Journal of Pedagogical Sociology and Psychology
Volume 1, Issue 1, 2019
www.j-psp.com

Conceptual Article

Principals' supervision of teaching and its influence on promoting learners' performance

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Received 19 January 2019; Revised 1June 2019; Accepted 7 July 2019

The roles of school principals have been focal in ensuring and promoting the performance of students in their schools, achieving and sustaining quality education. This has been influenced by the paradigm shifts and global trends to ensure that the quality agenda as espoused in various international and national policies such as Sustainable Educational Goals. A cardinal role is ensuring on teacher supervision in curriculum implementation in their schools. The design of principals' transformational leadership practices is evidenced to contribute in increased learners' performance in national examinations as well as fostering transformative school environment. Instructional Leadership is significant in fostering teachers' instructional practices and subsequently students' learning and achievement. The aim of this study was to examine the role of principals in the supervision of teaching and its influence on promoting learners' performance. The study adopted the descriptive survey research design with a target population of 436 principals and 8,049 teachers from secondary schools in Murang'a and Kirinyaga Counties of Kenya. Purposive sampling was used to select 205 principals while 367 teachers were selected using stratified and then simple random sampling methods. The researcher used open and closed-ended questionnaires to collect quantitative data from the teachers and semi-structured interview schedules to gather qualitative data from principals. A pilot study of the instruments was conducted in two schools in Kiambu County of Kenya and Cronbach's alpha coefficient with a threshold of 0.7 was used to determine the internal consistency of the items. The instruments yielded a reliability coefficient of 0.962, hence were considered reliable. Quantitative data was analyzed using descriptive and inferential statistics with the aid of Statistical Package for Social Sciences (SPSS) version 20. Hypotheses were tested at $p>0.5$ level of significance using Pearson Product Moment Correlation and t-test determined whether or not the means were statistically significant. Multiple regression analysis was used to determine whether the principals' instructional leadership practice is a predictor of learners' performance. The findings of the study were that the level of supervision of teaching was moderate and therefore had significant impact on learners' performance. The study recommended that there is need for supervision of teaching. The research findings are of significance to principals in designing instructional strategies to improve learners' performance and to policy makers in the education sector in designing policies that can support effective instructional leadership practices in schools.

Keywords: Principals; Supervision; Teaching; Learners; Performance

I. Introduction

Education is critical in promoting political, social and economic development of any country. It is expected to provide an all-round development of its recipients to enable them overcome prevailing challenges and therefore play effective roles in their immediate society. The provision of a meaningful and adequate education is fundamental to Kenya's overall development strategy (MOEST, 2005). The functions the Kenyan education system seeks to attain are entrenched in the three aims of education and further translated in the eight national goals of education. These goals explain the ideals this system seeks to attain in terms of the knowledge, skills, and values the country wishes its learners to acquire. The formulation of the eight goals of education is meant to specify more precisely, what qualities are thought most desirable to develop among the Kenyan citizens.

Due to the significance of the eight goals of education in offering specific direction, Kenya has kept reviewing its goals of education to suit her prevailing circumstances. At independence in 1963, Kenya inherited a system of education that had been designed in colonial times to suit the needs of the colonial administration. The new

government found it necessary to revise the whole school curriculum and state clearly the national goals of education in an independent state. This important task was first undertaken by the Kenya Education commission in 1964 which became the well-known Ominde Report. It outlined six National Goals of Education which the educational system was expected to fulfil.

The national goals of education have been enforced greatly by the MDGs, the Kenya Vision 2030 as well as the SDGs. The MDGs focused largely on quantity of education, for example, high enrolments rates. When the enrolment of learners increased, the quality of education declined in many societies. This may have been because the high enrolments were not matched with increased human and financial support. The SDG represent the first attempt by the world community to focus on the quality of education. The SDGs focused on education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

The Education 2030 which is the roadmap for Sustainable Development Goal 4, aims at ensuring inclusive and equitable quality education and promotion of lifelong learning opportunities for all. This is in line with the second, third and fourth goals of education in Kenya. The second goal focusses on promotion of the social, economic, technological and industrial needs for national development. The third goal envisages the promotion of individual development and self-fulfillment while the fourth goal is concerned with the promotion of sound moral and religious values. The Vision 2030 therefore envisages a world where each government will substantially increase the supply of qualified teachers including through international cooperation for teacher training in developing countries (UNESCO, 2015).

