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Original Article

The Effect of Principals' Reward System on Learners' Academic Performance in Kenya Certificate of Secondary Education

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Abstract: Rewarding productive teachers signifies recognition by school leadership. This study aimed to determine the influence of principals' reward systems on learners' academic performance in K.C.S.E., grounded on Karl Ludwig von Bertalanffy's General Systems Theory. An explanatory sequential mixed-method design was employed, prioritizing quantitative data in phase one, followed by qualitative data in phase two. The target population included 4,691 participants: 340 principals, 1,360 Heads of Departments (H.O.Ds), and 2,991 teachers, with a sample of 451 respondents. Proportionate stratified random sampling selected 85 schools, 114 H.O.Ds, and 252 teachers, while census sampling chose national and special schools, and 85 principals were purposefully sampled. Data were collected using questionnaires and interview guides. Validity (content, criterion, construct, face) was ensured through expert evaluation, and reliability was confirmed with a Cronbach's alpha coefficient over 0.7. Quantitative data were analyzed using SPSS Version 29, and qualitative data were analyzed thematically, presented with direct quotes and integrated with phase one findings. Descriptive statistics were shown in tables and graphs, and inferential statistics were presented as Pearson's correlation coefficients, ANOVA, and regression coefficients. The study found a weak positive insignificant influence between the reward system and learners' academic performance ($r=0.021$, $p \leq 0.05$; 2-tailed), supporting the null hypothesis. Principals' interviews indicated financial constraints and unclear promotion policies demoralize teachers. The study's findings aim to guide corrective measures for low academic performance in the study area and recommend further research on the impact of principals' leadership skills on K.C.S.E. performance.

Keywords: Principals' leadership practices; Reward system; Academic performance; K.C.S.E; Kenya.

1. Introduction

In order to improve on academic performance in schools, Mendel (2012) suggests a five dimensions leadership practices model. These are: shaping and communicating school vision; creating a positive and hospitable environment; cultivating leadership in others; improving instruction; and managing people. Hallinger and Murphy (2012) Leadership for Learning model illustrates that school leadership through various school conditions has indirect and mediated

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influence on students' learning outcomes. Effective principals create an academic capacity by inculcating of high expectations for the school to identify with those who work for improving the quality of teaching and students' academic achievement (Greatbatch and Tate, 2018). The key role of the principals is to provide direction, resources and support to teachers and students to enhance high quality teaching and learning outcomes (Stosich and Bristol, 2018). Therefore, leadership practices should focus on individual components of the instructional programs and other elements in the school that may influence classroom instruction and how such programs may also influence other factors in the school (Wallace Foundation, 2013) to result in the intended learning outcomes. In U.S.A. Mintrop and Ordenes (2017) investigated why implementation of extrinsic incentives and organizational goal setting could not meet the intended outcomes as envisaged by the designers. The results of the study revealed that, the implementation of test-based accountability measure and introduction of pay-for-performance scheme did not have a significant contribution on improved learning outcomes.

On the contrary, teachers were more influenced to serve the disadvantaged students due to their self-determination and self-identity and pro-social commitment to teach those who might not have gotten an opportunity to learn if at all they were not exposed to the teachers. Similarly, the study of Berry et al., (2019) in a low educational achievement and inadequate teaching and learning context of Malawi that investigated the impact of two incentives schemes: a Standard Scholarship Program that provide scholarships for students whose test scores were within the top 15 per cent of the baseline and a Relative Scholarship Scheme that provided scholarships for top students within smaller groups with smaller baseline scores. The study revealed that standardized scholarship significantly decreased test scores compared to control group with the largest decrease realized among those students who least expected to win scholarship. The decreases in test scores correspond with decreases in motivation among the least expecting to win scholarship. In Kenya, the Teachers' Service Commission have put in place policies for rewarding teachers so that they get motivated to improve on academic performance (Republic of Kenya, 2015). The academic performance in K.C.S.E. 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	4.313
Mean grade	D	D+	D+	D +	D+	D+

Source: Adopted from Kenya National Examination Council (2023)

