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Effect of Performance Appraisal of Teachers on Academic Performance of Students in Public Secondary Schools in Hamisi Sub-County, Vihiga County, Kenya

By Eunice Didinya, James Bill Ouda and Celestine Ndanu

Abstract

Teachers' performance appraisal plays a critical role in the quality of education. This study determined effect of performance appraisal of teachers on academic performance of students in public secondary schools in Hamisi Sub-County, Vihiga County, Kenya. This study was guided by the following research questions: What is the influence of teachers' professional knowledge and application on students' academic performance? How does a teacher's innovation and creativity affect students' academic performance? To what extent does a teacher's time management affect students' academic performance? The study was anchored on a mixed method paradigm and adopted an explanatory sequential design. Stufflebeam's Context-Input-Process-Product model was adapted. Sixteen public secondary schools from fifty one were sampled through stratified random sampling. Principals, deputy principals and Heads of departments were purposively sampled. Stratified sampling followed by simple random sampling was used to sample the teachers and students. Three hundred and sixty six (366) respondents were sampled from a target of 21,064. Data was collected using questionnaires, document analysis, interviews and focus group discussions. The findings indicated teachers' professional knowledge and application was statistically a significant coefficient ($F_{(1,143)} = 208.495, P=0.00, R^2=0.656$). This implies that the teachers' professional knowledge and application positively affect students' academic performance. Teachers' innovation and creativity also possess a statistical significant ($F_{(1,142)} = 17.32, P = 0.00, R^2 = 0.138$). The coefficient of teachers' time management is also statistically significant ($F_{(1,142)} = 208.495, P = 0.00, R^2 = 0.659$). The study therefore concludes that teachers' time management positively influences students' academic performance. The school management should organize seminars to enlighten teachers on the advantages of innovative and creative teaching, time management, supporting activities that are geared towards innovation enhancement.

Key words: Performance appraisal, students' academic performance, teachers' professional knowledge and application, teacher's innovation and creativity, teacher's time management, teacher's professional development

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Introduction

According to Ahmed (2010), performance appraisal is an ongoing process used for identifying, measuring and developing teachers' performance in accordance with an organization's strategic goals. Appraisal may involve formative aspects that focus on developing performance, such as career development, professional learning and feedback. Enhancing achievement and providing quality educational experience for all students has long been the most important outcome expected of schools. Evidence suggests that "teacher quality is the single most important school variable influencing student achievement" (Organisation for Economic Cooperation and Development [OECD], 2005, p.26), hence the key role teaching and teachers play in enhancing student achievement is recognised. Given that "teacher appraisal can be a key lever for increasing the focus on teaching quality" (OECD, 2013b, p.9) and that many reforms in the past have failed (Danielson, 2011), an understanding of the various aspects of successful performance appraisal is essential.

Reports from Global education monitoring Report 2017/2018 show that not all accountability methods are currently helping in achievement of the United Nations Sustainable Development Goal (SDG) number 4 which aims to ensure inclusive, equitable and quality education and learning UNESCO (2017). The No Child Left Behind Programme in the United States is perhaps the best-known example where accountability policies using student test scores to measure and evaluate school and teacher performance, linking results to rewards and sanctions (Harris & Herrington, 2006). The core of the culpability comes back to teachers, who carry the responsibility for educating and bear the burden of accountability efforts.

In the USA, district of Cincinnati, (Danielson, 2011), the average level of student performance is low compared to the surrounding suburban districts. Cincinnati has also had a history of school reform activity, including the introduction of new whole-school designs, school-based budgeting, and teams to run schools and deliver instruction. The assessment system is based on a set of teaching standards derived from the Framework for Teaching (Danielson, 2011). For each standard, a set of behaviorally anchored rating scales called rubrics describe four levels of performance: unsatisfactory, basic, proficient, and distinguished. Teachers are evaluated using the rubrics based on two major sources of evidence: six classroom observations and a portfolio prepared by the teacher. The portfolio includes artefacts such as lesson and unit plans, attendance records, student work, family contact logs, and documentation of professional development activities.

