Influence of Principals' Instructional Supervisory Practices on Learners' Academic Performance in Kenya Certificate of Secondary Education in Kisii County, Kenya

Thomas Odongo Ololo[1], Dr. Mary Anyango Onditi[2], Dr. Benard Mwebi[3]

[1]PhD Candidate, Curriculum and Educational Management, Jaramogi Oginga Odinga University of Science and Technology-JOOUST

[2]Senior Lecturer and Chairperson Department of Curriculum and Educational Management, Jaramogi Oginga Odinga University of Science and Technology-JOOUST,

[3]Senior Lecturer, Jaramogi Oginga Odinga University of Science and Technology-JOOUST.

ABSTRACT

Principals' instructional supervision is very critical for quality academic performance. However, research studies have found out that inadequate training and heavy administrative workload has hindered most principals from carrying out their supervisory roles in schools effectively. In light of this scenario, this study investigated the Influence of Principals' instructional supervisory practices on learners' academic performance in Kenya Certificate of Secondary Education (K.C.S.E.) in Public Schools, in Kisii County, Kenya. The objective of this study was to: examine the influence of Principals' instructional supervisory practices on learners' academic performance in K.C.S.E. in Kisii County. This study was anchored on Karl Ludwig von Bertalanffy General Systems Theory. Mixed method research design of explanatory sequential type with a prioritized quantitative approach in phase one followed by qualitative approach in phase two was applied in the study. The target population was 4,691 participants which included: 340 Principals, 1360 Heads of Departments (H.O.Ds) and 2,991 teachers. A sample of 451 respondents participated in the study. The researcher used proportionate stratified random sampling technique to select 85 schools, 114 H.O.Ds and 252 teachers. Census sampling was used to select national and special schools while 85 Principals of the selected schools were purposefully sampled. Questionnaires and interview guides were used to collect quantitative and qualitative data respectively. Content validity, Criterion validity, Construct validity and Face validity, of the research instruments were ensured through evaluation by the University supervisors and other experts while internal consistency reliability was estimated by using Cronbach's alpha coefficient formula which yielded alpha coefficient of over 0.7 which was considered adequate. Quantitative data were analysed using Statistical Package of Social Sciences (SPSS) Version 29 while qualitative data were analysed thematically and presented using direct quotes from the respondents and integrated with the findings of phase one. Descriptive statistics were presented in tables and graphs while inferential statistics were presented in terms of Pearson's correlation coefficients, Anova and Regression coefficients. The study found out a weak positive insignificant influence between instructional supervisory practices ($r=.025$, $p \leq .05$; 2 tailed) and learners' academic

performance in K.C.S.E. Therefore, the null hypothesis were upheld. These results were supported by Principals' interviews which indicated that lack of intrinsic motivation to improve on performance and failure by the teachers to act on supervisory feedback have reduced impact of instruction supervision on academic performance. It is hoped that the findings of this study would provide information that would be a base for corrective measures towards the unexpected low academic performance in the study locale. The study recommended that further research should be done on influence of principals' leadership skills development on academic performance in K.C.S.E.

Keywords: Mixed Methods, Explanatory Sequential, Inferential statistics, supervisory feedback

INTRODUCTION

Principals should have satisfactory competencies to create conducive school environments that may influence teaching and learning for realizing sustainable development in the world (Daniels et al., 2019). United Nations Educational, Scientific and Cultural Organization-International Institute for Capacity Building in Africa ([UNESCO-IICBA], 2017) reports that most learners in African countries record poor learning outcomes yet Global Education 2030 Agenda aims at eradicating poverty, by ensuring the presence of inclusive and equitable quality education and promotion of lifelong learning opportunities for all Due to the gaps in the school leadership support in Africa noted in the literature, Bush et al., (2022), recommends for the development of school leadership policies that support professional development programmes to enhance their competencies towards quality education. Principals should adopt high quality learning-centred leadership (Taylor et al., 2019), beyond performing usual administrative duties to influence teachers' instructional pedagogy, to influence their perception about classroom instruction (Greatbatch and Tate, 2018). Mendel (2012) suggests that the Principal should in co-corporate teachers' leadership for effective teaching.

In U.K. Day, et al. (2016) investigated the association between principals' instructional leadership strategies and students' academic performance in national examinations. The study revealed that school principals would only influence directly and indirectly school improvement over-time when they combine both transformational and instructional leadership strategies through diagnosis and understanding contextual factors of their schools such as professional capabilities of the teachers and the learning processes of the students. The result of this study confirms the Hallinger (2011) leadership for learning model that asserts that school leaders' influence on students' learning outcomes is mediated by school level processes and conditions such as teamwork and collaboration geared towards effective teaching and a commitment to build on the leadership of others.

Ayodele, et al., (2016) study in Nigeria that examined the relationship between the principals' administrative strategies and students' academic performance using Questionnaires and Secondary Students' Academic Performance Inventory (S.S.A.P.I), indicated that there is a positive relationship between principals' administrative strategies and students' academic performance, r=0.536, p< 0.05. Thus, the type of instructional skills and techniques demonstrated by the principal in a school plays an important role in the academic performance of learners.

Kenya Vision 2030 underscores the importance of education in ensuring relevant human and social capital for sustainable development (Republic of Kenya, 2019). National trends of students' performance in Kenya Certificate of Secondary Education (K.C.S.E.) from 2018 to 2022 is shown in Table 1.

Table 1: National analysis of K.C.S.E. performance by mean score and grades from 2018 to 2022

Year	2018	2019	2020	2021	2022	AVERAGE
Mean score	3.927	4.467	4.503	4.201	4.469	4.436
Mean grade	D	D+	D+	D +	D+	D+

Source: Adopted from Kenya National Examination Council, (2023).

Table 1 indicates that the national average K.C.S.E performance within the five-year period is 4.436 which is a mean grade of D+. The low performance would not enable the exiting learners to compete favourably in nationally and internationally in both education and employment arena where high quality academic grades are demanded for employment and continued education (UNESCO, 2017). On the other hand, an improvement in academic performance may lead to increased future income to individuals and to the nation (Hanushek, 2011). Table 2 highlights the learners' performance in K.C.S.E in all the Counties in Nyanza Region from 2018 to 2022.

Table 2: Learners' Performance in K.C.S.E in Nyanza Region from 2018-2022.