Table 1 indicates that nationally, there was fluctuating candidates' performances during 2018 to 2022 with the national average K.C.S.E performance within the five-year period standing at 4.313 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						
	2018	2019	2020	2021	2022	Average	Mean Grade
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 score and has the lowest average mean of 4.072 (D+) and far much lower than the national average of 4.313 (D+). It may also suggest that many the candidates obtained grades D+ and below, which almost disqualifies them from pursuing any professional course (Republic of Kenya, 2018). 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 (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' leadership 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. The purpose of this study was to investigate the influence of principals' rewarding system on learners' academic performance in Kenya Certificate of Secondary Education (K.C.S.E.) in public schools in Kisii County.

2. Literature Review

2.1. Financial Incentives and Learners' Academic Performance in K.C.S.E.

Schwab and Somerville (2022) study in the U.K which investigated the influence of monetary incentives on academic performance on online learning programmes whose results suggest that monetary incentives can drive cognitive effort and subsequent learning in an online learning context, but only when participants can directly compare the incentivized context against a context with no external incentive. The reviewed study based in developed countries which have higher social economic landscape whose aspects may contribute to influence performance compared to Kenya which is a developing country. Therefore, its findings may not be universally applied. Besides, it was an experimental study that targeted online learning. In a developing country context, in the Philippines, Comighud and Alvero (2020) study on the influence of motivation on teachers' performance revealed that teachers perceived their level of motivation to be very high in terms of existence needs, relatedness needs and growth needs. It further found that level of teachers' job performance was satisfactory with no significant difference in the level of motivation with respect to age, gender and length of service. However, the relationship between the level of teachers' motivation and teachers' job performance was found to be insignificant implying that the level of teacher's motivation has no influence on their job performance. The reviewed study dwelt on generally on relationship of motivation teachers' job performance, yet the current study pegged on influence of rewards on academic performance in K.C.S.E.

On the other hand, Assibi (2019) study in Ghana examined the relationship between teacher motivation and school performance. It used descriptive survey and structured questionnaires to collect the data. With a sample size of 113 teachers who were selected through census sampling technique, the study revealed that compensation packages had a high relationship with school performance with (M=3.84, SD=1.77). The correlational analysis between compensation packages and school performance yielded r=0.309 which was found to be significant at p=0.000<0.01 indicating a weak significant positive relationship between compensation packages and school examination performance. The reviewed study was in selected three schools thus the scope of the study was rather very small thus limiting the use of its results in a larger population. The current study had a larger sample size of schools and participants who included all categories of schools, Principals, HoDs and teachers to allow for arriving at in- depth perspectives from various sources to enhance the quality of the study findings. In Kenya, Ogola (2017) study explored the influence of teachers' monetary incentives on students' academic performance in Migori County. The results of the study indicated that monetary incentives accounted for increase in teachers' job performance as measured by students' performance in K.C.S.E. The mentioned study did not show the magnitude in terms of the strength of the contribution of monetary incentives on academic performance because it simply reported that there was an improvement in students' performance without a mention of direction and quality of the improvement. The current study filled in the gap by involving inferential statistical analysis to find out how monetary incentives contributes to learners' academic performance in secondary schools in Kenya.

2.2. Promotion of Teachers and Learners' Academic Performance in K.C.S.E.

Amir et al., (2019) study in Pakistan investigated the impact of pay and promotion on teachers' job satisfaction. It sampled 350 participants and used questionnaires to collect the data for the study. It used quantitative approach to arrive at the results of the study. The study revealed that pay and promotion do not have significant effect on teachers' job satisfaction. The mentioned study was done in various categories of educational institutions and studied the impact of pay and performance on teachers' job satisfaction making it not to be specific in scope in terms of the topic of study and area where the study was conducted thereby rendering the results to have been influenced by contextual factors other than pay and promotion which were the predictor variables. The current study used both quantitative and qualitative methods to determine the influence of reward system on learners' academic performance in secondary schools in Kenya. Arogundade (2019) studied the influence of promotion on teachers' job satisfaction in Nigeria. The

study employed descriptive survey research design. The study had a sample size of 800 respondents and questionnaires to collect the data. The study discovered that there was a statistically significant positive relationship between promotion of teachers and teachers' job satisfaction since the r-stat = 0.433 was greater than the r-table = 0.349 at 0.05 level of significance. The reviewed study examined the impact of promotion on teachers' job satisfaction while the current study explored the influence of reward system on learners' performance in K.C.S.E.