The research by Rop and Chepkemai (2013) titled "Rethinking teacher evaluation in the third world: the case of Kenya." His study found that, like in many third world countries, teacher evaluation as practised in Kenya has numerous shortcomings and dubious effectiveness. It was concluded that in Kenya, teacher evaluation was merely to ensure adherence to rules and regulations, and loyalty to principals. Omayo (2010) on the other hand found that teacher appraisal policies and practices in Kenyan secondary schools exhibited weaknesses, which needed to be addressed if teacher appraisal was to be used to improve the quality of teaching and education in Kenya. He is of the view that within the framework of imposed and intentional changes that have taken place in Kenya's educational system,

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formalized procedures for the appraisal of teachers' performance are viewed by educators as logical and essential for accountability, quality improvement and best practice.

Statement of the Problem

Reports from Global education monitoring Report 2017/2018 shows that not all accountability methods are currently helping in performance of the United Nations Sustainable Development Goal (SDG) number 4 which aims to ensure inclusive, equitable, good quality education and learning UNESCO (2017). During the 2017 Hamisi Sub-County Education day, the Sub-County Education officer Mr. Gari, lamented about poor performing schools in national examination in Hamisi sub-County. For instance in 2014, the mean of KCSE performance for Hamisi Sub-County was 5.76 while in 2015 it was 5.6833. In 2016, it was 3.3689 while in 2017 it was 3.1377. This has shown a decline in academic performance which has contributed to very students getting admission to Universities and Colleges to pursue courses that would enable them compete effectively for the limited job opportunities. Teachers Service Commission has also continuously issued stern warning to principals whose schools have continued to perform dismally in national examinations and under extreme cases some of the principals have been dropped. It is due to this backdrop that the researcher would like to find out if performance appraisal of teachers affects academic performance of students.

Research Questions

The study was guided by the following research questions:

- i. What is the influence of teachers' professional knowledge and application on students' academic performance in secondary schools?
- ii. How does teachers' innovation and creativity affect students' academic performance in secondary schools?
- iii. To what extent does teachers' time management affect students' academic performance in secondary schools?

Theoretical Framework

This study was guided by Stufflebeam's Context-Input-Process-Product (CIPP) Model, Stufflebeam Daniel (2004). His approach is recognized as the Context, Input, Process and Product or CIPP model. This comprehensive model considers evaluation as a continuous process of providing useful information to managers for decision making and that the evaluation data is an essential component for good decision-making. The central concern of evaluation therefore is to meet the information needs of the managerial decision makers (Ouda & Ndung'u, 2016). It is a three-step process: delineating the information necessary for collection, obtaining the information and providing the information to interested parties.

Context evaluation involves studying the environment of the program and the purpose is to define the relevant information, focus on unmet needs and missed opportunities, and diagnose the reasons for unmet needs. It is actually a way to provide information and determine how to utilize resources to meet program goals. It provides evaluators with information that enable them to decide whether to continue, terminate or modify the program. CIPP model gives a process of delineating, obtaining and providing useful information for judging decision alternatives. Context, Input, Process, and Product (CIPP) evaluation model is recommended as a framework to systematically guide the conception, design, implementation,

