity.

4.2 Relationship between Teachers' Inclusion in decision-making and Students' Academic Performance: This study sought to establish any relationship between teachers' inclusion in decision-making and students' academic performance. Having examined the areas of participation of teachers in decision-making, the researcher sought to establish how the inclusion of teachers in decision-making was related to students' academic performance.

4.2.1 Cross Tabulation: The study crosstabulated aspects of teachers' inclusion in decision-making and academic performance categories to find out existence of any relationships.

Table 2: Cross Tabulation of Teachers' Inclusion in decision-making and Performance

Aspect of Teachers inclusion in decision-making		School Performance			
		High	Average	Low	Total
Election of staff leaders/ representatives	Count	54	0	36	90
	Percentage	60.0	0.0	40.0	100.0
Freedom of contribution/ expression during staff meeting	Count	66	66	23	155
	Percentage	42.6	42.6	14.8	100
Making academic budgets	Count	30	32	0	62
	Percentage	48.4	51.6	0.0	100.0
Managing of student admission process	Count	54	51	67	172
	Percentage	31.4	29.7	39.0	100.0
Management of remedial/tuition programme	Count	54	47	0	101
	Percentage	53.5	46.5	0.0	100.0

Management of revision programme	Count	66	47	0	113
	Percentage	58.4	41.6	0.0	100.0
Management of joint examination	Count	66	30	0	96
	Percentage	68.8	31.3	0.0	100.0
Management of Symposia/contests	Count	66	61	0	127
	Percentage	52.0	48.0	0.0	100.0
Management of academic awards	Count	42	37	0.0	79
	Percentage	53.2	46.8	0.0	100.0
Principal positively taking criticisms and corrections from teachers	Count	60	42	0	102
	Percentage	58.8	41.2	0.0	100.0
Teachers disciplining students without interference from the principal	Count	60	37	0	97
	Percentage	61.9	38.1	0.0	100.0

Results in Table 2 show that 54 (60.0%), 0 (0.0%) and 36 (40.0%) of the teachers from HPS, APS and LPS elected their staff leaders/representatives which indicates no relationship between participation by teachers to elect their representatives and students' academic performance. At the same time, there was a relationship between freedom of contribution/expressions during staff meetings and students' academic performance; for 66 (42.6%), 66 (42.6%) and 23 (14.8%) of the teachers in HPS, APS and LPS reported that they had freedom of expression during staff meetings in their schools. Furthermore, 30 (48.4%), 32 (51.6%) and 0 (0.0%) of the teachers from HPS, APS and LPS indicated that they participated in making academic budgets. This shows that there was no clear relationship between involvement of teachers to make academic budgets and students academic performance. In addition, 54 (31.4%), 51 (29.7%) and 67 (39.0%) of the teachers from HPS, APS and LPS respectively reported that they participated in managing the students admission process. This implies that there was no relationship between involement of teachers in management of students admission process and students' academic performance.

At the same time, 54 (53.5%), 47 (46.5%) and 0 (0.0%) of the teachers from HPS, APS and LPS respectively reported that they participated in management of remedial/tuition programmes. This implies that there was a positive relationship between teachers' participation in management of remedial/tuition programme and students' academic performance. Similarly, 66 (58.4%), 47 (41.6%) and 0 (0.0%) of the teachers from HPS, APS and LPS respectively participated in management of revision programme which implies that there was a positive relationship between teachers' involvement in managing revision programmes and students' academic performance. At the same time, 66 (68.8%), 30 (31.3%) and 0 (0.0%) of the teachers from HPS, APS and LPS respectively were involved in management of joint examinations. This shows that there was a relationship between teachers' participation in management of joint examinations and students' academic performance. Furthermore, 66 (52.0%), 61 (48.0%) and 0 (0.0%) of the teachers in HPS, APS and LPS respectively participated in management in symposia/ contests which implies that there was a positive relationship between teachers' participation in management of this programme and students' academic performance. In addition, 42 (53.2%), 37 (46.8%) and 0 (0.0%) of the teachers in HPS, APS and LPS respectively participated in management of academic awards which indicates that there was a relationship between teachers' involvement in management of academic awards and students academic performance. At the same time, 60 (58.8%), 42 (41.2%) and 0 (0.0%) of the teachers in HPS, APS and LPS respectively reported that their principals positively took

criticisms and corrections from teachers. This implies that there was a relationship between principals being corrected by teachers and students' academic performance. In addition, 60 (61.9%), 37 (38.1%) and 0 (0.0%) of the teachers in HPS, APS and LPS respectively disciplined students without interference from the principals. This clearly shows that there was a relationship between teachers' disciplining students without interference by the principal and students' academic performance.

4.1.3 Pearson's Correlation Coefficient: Correlations between involvement of teachers in decision-making and students' examination performance were carried out. The findings are shown in Table 3.