Similarly, Imasuen (2020) study on the influence of teachers' motivation on academic performance identified that teacher promotion contributes to academic performance. In Kenya, the study of Mugweru (2013) investigated how Teachers' Service Commission (T.S.C.) implements its promotion policies in secondary schools. The results of the study revealed that 74.1%, 48.1% and 29.1% of teachers had previously been promoted to job group M from county, sub-county boarding and sub-county day schools respectively. This suggests that the type of school influenced ones' promotion. The reviewed study sampled the principals, teachers and policy enforcement officers but used only questionnaires to collect data which was analysed using frequency counts and percentages. The current study used other descriptive and inferential statistics such as means and standards deviation and analysis of variance respectively to fill the gap. However, the study of Oguta (2021) on the influence of teacher motivation methods on students' academic performance in Migori County discovered that promotion on merit did not impact on academic performance.

2.3. 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' reward system can influence learners' academic performance in K.C.S.E. in Kisii County.

3. Materials and Methods

3.1. Design of the Study

This study applied Mixed Method Research design of explanatory sequential approach which involved prioritising quantitative phase over qualitative phase with data integration (Creswell and Creswell, 2018). 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. 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). Secondly, integration was done at the interpretation and reporting level using narratives and joint displays (Guetterman et al., 2015).

3.2. 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.

3.3. Data Collection and 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).

3.4. Validity and Reliability Instruments

To ensure content, construct, criterion and face validities of instruments of this study, (Taherhoost, 2016), through expert validation (Taherhoost, 2016; Sangoseni et al., 2012; Olson, 2010). While reliability was done using Cronbach's Coefficient Alpha for the questionnaires, and it averaged at 0.781.

3.5. Data Collection Procedure

The researcher obtained introductory letter from the Board of Postgraduate Studies (BPS) of Jaramogi Oginga Odinga University of Science and Technology (JOOUST) to allow him get permit and licence from the National Commission for Science, Technology and Innovation (NACOSTI) and authority letter from JOOUST Ethics Review Committee (E.R.C.). 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.

4. Results

4.1. Descriptive Statistic Analysis

This study aimed at exploring the influence of Principals' reward system on learners' academic performance in K.C.S.E. in Kisii County. The respondents were first asked to indicate whether teachers and learners get rewarded in the schools they teach. Their responses are shown in Table 3.

Table 3. Whether teachers and learners get rewarded.

Response	Teachers' cadres							
	Principal		HOD		Teacher		Total	
	Freq (n)	(%)	Freq(n)	(%)	Freq (n)	(%)	Freq (n)	(%)
Yes	73	17.63	83	20.05	187	45.17	343	82.85
No	9	2.17	25	6.04	37	8.94	71	17.15
Total	82	19.81	108	26.09	224	54.11	414	100.00

Table 3 indicates that 343(82.85%) of the respondents noted that teachers and learners get rewarded after showing good performance while 71(17.15%) responded to the contrary. This finding strongly supports early research findings which reveal that motivation of teacher and learners helps in promoting academic performance (Gyansah, 2020). This suggests that the presence of a motivated workforce and learners would be ready to work hard to produce good results in K.C.S.E. (Wagner et al., 2018). Results from the interviews confirmed that there are several reward systems put place in schools depending on their financial ability. One principal said:

> *My school has established performance-based reward system where teachers and learners who do well are rewarded for example with cash or internal promotions in the case of teachers (P7).*

Other principals responded that:

> *The school has team-based reward system whereby teachers in a department are rewarded whenever a subject has posted good results. On the other hand, learners are rewarded as a class when it has done well. Though, individual learners also may get rewarded depending on the funds available (P5).*

Descriptive statistics on the responses about principals' reward system are shown in Table 4.