However, according to Glennerster, Kremer, Mbiti and Takavarasha (2011), Kenya as a country may need to adopt specific pedagogical techniques in curriculum reform so as to address problems common in their schools. These techniques may be of great assistance towards the achievement of the vision 2030. The problems include large class sizes, varied education levels and family backgrounds, irregular student attendance, and weaker motivated, poorly-trained teachers. Current teaching methods and curricula are failing very large numbers of children who attend school regularly but learn very little. This is evidenced by the poor academic achievement in the national examinations. The curricula may not be adapted to local challenges and needs. Too often, it presumes competencies that many of the learners do not have. Kenyan policy makers can learn from other educationalists in other countries. In India, randomized evaluation of a remedial education program that focused instruction on providing at-risk children with the basic skills they need to learn effectively, improved test scores of those falling behind the standard curriculum (Glennerster et al, 2011). The central questions are therefore how to devise pedagogies adapted to students' needs and how to get teachers to implement them.

However, technology could address some of these problems by providing additional instruction time, by allowing lessons to be tailored to the child and by complementing the teacher's knowledge. A program in Nicaragua that supplemented the teacher with radio lessons in mathematics yielded impressive results in a randomized evaluation (Aker, Ksoll & Lybbert, 2010). A randomized evaluation of a computer-assisted-learning program in India targeted at reinforcing math skills also found large and persistent effects on learning. Given the costs of computers, a recent randomized evaluation of an adult literacy program found that mobile phones could be effectively used to complement classroom activities (Aker et al. 2010). These system-wide issues can often hinder the effectiveness of education policies enacted to address particular issues (Glewwe, Albert & Meng, 2010).

The Government of Kenya is well aware of quality issues and radical reforms are being put in place to address this among other issues that are ailing the education system in the country. The reform plan includes proposed changes to the curriculum, exam system and the structure of schooling. The plan by KICD is an effort to move largely away from a theory and test-based system to a skills-based or a competency-based system. The last curriculum reform was carried out in 1985 when the 8-4-4 system was adopted. The 8-4-4- system has been widely criticized for being heavily loaded in terms of content and too exam oriented. This has led to a lot of undue pressure on the learners. Learners experience pressure from their teachers, parents and guardians to perform academically.

The current reform envisages the move from the 8-4-4 system to a 2-6-6-3 structure. The new system places more emphasis on learners' mental ability to process issues and proposes a practical framework that nurtures competencies of learners based on their passions and talents. It places emphasis on Continuous Assessment

Tests (CATs) over one-off examinations. The system has three levels which would include early years, middle school and senior school education. Early years education would include pre-primary and lower primary. Pre-primary education would take 2 years made up of pre-primary 1 and pre-primary 2 whereas lower primary would run for 3 years. Middle school would run for 6 years made up of upper primary and lower secondary whereas senior school would run for 3 years.

Learners would be assessed continuously in a process that would account for 70 percent of the final grade. The remaining 30 percent would be obtained from a national test set by the Kenya National Examinations Council (KNEC). Learners who would now be in Grade nine would then proceed to senior school where it is expected that about 60 percent of the learners would be exposed to science, technical, engineering and mathematics fields. Others would train in languages and humanities while the rest would focus on arts and sports science. Tertiary and University education would last for 3 years. The government should be keen and ensure that all stakeholders are involved in the implementation of the competency-based curriculum to ensure its success. In order for the new system of education to succeed, principals' instructional leadership would be of utmost importance. Principals would be expected to give guidance and support to both the teachers and the learners.

Establishment of stable routines, structures and procedures to support curriculum and instruction is referred to as the management of the instructional programme. Principals should create a positive school climate so as to boost staff performance, promote higher morale and improve student performance. It therefore emerges that one of the functions of educational management by principals is to influence and stimulate the human resource available, by providing an appropriate organizational climate. Robinson et al (2008) states that managing the instructional program largely concentrates on the coordination and control of instruction and curriculum. This dimension of the management of the instruction program incorporates three leadership or management functions: Supervises and evaluates instruction, coordinates the curriculum and monitors student progress. They further expound that this aspect requires principals and other curriculum supervisors such as the deputy principals and HODs to be involved in motivating, supervising and monitoring the processes of teaching and learning in their schools. In order to be able to perform these functions, the principal should have expertise in teaching and learning and should also have an unwavering commitment to the school's improvement (Hallinger & Heck, 2002). In supervising and evaluating instruction the principal is supposed to ensure that the goals of the school are being translated into practice during teaching and learning at the classroom level.

