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The Influence of Teaching Staff Training and Development on Academic Performance of Secondary Schools in Machakos County, Kenya

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Abstract:
Academic performance trend in K.C.S.E. in Machakos County has been on a declining trend in the recent past, hence the need for the study. The study sought to examine the influence of teaching staff training and development on the academic performance of secondary schools in Machakos County, Kenya. The Universalistic Theory informed this study. The study was anchored on pragmatic paradigm and used mixed methods research design. The target population was 413 secondary schools in Machakos County. The school principals were selected as units of observation. Purposive sampling was used to select six secondary schools from where the key informants were drawn. These consisted of the two national, top two performing and bottom two non-performing secondary schools in Machakos County. The rest of the schools were selected using stratified sampling based on the category of school where a sample size of 201 was obtained. The study used primary data collected using self-administered questionnaires and interview schedules. Qualitative data collected was analysed using content analysis, while for the quantitative data, descriptive analysis and inferential analysis were carried out. Both bivariate and multivariate regression analyses were conducted to determine the relationship between the study variables. The findings of the study were that teaching staff training and development positively and significantly influenced the academic performance of secondary schools in Machakos County. Therefore, the study concluded that training and development was a significant variable that influenced the academic performance of secondary schools in Machakos County. The study recommends that schools' management should also develop operational policies to guide the design of their training and career development programs to make them more inclusive, relevant and comprehensive.

Keywords: Teaching staff training and development, academic performance, human resource management practices

1. Background of the Study

Human Resource Management practices are key determinants of employees' performance in almost all organizations. Human Resource Management enables organizations to achieve expected organizational performance and competitiveness by achieving desired employee performance goals (Armstrong, 2010). There are some significant HRMP that should engage the organization's business strategy. Some of these include attracting and choosing potential employees (recruiting and selection), educating employees how to perform their jobs and preparing them for the future (training & development), rewarding employees (compensation) and creating a positive and healthy work environment (safety) (Dessler, 2011).

1.1. Concept of Organizational Performance

Organizational performance is an indicator which measures how well an enterprise achieves its objectives (George *et al*, 2019). Organizational performance is concerned with product or service quality, product or service innovation, employee attraction, employee retention, customer satisfaction, management/employee relation and employee relation (Al Khajeh, 2018). Berberoglu (2018) observes that the effective functioning of an organization is enhanced where employees perform their jobs at a satisfactory level of proficiency and there are opportunities for the continued development and training not only in their jobs, but as well develop them for other jobs for which they might later be considered when all the practices are managed well.

According to Richard (2009), organizational performance comprises with three areas of company outcomes such as financial performance (return on assets, return on investment, profits), product market performance (sales and market share) and shareholder return. Effective implementation of HRMP in organizations is a key source of competitive advantage and it has a positive relationship with organizational performance (Collins & Smith, 2016).

The application of Human Resource Management practices, therefore, can have a major influence on enhancing job satisfaction hence performance. Embracing Human Resource Management leads to an increased organizational performance. A number of studies have found a favorable relationship between high-performance work practices and different measures of company performance (Uysal & Koca, 2019).

1.3. The Concept of Academic Performance

Academic performance is a threshold assessment used to measure a student's ability to meet performance criteria. Grades are used to measure learning or knowledge and attainment of learning objectives and acquisition of skills and competencies (York *et al.*, 2015). Academic performance of a student is regarded as the observable and measurable behavior in a particular situation (Komba, Hizza & Jonathan, 2013).

Educational institutions are mandated to use education as a tool for social transformation and the quality of a school is measured by the quality of grades students produce through academic performance (Biama, 2014). The measure of academic performance can also be used to assess the teachers' effectiveness. Good schools are those that are able to groom the students well enough to achieve the set standards. This is measured by use of students' academic performance both at school level and nationally (Molokomphale, 2015).

Academic performance as measured by the examination results is the aggregate score in a course or grade point average (GPA) and is one of the major goals of a school globally (Oredein, 2016). The social and economic development of a country is directly linked with students' academic performance (Mushtaq & Khan, 2012). Students with quality results become great leaders and manpower for the country thus, responsible for country's economic and social development. York *et al* (2015) note that academic failure is not only frustrating to pupils and parents; its effects are equally grave on the society in terms of death of manpower in all spheres of the economy and politics.