Table 4. Descriptive statistics on the responses about principals' reward system

Item(s)	Mean	Std. Deviation
Encourage teachers to respond to career growth opportunities to motivate them to add effort at work	4.32	0.856
Use internal leadership structures to promote teachers who excel in various academic disciplines	4.13	0.942
Recognize teachers and learners with superior work performance in school meetings to show that they are valued.	4.13	0.947

Coordinate promotion of teachers to make the school instructional teams work hard.	4.02	0.990
Q5...Expose teachers on professional trips to build their job satisfaction and morale.	3.71	1.254
Ensure that individual interests are considered while teachers and learners are rewarded to enhance cohesion in the school	3.95	1.052
Consider group effort while rewarding teachers to entrench collective responsibility in realizing school instructional goals	4.02	1.015
Use financial rewards to promote job satisfaction and improved learners' academic performance	3.82	1.158
Valid N (listwise)	4.013	0.886

Table 4 indicates that the influence of principals' reward system of teachers and learners on learners' academic performance in K.C.S.E. is high (M=4.013; SD=.886). The respondents concurred that Principals encourage teachers to respond to career growth opportunities to motivate them to add effort at work (M=4.32 SD=0.856), Use internal leadership structures to promote teachers who excel in various academic disciplines (M=4.13 SD=0.942), Recognize teachers and learners with superior work performance in school meetings to show that they are valued (M= 4.13 SD= 0.947), Coordinate promotion of teachers to make the school instructional teams work hard (M=4.02 SD= 0.990), Expose teachers on professional trips to build their job satisfaction and morale (M=3.71 SD= 1.254), Ensure that individual interests are considered while teachers and learners are rewarded to enhance cohesion in the school (M= 3.96 SD =1.052), Consider group effort while rewarding teachers to entrench collective responsibility in realizing school instructional goals (M= 4.02 SD = 1.015) and Use financial rewards to promote job satisfaction and improved learners' academic performance (M=3.82 SD= 1.158). The indication that the influence of the principals' reward system of teachers and learners on learners' academic performance in K.C.S.E. is high at a mean of (M=4.013; SD=.886) made it necessary to engage the principals in interviews. Their responses included:

These findings agree with the findings of Leone (2020) which indicated that the incentive packages for the teachers improve on students' academic performance. The results suggest that respondents are satisfied that motivation programmes in the study area help in improving academic performance. During the interviews, the principals expressed why they have put motivation in the schools' strategic plans. One of the respondents said that;

> *Schools need to motivate the teachers and learners and get results from them. To realize this, a school has to solicit for financial support from the parents and other stakeholders (P1).*

4.2. Result of Correlation

Pearson's Product Moment Correlation test was run to establish the influence of principals' reward system of teachers and learners 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 5.

Table 5. Result of Correlation between principals' reward system on Learners' Academic Performance in K.C.S.E.

		Reward system	Learners' Academic Performance
Reward system	Pearson Correlation	1	-0.021
	Sig. (2-tailed)		0.675
Learners' Academic Performance	Pearson Correlation	-0.021	1
	Sig. (2-tailed)	0.675	

According to Table 5, there is a weak negative insignificant relationship between principals' reward system and learners' academic performance in K.C.S.E (-.021, p>0.05; 2-tailed). These results concur with the findings of Oguta (2021) study in Kenya and Comighud and Arevalo (2020) study in the Philippine which found out that the relationship between teachers' motivation and job performance was insignificant. However, it is contrary to the findings of Schwah and Somerville (2022) which found out that rewarding students improves academic performance. The findings imply that the principals should connect reward system of teachers and learners to improvement in academic performance by ensuring that all rewards are performance based and consider individual needs of the recipients to result in improvement of academic performance. When asked to shed light on why there is low academic performance despite reward systems being in place, one of the principals responded by saying:

> *School face financial constrains when implementing motivation programmes, thus are unable to fulfill individual needs of every teacher. This leaves some of them dissatisfied with such exercise (P5).*

Another principal respondent indicated the stagnation on one job group as being discouraging to teachers. He said that:

The absence of clear promotion from the T.S.C. usually discourages teachers to work, even though at school level, a teacher maybe identified to a head of a department for example guidance and counselling but such arrangement do not attract cash payment to the teacher (P13).