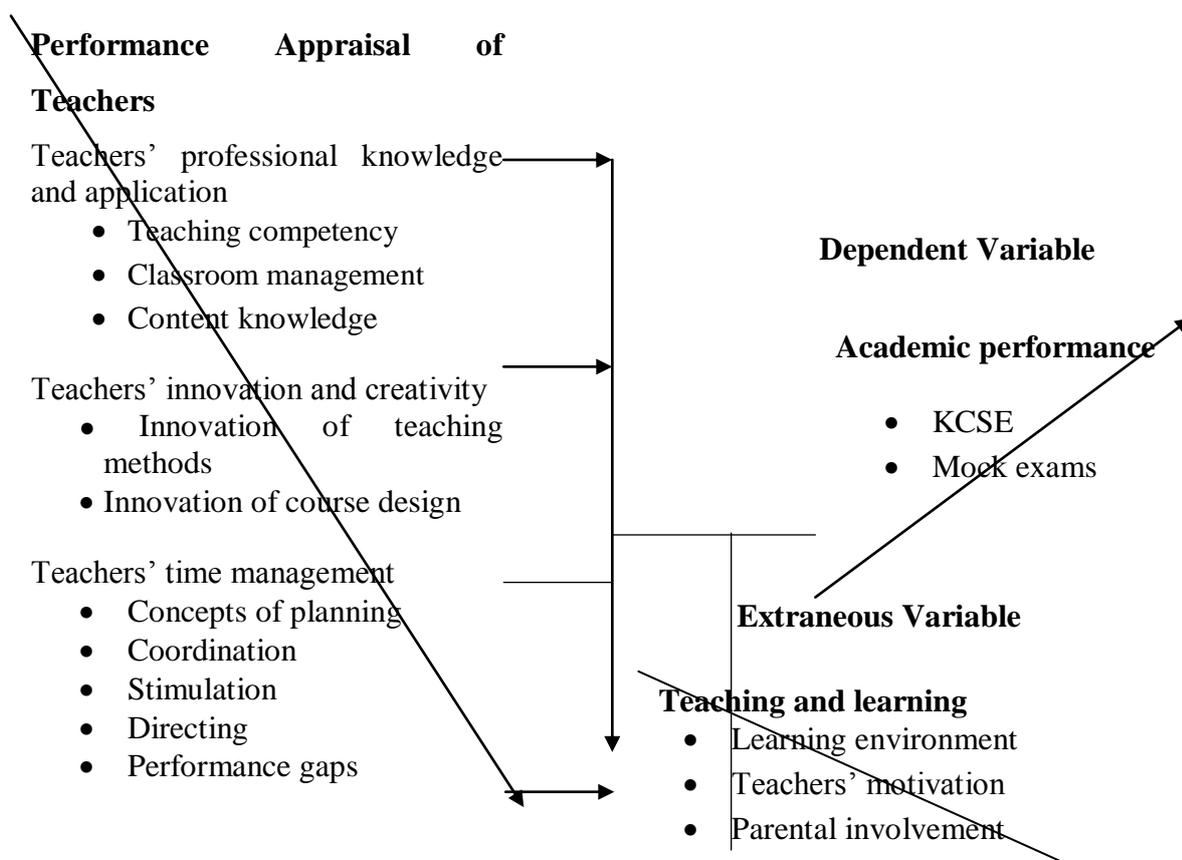
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and assessment of service-learning projects, and provide feedback and judgment of the project's effectiveness for continuous improvement.

Conceptual Framework

(Figure 1)

Independent Variable



Conceptual Framework of Performance Appraisal of Teachers and Academic Performance of Students

Source: (The Researcher, 2018)

The conceptual framework shows that teachers' professional knowledge and application, teachers' innovation and creativity and teachers' time management will influence students' academic performance in secondary schools. The academic performance is also influenced by the teaching and learning process. The school will be able to provide a holistic learning environment conducive for learners to grasp the concepts. The other factors under teaching and learning may include utilization of learning/teaching facilities, teachers' motivation, learners reading habits, interactions among teachers and learners and parental involvement. This improves the desired academic performance which can be measured through checking the KCSE and Mock performance.