Table .3: Correlation between Teachers' Inclusion in Decision-making and Students' Academic Performance

Area of Teachers' Inclusion	N	Correlation Co-efficient (*r*)	Sig.
Election of staff leaders/representatives	199	0.299	0.000*
Freedom of expression during staff meetings	199	0.169	0.000*
Management of admission process	199	- 0.01	0.961
Criticize/correct principal where necessary	199	0.221	0.000*
Academic Counseling	199	0.104	0.000*
Management of remedial programmes	199	- 0.197	0.000*
Management of revision programmes	199	0.336	0.000*
Management of joint examinations	199	0.527	0.000*
Management of symposia/contests	199	0.218	0.000*
Management of academic days	199	0.105	0.000*
Management of academic awards	199	- 0.158	0.000*

** Significant at $p<0.05$.*

Results in Table 3 indicate that there were significant correlations at $p<0.05$ between the students' academic performance and areas of teachers' inclusion in decision-making: election of staff leaders/representatives, freedom of expression during staff meetings, inspection and acceptance of procured academic requirements, coordination of class meetings, management of academic awards, management of academic days, management of symposia/contests, management of joint examinations, management of revision programmes and management of remedial programmes. However, election of staff leaders/representatives, freedom of expression during staff meetings, criticising/correcting principal where necessary, academic counseling, management of academic days, management of symposia/contests, management of joint examinations and management of revision programmes had positive correlation coefficients (*r*) meaning that principals who emphasized in involving teachers in these areas had their students' academic performance improve compared to their counterparts who did not. On the other hand, management of academic awards and management of remedial programmes had negative correlation coefficients (*r*) which indicates that principals who emphasized on involving teachers in these areas recorded lower students' academic performance compared to their counterparts who did not. It is also worth noting that all significant correlation coefficients were low ($r<0.5$), which means that the relationships were weak except teachers' participation in the management of joint examinations ($r = 0.527$) which had a strong relationship with students' academic performance.

4.1.4 Regression Analysis: In order to establish the relative contribution of each independent variable on academic performance, a multi-linear regression was specified. According to Kerlinger (1993), multiple regression attempts to determine whether a group of independent variables together predict a given dependent variable. This study adopted the backward elimination method which allows for the selection of variables for inclusion in the regression model that considered all independent variables and then eliminated those variables that did not make any significant contribution to prediction of the dependent variable (Gall, Gall and Borg, 2007; Hair et al. 2009).

This study sought to establish the relationship between inclusion of teachers in decision-making and students' academic performance. The relative effects of nine regressor [independent] variables: election of staff leaders/representatives, freedom of contribution/expression during staff meeting, making academic budgets, students admission process, inspection and acceptance of purchased academic requirements, coordination of class meetings, management of academic awards, disciplining of students without interference and management of academic activities were considered together in one equation as predictors of [Y] students' academic performance (dependent variable). The main objective of using multiple regression analysis for estimation was to explain the factors that had a significant effect on students' academic performance (Kerlinger, 1993; Gall, Gall & Borg, 2009).

The general statement of relationship was of the form:
$Y = f(X_1, X_2 \ldots\ldots\ldots X_n)$.
Where Y was the criterion variable while $X_1, X_2 \ldots\ldots\ldots X_n$ represented the explanatory variables.
Results discussed below were the output of a simultaneous regression method, which required a researcher to specify the set of predictor variables that made up the model. The success of the model in predicting the criterion variable was then assessed. The following linear regression model was specified with KCSE mean scores as the dependent variable:
$Y = a_1X_1 + a_2X_2 + a_3X_3 + a_4X_4 + a_5X_5 + a_6X_6 + a_7X_7 + a_8X_8 + a_9X_9 + c$
Where;
Y = Academic performance (KCSE mean scores)
X_1 = Election of staff leaders/representatives
X_2 = Freedom of contribution/expression during staff meeting
X_3 = Making academic budgets
X_4 = Students admission process
X_5 = Inspection and acceptance of purchased academic requirements
X_6 = Coordination of class meetings
X_7 = Management of academic awards
X_8 = Disciplining students without interference
X_9 = Management of academic activities
c = Constant; and $a_1 \ldots a_9$ are regression coefficients

Results

The model entered eight explanatory variables for a linear relationship with students' academic performance. These were: election of staff leaders/representatives, freedom of contribution/expression during staff meeting, making academic budgets, students admission process, inspection and acceptance of purchased academic requirements, coordination of class meetings, management of academic awards, disciplining of students without interference and management of academic activities.

