

Linking School-Based Tangible Non-Monetary Incentives For Teachers With Students' Academic Performance In Public Secondary Schools In Kisumu West Sub-County, Kenya

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Abstract: Over-time, tangible non-monetary incentives have been used in teacher motivation in internal school settings with the aim of improved students' academic performance. In this regard, Kenya Certificate of Secondary Education varies from school to school despite generally similar teacher training background giving rise to corresponding scale-wise pay packages. Kisumu West sub-county continuously trails the neighbouring Kisumu Central and Kisumu East and Kisumu North with an average mean of more than 1.0 over the period 2013 to 2015. In addition in 2015 for instance, the best two schools in Kisumu West Sub County had mean scores of 10.94 and 8.99 respectively while the last two had 2.55 and 3.10 respectively. This disparity raises concerns among the education stakeholders in the Sub- County. Motivation theorists believe that performance is a results from some reward-induced effort. The purpose of this study was therefore to establish school-based tangible non-monetary incentives for teachers' influence on students' academic performance in public secondary schools in Kisumu West Sub County. Holistic Operation Model (Abagi and Odipo, 1997) guided the study. The study adopted descriptive survey and correlational research design. The target population consisted of 30 public secondary schools with 354 teachers and 30 Principals. Through Yamane's formula, 187 teachers, 27 Principals, and 4 CSOs were selected as the study sample. Questionnaire was used to collect data from teachers and principals, while interview schedule was used to collect data from CSOs. Qualitative data obtained from interviews and document analysis was analyzed through thematic analysis and grouped into thematic areas. Quantitative data from questionnaire was analyzed by correlation. The study found that tangible non-monetary incentives, according to teachers at ($M=2.18$; $SD=0.90$) and principals at ($M=2.39$; $SD=0.94$) are moderate. However, tangible non-monetary incentives have an insignificant influence at $r=.805$ at p -value of 0.5. Therefore, the study concludes that tangible non-monetary incentives motivate teachers to insignificantly influence students' academic performance in public secondary schools. This study may be useful to school managements and administrators in guided investment in teacher motivational activities that influence academic performance.

I. BACKGROUND

Employees tend to view monetary incentives as part of the total remuneration package, thereby not distinguishing it as a separate management motivational effort (Adhiambo, 2013). According to a study done by Wirthlin Worldwide aimed at finding out how employees spent their recent

monetary incentive found that 29% of the employees used the money to settle bills, while 11% used the incentive to purchase household goods. This is an indication that monetary incentives have limited impact on the employees as it is spent on daily necessities and derivation of money is easily forgotten thus losing the effectiveness as a motivator (Glewwean, Moulin, Zitzwid, & Kremerb, 2004), 2008; Yego,

2013). Tangible non-monetary incentives go beyond this.

In India, Gunawan and Febrianto (2014) sought to establish the impact of monetary and non-monetary incentives on employees' motivation in Pt XYZ' finance function in Surabaya by distributing questionnaires to 102 employees. The sampling method used was simple random sampling. The data were analyzed using Multiple Linear Regression Analysis. The results show that monetary incentives, tangible non-monetary incentives, and intangible non-monetary incentives have significant impact on employees' motivation. When analyzed individually, tangible non-monetary incentives are the only factors having no significant impact on employees' motivation. In addition, the result indicates that intangible non-monetary incentives are the most influential factors affecting employees' motivation in PT XYZ's Finance function. Critical to note from this study is that it focused on employees in a distribution firm, yet little attention has been paid to how tangible non-monetary incentives motivate teachers in secondary schools.

Jalava, Joensen and Pellas (2014) examined the effects of non-financial incentives on test performance among more than a thousand sixth graders in Swedish primary schools. It found significant differences in test scores between the intrinsically motivated control group and three of four extrinsically motivated treatment groups. The only treatment not increasing test performance is criterion-based grading on an A-F scale, which is the typical grading method. However, Jalava, et. al. (2014) focused on a population from primary schools. The need to pay attention to perceived influence of non-monetary incentives on teachers performance in secondary education therefore informed the present study.

Teacher effectiveness is dependent upon the level of motivation derivable from teaching duties (Bratton & Gold, 2007). Although the reward system for teachers is universally provided by the government, the reason why some teachers exert more effort and produce better academic performance may only be attributed to individual school-based incentives. For instance, academic performance of students in Kisumu West Sub County has revealed glaring disparities in the past 5 years.

According to Kenya Secondary Certificate Education (KSCE) examination results for 2013, 2014 and 2015 received by the 30 schools from Kisumu West Sub County, a very wide gap exists between the top public secondary schools and the last schools (Table 1).