COUNTY	MEAN SCORES					AVERAGE	MEAN GRADE
	2018	2019	2020	2021	2022		
Siaya	4.470	4.800	4.120	4.580	4.915	**4.577**	D+
Nyamira	3.580	4.340	4.740	5.190	4.999	**4.569**	D+
Migori	4.100	4.140	4.140	5.350	4.981	**4.542**	D+
Kisumu	4.160	4.490	4.700	4.330	4.823	**4.500**	D+
Homa Bay	3.690	4.680	4.760	4.980	4.343	**4.491**	D+
Kisii	3.340	3.560	3.980	4.710	4.770	**4.072**	D+
Nyanza	**3.890**	**4.330**	**4.410**	**4.860**	**4.810**	**4.460**	**D+**

Source: Siaya County Education Office, (2023).

Table 2 indicates that performance in K.C.S.E across six Counties resembles the national trend with learning outcomes averaging a mean grade of D+ during the five year period. Comparatively Kisii County like other Counties posts a fluctuating mean scores and has the lowest average mean of 4.072 (D+) which is slightly higher than the national average of 4.436 (D+). It may also suggest that a large number of the candidates obtained grades D+ and below, which almost disqualifies them from pursuing any professional course (Republic of Kenya, 2018).

Statement of the problem

The Teachers' Service Commission substantively appoints Principals to provide satisfactory quality leadership in public secondary schools in Kenya alongside introduction of performance contracting (P.C.) for the principals and teacher performance appraisal and development (T.P.A.D) for all teachers (RoK, 2015)

with a view to improve on the quality of learning outcomes. Despite this arrangement, there has been persistent low academic performance in K.C.S.E. in Kenya and the study locale. The low educational achievement suggests a lasting negative impact on individual lives and represents lost output for the national economy as a whole (Michelmore and Dynarski, 2016) due to a reduced technical skilled human capital and increased low level of productivity. In the context of this study, it may suggest that learners exiting secondary school education might not be competitively absorbed in training institutions to acquire relevant knowledge and skills for their individual and national development (Hanushek, 2011). The government has prevailed upon education stakeholders to address the worrying trend of low academic performance (Republic of Kenya, 2019). Therefore, the researcher investigated the influence of principals' instructional supervisory practices on academic performance in K.C.S.E in public schools in Kisii County to shed light on the persistent low average academic performance.

Purpose of the study

The purpose of this study was to investigate the influence of principals' instructional supervisory practices on learners' academic performance in Kenya Certificate of Secondary Education (K.C.S.E.) in public schools in Kisii County, Kenya.

Objective of the study

The study was guided by the following research objective;

To examine the influence of principals' instructional supervisory practices on learners' academic performance in K.C.S.E. in Kisii County, Kenya.

Hypothesis of the study

The study was guided by the following research hypothesis;

H_o1 Principals' instructional supervisory practices do not influence learners' academic performance in K.C.S.E. in Kisii County, Kenya.

Theoretical framework

This study was anchored on Karl Ludwig von Bertalanffy (1968) General Systems Theory viewed from the perspective of Murphy et al., (2007) leadership for learning model. A system is a cohesive combination of interrelated and interdependent parts which can be natural or human-made and is composed of its subsystems, environment where it exists and the supra-system in a hierarchical dimension (Roth, 2019). General Systems Theory could be suitable in the management of public secondary schools in Kenya due to their being semi-autonomous institutions with various components such as the Board of Management (B.O.M). Externally, they relate with other agencies such as the Ministry of Education and the Teachers' Service Commission (T.S.C.) in school management. The relevance of Bertalanffy (1968) General System's theory when looked at through the lens of Murphy (2007) leadership for learning model emanates from the fact that principals' leadership instructional supervisory practices can influence learners' academic performance. Therefore, the researcher conceptualize supervision in terms of classroom observation and teachers' performance appraisal to investigate the influence of principals' instructional supervisory practices on learners' academic performance in K.C.S.E. in Kisii County.

LITERATURE REVIEW

Classroom observation and learners' academic performance in K.C.S.E.

Kilango and Tedla, (2022) study in China which investigated the role of school leadership towards improving students' academic achievement observed that classroom supervision and continuous monitoring of students' progress promote higher academic performance. However, Hoque et al., (2020) study in Malaysia found out that supervisory practices are not correlated with teachers' performance and attitudes. Similarly, Banu et al., (2021) study in Bangladesh reported that low academic supervision has hampered the quality of primary education. The reviewed studies were based in schools in Indonesia Malaysia and Bangladesh while the current study was done in secondary schools in Kenya and applied probability-sampling techniques that allows all the members in the population equal chance to participate in the study thus making the study result more reliable and credible to actualize inferences to the entire study population that the sample represented.

Emenike and Eno (2016) study in Nigeria examined the differences in teachers' effectiveness based on principals' instructional supervision in public secondary schools using ex-post facto research design through principals' interview and teachers' questionnaire. The study revealed that adequate classroom observations were more effective on teachers' performance than the inadequate classroom observations as demonstrated by their means of 52.66 and 43.15 respectively with the calculated t of 5.64, which was greater than the critical t-value of 1.976 at 0.05 level of significance with 198 degrees of freedom. The findings of this study are in concurrence with those of Anita and Lucky (2019) which revealed that supervision improves teaching and learning because it instils excellence in the quality of instruction and academic performance. However, the dependent variable- teachers' effectiveness was not clearly defined in the studies of both Emenike and Eno (2016) therefore making it hard to understand which element of teachers' effectiveness was investigated by the reviewed studies. Correspondingly, the analysis of the interview data from the principals was not used together with inferential statistics to corroborate the research findings to enhance trustworthiness in the findings of the study. Therefore, this study used explanatory sequential research design to examine the influence of principals' instructional supervision practices on learners' academic performance to fill in the gaps.