List 1- Linear Regression Analysis

Model		Sum of Square	df	Mean Square	F	Sig
1	Regression	87.144	3	29.048	3.421	0.037
	Residual	1664.236	196	8.490		
	Total	1751.380	199			

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.557	.310	.325	1.654

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
Independent Variables	B	Std. Error	Beta		
(Constant)	5.498	.558		7.721	.000
Management of academic activities	.351	.231	.182	2.008	.002
Discipline of students	.531	.223	.156	2.004	.002
Management of academic awards	.276	.251	.039	1.026	.164
Academic Counselling	1.232	.229	.385	8.831	.001
Criticizing/Correcting the principal	-.352	.305	-.074	-1.258	.201
Students admission process	-1.218	.215	-.236	-6.032	.000
Making academic budgets	-.721	.213	-.171	-3.463	.000
Freedom of contribution/ expression during staff meetings	.207	.211	.013	.647	.365
Election of staff leaders/ representatives	.524	.143	.120	1.531	.006

Dependent Variable: KCSE Mean Score Source: Derived from Field data (2016)

The F-ratio (between groups mean square) was 3.421 while the p-value was 0.037. The probability of F-ratio (p-value) of 0.037 was less than the significance level (critical value) of 0.05. An examination of the ANOVA table, in this model revealed that the explanatory power of the model was high ($F = 3.421$, $p < 0.05$); thus, the model could not be rejected.

The R-square (R^2) value of 0.310 indicating that the independent variables (management of academic activities, teachers discipline students without interference from the principal, management of academic awards, coordination of class meetings, inspection and acceptance of purchased academic requirements, students admission process, making academic budgets, freedom of contribution/ expression during staff meeting and election of staff leaders/ representatives) explained 31.0% of the variation in academic performance. The regression coefficients for the model are shown in Table 4 that follows.

Results show that the prediction equation for academic performance (Y) becomes: Y = 0.182 [management of academic activities] + 0.156 [discipline of students] + 0.385 [academic counselling] – 0.236 [student admission process] – 0.171 [making academic budgets] + 0.120 [election of staff leaders/representative] + 5.498

This means that examination mean score is predicted to increase by 0.182 when involvement of teachers to manage academic activities is increases by one, increase by 0.156 when teachers' involvement in students' discipline increases by one, increase by 0.385 when teachers' involvement in academic counselling goes up by one, decrease by 0.236 when teachers' involvement in students' admission process goes up by one, reduces by 0.171 when teachers' involvement in the making of academic budgets goes up by one, increases by 0.20 when teachers' involvement in election of staff leaders/representatives increases by one.

The standardized beta (β) coefficients took on both negative and positive values. However, only here variables namely: management of academic activities, disciplining of students and academic counselling significantly enhanced academic performance.

5.0 Summary, Conclusions and Recommendations

5.1 Summary of the Findings: This study established that teachers participated in students admission process, academic counseling, freedom of contribution/expression during staff meetings, requisition of academic requirements, management of symposia/ contests, management of revision programmes, management of academic days and management of remedial teaching programmes as reported by over 50% of the teachers. Teachers also participated in management of joint examination, election of staff leaders/ representatives, management of academic awards, critizing/correcting the principal where necessary and making academic budgets as revealed by less than 50% of the teachers. It was also established that there were significant correlations, at $p<0.05$, between the students' academic performance and the following areas of teachers' inclusion in decision-making: election of staff leaders/representatives, freedom of expression during staff meetings, critizing/correcting the principal when necessary, academic counseling, management of academic awards, management of academic days, management of symposia/contests, management of joint examinations, management of revision programmes and management of remedial programmes. Election of staff leaders/representatives, freedom of expression during staff meetings, critizing/correcting the principal when necessary, academic counseling, management of academic days, management of symposia/contests, management of joint examinations and management of revision programmes had positive correlation coefficients (r) while management of academic awards and management of remedial programmes had negative correlation coefficients (r). Linear regression analysis revealed that participation of teachers in decision-making explained 31.0% of the variation in academic performance respectively.

5.2 Conclusions: Based on the findings, this study concluded that there was a significant relationship between teachers' inclusion in decision-making and academic performance. Teachers' participation in election of staff leaders/representatives, freedom of expression during staff meetings, academic counseling, management of academic awards, management of academic activities and discipline of students had significant relationship with students' academic performance. Participation of teachers in decision-making explained 31.0% of the variation in academic performance respectively among HPS, APS and LPS. In addition, teachers' involvement in management of academic activities, student discipline and academic counselling were good predictors of academic performance.

5.3 Recommendations: Based on the findings and conclusions, this study recommends that:

- Principals should put more emphasis on involving teachers in decision-making especially in areas that enhance academic performance. Teachers should participate in: election of staff leaders/representatives, academic counselling, management of academic activities and discipline of students;
- Principals of LPS should benchmark with principals of HPS and adopt the leadership styles of the HPS principals so as to improve students' academic performance; and
- The Ministry of Education (MoE) in collaboration with TSC should establish an appraisal system for principals and teachers to make them more accountable so as to enhance students' academic performance.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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