Nyannyonjo (2007) concurs with Hallinger and Heck on analysis of factors influencing learning achievement in Public Secondary Schools in Uganda that showed that school performance was influenced by among others head teachers' supervision strategy. Nyannyonjo also noted that the supervision strategy was significant in influencing learning achievements in examinations. However, Nyamongo, Sang, Nyaoga and Matoke (2014) reiterated that in carrying out supervisory tasks, the head teacher should have a clear specification of goals and targets. This involves coordinating the classroom objectives of teachers with those of the school and evaluating classroom instruction. In addition, it includes providing instructional support to teachers and monitoring classroom instruction through formal and informal classroom visits both by the principal and others engaged in instructional support (Robinson et al, 2008). The principal understands and applies the characteristics of instructional effectiveness in the management of the instructional program. The school exhibit frequent monitoring of student. A variety of assessment procedures are used. The results of the assessments are used to improve individual student performance and also to improve the instructional program. The school gives opportunity to learn and student time on task. In the effective school, teachers allocate a significant amount of classroom time to instruction in the essential content and skills. Equally, the school is safe and lives in an orderly environment to cultivate an orderly, purposeful, businesslike atmosphere which is free from the threat of physical harm (Kagema, 2019)

The principal is expected to work together with the teachers in the management of the instruction programme. He/she works directly and effectively with the teachers in the areas related to curriculum and instruction. Job functions included in this component consists of coordinating the curriculum, supervision and evaluation of instruction, coordination of the curriculum and monitoring student progress. Supervising and evaluating instruction comprises activities that provide instructional support to teachers, monitor classroom instruction through informal classroom visits and aligning classroom practice. Coordinating the curriculum refers to principal activities that provide opportunities for staff collaboration on alignment of curriculum to

standards and achievement tests. The instructional management responsibility of examining students' academic progress refers to the use of test results for setting goals, assessing the curriculum, evaluating instruction, and measuring improvement towards school goals (Murphy, 1990).

The principal as an instructional leader performs several practices in order to be able to effectively promote quality instruction (Murphy, 1990). These practices include visiting classrooms and observing lessons as the teachers teach, conducting teachers' conferences and evaluations and providing recommendations and feedback on the teaching-learning process in their respective schools. The principal can also be in a position to determine assignments that students are required to undertake. Additionally, the principal sets school policies and procedures which he uses to protect instructional time. This has also been easier through the use of the TSC lesson Attendance Register. Class monitors record in the register the time in which specific lessons are attended as per the school timetable. They also record the assignments that the teachers expect the learners to undertake. The principal works with teachers to coordinate the curriculum through aligning the school goals and set objectives with state standards, assessments and district curriculum. The instructional leader monitors the progress of students frequently.

According to Ho (2010), coordination of the curriculum stands out in majority of instructional effective schools. This is because the content taught in classes and the exams the students undertake are well aligned with the curricular objectives as set out in the syllabus. In addition, there appears to be a fairly high degree of continuity in the curricular series used across grade levels. This aspect of curricular coordination is often supported by greater interaction among teachers within and across grade levels on instructional and/or curricular issues. Anderson, Leithwood and Janzi (2010) assert that monitoring student progress in instructionally effective schools place a strong emphasis on both standardized and criterion referenced testing. The tests are used to diagnose programmatic and student weaknesses, to evaluate the results of any changes that might have been implemented in the school's instructional program and to help in making classroom assignment.

The principal plays a key role in this area in several ways. He/she can provide teachers with test results in a timely and useful fashion, discuss test results with the staff as a whole and also with individual teachers. The principal should also provide interpretive analyses for teachers detailing the relevant test data in a concise form. This means that the principal should be able to supervise the educational process and evaluation through classroom visits, by giving important notes to teachers in reference to the strengths and weaknesses they have, or by reviewing students' work and monitoring their performance on an ongoing basis. The principal must have the ability to maintain the time allocated for teaching by reducing speeches and meetings that could waste time or being careful not to call students to the administration during classes.