Arif (2017) argues that in the US educational system, students' advancement is predicated on graded performance in a series of classes. Failing to achieve passing grades has numerous additional implications during secondary school and beyond the school level. Students' academic failure is a major determinant of status attainment and adult well-being. Low-performing students are less likely to graduate from high school and less likely to go to college. This increases high school dropouts, and substantially lower adulthood wages.

Kajunju (2015) observes that in Africa, there is a growing recognition among African governments on the need to invest in and expand access to secondary education and hence quality grades. Secondary education is essential in preparing students for higher education and important life skills in S.A. The quality of education of learners is encouraged to remove intergenerational cycle of poverty so that children do not inherit the social standing of their parents or caregivers (Tamrat, 2017).

In Kenya, the Kenya Certificate of Secondary Education (KCSE) examination administered by the Kenya National Examinations Council (KNEC) measures student performance. It is used as the main basis for judging a student's ability and also as a means of selection for educational advancement and employment (Kieti, 2017). The education system in Kenya places a minimum grade C+ which students must obtain before they are admitted to public and private universities (Kigotho, 2012).

1.4. Performance of Secondary Schools in Machakos County

In Machakos County there are four hundred and thirteen (413) secondary schools of which three hundred and thirty one (331) are public schools and eighty one (81) are private schools which offer the Kenya Certificate Secondary Examination. Among the public schools, there are two (2) National schools, eighteen (18) Extra County schools, fourty three (43) County schools and two hundred and seven (207) Sub-County schools and eighty one (81) private schools (NEMIS, 2018).

The objectives of secondary education in Kenya are to prepare students to make a positive contribution to the development of society and to acquire attitudes of national patriotism, self-respect, self-reliance and self-discipline (National Economic Security Program 2013/2018). Secondary education provides the skills and tools to help meet a country's growing demands for highly skilled and educated workers in a globalized world (Amini, 2015). Schools like other organizations need to achieve their desired goals/objectives. One of the tools of measuring academic success is performance in examinations (York, Gibson& Rankin, 2015).

Statistics of (KCSE) analysis in the last six years indicate that secondary schools in the County registered a mean score below that of the other schools of similar categories in other counties (Appendix 3). Schools in other counties of the same category post results with a higher index, for example in the national category; Friends school Kamusinga in Bungoma County in the year 2017 posted a mean of index 10.28, while Machakos School posted an index of 7.8.

Kenya Certificate of Secondary Education examination is taken at the end of the fourth year of secondary education. Learners, who perform well, are perceived to have received high quality education essential for sustainable socio-economic development and poverty eradication as opposed to those who perform poorly (Biama, 2014). The results on academic performance of secondary schools in Machakos County for the period of study shows that only a few students attained grade C+ and above. A few schools attained a mean of index 5 and above out of the expected highest mean of index 12 for the period 2013-2019. The county mean for the same period has been below 5 out of the expected 12 and constantly on the decline. This is shown in Table 1.

YEAR	TOTAL	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	C. MEAN
2019	27222	2	117	374	788	1198	1572	2274	3105	3810	5698	4930	863	3.744
2018	23856	4	53	210	531	906	1319	1751	2658	3641	5542	6158	1224	3.11
2017	23479	0	34	144	353	642	905	1414	2133	3252	5212	7620	1733	3.112
2016	21662	0	81	270	522	799	1163	1581	2144	3046	4515	6176	1365	3.29
2015	20891	12	153	437	763	1283	1808	2409	3133	3531	4118	2921	317	3.725
2014	19152	28	169	442	799	1151	1653	2179	2966	3356	3651	2470	284	4.799
2013	18416	18	171	728	998	257	1868	2381	2801	3392	2387	338	404	4.567

Table 1: KCSE Performances in 2013-2019 in Machakos County
Source: Machakos County Director of Education Office (2020)

Despite the increasing number of candidates registered for KCSE each year, the results show a decline in quality grades and an increase in weak grades especially from 2013 to 2017. The results also show an increasing number of weak grades each year. The overall mean of the entire county has been below 5 out of the expected 12 for the period under study, and on a constant declining trend. This is of great concern to stakeholders. The percentage of candidates scoring grade C+ and above in the county has been very low. For instance, in the year 2013, it was 27%; in the year 2014, it was 22.7%; in the year 2015, it was 21.35%; in the year 2016, it was 13.8%; in the year 2017, it was 8.83%; in the year 2018, it was 12.68% and in the year 2019, it was 14.88%.