4.3. Hypothesis Testing

The study aimed at determining the influence of principals' reward system of teachers and learners on learners' academic performance in K.C.S.E in Kisii County. Based on this objective, the following hypothesis was tested. A simple linear regression model developed by the researcher was used to find out the influence of principals' reward system of teachers and learners on learners' academic performance in K.C.S.E. which are the predictor and outcome variables respectively. The linear regression model is expressed as: $\mathbf{Y = \beta_0+\beta_1X_1+\epsilon}$

Where, Y = Learners' academic performance in K.C.S.E., β_0 = Constant, B_1 = Beta coefficient, X_1 = Principals reward system of productive teachers, ϵ = Standard error.

The effect of principals' reward system of teachers and learners on learners' performance in K.C.S.E was also analysed. Table 6 presents the coefficients and model summary.

Table 6. Result of Hypothesis Testing

	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**	
	B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
(Constant)	7.681	6.588		1.166	0.244	-5.269	20.631
Principals' reward system	-0.677	1.613	-0.021	-0.42	0.675	-3.848	2.494
R	0.021a				Sum of Squares		112.11
R Square	0.000				df		1
Adjusted R Square	-0.002				Mean Square		112.11
Std. Error of the Estimate	0.77048				F		0.176
					Sig.		0.675b

Dependent variable: Learners' academic performance

From Table 6, it can be observed that reward system had a weak positive insignificant influence on academic performance in K.C.S.E. (r =.021, N =412, p>.05). Therefore, the null hypothesis that principals' reward system does not influence learners' academic performance in K.C.S.E was upheld and the alternative hypothesis was rejected. The finding of this study concurs with Berry, et al., (2019) study in Malawi which revealed that reward system based on standardized scholarship programme decreased performance especially among the learners who felt they have little chances of winning scholarship. On the other hand, Ukandu (2022) study in the U.S.A found out that rewarding performance increases employee's work performance. The study results suggest that teachers and learners are unsatisfied with rewards they receive from the schools for dissatisfaction with a reward system has been reported by research to lower performance (Wagner et al., 2018). Furthermore, the results suggest that instructional reward system parameters have not embraced and connected to learners' K.C.S.E. scores (Comighud and Arevalo 2020). Therefore, other factors that were not subject of this study might have been contributing to academic performance in the study locale given that learning achievement is a function of many factors including Principals' leadership style and school context (Grissom et al., 2021). When asked on the influence of reward system on academic performance in K.C.S.E., during the qualitative phase of this study, one of the respondents said that:

Lack of school's ability to motivate teachers has they would wish on many occasions make them feel their efforts are not recognized and the little they receive do not contribute so much to motivating them to result in improvement on learning outcomes in K.C.S.E.(P13).

The study also investigated whether reward systems of teachers and learners predict learners' academic performance in K.C.S.E. Also, the principals' reward system of teachers and learners was not a significant predictor of learners' academic performance in K.C.S.E. [F (1, 412) = .176, p>0.05]. The findings of this study agree with the studies of Mintrop and Ordenes (2017) and Comighud and Arevalo, (2020) which indicate that motivational programmes do not have a significant contribution on learning outcomes. Contrastingly, other studies have confirmed that rewarding employees increases their job performance (Rukumba, 2022). The results of this study suggest that there are other factors that might strongly influence academic performance in the study area but not reward system (Berry et al., 2019). During the interviews, the respondents were asked whether they consider reward system to be a major factor on academic performance. One of the respondents said that:

> *Reward systems alone in schools may not be impactful because not all schools have adequate finance to support motivation programmes. Above all, it depends on teachers' attitude towards their schools and work in general. For those who do not to produce good results, rewarding them may still not be effective (P4).*