2. Method

2.1. Sample

The researcher selected schools from each of these four category of schools; national, extra county, county and sub-county schools. In doing so, the researcher was able to capture a balanced representation of variables under study. The variables under inquiry involved gender, age, academic qualifications of the principals and teachers, regional diversities, geo-political and economic contexts that reflects relative distribution in Kenya. Table 1 presents a summary of the sample size.

Table 1.
Sample of the Study

County	Schools Sampled				Teachers Sampled
	National	Extra County	County	Sub-County	
Murang'a	1	8	14	100	220
Kirinyaga	1	5	8	68	147

The study employed Krejcie and Morgan's Table of Sample Size to determine the sample size. Orodho (2002) noted that any statement made about the sample should also be true of the entire population. Table 2 shows the sample size as obtained from the Krejcie and Morgan's Table of Sample Size.

Table 2.
Table for Determining Sample Size from a Given Population (Krejcie & Morgan, 1970)

N = Population size			S = Recommended sample size		
N	S	N	S	N	S
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370

According to Krejcie and Morgan's Table of Sample Size as shown in Table 2, from a target population of 436 principals, 205 principals were selected. A target population of 8,049 teachers also provided a sample of 367 teachers. The researcher employed multistage sampling technique comprising of stratified sampling, purposive sampling and simple random sampling techniques. For the purpose of this study, stratified random sampling was employed to select the schools to take part in the study.

2.2. Instrument

The study used questionnaires to collect both quantitative and qualitative data from the teachers. The questionnaires consisted of both open-ended questions and had a Likert scale. The advantage of open-ended questions is that the information gathered by way of the responses is more likely to reflect the full richness and complexity of the views held by the respondent. This is because respondents are allowed space to express themselves in their own words.

Section B had five open ended items that collected information on the efforts employed by principals in order to improve instructional leadership. Lastly, section C had two open ended items that collected information on the challenges encountered by principals as they attempt to provide instructional leadership. The open-ended questions gave the respondents freedom of response. The questionnaires also have the advantage of giving participants an opportunity to provide trustworthy answers and specifics. The researcher administered 367 questionnaires to teachers.

Data was collected by use of interview schedules. The researcher held discussions with 205 principals through face-to-face interviews. The researcher also administered questionnaires to 367 teachers. The researcher was able to interview all the Principals thus obtaining a return rate of a 100% for the interview schedule and 355 teachers obtaining a return rate of 96.73% for the teachers' questionnaires. Table 3 presents the instruments response rate.

Table 3.
Research Instruments Response rate

Respondents	Questionnaires Issued	Interview Schedules Administered	Number Returned	Response Rate
Principals	-	205	205	100 %
Teachers	367	-	355	96.73 %
Total	367	205	560	97.90 %

Table 3 indicates that the response rate for the study was high. The principal's interview schedule and the teachers' questionnaires return rates were both at a 100%.and 96.73% with an overall response rate of 97.90%. These rates were considered acceptable since according to Best and Khan (2006) return rates of more than 60% are considered to be very good. The response rate can be attributed to the fact that the respondent carried out the interviews with the principals in person. In instances when the Principal was busy or absent from school, the researcher booked an appointment for a later date.

2.3. Reliability of research instrument

The reliability coefficient was calculated using SPSS version 20. In this research, the instruments yielded a reliability coefficient of 0.962. Gay (1992) advocates that a reliability coefficient of between 0.8 and 1.00 is reliable. According to Nachmias and Nachmias (2009), positive coefficient of over 0.7 is considered to be reliable, and the higher the coefficient the more reliable the instruments. The qualitative data generated from open-ended questions was reported in narrative form along with quantitative presentations.

3. Results

The study assessed the relationship between principals' supervision of teaching and learners' performance in Murang'a and Kirinyaga counties. The independent variable was principals' supervision of teaching and the dependent variable was learners' performance in public secondary schools in Murang'a and Kirinyaga counties. Mean scores for each county as well as comparison between the two counties have been discussed. It had been hypothesized that there is no statistically significant relationship between principals' supervision of teaching and learners' performance in KCSE in Murang'a and Kirinyaga counties. Pearson product moment correlation was used to test the hypothesis at a level of significance of 0.05.