According to the Kenya Universities and Colleges Central Placement Service, students, who attain grade C+ and above, qualify for a degree course in Kenya (KUCCPS, 2015). The percentages demonstrate moderate academic performance. Candidates, who score grade a, get admission to prestigious courses like medicine, law and engineering. From the statistics, very few or none manage admission into these courses, for example, in the year 2016 and 2017, there was no student who scored A grade in the entire county. In the year 2018, only 4 students scored grade A, while in 2019, only 2 students scored grade A in the county. The years 2016, 2017 and 2018 had the highest number of the students scoring grades D and below. Students, who attain grade C-, are admitted for Diploma courses. Majority of the candidates, who score grade D- and below, ends up in the informal sector. These are the majority among the candidates.

1.5. Statement of the Problem

York, Gibson and Rankin (2015) observe that one of the tools of measuring academic success is performance in examinations. The County has consistently recorded a mean score of less than 5 points and below out of the expected best mean score of 12 points for the last 6 years (2013-2019) in KCSE. Despite the high number of registered candidates, those who score C+ and above in the county has been on a declining trend. For example, in the year 2017, out of the registered 23479 candidates, 2078 candidates attained C+ and above, while 21401 candidates attained C and below.

Statistics of KCSE analysis in the last six years indicate that majority of the secondary schools in the County registered a mean score below that of the other schools of similar categories in other counties. In the National category, Friends School Kamusinga in Bungoma County in the year 2017 posted a mean of index 10.28, while Machakos School posted a mean of 7.8. In the year 2017, Alliance Girls, a National school in Kiambu County, posted a mean score of 9.52, while Kathiani girls of similar category posted a mean of 5.81. Machakos Girls, an Extra County school, posted a mean index of 7.09, while Muthale Girls in Kitui posted an index of 9.65. Kyeni Girls, an Extra County school in Embu, posted a mean of 8.6, while Muthetheni Girls of similar category posted a mean of 6.8. In the year 2015, Vyulya Girls, an Extra County school, posted an index mean 6.5, while Nguviu Girls in Embu posted a mean index of 7.4

1.6. Objective of the Study

The objective of the study was to establish the influence of staff training and development on academic performance of secondary schools in Machakos County, Kenya.

1.7. Research Hypothesis

The following research hypothesis was tested:

- Ho1: There is no significant influence between teaching staff training and development, and academic performance of secondary schools in Machakos County, Kenya.

2. Theoretical Review

2.1. Universalistic Theory

The universalistic theory was postulated by Dewar and Werbel (1979) who sought for best practices in Human Resource Management. Several researchers have contributed to the universalistic theory such as Beh and Loo (2013), Hamid (2013) and Hughes (2002). The researchers admit that there is a linear relationship in organizational performance if certain HRM practices are implemented. They argue that some HRM practices are superior to others and therefore all organizations should assume these best practices. Hamid (2013), for example, refers to the Universalistic theory as the 'best' practice model which is based on the assumption that there is a set of superior/best HRM practices, and that adopting them will definitely lead to superior organizational performance. If certain HRM practices are implemented in the organization, they can guarantee increases in performance.

The 'best' HRM practices are seen through improved employee attitudes and behaviors, lower levels of absenteeism and turnover, higher levels of skills and therefore, higher productivity, enhanced quality and efficiency and increased profitability (Marchington & Wilkinson, 2008). Therefore, all organizations will benefit and experience improved organizational performance if they will be able to identify, get committed to and implement a set of best HRM practices.