Kamotho et al., (2019) study investigated the impact of school principals' classroom visitation on teachers' job performance in Kangundo sub-county, Kenya. It used convergent parallel mixed method research design and simple random sampling technique to select a sample of 8 principals, 56 teachers and 104 students, questionnaires and interview guides to collect the data. It discovered that majority of principals do not observe teachers in classes neither do teachers observe their colleagues in lessons and recommended that the principals should engage with teachers in classroom observation and provide timely feedback to allow teachers know their strengths and weaknesses to be able to improve in their job performance. The findings of this study concur with that of Oguta et al., (2019) study in Kenya which investigated the influence of teacher supervision on academic performance in secondary school education in Migori county by use of concurrent triangulation research design which revealed that supervision of instruction do not influence learning outcomes. Consequently the null hypothesis was accepted. The study of Kamotho et al., (2019) had a very small sample size yet the researchers undertook it using both quantitative and qualitative approaches that ought to have attracted large sample size for generalization of the findings while that of Oguta et al., (2019) relied only on the K.C.S.E. results of 2017 which might not have portrayed the true trends of academic performance in the other years in Migori County. The small sample size might have rendered the results to lack external validity while the use of K.C.S.E. results of one year could not show the trend of performance in the County. The

current study used a larger sample size and inferential statistics to study the influence of the predictor variables on the outcome variable considering K.C.S.E. performance within five years period.

Appraisal of teachers and learners' academic performance in K.C.S.E.

In a study done by Ford et al., (2018) in U.S.A. that explored the effect of supportive teacher evaluation on teachers' job satisfaction by applying a multilevel regression analysis to multiple imputed data on U.S.A. lower-secondary teachers' experiences from the 2013 Teaching and Learning International Survey (T.A.L.I.S.), discovered that there is a positive relationship between the perceptions of supportive teacher evaluation experiences and U.S.A. teachers' job satisfaction among secondary school teachers after controlling for other demographic teacher and school variables and working conditions. There was a statistically significant variance in job satisfaction with the school level variables accounting for 11% of the variance (ρ=0.001) with an effect of supportive evaluation (SE) on teacher job satisfaction at (Coeff. = 0.051, SE=0.018, p<0.01). The reviewed study explored the effect of supportive evaluation of teachers on teachers' job satisfaction while the current study investigated the influence of performance supervision on learners' academic performance.

The study of Otieno et al., (2021) that evaluated impact of application of Teacher Performance Appraisal and Development (T.P.A.D.) tool on students' performance in K.C.S.E. by use of a sample of 342 teachers and 57 principals, questionnaires and interview guides respectively, established that there was a significant difference in the mean of teacher's performance after appraisal and the category of teachers' schools. Furthermore, 74.1% changes in teachers' performance was attributed to application of professional knowledge appraisal (R^2 =0.741), and that application of professional knowledge appraisal (β=0.962) is a significant predictor of teacher performance [F (1, 278) =790.898, P<0.05] in Migori County. The findings of this study agree with that of Didinya et al., (2018) study in Vihiga County which found out that teachers' professional knowledge and application was statistically a significant coefficient (F (1,143) = 208.495, P=0.00, R^2=0.656), implying that teachers' professional knowledge and application positively influence students' academic performance.

Contrastingly, Morara (2019) study in Kisii County revealed that the relationship between appraisal of teachers and academic performance was insignificant considering both performance appraisal and students' feedback on teachers' performance with Pearson's Correlation Coefficient r (27) = -.008, p=.484 and r (27) = -.085, p=.331, respectively showing that appraisal ratings and student feedback ratings were not significantly related to learning achievement since p-values obtained were more than the critical alpha (α) set at .05 level of significance. The reviewed studies majorly dwelt on professional knowledge appraisal, the current study investigated the influence of instructional supervisory practices on learners' academic performance in K.C.S.E.

RESEARCH METHODOLOGY

Research design

This study applied Mixed Method Research design of explanatory sequential approach which involved prioritising quantitative phase over qualitative phase with data integration (Creswell & Creswell, 2018). Explanatory sequential approach was meant to identify potential predictive power of principals' leadership variants on students' academic performance in K.C.S.E and to allow use of the results for purposefully

selecting informants for the second phase (Creswell & Creswell, 2018) and construction of semi-structured interview schedule. The rationale for mixing in the current study was that neither quantitative nor qualitative methods were independently sufficient to capture the trends and details of the situation, such as a complex issue of Principals' leadership practices on learners' academic performance in K.C.S.E. in the study locale. Subsequently, mixed method research approach was applied in this study for two reasons: convergence of data to enhance the research finding validity, thereby strengthened and enriched the study's conclusions. Also as a complementary mechanism to allow the researcher gain deeper and complete understanding of the research problem and provide clarification of results found in the quantitative phase during qualitative phase and results integration (Creswell & Creswell, 2018).

Glykeria et al. (2024) asserts that researchers should always transparently answer research questions by using rigorous approaches they find suitable for the study design to support the exploration of the facts between variables and participants to be able to arrive at valid results. Therefore, in the first phase, the quantitative-numeric data was collected, using questionnaires and the data was subjected to descriptive and inferential statistics analysis while in the second phase, a qualitative approach which depended on the purposively identified quantitative results (Creswell, 2014) that needed more information gathering for better understanding, was used to collect text data through individual semi-structured interviews, to help explain and contextualize quantitative results such as why certain external and internal factors, tested in the first phase, may be significant predictors of the students' academic performance in K.C.S.E. in Kisii County. The visual model of the procedures for the explanatory sequential approach is presented in Figure 1.

Figure 1: Steps of Explanatory Sequential Approach

Phase 1- Quantitative   **Phase 2- Qualitative**
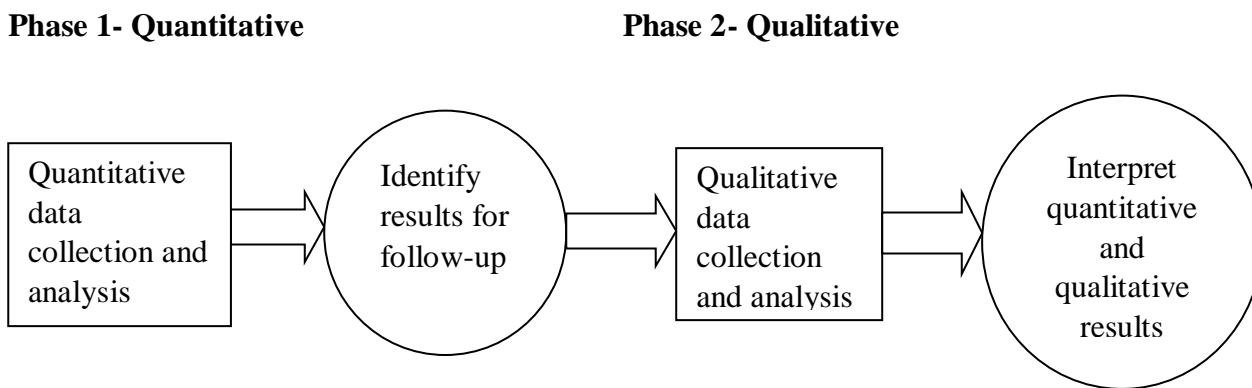
Source: Creswell and Creswell (2018).