The study also investigated the contribution of reward system of teachers and learners on learners' academic performance in K.C.S.E. In addition, the reward system which is Y = 7.681+ -0.677X1, means that for every one unit increase in reward system of teachers and learners, there was a decrease in academic performance in K.C.S.E. by -0.677 units. The findings of this study are in concurrence with Oguta (2021) study which asserts that reward system does not impact on students' academic performance in Migori County whereas the studies of Sadoff et al., (2021) in England found out that rewarding performance impacts positively on future performance. Thus, it indicates that reward system should strategically be applied to depict the principals' caring ability of the teachers and learners to result in a positive change in academic performance in K.C.S.E (Grissom et al., 2021). During the interviews, the respondents indicated that:

> *Avenues of rewarding teachers and learners in the schools are few thus in terms of contribution to learning outcomes, their role may not be very significant as there are factors such as teachers' attitude, over enrolment and inadequate teaching and learning resources that negatively affect instructions (P10).*

4.4. Qualitative Findings

The objective of this study was to establish the influence of Principals' reward system of teachers and learners on learners' academic performance. This objective had two research questions. The first research question was which was the principals' reward system while the second research question was how teachers and learners benefit from such rewards. On the question of Principals' reward system, respondents indicated that teachers and learners are rewarded as per their production and their academic achievement respectively depending on availability of funds and vacancies in the school. One Principal noted that:

> *The type of reward system in my school for the teachers includes financial rewards, appointment in positions of responsibility such as Head of Subject, Director of Studies, academic tours while the learners could be given financial and material rewards such as hard cash and personal effects. All these are pegged on dedication and performance of the individual (P12).*

Similar observation was noted from other principals who responded that:

> *Rewarding teachers and learners are always put in place to motivate them to work hard to attract better performance from everybody in the school. Therefore, in my school the type of reward given depends on the level of production. For a subject teacher who has excelled can be recommended to be a HoD (P2).*

The input from the respondents supports the assertions of Arwa et al. (2019) which indicated that rewards systems adopted in an organization positively and significantly influence the performance employees. However, it contrasts with the findings of Comighud and Arevalo (2020) who found out that motivation of teachers was insignificant to their job performance. On how teachers and learners benefit from such rewards, the respondents were of the view that the recipients of the rewards realize that their efforts are recognized and appreciated by the leadership of the school and that they are valued by the institutional players. One of the respondents said:

> *Teachers really feel motivated when they realize that whatever they do for the benefit of the learners and the school is recognized. This means they are valued. The rewards build the spirit of competition among the teachers and learners which results to improvement of result (P15).*

However, majority of the respondents noted that inadequate support from the stakeholders results in lack of adequate funds to reward teachers and learners in most schools and coupled with isolated cases of promotion by the T.S.C, many teachers feel that the terms and conditions of employment do not support them to work. The respondents therefore mentioned that these have contributed to teachers being demoralized to extent that academic performance is lowered. One respondent said:

> *Lack of stakeholder support to finance rewards' programmes and few changes of promotion of hard-working teachers have resulted to loss of hope among them to work hard. The learners are thus left to struggle on their own. Such occurrence results to poor academic results in many schools (P5).*

The sentiments expressed by interviewees suggests that while they acknowledge that they have a variety of rewards to use and the significance of reward system on learning achievement, other circumstances beyond their control such as lack of stakeholder support impact negatively on their motivation resulting to poor academic performance in K.C.S.E. These findings confirm the quantitative findings that reward system put in place in schools do not contribute to academic performance. The responses made by interviewees suggest that lack of a clear and strong

reward system in schools and from the T.S.C. lowers academic performance as had been reported by the study of Ogolla (2017). The quantitative phase of this investigation, employing inferential statistics, revealed no significant association between principals' reward systems and learners' academic performance in K.C.S.E. Furthermore, linear regression analysis demonstrated that rewarding teachers and learners did not significantly predict learning outcomes. Qualitative findings corroborated these results, with interviewees reporting a lack of well-defined reward system support from stakeholders for teachers and learners that could substantially contribute to academic performance. Additionally, respondents perceived that the internal delegation of responsibilities within schools lacked financial incentives for teachers, potentially diminishing motivation to enhance academic results.