The universalistic perspective maintains that firms will notice performance gains by identifying and implementing best practice irrespective of the product market situation, industry or location of the firm. It is up to the firm to decide what may be relevant in general terms and what can be adopted to fit its particular strategic and operational requirements. There are certain 'best' HRM practices that contribute to increased organizational performance regardless of the strategic goals of the organization (Hughes, 2002). These are recruitment and selection, socialization, job design, training, communication, participation, career development, performance management, employee reward and job security (Maina, 2017). The universalistic approach to HRM research assumes that HRM practices contribute to worker motivation (and thereby increased productivity) as well as increased efficiency (Ichniowski, Kochan, Levine, Olson& Strauss, 2000).

Boxal, Purcell and Wright (2007) observe that the universal Human Resource Management practices among them, recruitment, training, reward management, job rotation and staff welfare and firm performance are related and supported by arguments from universalistic theory which suggests that people possess skills, knowledge and abilities through effective Human Resource Management practices that provide economic value to firms. Therefore, increased productivity derived from human capital depends on the effectiveness of HRM practices in organizations.

Wayne, Musisca and Fleeson (2004) suggest that HRM practices, that signal the organization's intentions to invest in employees (such as developmental experiences and training), produced higher levels of (influence) organizational commitment. In recent times, HRM has assumed new prominence because of continuing concerns about global competition, the internalization of technology and the productivity of labour through effective HRM practices (Bratton & Gold, 2017). Marques (2015) notes that the strength of universalism is its consistency and with the moral approach, there is no question about the decision to be made what is right for one should be right for all. Managers need to change the way they manage the employment relationship in order to allow the most effective utilization of human resources.

The universalistic approach does not consider that what works well in one organization will work well in another because it may not fit its strategy, technology or working practices. The theory is relevant to this study because each secondary school should have a set of best HRM practices; recruitment of teaching staff, training and development, compensation practices and safety which are the independent variables for this study. The best practices, if well-managed, will influence academic performance, which is the dependent variable.

2.2.1. Staff Training and Development and Performance

According to Komba *et al.* (2013), training is the application of the formal process to impart knowledge and skills that are pivotal to the realization of high output levels. It is the process of increasing knowledge and skills of employees required for the efficient performance of a particular job. Training is the continuous assistance or coaching given to an employee in order to make them have current knowledge of the job content, scope and relationship within the organization (Ezeani & Oladele, 2013). Development entails the facilitation of learning that strives to broaden the employee's expertise and knowledge for future responsibilities and assignments.

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Al-Qudah, Osman, AbHalim and Al-shatanawi (2014) examined human resource planning, training and development towards organizational performance in Government ministries in the kingdom of Jordan. The study was descriptive in nature. The study population, which consisted of employees in the HR departments in 23 Jordanian ministries, comprised 166 respondents. The findings indicate that HR planning, training and development significantly correlated with the organizational performance in the Jordanian Ministries. Recommendations made were that improved training and development could improve performance in the ministries because employees' skills, knowledge and abilities can be enhanced and up to date.

Mansour (2013) conducted an empirical investigation on the impact of training in organizations in a Developing country, Saudi Arabia. The study sample comprised 124 employees of different organizations in Saudi Arabia. The data was collected through a questionnaire distributed and collected online. The results show that there is a positive relationship between training and performance of employees. The study contents that training is very important for any organization to compete within this challenging and changing world. The study recommends that all organizations should provide training to their employees and those companies should offer training models by using e-learning and enhancing employee self-development.

Zain and Javed (2015) carried out a study on the effect of employee training and development on organizational performance, a case of the telecommunication sector of Pakistan. The study was descriptive in nature. Data was collected by use of questionnaires from 200 employees. Descriptive statistics and graphs were used to analyze data. Results from the study show that where training is not enough and frequent, there is minimal performance. The results further point out that there is a strong relationship between employee training and organizational performance. The study further recommends that current change in employee's skill sets requires constant and frequent training in the industry.

Khanfer (2011) examined the impact of training and development on improving Hoteling service quality in Jordan. The study was descriptive in nature and used a random sample of 50 employees and managers working in Five-Star Hotels. The findings show that the method of training used, goals and objectives significantly influenced performance in the industry. The study recommends work plans and effective methods of training that are commensurate with the objectives of the course. Further instructors should be knowledgeable in the area of training.