Figure 1 shows how the explanatory sequential approach was implemented step by step. Priority in this design was given to the quantitative method, because it represents the major aspect of data collection and analysis in the study that will determine the relationship between the predictor variables and the outcome variable. A follow-up study was done during the second phase of data collection using qualitative approaches which focussed on explanations and contextualization of quantitative results by exploring in-depth about the text data concerning the four study objectives (Creswell, 2014).

In this study, first, integration was done at methods level by connecting whereby, the researcher first analysed the quantitative data, then used its findings to develop sampling criteria for the follow-up qualitative phase

(Fetters et al., 2013). Specifically, Maximum Variation Sampling technique (M.V.S) was used to identify and purposively sample individuals who demonstrated higher, average and lower levels of academic performances in K.C.S.E. which enabled the researcher to juxtapose the reasoning patterns between the three groups of Principal respondents (Creswell, 2014). Secondly, integration was done at the interpretation and reporting level through the use of narratives and joint displays whereby the researcher described the findings in single report of quantitative and qualitative on one hand and on the other hand organised the findings in an integrated results matrix that was used to juxtapose both quantitative and qualitative findings to allow side-by-side comparisons and to provide evidence to support the researcher's process of drawing meta-inferences and new insights about the research topic through contiguous approaches (Guetterman et al., 2015; Plano Clark and Sanders, 2015).

Study participants

Mugenda and Mugenda (2008) recommends that 10% to 30% of the target population is adequate for a sample. Based on this guideline, 25% of the target population of the schools was selected for the study because their number is comparatively smaller (Cohen, 2011). Thus 85 schools were sampled for the study. On the other hand, the Principals of the participating schools were purposively sampled. The 1360 Heads of Departments and 2,991 teachers who together constitute 4,351 of the remaining respondents were sampled proportionately to arrive at 114 HoDs and 251 teachers in the sample. The Principals participated in this study because they directly preside over instructional programs from subject allocation, monitoring classroom instruction and testing of learners and evaluation of test results in the schools. While Heads of departments participated because they assist the principals in supervising teachers in the departments and implement the curriculum in the classrooms. And teachers participated because they directly implement instructional programs such as classroom instruction and testing of learners and evaluation of test results in the respective subjects. The three groups of participants were in a position to respond to the items in the research instruments so as to fulfill the research purpose.

Data collection instruments

Quantitative data were collected by use of Questionnaires for the principals, heads of department and teachers while in-depth interview schedule was applied on the principals to collect qualitative data. This aided in testing the agreement of findings obtained from different sources and to enhance clarity and consistency of the findings (Creswell and Creswell, 2018). The validity of research instruments were ensured through expert evaluation (Taherhoost, 2016; Sangoseni et al., 2012; Olson, 2010) while reliability was done by the use of Cronbach's Coefficient Alpha for the Questionnaires and it averaged at .781.

Data collection procedure

The researcher obtained introductory letter from the Board of Postgraduate Studies of Jaramogi Oginga Odinga University of Science and Technology to allow him get permit and licence from the National Commission for Science, Technology and Innovation and authority letter from JOOUST Ethics Review Committee. The above documents assisted the researcher to be permitted to conduct the pilot study and the main study by the County Commissioner-Kisii, County Director of Education-Kisii, and principals of the sampled schools, Heads of Departments and teachers. The Principals who were sampled for the study were consulted in readiness for the study and assisted the researcher to seek consent of HoDs and teachers to participate in the study.

Data Analysis

With regard to quantitative data analysis, Pearson Correlation was conducted as a preliminary analysis to test the hypotheses and determine the relationships among all the variables as per the research objectives. Descriptive statistics were presented in tables of measures of central tendency such as frequencies, percentages, means and standard deviation while inferential statistics were inform of coefficients and beta weights (Creswell & Creswell, 2018). Qualitative data based on transcripts of the in-depth interviews were analysed thematically according to the research objective and reported in themes, narratives and direct quotations of the interviewees (Braun & Clarke (2012). The two data sets were then triangulated to provide clear explanations of the relationships between the study variables (Yeasmin & Rahman (2012), since it is a process of verification from several view points and methods that increases the validity of research findings.
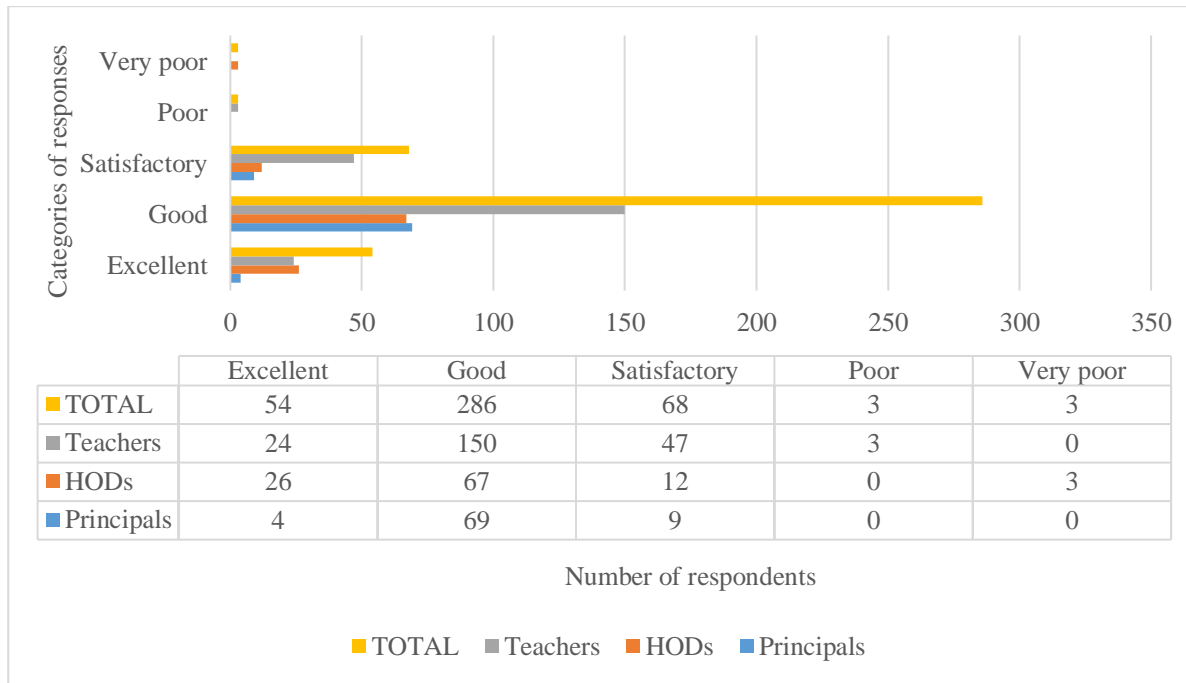
RESEARCH FINDINGS AND DISCUSSION