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Teachers' Professional Knowledge and Application on Students' Academic Performance

A descriptive study on Professional Learning in the Learning Profession done in United States by Darling-Hammond et. al., (2009) revealed that teachers needed close to 50 hours of professional learning in a given area to improve their skills and thus their impact on student performance. This study involved teachers and approaches were responsive to learning processes. Engaging teachers in the process and challenging their existing ideas and assumptions was important in developing congruence between new information and practice. Opportunities were provided for teachers to process new learning and work on their skills together. External expertise was sought and often necessary to challenge existing assumptions. Leaders developed expectations and promoted professional learning opportunities. In addition, a descriptive study done in Kenya by Ngala and Odebero (2010), in his study on benefits of professional development, found out that teachers acquire more knowledge which can help them deliver more while in the class. He established that more productive teacher and professional training programs make a difference to the teachers' abilities to utilize their available time in the teaching and learning process. This covered the general benefits of professional development but the current study focused on the influence of teacher's professional knowledge on students' academic performance.

Teachers' Innovation and Creativity influence Students' Academic Performance

A study by Chen (2010) empirical study done in Manchester Metropolitan University that involved students, covered negative emotions of the reader services librarian at work - A case study of the public libraries. It was found that teaching innovation means the teachers having creativity, being able to reflect on, to design and to apply new, diverse teaching methods or activities, understanding individual differences of students, stimulating students' learning motivation and interests, enhancing the students' learning effectiveness in the preparation before teaching, in the process of teaching and in student assessment. In short, teaching innovation means teachers having creativity and showing vivid and lively teaching methods to make students interested in learning, thus enhancing the teaching effectiveness.

A descriptive study done in Ghana by Kormla (2012) noted that the creative leadership practices of principals influenced students' academic performance. This study purposively involved students and teachers. The study found out that Kenya recognizes that the education and training of all Kenyans is fundamental to the success of the Vision 2030. Education equips citizens with understanding and knowledge that enables them to make informed choices about their lives and those facing Kenyan society. Makhanu (2010) undertook an exploratory study on "Principals' literacy in ICT: towards improving secondary school performance in Kenya". It was found that there was a statistically significant and positive though weak relationship between the ability of a principal to use internet or email and school performance. Given that the effect size was very small, it implied that the ability of a principal to use internet or email plays a negligible role in influencing the school performance. The study concluded that there is a positive correlation between ICT literacy level of a principal and secondary school performance in the Western province of Kenya.

Teachers' Time Management and Students' Academic Performance

An exploratory study done in Russia by Ekaterina et. al., (2010) on time management and professional identity of students of pedagogical universities used simple random sampling to involved students of a pedagogical university. The study revealed that ability of using

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individual skills of time management, is counts an important factor educational and non-educational success. The study focused on student's time management rather than the influence of teacher's time management on students' academic performance.

According to Ngando (2011) in his descriptive study on time management behavior among secondary school personnel in Kinango District, Coast Province, in Kenya, majority of teachers and students do not report to school on the first day of opening, most teachers write their schemes of work when schools opened, went to class without lesson plans, assemblies took longer and consumed classroom time. This study did not examine the influence of teachers' time management of students' academic performance. It also left out the views of the principals and students.

Methodology

This study adopted explanatory sequential design under a mixed method paradigm. The target population of the study constituted the 51 public secondary schools with a student's population of Hamisi Sub-County. The target population of the study constituted the 780 teachers, 51 principals and 20,229 students in public secondary schools (County Education Report, 2018). The total number of respondents in this study were three hundred and thirty six (from every school the researcher sampled the principal, deputy principal, five male teachers and five female teachers, five male form 3 and five female form 3 students). The study used questionnaires for quantitative data and focus group discussion and interview guide for qualitative data. Document analysis was used to analyze academic performance. Thematic analysis was used to analyze qualitative data. Pre- processing was carried out and information for coding and storing (from the semi – structured interview) was identified. Quantitative data was analyzed by use of descriptive statistical methods by the aid of Statistical Package for Social Sciences (SPSS version 23). Data was represented using frequency tables for interpretation. Inferential statistics was done by testing hypothesis by use of regression analysis.