Principals' supervision of teaching was assessed by means of eight statements. The mean scores for each statement was computed and used to measure the rating of supervision of teaching on a scale ranging from one (1) to a maximum of five (5). Mean scores between 1.0 and 2.9 were rated as low, mean scores between 3.0 and 3.9 were rated as moderate while mean scores between 4.0 and 5.0 were rated as high. Tables, bar graphs and narrations were used in data presentation. The findings on principals' supervision of teaching in Murang'a and Kirinyaga Counties are presented in Table 4.

Data presented in Table 4 revealed that most teachers agreed or strongly agreed that the principals in both counties played the roles of supervision of teaching. Data analysis had the following characteristics. Ensuring effective curriculum implementation in Kirinyaga was rated as high ($\bar{x}$ = 4.33) and moderate in Murang'a ($\bar{x}$ = 3.88). The study revealed that in Kirinyaga Principals demonstration of wide knowledge of curriculum issues was high ($\bar{x}$ = 4.08) and moderate in Murang'a ($\bar{x}$ = 3.66). On whether principals supervises curriculum implementation, Kirinyaga was rated as high at $\bar{x}$ = 4.29 and moderate in Murang'a at $\bar{x}$ = 3.86. Regarding checking teachers professional documents such as schemes of work, lesson plans, record of work books among others, the study revealed that in Kirinyaga the rating was high ($\bar{x}$ = 4.07) and moderate in Murang'a ($\bar{x}$ = 3.42).

On maintaining a conducive school climate for teaching and learning to be effectively carried out, the study revealed that in Kirinyaga the rating was high ($\bar{x}$ = 4.22) and moderate in Murang'a ($\bar{x}$ = 3.72). Regarding whether the principal addresses the classroom concerns of the teachers, the study revealed that in Kirinyaga the rating was high ($\bar{x}$ = 4.14) and moderate in Murang'a ($\bar{x}$ = 3.75). On whether the principal regularly evaluates teachers' instructional methods, the rating was moderate in Kirinyaga ($\bar{x}$ = 3.80) and equally moderate in Murang'a ($\bar{x}$ = 3.42). Finally, on whether principals were cognizant of emerging curriculum reforms, the rating was high in Kirinyaga ($\bar{x}$ = 4.14) and moderate in Murang'a ($\bar{x}$ = 3.64).

Table 4.
Principals' Roles on Supervision of Teaching

County	Roles Performed by the Principal	SD	D	U	A	SA	n	$\bar{x}$	sd
Murang'a	Ensures effective curriculum implementation	7	20	17	104	53	201	3.88	1.02
	Demonstrates wide knowledge of curriculum issues	5	32	30	93	40	200	3.66	1.05
	Supervises curriculum implementation	7	25	15	96	58	201	3.86	1.08
	Checks teachers' professional documents	24	34	14	92	37	201	3.42	1.29
	Maintains a conducive school climate	19	21	15	87	58	200	3.72	1.25
	Addresses teachers' classroom concerns	13	22	26	79	59	199	3.75	1.18
	Evaluates teachers' instructional methods	19	29	33	89	31	201	3.42	1.19
	Cognizant of emerging curriculum reforms	11	25	26	103	36	201	3.64	1.08
	n = 201	**$\bar{x}$ = 3.67**		**sd = .9627**					
Kirinyaga	Ensures effective curriculum implementation	0	8	3	62	65	138	4.33	.79
	Demonstrates wide knowledge of curriculum issues	4	6	11	69	46	136	4.08	.93
	Supervises curriculum implementation	0	10	3	60	63	136	4.29	.84
	Checks teachers' professional documents	6	6	4	77	43	136	4.07	.96
	Maintains a conducive school climate	2	8	6	62	58	136	4.22	.89
	Addresses teachers' classroom concerns	1	6	19	52	52	130	4.14	.89
	Evaluates teachers' instructional methods	6	12	23	57	38	136	3.80	1.08
	Cognizant of emerging curriculum reforms	0	5	8	84	37	134	4.14	.68
	n = 138	**$\bar{x}$ = 4.15**		**sd = .6684**					
	Aggregate mean score $\bar{x}$ = 3.15								

This showed that the principals in both counties performed the roles of supervision of teaching in a fairly good manner as shown by the mean scores of both counties which was moderate at a mean standard score of 3.67 in Murang'a County and high at 4.15 in Kirinyaga County. The ratings were however higher in Kirinyaga than in Murang'a County. The overall mean score for both counties was moderate at 3.15. Descriptive statistics for both counties combined indicated that principals had largely neglected their role of curriculum supervision as shown by the moderate mean score.