School	Entrants	M-score 2015	MG	M-score 2014	M-score 2013
TOP FIVE					
School A	249	10.935	A-	10.970	10.415
School B	152	8.987	B	8.067	8.919
School C	97	7.284	C+	7.377	7.092
School D	184	7.082	C+	6.489	6.592
School E	87	6.872	C+	6.607	6.265
LAST FIVE					
School F	25	3.920	D+	4.305	4.386
School G	27	3.780	D+	3.540	3.640
School H	28	3.286	D	4.039	3.753
School I	10	3.100	D	2.987	NEW
School J	22	2.545	D	2.333	NEW

Source: SCDE's Office Kisumu West

Table 1: Kisumu West KSCE performance of 10 Schools

II. STATEMENT OF THE PROBLEM

Several studies pin-point the teacher as the most valuable input in an educational enterprise. In line with this, admirable academic performance in any secondary school is only achievable through effective teacher involvement focused towards school set goals. However, disparities in academic performance noted among public secondary schools in Kisumu West Sub County in the past five years raise a lot of concern among the stakeholders in education. For instance, the difference in the mean score between the best school and the last school in the 2015 KCSE Examination is 8.390. Kisumu West sub-county continuously lagged behind the neighbouring Kisumu Central and Kisumu East and Kisumu North with an average mean of more than 1.0 over the period 2013 to 2015. The deviation between the means of the top five and the last five schools is 4.906 compared to that of Kisumu Central which are 5.988 and 3.467 respectively and Kisumu East which are 2.685 and 1.657 respectively. This seemed to suggest that the level of motivation of teachers vary between secondary schools in the neighboring sub counties of Kisumu.

Enthusiastic teacher content/lessons delivery and student evaluation relies a lot on the level of teacher motivation. It is in this regard that teacher incentives are applied in organizations to enhance worker motivation for organizational performance improvement. Teachers Service Commission rewards teachers in public secondary schools uniformly according to graduated scales, and no special incentives or rewards are given to teachers who achieve exemplary performance, neither is there penalties met on low KCSE achieving teachers, in their schools. Schools have initiated their own internal measures to reward outstanding performance thereby denying underperformers, negative re-enforcement, certain benefits, as a means of motivating appropriate behaviour. This is given that teachers who have similar training background, hence similar skills rating, but exhibit different performances as has been witnessed from KCSE results each year. This study therefore sought to establish the influence of school based incentives tangible non-monetary incentives for teachers on students' academic performance in public secondary schools in Kisumu West Sub County, Kenya.

III. THEORETICAL ANCHORING OF STUDY

The study was based on Holistic Operation Model espoused by Haddad, and developed by Abagi & Odipo (1997) in efficiency of primary education in Kenya. In this model, efficiency implies that inputs are maximized in an effort to produce optimum results or output, (goods or service). School based non-monetary incentives are the independent variable while students' academic performance is the dependent variable which focuses on outputs in relation with the inputs into the education system, with outputs being looked at through the lenses of academic achievements in examinations (KCSE). Non-monetary incentives include dinners and paid up trips as rewards for performance. The foregoing had similarity with Dawo, Kawasonga and Gogo (2015) whereby school leaders were to harmonize workplace inputs to inspire teachers towards focused approaches to

school organizational objectives, key among them, academic performance that is ordinarily gauged using KCSE outcome.

RESEARCH HYPOTHESES

There is no statistically significant relationship between tangible non-monetary incentives for teachers and performance of students in public secondary schools in Kisumu West Sub County.

IV. FINDINGS

Teachers were subjected to the following statements about student academic performance in their schools. This was because teachers are the single most involved personnel in the academic life of a student in terms of imparting knowledge, supervision of academic activities and student evaluation. They rated academic performance with these statements as shown in Table 2:

Statement	1	2	3	4	5	MN
Students in my school consistently do their homework	11	18	129	22	0	3.07
Student in my school consult teachers in learning subject areas	3	14	146	7	0	2.92
Students continuous assessment indicate improvement effort	21	17	127	5	0	2.62
End year results of students in my school are a reflection of the within year teaching	9	16	133	12	0	2.87
A teacher can be encouraged by the kind of results output after a teaching cycle	15	19	130	6	0	2.64
Peer teaching is effective in our school	45	46	72	7	0	2.12
Individual revision is used effectively for enhanced academic outcomes	01	39	127	3	0	2.78
Overall mean						2.72

KEY: 1= Never; 2= Rarely; 3= Sometimes; 4=Often; 5=Always.

Interpretation: 1.0- 1.50 Poor; 1.51- 2.50 Below Average; 2.51- 3.50, Satisfactory; 3.51-4.50, Good; 4.51-5.0, Very Good.

Table 2:Teacher Responses on Student Academic Performance in Secondary Schools in Kisumu West. (N=170)

Table 2. reveals that students' academic performance from the assessment of teachers was satisfactory at a mean of 2.72. It can be noted that students are scoring least, mean (2.12) with regard to peer teaching which was below average, and highest mean (3.07) with regard to consistency of doing homework which was satisfactory.