Findings

Influence of Teachers' Professional Knowledge and Application on Students' Academic performance

This study examined the rate of the effects of teachers' professional knowledge and application on academic performance of students. The findings are presented in Table 1.

Table 1

Rate of the Effects of Teachers' Professional Knowledge and Application on Academic performance of Students

Response	Frequency	Percentage
Very high	26	18.2
High	106	74.1
Low	9	6.3
Very Low	2	1.4
Total	143	100

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The findings in Table 1 indicated that 106 (74.1%) of the teachers respondents rated the effect of teachers' professional knowledge and application on academic performance of students to be high. This means that teachers' professional knowledge and application influences academic performance of the students to a large extent. This finding was also observed by the students through focus group discussion, one of them was quoted saying;

Teachers professional knowledge and application has enabled appropriate planning and management of the schools programs and has led to improved academic performance among the students (Student 1, 2018)

This study investigated the school emphasis on proficiency in professional records. The findings are presented in Table 2.

Table 2
School Emphasis on Proficiency in Professional Records

Professionalism	Yes	No
Lesson plans	132 (92.3%)	11 (8.4%)
Schemes of work	141 (98.6%)	2 (1.4%)
Lesson notes	141 (98.6%)	2 (1.4%)
Teaching competency	138 (96.5%)	5 (3.6%)
Classroom management	137 (95.8%)	6 (4.2%)
Content knowledge	139 (97.2%)	4 (2.8%)

As indicated in Table 2, on the findings on the school emphasis on proficiency in professional records, majority 132 (92.3%) of the teachers respondents agreed that the school emphasized on lesson plans while 141 (98.6%) indicated that they emphasizes on schemes of work. A large number 141 (98.6%) revealed that the school put emphasis on lesson notes while 138 (96.5%) agreed that the emphasis was on teaching competency. Majority 137 (97.2%) revealed that the school emphasized on classroom management while 139 (97.2%) agreed that the school emphasized on content knowledge. This means that a few of the teachers do not take seriously the emphasis of professional records and therefore this negatively influences the students' academic performance. The researcher therefore concluded that teachers are professionals, guided by the code of conduct for teachers, they should be able to demonstrate professionalism by adhering to the laid down guidelines.

Effect of Teachers' Innovation and Creativity on Students' Academic Performance

This study investigated if teachers' innovation and creativity had influence on academic performance of students. This was done by examining the rate of the effects of teachers' innovation and creativity on academic performance and the different aspects relating to teachers innovation and creativity.

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Table 3

Rate of the Effects of Teachers' Innovation and Creativity on Academic Performance

Response	Frequency	Percent
Very high	32	22.4
High	104	72.7
Low	6	4.2
Very Low	1	.7
Total	143	100.0

The findings in Table 3 indicated that 104 (72.7%) of the teachers respondents rated the effect of teachers' innovation and creativity on academic performance of students to be high while 32 (22.4%) rated it to be very high. This means that teachers' innovation influences academic performance of students. One of the principal was quoted saying;

Teachers creativity helps in retention of content, helps student in the question of application, helps to apply the skills in classrooms, improves confidence and improves learning and mastery of content. (Principal 9, 2018)

The study probed the different aspects relating to teachers innovation and creativity, the findings are presented in Table 4.

Table 4

Aspects Relating to Teachers Innovation and Creativity

Statements	N	Mean	Std. Deviation
Improvisation on locally available materials	142	1.5282	.60370
Integration of technology in teaching and learning	142	1.7887	.69273
Teaching aids	139	1.7338	1.06713
Innovation of teaching methods	142	2.0000	2.71586
Innovation of course design	141	2.1277	.86066

The findings in Table 4 revealed that there was improvisation on locally available materials as shown by a mean of 1.5282 and a standard deviation of .60370. A large number also agreed that there was integration of technology in teaching and learning as shown by a mean of 1.7887 and a standard deviation of .69273. There was also the use of teaching aids as revealed by a mean of 1.7338 and a standard deviation of 1.06713. This shows that the schools exercise various aspects of teachers' innovation and creativities that affects the students' academic performance.