Supervision of teaching is in line with management of the instructional programme which focuses on the coordination and control of instruction and curriculum. This dimension incorporates three leaderships (or what might be termed management) functions: Supervises and evaluates instruction, coordinates the curriculum and monitors student progress (Robinson et al., 2008). This dimension requires the principal and other leaders to be engaged in stimulating, supervising and monitoring teaching and learning in the school. Obviously, these functions also demand that the principal have expertise in teaching and learning, as well as a commitment to school improvement (Hallinger & Murphy, 2012).

In supervising and evaluating instruction, the principal is supposed to ensure that the goals of the school are being translated into practice at the classroom level. The translation of the goals involves coordinating the classroom objectives of teachers with those of the school and evaluating classroom instruction. In addition, it includes providing instructional support to teachers. It also involves monitoring classroom instruction through

formal and informal classroom visits. Monitoring can be done both by the principal and others engaged in instructional support (Robinson et al, 2008).

With regard to supervision of teaching, one of the principals during the interview remarked as follows; "*The TSC Teacher Performance Appraisal and Development (TPAD) tool has been of great help in the supervision of teaching to me as a principal. This is because I have been able to delegate to the deputy principal and even the class secretaries that responsibility. All I have to do is monitor the Lesson Attendance Register (LAR) later in the day once the lessons time is over. I then summon the teachers to explain why they missed lessons and what arrangements they had for recovery of the missed lessons.*" Upon analyzing the statement, it was found out that if the TPAD tool is well implemented, the role of supervision can be more effective. The principal can be able to delegate and only act as the overseer in the whole process.

3.1. Comparison of supervision of teaching in Murang'a and Kirinyaga counties

The study further compared the rating of supervision of teaching in Murang'a and Kirinyaga counties. Figure 1 shows that supervision of teaching in secondary schools in Kirinyaga County was rated high ($\bar{x}$ = 4.147) and in Murang'a County as moderate ($\bar{x}$ = 3.666), the overall rating of supervision of teaching in both counties combined was moderate at ($\bar{x}$ = 3.15). Supervision of teaching in schools is a very important component. This is because learners' performance greatly depends on how the curriculum is implemented and evaluated at the school level. This moderately low rating of supervision of teaching by the principals of secondary schools in the two counties may be contributing greatly to the dismal performance being experienced by majority of the schools.