Rahman, Jumani, Akhter, Chisthi and Muhammad (2011) examined the relationship between training of teachers and effectiveness in teaching and performance of students in Muslim schools in Islamabad. A sample of 80 female teachers with 180 female students of Grade 8 from 50 urban Muslim senior centers was stratified for the study. The study was descriptive in nature. Findings from the study reveal that teacher training and development had effects on student's performance. The study concludes that teacher training was positively related to effective teaching, hence academic performance.

Switbert (2013) investigated the effects of teachers' training and development on students' performance in 35 private secondary schools in Tanzania. The study involved, determining the extent, that teachers training and development programs have effect on performance. The study used Dar es Salaam region as a case study area with 285 secondary schools from which a sample of 70 respondents was selected involving both teachers and owners of secondary schools. Data was collected by use of questionnaires and interviews. The study recommended that the secondary schools' stakeholders and investors should invest on training and developing of teacher employees as they affect the performance of the learners who need to have good and quality education.

Nyakundi (2013) investigated the effect of training and development on teacher motivation in Thika sub-county. The study used a descriptive research design. The target population was the principals and teachers of the public secondary schools in the Sub-county. Random sampling technique was used to select teachers while purposive sampling technique was used to select the principals. A total of 126 respondents participated in the study. Questionnaires were used to collect data from teachers, while interview schedules were used to collect data from principals. Statistical Package for Social Sciences (SPSS) was used to analyze the quantitative data where descriptive statistics such as means, standard deviation, frequencies and percentages were used to describe the data. The study concludes that reward systems, professional training and development and work situational-factors affect employee performance.

Mahulo (2012) examined the influence of teacher training on students' results from mixed public high schools in Gem, Location Kenya. He employed a descriptive survey design. The population of the study consisted of 107 teachers drawn from 20 schools. The study findings show that training alone does not contribute much to the performance of students in Gem District. The study recommends that teachers should be professionally trained to enhance their productivity. This must not necessarily be at university and college levels.

Weru, Iravo and Sakwa (2013) studied the relationship between training and development on performance of state owned corporations in Kenya. The target population was 232 Human resource managers from which a sample of 142 respondents was selected. The study adopted an Explanatory research design. The research tool was a questionnaire. The study hypothesized that there was a positive relationship among training and development and organizational performance and therefore the need to investigate how specific the two variables relate. The findings established a positive correlation between training and development and organizational performance and therefore recommended to the authorities of the corporations studied to give main focus to training and development function to enhance organizational performance. The study concludes that training is necessary due to rapid changes in technology and that organizations should train the staff.

3. Research Methodology

3.1. Research Design

This study employed a mixed methods research design. The research design used both the qualitative and quantitative methods at the same time in the research process where both methods are equally prioritized, but kept separately while analyzing data (Ørngreen & Levinsen, 2017). The results from both approaches are merged in the overall interpretation stage. Therefore, the research approach uses diverse kinds of information comprising qualitative views of the respondents on the study subject and quantitative scores which yield complementary results were obtained. This ensured that a comprehensive study on the influence of Human Resource Management practices, school infrastructure on academic performance of secondary schools in Machakos County, Kenya was conducted and that the research problem was better examined.

Caruth (2013) notes that no research design can exist on its own and the validity of the findings can be increased by combining different designs in one study. Through this research design, the validity of the findings was enhanced. It was possible to maximize on the strengths and minimize on the weaknesses of the quantitative and qualitative approaches of research. The quantitative approach was hinged on the descriptive study approach which determines what, where and how of the study phenomenon and also assists in the description of the phenomenon in its current state along the lines of Cooper and Schindler (2011).

Amadi and Ezeugo (2019) used mixed methods to examine physical infrastructure availabilities and the academic performance of students in the Universal Basic education Scheme, Rivers state, Nigeria. Omisore and Okofu (2018) used mixed research methods to study the link between staff recruitment and selection process in the Nigerian public service. The descriptive study design facilitated the description of HRM practices adopted in secondary schools in Machakos County and how they had affected the level of academic performance among these schools. The approach helped in making sure that the study problem was not assessed through a single lens, but rather, diverse lenses which assisted in ensuring that the multiple facets of the study phenomenon were revealed and understood.