Teachers' Time Management and Students' Academic performance

The study on the effect of teachers' time management on academic performance of students was done by first examining the rating according to teachers of the effects of teachers' time management on academic performance of students. The findings are presented in Table 5.

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Table 5: Rate of the Effects of Teachers’ Time Management on Academic performance of Students

Response	Frequency	Percent
Very high	47	32.9
High	93	65
Low	2	1.4
Very Low	1	.7
Total	138	96.5
Total	143	100

The findings in Table 5, indicated that 93 (65%) of the teachers respondents rated the effect of teachers’ time management on academic performance of students to be high while 47 (32.9%) rated it to be very high. This means that teachers’ management of time influences the academic performance of the students. The students also had the same view, one said;

The teachers’ management of time helps in clearing of syllabus on time and make the teachers have enough time for revision. (Student 3, 2018)

The study examined the teachers’ time management, the findings are presented in Table 6.

Table 6: Teachers Time Management

	N	Minimum	Maximum	Mean	Std. Deviation
Effective forty minutes per lesson,	142	1.00	5.00	1.7183	.70827
Time frame for the coverage of the syllabus	140	1.00	5.00	1.8857	.75946
Teachers supervise exams within the stipulated time	142	1.00	5.00	1.7394	.64884
Teachers’ attendance of other school activities like assemblies and staff meetings.	142	1.00	5.00	1.9296	.74992

The findings in Table 6, indicated that majority of the teachers agreed that there was effective use of the forty minutes per lesson as shown by a mean of 1.7183 and a standard deviation of .70827. A large number agreed that there was a time frame for the coverage of the syllabus as shown by a mean of 1.8857 and a standard deviation of .75946. This means that time management has various aspects that influences students’ academic performance.

Hypotheses Testing

The purpose of hypothesis testing was to choose between two competing hypotheses about the value of a population parameter. This was done by running a regression analysis and using the P value statistic at 5% level of significance. The first hypothesis stated that, there was no significant effect of teachers’ professional knowledge and application on students’ academic performance in secondary schools. The findings on teachers’ professional knowledge and students’ academic performance model summary are presented in Table 7.

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Table 7: Teachers’ Professional Knowledge and Students’ Academic performance Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.812 ^a	.659	.656	6.801

a. Predictors: (Constant), Teachers’ Professional Knowledge
 The coefficient of correlation between teachers’ professional knowledge and students’ academic performance was 0.812 indicating a positive relationship between teachers’ professional knowledge and students’ academic performance. The coefficient of determination of 0.659 indicated that 65.9% of students’ academic performance could be explained by teachers’ professional knowledge. Therefore the effect of teacher’s professional knowledge accounts for a variation of 65.9% of the students’ academic performance. The standard error of estimate (6.801) showed the average deviation of the independent variables from the lie of best fit.

The result of Analysis of Variance (ANOVA) for regression coefficient as shown in Table 8.

Table 8 Teachers’ Professional Knowledge and Students’ Academic performance Model ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9643.613	1	9643.613	208.495	.000 ^b
	Residual	4995.378	142	46.253		
Total		14638.991	143			

a. Dependent Variable: Students’ Academic Performance
 b. Predictors: (Constant), Teachers’ Professional Knowledge

The findings revealed (F=208.495, p value = 0.000^b). The results indicate that the significance of F is 0.00 which is less than 0.05, this, therefore, implies that the regression model statistically significantly predicts the outcome variable and is, therefore, a good fit for the data. This is an indication that there exists a significant relationship between teachers’ professional knowledge and students’ academic achievement.

The study hypothesized that teachers’ professional knowledge has no significant influence on students’ academic performance. The results are presented in Table 9.