Phase 1- Quantitative research findings

This study aimed at establishing the influence of principals' instructional supervisory practices on learners' academic performance in K.C.S.E.

Quality of instructional supervisory practices

To determine the extent to which Principals' instructional supervisory practices influence learners' academic performance in K.C.S.E. in Kisii County, respondents were first asked to rate quality of instructional supervisory practices in the schools they teach. Their responses were analysed and presented in figure .

Figure 2: Quality of instructional supervision practices

	Excellent	Good	Satisfactory	Poor	Very poor
■ TOTAL	54	286	68	3	3
■ Teachers	24	150	47	3	0
■ HODs	26	67	12	0	3
■ Principals	4	69	9	0	0

Number of respondents

■ TOTAL ■ Teachers ■ HODs ■ Principals

Source: Field Data, (2023).

Findings from Figure 2, indicates that, 98% (404) of the respondents considered instructional supervisory practices as of good quality and would therefore influence good academic performance in K.C.S.E. The results of this study agree with the findings of Kilango and Tedla (2020) in China which discovered that supervisory practices improves teachers' job performance. According to Parra and Hermandez (2019), when supervision of instruction is done to the required standard, it results in a significant positive change in teacher instructional behaviours and quality of learning outcomes. However, the studies of Hoque et al. (2020) in Malaysia and Oguta et al., (2019) in Kenya found out that supervision of instruction has no significant influence on academic performance. For instructional supervision to impact positively on learning outcomes, supervisors should overcome contextual challenges such as heavy workload and inadequate capacity to supervise by accessing professional development to build on their supervisory knowledge and skills (Morara, 2019). These quantitative results were confirmed by the principals during the interview and the themes; departmental supervision and teacher appraisal were used to shed light and help in understanding why and how supervisory practices were done.

One of the interviewees reported:

In my school supervision is meant to achieve the goal of improving teacher professional capacity so that to improve on academic performance (P6).
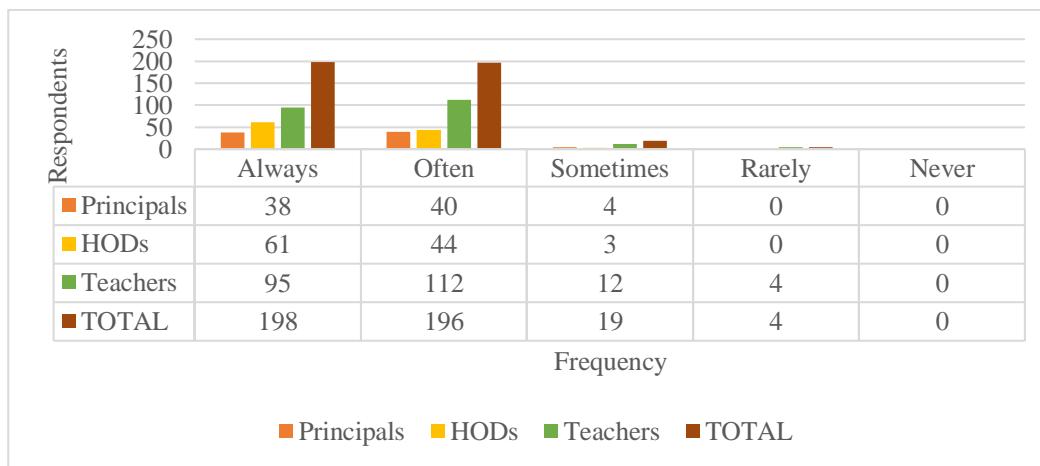
Similarly, a principal of an Extra-County School said that;

Before I engage teachers in classroom observation and teacher appraisals, we do hold departmental meetings to program for the exercises and inform teachers accordingly and after every stage during implementation, teachers are given feedback by the supervisors. In all the occasions the feedbacks inform internal teacher professional development (P4).

The frequency of instructional supervision

The respondents were further asked to show the frequency of instructional supervision in the schools that they teach. The findings were analysed and presented as shown in Figure 3.

Figure 3: Frequency of instructional supervision

	Always	Often	Sometimes	Rarely	Never
Principals	38	40	4	0	0
HODs	61	44	3	0	0
Teachers	95	112	12	4	0
TOTAL	198	196	19	4	0

Source: Field Data, (2023)

In line with figure 3, a total of 47.82 % (198) of the respondents rated the frequency of instructional supervision in schools as always done while 47.34% (196) of them reported that it was often done. This would imply that instructional leaders ensure that the teachers prepare and attend to teaching programmes. In contrast, 4.6% (12) of the respondents considered supervision as being done sometimes, 0.9 % (4) as rarely done. The revelations of this study agree with those of Puspita et al., (2021) in Indonesia which discovered that principals' supervision contributes to teachers' job performance. The research findings suggest that there are consistent supervisory practices geared towards improving teacher self-efficacy which may contribute to their individual and collective capacity that in turn would influence learning outcomes (Omaali et al., 2021).

During the interviews with the principals it was revealed that teacher performance which a factor in academic performance was highly monitored by the leadership of schools. For example, the themes such as; monthly teachers' performance returns and monitoring curriculum implementation featured from many of the interviewees. For instance a principal of a County school mentioned that;

It is the culture in my school that learners report to the departmental heads on daily basis in terms of which lesson were covered by teachers. The HoDs in turn comply returns and present to the Deputy Principal for further action on monthly basis (P14).