3.2. Target Population

A population is the total entire group of individuals, events or objects having a common observable characteristic (Mohajan, 2018). It is the aggregate of all that conforms to a given specification. All items in the field of enquiry constitute a 'universe' or 'population' (Snyder, 2019). It is described as the accessible population from where the study sample is drawn and upon which the study findings are generalized. The target population of the study was all the four hundred and thirteen (413) secondary schools in Machakos County which offered KCSE. The schools consisted of two (2) national secondary schools, thirty (30) extra county secondary schools, ninety three (93) county secondary schools, two hundred and seven (207) sub-county secondary schools and eighty one (81) private secondary schools. The principals of these schools were the respondents. The numbers of targeted secondary schools in each category are outlined in Table 2.

School Category	Target Population
National schools	2
Extra county	30
County	93
Sub-county	207
Private	81
Total	413

Table 2: Target Population

3.3. Sampling Procedure and Sample Size

Sampling involves selecting a sub-set of cases in order to draw conclusions about the entire set (Zangirolami-Raimundo, Echeimberg & Leone, 2018). The size of a study sample is determined by factors like the degree of confidence attached to the study results, the total population size, and how the population is varied in terms of the characteristics to be studied (Nayak & Singh, 2021). A sample is a small part of large population, which is thought to be representative of the larger population. Any statements made about the sample should be true for the entire population (Snyder, 2019).

In this study, the key informants were drawn from six (6) schools namely - the two (2) national, two (2) performing and two (2) weak performing secondary schools in Machakos County. Accordingly, purposive sampling technique was used to sample these schools. Agoi (2017) points out that in purposive sampling, researchers purposely choose subjects who, in their opinion, are thought to have relevant information in the research topic. The Yamane's formula (1989) was then used to determine the sample size for the remaining secondary schools which were considered in the survey as follows:

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

Where,
N is the target population
n is the desired sample size
δ is the critical value of the confidence level (0.05)

Using the formula and a target population (N) of 407, a sample size of 201 secondary schools was drawn for the survey. Stratified random sampling was then used to select secondary schools from each stratum. This ensured that there was representation from each category of the population (Ørngreen & Levinsen, 2017). Stratified sampling also ensured a desired representation from each stratum. It also gave the researcher confidence that if another sample of the same size was selected, the findings from the two samples would be similar to a high degree. The samples from each of the four categories of schools were determined as follows:

Sampled secondary schools per category (n) = (number of secondary schools per category/total number of secondary schools) *201(sample size)

Extra county schools; n= (30/407) *201 =15
County schools; n= (93/407) *201 = 46
Sub-county schools; n= (207/407) *201 = 102
Private schools; n= (77/407) *201 = 38

The numbers of secondary schools selected for the survey from each stratum are given in Table 3.

School Category	Target Population	Proportion	Sample Size
Extra county	30	7.3	15
County	93	22.9	46
Sub-county	207	50.9	102
Private	77	18.9	38
Total	407	100.0	201

Table 3: Sample Size

3.4. Data Collection Instruments

A research instrument is a tool used to collect data (Kumar, 2018). Structured questionnaire and interview schedule were used to collect information from the respondents. Questionnaires were economical to administer in terms of time and cost to a large number of respondents. They ensured anonymity hence respondents could respond genuinely without fear of identification. Finally, the questions on paper were standardized, hence no opportunity for the researcher to be biased (Dźwigoł & Dźwigoł-Barosz, 2018).

The open ended question gave the respondents a leeway to give their honest views, while closed ended questionnaires were used to generate statistics for ease of tabulation and analysis (Daniel & Harland, 2017). The questionnaire consisted of a section on demographic information of the respondents and a set of items to measure the influence of Human Resource Management practices and infrastructure on academic performance of secondary schools in Machakos County. The key areas of the questionnaires were recruitment and selection of teaching staff, training and development of teaching staff, compensation of teaching staff and safety of teaching staff as the independent variables, school infrastructure as the moderating variable and academic performance as the dependent variable.