Table 9 Teachers’ Professional Knowledge and Students’ Academic performance Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	2.240	1.578		1.420	.159
	Teachers’ professional knowledge	1.240	.086	.812	14.439	.000

a. Dependent Variable: Students’ Academic Performance
 The study findings indicated that there was a positive significant relationship between teachers’ professional knowledge and students’ academic performance ($\beta = 0.812$, $t = 14.439$)

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and p value 0.000). This therefore, means that an increase of in teachers’ professional knowledge will increase students’ academic performance significantly. Since the t was 14.439 which is greater than zero, the null hypothesis that teachers’ professional knowledge has no significant influence on students’ academic performance was not accepted and the alternative hypothesis accepted.

The findings on the second hypothesis that stated teachers’ innovation and creativity had no significant effect on students’ academic model summary is presented in Table 10.

Table 10
Teachers’ Innovation and Creativity and Students’ Academic performance Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.372 ^a	.138	.130	10.808

a. Predictors: (Constant), Teachers’ Innovation and Creativity

The coefficient of correlation between teachers’ innovation and creativity and students’ academic performance was 0.372 indicating a positive relationship between teachers’ innovation and creativity and students’ academic performance. The coefficient of determination of 0.138 indicated that 13.8% of students’ academic performance could be explained by teachers’ innovation and creativity. The remaining percentage could be explained by other factors excluded from the model. The standard error of estimate (10.808) showed the average deviation of the independent variables from the line of best fit. The result of Analysis of Variance (ANOVA) for regression coefficient as shown in Table 11.

Table 11
Teachers’ Innovation and Creativity and Students’ Academic Performance Model ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2023.795	1	2023.795	17.326	.000 ^b
	Residual	12615.196	142	116.807		
	Total	14638.991	143			

a. Dependent Variable: Students’ Academic Performance

b. Predictors: (Constant), Teachers’ Innovation and Creativity

The findings revealed (F=17.326, p value = 0.000^b). The results indicate that the significance of F is 0.00 which is less than 0.05, this, therefore, implies that the regression model statistically significantly predicts the outcome variable and is, therefore, a good fit for the data. This is an indication that there exists a significant relationship between teachers’ innovation and creativity and students’ academic performance among public secondary schools.

The study hypothesized that teachers’ innovation and creativity have no significant influence on students’ academic performance in public secondary schools in Hamisi Sub County. The results are presented in Table 12

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Table 12: Teachers’ Innovation and Creativity and Students’ Academic performance Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	12.476	2.732		4.566	.000
	Teachers’ innovation and creativity	.441	.106	.372	4.162	.000

a. Dependent Variable: Students’ Academic Performance

The study findings indicated that there was a positive significant relationship between teachers’ innovation and creativity and students’ academic performance ($\beta= 0.372$, $t= 4.162$ and p value 0.000). This therefore, means that an increase in teachers’ innovation and creativity will increase students’ academic performance significantly. Since the t was 4.162 which is greater than zero, the null hypothesis that teachers’ innovation and creativity has no significant influence on students’ academic performance in public secondary schools in Hamisi Sub County was not accepted and the alternative hypothesis accepted. It was therefore concluded that teachers’ innovation and creativity have positive significant influence on students’ academic performance among the public secondary schools in Hamisi Sub County in Vihiga County in Kenya.

The third hypothesis claimed that there was no significant effect of teachers’ time management on students’ academic performance in secondary schools. The findings of the model summary are presented in Table 13.

Table 13: Teachers’ Time Management and Students’ Academic Performance Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.812 ^a	.659	.656	6.801

a. Predictors: (Constant), Teachers’ Time Management

The coefficient of correlation between teachers’ time management and students’ academic performance was 0.812 indicating a positive relationship between teachers’ time management and students’ academic performance. The coefficient of determination of 0.659 indicated that 65.9% of students’ academic performance could be explained by teachers’ time management. The remaining percentage could be explained by other factors excluded from the model. The standard error of estimate (6.801) showed the average deviation of the independent variables from the lie of best fit.