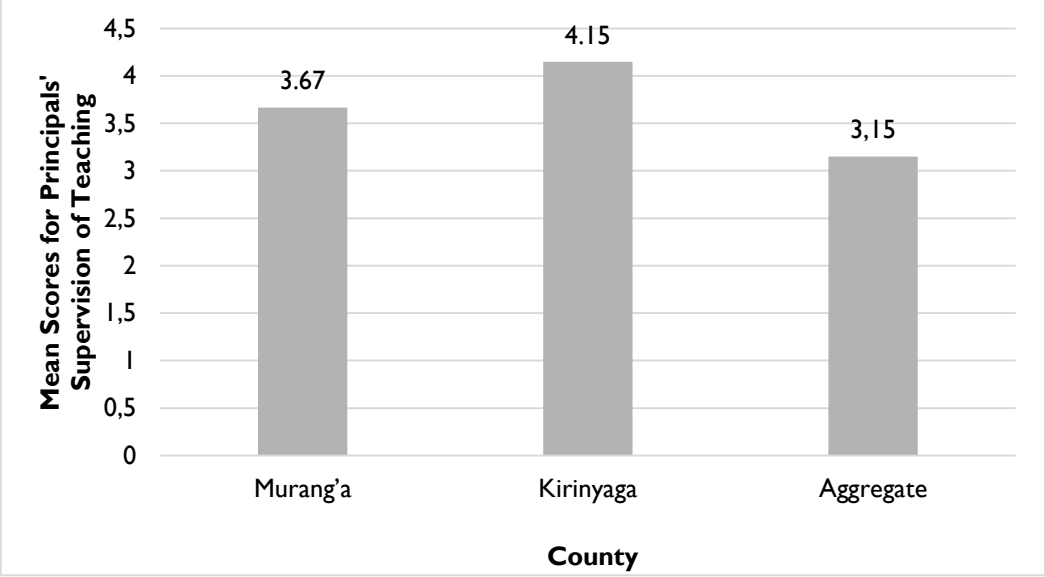

Figure 1. *Comparison of Supervision of Teaching*

3.2. Relationship between principals' supervision of teaching and learners' performance

The research hypothesis (Ho1) stated that there is no statistically significant relationship between principals' supervision of teaching and learners' performance in KCSE in Murang'a and Kirinyaga counties. In order to establish whether a statistical relationship existed between principals' supervision of teaching and learners' performance, the researcher computed the Pearson product moment correlation coefficient between the two variables. Initial scrutiny was executed to guarantee that there was no violation of the assumptions of linearity, normality and homoscedasticity. The findings are presented in Table 5.

Table 5.
Correlations between principals' supervision of teaching and learners' performance in KCSE in Murang'a and Kirinyaga counties

County			Learners' performance	Supervision of teaching
Murang'a	Learners' performance	Pearson Correlation	1	.085*
		Sig. (2-tailed)		.041
		N	191	191
	Supervision of teaching and learning	Pearson Correlation	.085*	1
		Sig. (2-tailed)	.041	
		N	191	201
Kirinyaga	Learners' performance	Pearson Correlation	1	.170*
		Sig. (2-tailed)		.014
		N	131	129
	Supervision of teaching and learning	Pearson Correlation	.170*	1
		Sig. (2-tailed)	.014	
		N	129	138

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

Table 5 indicates that there was a weak, positive correlation between the two variables ($r = .085$, $n = 201$, $p < .05$) in Murang'a county. There was also a weak, positive correlation between the two variables ($r = .170$, $n = 138$, $p < .05$) in Kirinyaga county. Shirley et al. (2005) indicate that for a weak correlation, "r" ranges from $\pm$ 0.10 to $\pm$ 0.29; in a moderate correlation, "r" ranges between $\pm$ 0.30 and $\pm$ 0.49; while in a strong correlation, "r" ranges from $\pm$ 0.5 and $\pm$ 1.0. The null hypothesis in reference to both Murang'a and Kirinyaga counties was therefore rejected on the basis of this finding. The findings indicate that principals who supervised teaching and learning in their schools are able to achieve better academic performance in their schools compared to those principals who did not practice any supervision.

Pearson product moment correlation for both counties combined was also computed. The findings are presented in Table 6.

Table 6.
Correlations between principals' supervision of teaching and learners' performance for both counties

		Learners' Performance	**Supervision of Teaching and Learning**
Learners' Performance	Pearson Correlation	1	.142*
	Sig. (2-tailed)		.011
	N	322	320

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

Table 6 indicates that there was a weak, positive correlation between the two variables ($r = .142$, $n = 320$, $p < .05$). Shirley et al. (2005) indicates that for a weak correlation, "r" ranges from $\pm$ 0.10 to $\pm$ 0.29; in a moderate correlation, "r" ranges between $\pm$ 0.30 and $\pm$ 0.49; while in a strong correlation, "r" ranges from $\pm$ 0.5 and $\pm$ 1.0. The null hypothesis was therefore rejected on the basis of this finding. Hence in this study, high levels of learners' performance were associated with supervision of teaching and learning in schools. It was concluded that a positive relationship existed between principals' supervision of teaching and learners' performance.

The findings of this study concur with what Ankomah (2002) pointed out that one of the characteristics of successful school is the presence of strong leadership manifested through supervision of teachers' work. For instance, in most successful schools the head teachers sit in the classroom during instructional time and note down points that they later discuss with the teachers. On a regular basis, the head teacher samples out some of the exercises done by learners to find out the extent to which teachers are teaching. The head teacher also

inspects the lesson plans of teachers and vets them every week. This exercise can influence the students' academic performance positively. Supervising and evaluating instruction comprises of activities that provide instructional support to teachers, monitor classroom instruction through informal classroom visits and aligning classroom practice.