A five - point Likert Scale with choices ranging from strongly agree to strongly disagree was used to measure the perceived role of the Human Resource Management practices on academic performance of secondary schools in Machakos County. The Likert Scale was used because it is relatively easy to construct. It facilitates quantification of the responses, ranking of items, thus tendencies could be identified as the respondents were more likely to respond to all the statements in the instrument and could best help capture people's opinions (Snyder, 2019). An oral interview schedule was used to gather qualitative data from the key informants. Interviews help in collecting in-depth explanations which may not be possible to get from the questionnaire. Interviews allow the interviewer to probe the respondents and get clarification and more details in the area of study (Kivunja & Kuyini, 2017).

4. Data Analysis, Interpretation and Discussions

4.1. Regression Analysis and Hypothesis Testing

Regression analysis was conducted so as to quantify the influence of human resource management practices, teaching staff training and development, on the academic performance of secondary schools in Machakos County. The effect of the HRM practice was assessed by conducting bivariate regression analyses. Finding out the isolated effect of teaching staff training and development on the academic performance of the schools under study was crucial given the fact that the effectiveness of the HRM practice in influencing academic performance of secondary schools was quite different. The test was conducted at the 0.05 level of significance.

4.2. Influence of Teaching Staff Training and Development on Academic Performance

The relationship between staff training and development and academic performance of secondary schools in Machakos County was also assessed by conducting a bivariate regression analysis. The mean of responses for academic performance of the sampled secondary schools were regressed against the mean of responses regarding teaching staff training and development for all the principals. A bivariate linear regression model was, thus, applied in establishing the influence of staff training and development on academic performance of secondary schools in Machakos County. The following hypothesis was for this reason tested:

- H_{02}: Teaching staff training and development has no significant influence on the academic performance of secondary schools in Machakos County.
  The results obtained are summarized in Table 4.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.771a	0.595	0.592	0.705403
a Predictors: (Constant), Teaching Staff Training and Development				

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	108.968	1	108.968	218.99	.000b
	Residual	74.141	149	0.498		
	Total	183.109	150			
a Dependent Variable: Academic Performance						
b Predictors: (Constant), Teaching Staff Training and Development						

Coefficientsa						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.170	0.160		1.063	0.289
	Teaching Staff Training and Development	0.809	0.055	0.771	14.798	0.000
a Dependent Variable: Academic Performance						

Table 4: Teaching Staff Training and Development and Academic Performance

4.2.1. Model Summary

The model summary results presented in Table 4 showed that the coefficient of determination associated with teaching staff training and development in the sampled schools was 0.595. These results meant that staff training and development explained 59.5% of the changes in the academic performance of secondary schools in Machakos County. The rest of the variation in the performance of these schools (40.5%) was attributable to other variables.

4.2.2. Goodness of Fit

The findings outlined in Table 4 also show that the model used in showing the link between staff training and development and academic performance of secondary schools in Machakos County was statistically significant, that is, the model fit the data used well. This was supported by $F (1, 149) = 218.99$, $p = .000$. It can also be inferred from these findings that staff training and development was an adequate predictor of the academic performance of secondary schools in Machakos County.

4.2.3. Regression Coefficient

The results in third output in Table 4 demonstrated that the academic performance of secondary schools in Machakos County was positively and significantly affected by teaching staff training and development as illustrated by ($\beta = 0.809$, $t = 14.798$, $p = .000$). The implication of the findings was that a unit increase in staff training and development would lead to increased academic performance of secondary schools in Machakos County by 0.809 units holding all other factors constant. Hence, since the p value computed was 0.000 which was less than 0.05, the null hypothesis was rejected and an inference made that staff training and development significantly influenced the academic performance of secondary schools in Machakos County. These findings were consistent with that of Rahman *et al.* (2011) which revealed that teacher training and development affected students' academic performance by supporting effective teaching. The findings were also congruent with that of Tahir *et al.* (2014) which demonstrated that training and development significantly enhanced the performance and overall productivity of employees which yielded better organizational performance.

With the regression coefficient results, the following model was fitted in this case:

$Y = 0.170 + 0.809 X_2$

Where,

Y=Academic performance of secondary schools in Machakos County and X_2=Teaching staff training and development.