Correspondingly, an Extra-County school principal expressed that;

Early completion of the syllabus allows time for revision across all classes before the end of an academic year, consequently a class does not move to the next class with a backlog of incomplete syllabus. To allow these to happen there is a continuous monitoring of syllabus coverage whereby teachers report about the extent of syllabus coverage to the principal twice per term (P15).

Responses on the influence of principals' instructional supervisory practices on learners' academic performance in K.C.S.E.

The research objective was to establish the influence of principals' instructional supervisory practices on learners' academic performance in K.C.S.E. Instructional supervisory practices were in form of 13 items that were responded to by the respondents as shown in table 3.

Table 3: Descriptive Statistics on influence of principal's instructional supervisory practices on Learners' academic performance in K.C.S.E.

	N	Mini mum	Maxi mum	Mea n	Std. Deviation
The Principal……..					
Ensures that instructional strategies are consistent with curriculum goals to promote good academic performance	414	1	5	4.43	.715
Review learners' work when evaluating instructions to enhance effectiveness of remedial actions	414	1	5	4.24	.789

Identify teacher instructional weaknesses during post-observation feedback to help in future capacity building	414	1	5	4.15	.790
Observe lessons to keep teachers accountable for their teaching practices.	414	1	5	4.33	.846
Analyze teaching and learning processes before giving feedback to the teachers	414	1	5	4.23	.897
Engage teachers in subject target setting before the beginning of the year.	414	1	5	4.43	.840
Perform all the teacher appraisal functions as planned in the school TPAD program	413	1	5	4.39	.828
Help teachers identify and address their performance gaps during appraisal processes.	414	1	5	4.15	.864
Track progress of learners' academic performance during teacher appraisal to determine improvements in the quality of teaching and learning outcomes.	414	1	5	4.26	.831
Advise HoDs to review the curriculum to be in line with classroom instructional needs.	414	1	5	4.32	.824
Advise teachers to inform students of performance standards as per the lesson objectives at the beginning of every lesson	414	1	5	4.30	.827
Plan for diagnostic assessment of learning to influence instruction on an ongoing basis.	414	1	5	4.13	.975
Use test results to inform future instructional improvement plans.	414	1	5	4.16	.975
Valid N (listwise)	414			4. 27	.846

Likert scale: 5= Strongly Agree,4= Agree,3= Undecided, 2= Disagree and 1= Strongly Disagree

Source: Field Data, (2023).

From table 3, it is notable that the influence of principals' instructional supervisory practices on leaners'

academic performance in K.C.S.E. is high (M= 4.27; SD= =.846). Majority of the respondents agreed that; the Principals ensures that instructional strategies are consistent with curriculum goals to promote good academic performance (M=4.43 SD=0.715), review learners' work when evaluating instructions to enhance effectiveness of remedial actions (M=4.24 SD=0.789), identify teacher instructional weaknesses during post-observation feedback to help in future capacity building (M=4.15 SD=0.790), observe lessons to keep teachers accountable for their teaching practices (M=4.33 SD=0.846), analyze teaching and learning processes before giving feedback to the teachers (M=4.23 SD=0.897), engage teachers in subject target setting before the beginning of the year.(M=4.43 SD=0.840), perform all the teacher appraisal functions as planned in the school TPAD program (M=4.39 SD=0.828), help teachers identify and address their performance gaps during appraisal processes (M=4.15 SD=0.864), track progress of learners' academic performance during teacher appraisal to determine improvements in the quality of teaching and learning outcomes (M=4.26 SD=0.831), advise HoDs to review the curriculum to be in line with classroom instructional needs (M=4.32 SD=0.824), advise teachers to inform students of performance standards as per the lesson objectives at the beginning of every lesson (M=4.30 SD= 0.827), plan for diagnostic assessment of learning to influence instruction on an ongoing basis (M=4.13 SD= 0.95) and use test results to inform future instructional improvement plans (M=4.16 SD= 0.95). The mean list-wise scores was 4.27 (SD = 0.846; min=1; max=5), which indicates respondents agreed that instructional supervisory practices put in place by the principals contribute to improvement in learning outcomes in K.C.S.E. These results confirm the findings of Anita and Lucky (2019) in Nigeria which discovered that supervisory practices improves academic performance. In contrast, Mutiso (2021) study in Kenya discovered that supervisory practices do not improve academic performance because teachers perceive supervisory programmes negatively.

This result was confirmed by the principals during the interviews. Majority of principals reported that promotion of good practices among teachers and evaluating learners' academic achievement ensure teachers are accountable in their work. For example a principal had this to say:

I review learners' work when evaluating instructions to enhance effectiveness of remedial actions and analyze teaching and learning processes before giving feedback to the teachers. These actions have enabled me to discover any connection between what the teachers exactly do in class and learners' academic performance. In case of noted weaknesses among teachers or learners, remedial action are put in place immediately (P 13).

It was necessary to establish whether instructional supervisory practices done by the Principal were significantly related with learners' academic performance in K.C.S.E. by testing the first research hypothesis.

Correlation between principals' instructional supervisory practices and learners' academic performance in K.C.S.E.

Pearson's Product Moment Correlation test was run to establish the influence of principals' instructional supervisory practices on learners' academic performance in K.C.S.E. To obtain it, a simple coefficient of correlation was computed and results are shown in table 4.

Table 4: A Pearson correlation analysis to examine the influence of principals' instructional supervisory practices on learners' academic performance in K.C.S.E.

		Instructional Supervisory practices	KCSE MEAN SCORE
	Pearson Correlation	1	-.025

Instructional Supervisory practices	Sig. (2-tailed)		.616
KCSE MEAN SCORE	Pearson Correlation	-.025	1
	Sig. (2-tailed)	.616	

Source: Field Data, (2023).

According to table 4, there is a weak negative relationships between instructional supervisory practices and learners' academic performance in K.C.S.E (-.025, p>0.05; 2-tailed). This results concur with the findings of Dinsa et al., (2021) who found out that principals' supervisory practices have insignificant influence on learners' academic performance. Supervision is carried out to improve the quality of teaching and learning outcomes after addressing the weaknesses realized on the teachers and the school instructional system (Grissom et al., 2021).

During the qualitative phase, respondents indicated that academic performance is influenced by several factors some of which are beyond the control of the principal. For example, a principal of County school had this to say:

In pursuit to maintain good academic performance, I ensure that all decisions made concerning instruction are data driven and that I foster trust and team work among all the stakeholders of the school. (P3).