3.3. Relationship between ındependent variables and learners performance

A combined relationship between the independent variable (supervision of teaching) on learners' performance was computed using multiple regression analysis. The findings are presented in Table 7.

Table 7.
Relationship between the ındependent variables and learners performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.263[a]	.069	.057	.51913

a. Predictor: (Constant) supervision of teaching; b. Dependent Variable: Learners' performance

Data in Table 7 indicates that the observed value of R square was .069. This implied that 6.9% of the disparity in learners' performance was explained by the joint variation in the independent variables (supervision of teaching). Therefore, it can be concluded that the regression model was a good descriptor of the relationship between the dependent and predictor variables.

4. Discussion and Conclusion

The research objective sought to assess the relationship between principals' supervision of teaching and learners' performance in Murang'a and Kirinyaga counties, Kenya. Supervision of teaching was measured by use of a standardized rating scale that was itemized into eight (8) subscales that assessed; effective curriculum implementation, demonstration of knowledge of curriculum issues in various subjects, implementation of the school curriculum, checking of teachers lesson notes, schemes of work, record of work books among others, maintaining a conducive school climate, addressing the classroom concerns of the teachers, regularly evaluating teachers' instructional methods and being cognizant of emerging curriculum reforms.

The researcher computed the mean scores for supervision of teaching for both Murang'a and Kirinyaga Counties and a global mean score of the two counties combined. The results of the study revealed that the overall mean score of supervision of teaching was 3.15. This mean score indicated that the level of supervision of teaching was moderate. Principals in Kirinyaga County ($\bar{x}$ = 4.15) posted higher levels of supervision of teaching compared to Murang'a County ($\bar{x}$ = 3.67) whose levels were moderate. These findings indicate the need to strengthen supervision of teaching in secondary schools in the two counties.

In order to establish whether a statistical relationship existed between principals' supervision of teaching and learners' performance in KCSE, the researcher computed the pearson product moment correlation coefficient between the two variables. The analysis established that there was a weak, positive correlation between principals' supervision of teaching and learners' performance. The actual value of r was 0.142 and therefore the null hypothesis was rejected on the basis of this finding. The findings indicated that principals who supervised teaching and learning in their schools are able to achieve better academic performance in their schools compared to those principals who did not practice any supervision. Hence in this study, high levels of learners' performance were associated with supervision of teaching and learning in schools. It was concluded that a positive relationship existed between principals' supervision of teaching and learners' performance.

The study revealed that supervision of teaching in the two counties was moderate. The study however raised major concerns on supervision of teaching by the principals in Murang'a County. The average rating for Kirinyaga County was high as compared to the rating for Murang'a County which was moderate. Pearson product moment correlation between the two variables that was computed indicated that there was a weak, positive correlation between the two variables. The findings indicated that principals who supervised teaching

and learning in their schools were able to achieve better academic performance in their schools compared to those principals who did not practice any supervision. This was as per the results that indicated a positive relationship existed between principals' supervision of teaching and learners' performance.

5. Recommendation and further research

Supervision of teaching in schools is an essential ingredient in the academic performance of learners. In order to ensure that supervision is being carried out effectively, TSC should enhance the use of the TPAD tool as a way of enhancing curriculum supervision in schools. TPAD tool when effectively implemented in schools can assist the principals who are able to delegate effectively to the deputy principals, HODs and class secretaries. Principals should also ensure that they properly monitor the implementation of the TPAD tool in order to evaluate its effectiveness. This will assist in improvement in academic performance in secondary schools.

Principals as curriculum supervisors in schools should ensure that they are cognizant with the emerging issues in curriculum reforms so that they are in a position to offer guidance to the teachers, students and other stakeholders. Principals should be able to demonstrate knowledge of curriculum issues in various subjects during supervision of teaching. When principals are well acquainted with all the subjects, they are able to offer guidance where necessary as they check on teachers teaching notes, schemes of work, lesson plans and other instructional materials.

Further research is required on the role of innovative mechanisms for evaluating teaching in the wake of the new dynamics in teacher education. This paradigm could be explored further by future researchers.

Acknowledgement

The authors received no funding for the research. Due acknowledgements have been made for works cited.

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