5. Summary, Conclusions and Recommendations

5.1. Teaching Staff Training and Development and Academic Performance of Schools

The study sought to establish the influence that teaching staff training and development had on academic performance of secondary schools in Machakos County. The findings obtained revealed that while these schools had, to a great extent, accorded their teachers' opportunities for attending workshops, seminars and conferences to expand their knowledge and also ensured equality in according training and career development opportunities to them, the establishment of staff training and career development policies, diversification of in-house training programs for teachers as well as warranting that the opportunities for training and development for their teaching staff led to promotions had

been moderately stressed. The study also found that teachers' training needs in these secondary schools, both public and private, were majorly identified based on feedback from teachers and students as well as different internal subject and departmental meetings and routine briefs. The trainings needs were also identified based on the performance gaps noted, benchmarking studies and also the opinion of external examiners.

The descriptive statistics obtained further revealed that the training and development of teaching staff in secondary schools in Machakos County was also perceived to influence academic performance of these schools. Among the ways through which this HRM practice influenced academic performance as highlighted by the respondents was by enhancing teachers' capacity to carry out their duties. This is because by exposing them to training and development opportunities, the teachers were able to acquire more skills and competencies which translated to efficiency in handling tasks and student issues. Their mastery of content and exposure to new approaches to delivering content and handling slow learners was enhanced. The secondary schools in Machakos County were further found to implement different training and development programmes in boosting the capacity of their teaching staff to produce better results.

The correlation results revealed a strong, positive and significant correlation or association between teaching staff training and development and academic performance of secondary schools in Machakos County. This was demonstrated by the computed $r=.771$ and $p= 0.000$. The regression analysis further showed that training and development of teaching staff had a positive influence on academic performance of secondary schools in Machakos County given $\beta = 0.809$. The influence of teaching staff training and development on academic performance of these secondary schools was also found to be significant as demonstrated by a p value of 0.000 that was associated with the regression coefficient for staff training and development. It was, therefore, deduced that higher levels of teaching staff training and development were followed by considerable improvement in academic performance of secondary schools in Machakos County. Thus, the null hypothesis was rejected and an inference made that academic performance of secondary schools in Machakos County was significantly influenced by the level of training and development of their teaching staff.

5.2. Conclusions

The study concluded that while secondary schools in Machakos County were, for instance, highly committed to according their teachers' opportunities for expanding their knowledge through workshops, seminars and conferences, they were yet to optimize on the establishment of policies to guide the training and career development processes besides having diversified in-house training programs. The study also concluded that in these schools, opportunities for training and development of teaching staff did not always guarantee promotions. The study concluded that higher levels of teaching staff training and development enhanced the academic performance of these schools by improving the capacity of the staff to discharge their duties.

5.3. Recommendations

In relation to training and development of teaching staff, the study recommends that the schools' managements ought to motivate their teachers by attaching incentives into the available training and development programs. For instance, the schools' managements should recommend promotion opportunities internally and issue recognition certificates to those who successfully go through the available programs. This can be used to encourage private arrangements for personal development among teachers.

The management of these schools should also develop operational policies to guide the design of their training and career development programs to make them more inclusive, relevant and comprehensive. The study also recommends that principals and the schools' management in general should enhance their in-house training programs by making them more diverse and also ensures that at minimum, all their teaching staff optimize the training opportunities under these programs.

The study calls for increased resource mobilization in terms of funding, more trainers and reference materials in order facilitate frequent training and team building sessions for teachers. The study recommends that school managements should hold periodic consultative meetings involving different stakeholders such as teachers, HODs, subject heads, examiners and students so that the training and development needs of their teaching staff can be adequately identified. This, in turn, will ensure that the design of available programmes for teaching staff training and development is well-informed by observed performance gaps.

The study recommends that proper scheduling of training and development sessions should be undertaken so that teachers can conveniently participate in these sessions. This measure will also ensure that more teachers get a chance to be part and parcel of available programs. To ensure proper scheduling of these programs, the study recommends for the maintenance of a database or records that show the staff who have or have not taken part in a given programme. The study further recommends for periodic impact assessment analyses to allow the management of schools to audit their teaching staff training and development programmes. This will enable them to pinpoint any shortcomings and take informed actions to make the design of these programmes more efficient.

The study recommends that MOE should seek funding from the treasury and also set aside funds that can be used to sponsor teachers to attend workshops, seminars, conferences and other career training and development forums that need individual facilitation.

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