5. Conclusions

This study aimed to investigate the impact of principals' reward systems for teachers and learners on academic performance in K.C.S.E. The quantitative analysis revealed a weak negative and insignificant relationship between reward systems and learners' academic performance in K.C.S.E (-0.021, $p>0.05$; 2-tailed), as well as a weak positive and insignificant influence on academic performance in K.C.S.E. ($r =0.021$, $N =412$, $p>0.05$). Furthermore, the research found that principals' reward systems for teachers and learners were not significant predictors of learners' academic performance in the K.C.S.E. [$F (1, 412) = 0.176$, $p>0.05$]. The regression equation ($Y = 7.681+ -0.677X1$) indicated that for every unit increase in the reward system for teachers and learners, there was a corresponding decrease of 0.677 units in academic performance in K.C.S.E. These quantitative findings were corroborated by qualitative data that highlighted the inadequacy of resources and opportunities for rewarding teachers and learners. Consequently, despite the good performance of some teachers and learners, they often remain unrewarded, leading to demotivation. Both quantitative and qualitative results suggested that, while the reward system for teachers and learners was associated with learners' academic performance in K.C.S.E., it could not significantly predict academic outcomes. The lack of a significant relationship between principals' reward systems and learners' academic performance in K.C.S.E. may be attributed to the limited financial resources in schools and inadequate stakeholder support for teacher and learner reward programs. These constraints likely resulted in the sparse implementation of reward systems, ultimately demoralizing teachers and learners.

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References

Amir, S., Jared, T., Nauman, M. M., and Iqra, T. (2019). Does a human resource effect of Job satisfaction of teachers? A case study of education institutions in Punjab, Pakistan. *International Journal of Contemporary Education, 2*(2), 122-129. Doi: 10.1114/ ijce.v 2i2.4515.

Arogundade, B. B. (2019). Staff development and promotion as correlates of teachers' job satisfaction in secondary schools in Ekiti State, Nigeria. *Contemporary Research in Education and English Language Teaching, 1,* 41-44. ISSN2641-0230.

Arwa, M. R., Nyakundi, W. A., and Abuga, V. M. (2019). Effects of reward systems on performance of health organizations in Kenya: A case of Aga Khan Hospital- Kisumu. *International Journal of Social Science and Information Technology, 5*(5), 130-146.

Assibi, J. K. (2019). *Teacher motivation and school performance: Evaluation from three selected senior high schools in Prampram district, Ghana*. Unpublished M.Ed. Thesis, University of Cape Town.

Berry, J., Kim, H. B., and Son, H. (2019). When students' incentives don't work: Evidence from a field experiment in Malawi. *JEL Classification:* 121:015

Cohen, L., Manion, L., and Morrison, K. (2011). *Research methods in education.* (7th ed.). New York, NY: Routledge.

Comighud, S. M. T., and Arevalo, J. M. (2020). Motivation in relation to teachers' performance. *Journal of Scientific and Research Publication. 10*(4), 641-653.

Creswell, J. W., and Creswell, J. D. (2018). *Research design: qualitative, quantitative and mixed methods approaches* (5thed.). Thousand Oaks, CA Sage Publications.

Greatbatch, D., and Tate, S. (2018). *Evidence on school leadership in an international context.* Government Social Research, Department of Education, U.K. ISBN: 978-1-78105-903-6

Grissom, J. A., Anna J. E., and Constance A. L. (2021*). How Principals Affect Students and Schools: A Systematic Synthesis of Two Decades of Research*. New York: The Wallace Foundation. http://www.wallacefoundation.org/principalsynthesis.

Guetterman, T. C., Fetters, M. D., and Creswell, J. W. (2015). Integrating quantitative and qualitative results in health science mixed methods research through joint displays. *Annals of Family Medicine,* 13, 554-561.

Gyansah, S. M. (2020). *Effect of school heads transformational leadership practices on students' academic achievement in Senior high schools in Kumasi Metropolitan*, Ghana. Unpublished PhD Thesis, Kenyatta University.

Hallinger, P., and Murphy, J. (2012). Running on empty? Finding the time and capacity to lead learning: Asia Pacific Centre for Leadership and Change (APCLC) Monograph Series, Number 5, Tai Po, N.T, Hong Kong.