Hypothesis testing

This study aimed at determining the influence of instructional supervisory practices on learners' academic performance in K.C.S.E in Kisii County. Based on this objective, the following hypothesis was tested;

H_o1 Principals' instructional supervisory practices do not influence learners' academic performance in K.C.S.E. in Kisii County.

The simple linear regression model developed to measure the predictive power of instructional supervisory practices on learners' academic performance in K.C.S.E is shown as:

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

Where,

Y = Learners' academic performance in K.C.S.E.

β_0 = Constant term, that is the predicted value of learners' academic performance if supervisory practices is zero.

β_1 = Beta coefficient (contribution of supervisory practices on learners' academic performance.

X_1= Supervisory practices.

ϵ = Standard error (other variables that may influence learners' academic performance but are not included in the model and are assumed not to interfere with supervisory practices, for example, principals' self-efficacy.

Regression Analysis and Hypothesis testing

The direction of the relationship between instructional supervisory practices and learners' performance in K.C.S.E was also analysed as shown in table 5.

Table 5: Regression results of instructional supervisory practices and learners' academic performance in K.C.S.E.

Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.025[a]	.001	-.002	25.22855	.001	.252	1	412	.616

a. Predictors: (Constant), Principal's instructional supervisory practices

b. Dependent Variable: KCSE MEAN SCORE

Source: Field Data, (2023).

Table 5 shows that instructional supervisory practices had a weak positive influence on academic performance in K.C.S.E but was insignificant (r =.025, N = 412, p>.05). The significant F change was 0.252 and the p-value computed by the Statistical Package for the Social Sciences (SPSS) version 29 was .616. The two statistics were more than the level of significance adopted for the study where α =.05. Therefore, the null hypothesis that principals' instructional supervisory practices do not influence learners' academic performance in K.C.S.E was upheld, suggesting that learning achievement is a function of many factors with varying magnitudes (Osei-Owusu, 2022) as indicated by the standard error of estimate (ε) which was found to be 25.22855, showing that there were other factors of the magnitude of 25.22855 that influence learners' academic performance in K.C.S.E that were not taken into consideration during the first quantitative phase of the study.

These results agree with Morara (2019) study which found out that lack of independent supervisors who can provide credible, valid and reliable feedback to the teachers, renders supervision of instruction in schools not be impactful on learning outcomes and with Hoque et al., (2020) in Malaysia which revealed that instructional supervision has insignificant influence on students' academic performance.

During the interviews, the principals were of similar opinion that in as much as they have put mechanisms in place for instructional supervision, learning outcomes in most schools in Kisii County has remained comparatively low in Nyanza region. One of the principals had this to say:

Most of our schools are facing the problem of understaffing and inadequate physical facilities due to high enrolment in all the classes. This trend has made learners to scramble for resources that support teaching and learning. The resulting occurrence is poor performance because learners are not adequately taught. (P11)

Inadequate resources in leaning institutions has been reported by research to lower academic performance (Wanjala, 2019; Likoko et al., 2023).

To determine the prediction of instructional supervisory practices on learners' academic performance in K.C.S.E, analysis of variance was computed and the results are shown in table 6.

Table 6: Analysis of Variance of principals' instructional supervisory practices and learners' academic performance in K.C.S.E

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	160.124	1	160.124	.252	.616[b]
	Residual	262229.622	412	636.480		
	Total	262389.746	413			
a. Dependent Variable: KCSE MEAN SCORE						
b. Predictors: (Constant), Principal's Instructional Supervisory practices						

Source: Field Data, (2023)

From table 6, it is indicative that principals' instructional supervisory practices was not a significant predictor of learners' academic performance in K.C.S.E [$F_{(1, 412)} = .252$, $p>0.05$]. This means that principals' instructional supervisory practices does not significantly predict learners' academic performance in K.C.S.E in the study locale. The finding of this study concurs with Oguta, et al., (2019) study in Migori County which discovered that supervisory practices do not significantly contribute to improvement in academic performance. Contrastingly, the studies of Anita and Lucky (2019) in Nigeria have confirmed that instructional supervision strongly enhance teacher effectiveness and improvement in learning outcomes. Instructional supervisory practices have yielded very insignificant contribution in bolstering collective professional competency (McGhee and Stark, (2021), because teachers view them negatively (Mutiso, 2021).

The study also investigated the contribution of principals' instructional supervisory practices on learners' academic performance in K.C.S.E. The results are shown in table 7.

Table 7: Linear regression analysis to examine the contribution of principals' instructional supervisory practices on learners' academic performance in K.C.S.E.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	9.588	9.297		1.031	.303	-8.688	27.863
	Influence of principals' instructional supervisory practices on learners' academic performance in K.C.S.E.	-1.082	2.158	-.025	-.502	.616	-5.324	3.159

a. Dependent Variable: KCSE MEAN SCORE

Source: Field Data, (2023).

Table 7 indicates that instructional supervisory practices which is $Y = 9.588 + -1.082X_1$, means that for every one unit increase in instructional supervisory practices, there was a decrease in academic performance in K.C.S.E by -1.082 units. The findings of this study are in concurrence with Oguta et a., (2019) study which found out that teacher supervision is not significant in determining students' academic performance in Migori County because it is not seriously undertaken by the principals. Furthermore, Banu et al., (2021) links low academic supervision to low quality primary education in Bangladesh. While this is the case, Puspita et al., (2021) study in Indonesia, demonstrates that there is a significant influence between principal supervision and teacher performance.

Phase 2- Qualitative Research findings

During the Phase two of this study, a 45 to 60 minutes 16 semi-structured interviews were conducted with 16 Principals, who had participated in the first phase respectively as recommended by Creswell and Creswell (2018). The researcher employed a paradigmatic framework of interpretivist and constructivist approach while collecting information from the participants to get their attitudes, opinions and lived experiences about the influence of Principals' instructional supervisory practices on learners' academic performance in K.C.S.E in Kisii County, Kenya.

Principals' instructional supervisory practices and learners' academic performance in K.C.S.E.

The research objective was to establish the influence of Principals' instructional supervisory practices on learners' academic performance in K.C.S.E. in Kisii County. The interviewees indicated that supervisory approaches used in any given school was influenced by the goal to be achieved. For instance, one Principal stated that:

There are varieties of instructional supervisory approaches one would apply in a school set-up to hasten evaluation of and reporting about teachers' performance. However, school administrators mainly choose to use classroom observation and teacher appraisal because they go hand in hand with teacher performance appraisal and development policy (P16).