The result of Analysis of Variance (ANOVA) for regression coefficient as shown in Table 14

Table 14 Teachers’ Time Management and Students’ Academic Performance Model ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9643.613	1	9643.613	208.495	.000 ^b
	Residual	4995.378	142	46.253		
	Total	14638.991	143			

a. Dependent Variable: Students’ Academic Performance

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b. Predictors: (Constant), Teachers' Time Management
The findings revealed ($F=208.495$, p value = 0.000^b). The results indicate that the significance of F is 0.00 which is less than 0.05 , this, therefore, implies that the regression model statistically significantly predicts the outcome variable and is, therefore, a good fit for the data. This is an indication that there exists a significant relationship between teachers' time management and students' academic performance among the state corporations in Kenya.

The study hypothesized that teachers' time management has no significant influence on students' academic performance in public secondary schools. The results are presented in Table 15.

Table 15: Teachers' Time Management and students' academic performance Model Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	
	B	Std. Error	Beta	t		
1	(Constant)	2.240	1.578		1.420	.159
	Teachers' time management	1.240	.086	.812	14.439	.000

a. Dependent Variable: Students' Academic Performance

The study findings indicated that there was a positive significant relationship between teachers' time management and students' academic performance ($\beta= 0.812$, $t= 14.439$ and p value 0.000). This therefore, means that an increase in teachers' time management would increase students' academic performance significantly. Since the t was 14.439 which is greater than zero, the null hypothesis that teachers' time management has no significant influence on students' academic performance in public secondary schools in Hamisi Sub County was not accepted and the alterative hypothesis accepted.

Summary and Discussion of Findings

The findings on the influence of teachers' professional knowledge and application on students' academic performance showed that teachers' respondents agreed that teachers' professional knowledge and application had an effect on the academic performance of students. The teachers indicated that teacher's professional knowledge and application enables proper planning and content delivery. It also enhances mastery of content. The finding on effect of teachers' innovation and creativity on students' academic performance revealed that a large number of the teacher's respondents agreed that teachers' innovation and creativity had influence on academic performance of students. This indicates that teacher's innovation and creativity seems to be crucial in realizing better academic performance among the students. This shows that the schools exercise various aspects of teachers' innovation and creativities that affects the students' academic performance.

Moreover on the effect of teachers' time management on students' academic performance it was noted that majority of the teacher's respondents agreed that teachers' time management had effect on academic performance of students. This means the management of time by the teachers influences the students' academic performance. The principals also highlighted that teachers' time management had an impact on the students' academic performance. The findings indicated that majority of the teachers respondents rated the effect of teachers' time management on academic performance of students to be high while some

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rated it to be very high. This means that teachers' management of time influences the academic performance of the students

Conclusion

The study concludes that the teachers' professional knowledge and application influences students' academic performance. Teacher's level of education contributes to learners' academic performance. Teachers' innovation and creativity also possesses a statistically significant coefficient as directed by a p-value of 0.00. The coefficient of teachers' time management is also statistically significant, given by a p value of 0.00. The study therefore concludes that teachers' time management positively influences students' academic performance.

Recommendations

The teachers should therefore be provided with study leaves or design other appropriate times that can allow a reasonable number of them enhancing their professional knowledge and application. Appropriate ways of funding should be made available by the TSC to teachers in order to enhance their professional knowledge and application. The principals should therefore be encouraged to reinforce the use of innovative ways of teaching by teachers in education. This can be done by the school management organizing for seminars for teachers to enlighten them on the advantages of adopting innovative ways and creativity in teaching, supporting activities that are geared towards innovation enhancement. The teachers' time management was also found to influence students' academic performance. Teachers adopt various aspects of time management. The principal should therefore organize for workshops through which the teachers will be enlightened on how time is crucial on students' academic performance. Students should also inculcate a culture of proper time management since it's very crucial to their academic performance.

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