Hanushek, E. A. (2011). The economic value of higher teacher quality: Economics of Education Review, doi:10.1016/j.econedurev.2010.12.006

Leone, T. (2020). Does productivity bonus pay off? The effects of teacher incentive pay on students' achievement in Brazilian schools, 1-29.

Mendel, P. (2012). The effective principal: Five pivotal practices that shape instructional leadership. *Journal of Staff Development, 33*(1), 54-58.

Michelmore, K., and Dynarski, S. (2016). *The gap within the gap: Using longitudinal data to understand income differences in student achievement,* NBER Working Paper No.22474.

Mintrop, R., and Ordenes, M. (2017). Teachers' work motivation in the era of extrinsic incentives: Performance goals and pro-social commitments in the service of equity. *Educational Policy Analysis Archives, 25*(44), http://dx.doi.org/ 10.14507/epaa. 25.2482

Mugenda, O., and Mugenda, A. (2008). *Research methods: Quantitative and Qualitative Approaches.* Nairobi, African centre for technology studies (Acts) Press.

Mugweru, W. (2013). Promotion of secondary school teachers by gender, experience, school type: A case in Kenya. *Middle Eastern and African Journal of Educational Research, Issue No. 6*, 24-43.

Murphy, J., Elliot, S., Goldring, E., Porter, A., (2007). Leadership for learning: A research-based model taxonomy of behaviours. *School leadership and Management, 27*(2), 179-201.

Ogola, C. A. (2017*). Influence of school Board of Management strategies on students' performance at K.C.S.E. in Suna West, Migori County*, M. Ed., Research Project, University of Nairobi.

Oguta, P. A. (2021). Teacher motivation methods and their impact on students' academic performance. *International Journal of Novel Research in Education and Learning, 8*(5), 1-7.

Olson, K. (2010). An examination of questionnaire evaluation by experts. *Field methods, 22*(4), 503-529.

Republic of Kenya (2015). *Teachers Service Commission Code of Regulation for teachers*, Nairobi, Kenya.

Republic of Kenya (2019). *National Education Sector Strategic Plan 2018-2022:* Kenya Vision 2030, Nairobi.

Republic of Kenya (2018). *Teachers Service Commission Career Progression Guideline*, Nairobi, Kenya.

Roth, S. (2019). The open theory and its enemy: Implicit moralization as epistemological obstacles for general systems theory. *Systems Research and Behavioural Science, 2019*(3), 1-8. Doi.10. 1002/sres.2590.

Rukumba, S. (2022). Effect of reward system on telecommunication industry performance in Kenya. *Journal of Human Resource and Leadership, 2*(2), 19-26.

Sadoff, S., Metcalfe, R., and Bugess, S. (2021). Understanding the response to financial and non-financial incentives in education: Field experiment evidence using high –stakes assessments. *Journal Homepage*, 1-15

Sangoseni, O., Hellman, M., and Hill, C. (2012). Development and validation of a questionnaire to assess the effect of online learning on behaviours, attitudes and clinical practices of physical therapists in United States regarding evidence based practice. *Journal of Allied Health Science Practice,* 11, 1-12.

Schwab, J., and Somerville, L. H. (2022), Raising stakes for online learning: Monetary incentives increase performance in a computer-based leaning task under certain conditions. *Frontiers in Psychology, 13*(780301), 1-12.

Stosich, E. L., and Bristol, T. J. (2018). Advancing a New Focus on Teaching Quality: A Critical Synthesis. Stanford, CA: Stanford Centre for Opportunity Policy in Education.

Taherdoost, H. (2016). Validity and reliability of the research instruments. How to test the validation of a questionnaire or survey in a research. *International Journal of Academic Research in Management, 5*(3), 28-36.

Ukandu, V.O. (2022). *Employee experiences of reward systems and work performance in undesirable locations.* Unpublished PhD dissertation, Walden University

Wagner, V., Schildberg-Horisch, H. (2018). *Monetary and non-monetary incentives for educational attainment: Design and effectiveness. Gutenberg school of Management and Economic and Research Unit.* Interdisciplinary Public Policy. Discussion Paper Series No.1821.