This concurred with a recent study conducted in Uganda by (Omaali et al, 2021) which indicated that supervision should be focused on teacher support to improve their competencies.

P2 who was a lady also agreed that supervisory method used by a school depends on which strengths and weaknesses of the teachers are being looked for during the exercise. She reported that:

Instructional supervision constantly remind teachers of their daily obligations of teaching to sustain effective curriculum delivery to arrest the ineffective teaching being witnessed in many schools that lead to low learners' outcomes by addressing teacher performance gaps(P2).

. In agreement to this assertion, one principal added that:

Teachers should be observed regularly to ensure that they effectively plan for lessons and use teaching aids alongside relating well with students and ensure strict adherence to the curriculum requirements (P 8).

The responses from the respondents agree that principals' behaviours promote higher performance through practices, such as classroom supervision, directing, setting goals, teamwork, collaboration, continuous monitoring of students' progress and supporting teacher autonomy (Kilango and Tedla, 2022). However, this finding differs with Kenayathulla and Kazi (2020) study in Malaysia which found out that supervisory practices are not correlated with teachers' performance and attitude because teachers view supervision as fault finding mission and many at times it renders them nervous in classroom during lesson delivery.

Interviewees were also asked to express their views on which of the instructional supervisory methods is considered to influence high quality teaching and learning. The information provided shows that interviewees pegged the suitability of a method on school contextual factors. For instance, one principal responded that:

The success of any supervisory method in influencing teaching and learners' academic performance depends on other contextual factors as well. These may include total ownership of the exercise by the teachers, principals' content knowledge and skills of how to implement supervision and workload of both the principal and the teachers. However, if implemented well, teacher performance appraisal may improve academic performance among the learners because it cuts across many of the teaching standards expected from any teacher (P9).

On the same question, another principal was of the opinion that supervisory approaches applied had little effect on academic performance in schools by specifically stating that:

Heavy workload interferes with instructional supervision done in schools and are often done to conform to policy demands. Thus they are not helpful to teachers to improve on performance by the teachers themselves but as a way of conformity to policy. In most cases, little or no feedback is provided and if availed to the teachers, little effort is made to fill in the gaps identified. Seemingly, most teachers do not have intrinsic motivation towards improving their performance and performance of learners (P7).

Majority of the interviewees were of the opinion that supervision method depended on expertise and school need as well as the aim of executing the supervision programme. However, the quantitative findings established that supervision methods used in schools were influenced by T.P.A.D policy. Accordingly, Owiye et al. (2020), found that T.P.A.D policy influences implementation of T.P.A.D in secondary schools in Bungoma County.

While responding to the third research question; how successful were supervisory approaches used in influencing learners' academic performance in K.C.S.E.? One Principal indicated that:

Teacher appraisal would stand out to influence quality teaching and learning in schools so long as the school leadership and the teachers adhere to ethical practices while implementing such exercise. This is of necessity because, first it cuts across many aspects of teaching and teacher professionalism yet when it comes to keying in data about teachers' performance, the information provided do not provide the true pictures as they are on the ground(P10).

The responses from the Principals, were in agreement that instructional supervisory practices do not significantly influence learners' academic performance in K.C.S.E. which was consistent with the quantitative findings of this study. This finding concurs with the finding of Dinsa et al., (2021) study in Ethiopia which concluded that despite applying several approaches, no changes were observed in academic standards in secondary schools with 86.3% of them falling below the expected academic standard.

Quantitative and qualitative results triangulation matrix

The results of integration at interpretation stage are presented in table 8 in form of a matrix.

Table 8: Quantitative and Qualitative results integration matrix

No	Objective and Hypotheses	Quantitative results	Qualitative results	Inferences
1	To examine the influence of principals' instructional supervisory practices on learners' academic performance in K.C.S.E. in Kisii County. H_o1 Principals' instructional supervisory practices do not influence learners' academic performance in K.C.S.E. in Kisii County.	- There was a weak positive but insignificant influence on academic performance in K.C.S.E ($r =.025$, $N =412$, $p>.05$). Therefore the null hypothesis was upheld. It concurs with the findings of Dinsa et al., (2021) but contrary to the Kilango and Tedla (2022) study which found out that supervisory practices influence academic achievement.	Heavy workload and lack of focus interferes with instructional supervision done in schools and are often done to conform to policy demands. Thus they are not helpful to teachers to improve on performance by the teachers themselves but as a way of conformity to policy (P1, P7).	Both quantitative and qualitative findings support the assertion by Bluestein and Goldschmidt, (2021) that Principal's influences on learner's academic achievement depends also on other school contextual factors and teacher attitude and collective efficacy.

Source: Researcher, (2023).

According to table 8, inferential statistics analysed in the quantitative phase of this study using Pearson's correlation coefficient method and linear regression analysis showed that instructional supervisory practices was not a significant predictor of learners' academic performance in K.C.S.E. This quantitative finding was consistent with the qualitative finding obtained in phase two of this study in which Principals who were interviewed affirmed the fact that instructional supervisory practices did not contribute to learners' academic performance in K.C.S.E. in Kisii County.

CONCLUSION

The insignificant influence principals' instructional supervisory practices on learners' academic performance in K.C.S.E suggests that instructional supervisory practices may influence learners' academic performance in K.C.S.E. if it embraces feedback to teachers and capacity building of the Principals on instructional supervision.

RECOMMENDATION

Firstly, principals should ensure that instructional supervisory programmes are strategically done by building a collective teacher efficacy, promoting collaborative culture and discipline alongside monitoring student learning for school improvement. Finally, initiatives geared towards supporting effective supervision of instruction in schools must build leadership knowledge, skills and attitudes with a view to develop them as critical ingredients in turning around schools to be effective in terms of teaching and learning. Similarly, the empirical results reported herein should be considered in light of the following limitation: The first, the research process was affected by time constrains because permission that was granted to the researcher by the employer was short and this forced for arrangements to be made with respondents to be contacted even during the week ends. Secondly, self-reported data from the respondents might have been affected by attribution occurrences, this phenomenon was addressed by cross checking the information between different sources. This study suggests that future studies should be accorded long periods of time and varieties of research instruments.

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