A. TANGIBLE NON-MONETARY INCENTIVES AND STUDENTS' ACADEMIC PERFORMANCE

The objective sought to find out how non-monetary incentives to teachers influence students' academic performance. The sampled teachers and principals were presented with statements related to tangible non-monetary incentives and were requested to state the extent they believed such incentives lead to enhancement of students' academic

performance as: 1=Very Low; 2= Low; 3= Moderate; 4=High; 5=Very High. The Mean (M) of the items as well as standard deviation (SD) obtained through descriptive statistics is presented in Table 3.

Tangible Non-monetary Incentives	Frequency and (%)					Mean	SD
	VH	H	M	L	VL		
Offering of dinners in luxurious hotels	0(0)	0(0)	0(0)	39(23)	131(77)	1.23	0.42
Securing special clothes, stationery, beddings, furniture and cutlery to teachers	46(27)	53(31)	36(21)	20(12)	15(9)	3.56	1.25
Offering of tokens, plaques, food material to teachers	0(0)	2(1)	8(5)	63(37)	97(57)	1.50	0.65
Paid up trips and outings away from work stations	39(23)	36(21)	39(23)	27(16)	29(17)	3.17	1.40
Open parties sponsored by the institution	0(0)	0(0)	6(4)	48(28)	116(68)	1.35	0.55
Providing equipment, tools and machinery to outstanding teachers	39(23)	34(20)	39(23)	30(18)	28(16)	3.10	1.38
Offering to meet retraining expenses for teachers	0(0)	0(0)	2(1)	34(20)	134(79)	1.22	0.45
Giving certificates to performing teachers	7(4)	15(9)	46(27)	53(31)	49(29)	2.28	1.10
Overall Mean						2.18	0.90

Table 3: Influence of Tangible Non-Monetary Incentives according to Teachers

Table 3. illustrates that provision of tangible non-monetary incentives to teachers have influenced students' academic performance to a low extent (M=2.18; SD=0.90). In this regard, offering to meet retraining expenses for teachers (M=1.22; SD=0.45); offering of dinners in luxurious hotels (M=1.23; SD= 0.42); open parties sponsored by the institution (M=1.35; SD=0.55); offering of tokens, plaques, food material to teachers (M=1.50; SD=0.65) and giving certificates to performing teachers (M=2.28; SD=1.10) have low influence on students' academic performance. On the other hand, paid up trips and outings away from work stations (M=3.17; SD=1.40); and providing equipment, tools and machinery to outstanding teachers (M=3.10; SD=1.38) have moderate influence on students' academic performance. However, securing special clothes, stationery, beddings, furniture and cutlery to teachers (M=3.56; SD=1.25) have high influence on students' academic performance.

Tangible Non-monetary Incentives	Frequency and (%)					Mean	SD
	VH	H	M	L	VL		
Offering of dinners in luxurious hotels	0(0)	0(0)	0(0)	5(25)	15(75)	1.25	0.44
Securing special clothes, stationery, beddings, furniture and cutlery to teachers	6(30)	6(30)	4(20)	2(10)	2(10)	3.60	1.31
Offering of tokens, plaques, food material to teachers	0(0)	0(0)	1(5)	7(35)	12(60)	1.45	0.16
Paid up trips and outings away from work stations	5(25)	4(20)	5(25)	3(15)	3(15)	3.25	1.41
Open parties sponsored by the institution	0(0)	0(0)	1(5)	6(30)	13(65)	1.40	0.60
Providing equipment, tools and machinery to outstanding teachers	5(25)	4(20)	5(25)	3(15)	3(15)	3.25	1.41
Offering to meet retraining expenses for teachers	0(0)	0(0)	0(0)	5(25)	15(75)	1.25	0.44
Giving certificates to performing teachers	6(30)	6(30)	4(20)	2(10)	2(10)	3.65	1.31
Overall Mean						2.39	0.89

Table 4: Influence of Tangible Non-Monetary Incentives according to Principals

Table 4. illustrates that provision of tangible non-monetary incentives to teachers have influenced students' academic performance to a low extent (M=2.39; SD=0.89). In this regard, offering to meet retraining expenses for teachers (M=1.25; SD=0.44); offering of dinners in luxurious hotels (M=1.25; SD= 0.44); open parties sponsored by the institution (M=1.40; SD=0.60); and offering of tokens, plaques, food material to teachers (M=1.45; SD=0.61) have low influence on students' academic performance. On the other hand, paid up trips and outings away from work stations (M=3.25;

SD=1.41); and providing equipment, tools and machinery to outstanding teachers (M=3.25; SD=1.41) have moderate influence on students' academic performance. However, securing special clothes, stationery, beddings, furniture and cutlery to teachers (M=3.60; SD=1.31) and giving certificates to performing teachers (M=3.65; SD=1.31) have high influence on students' academic performance.

In an interviews with the SCOs they were asked to gauge the influence of tangible non monetary incentives on academic performance. The four of them agreed that incentives such as certificates, material awards and stationery have been used by most school managements to motivate teachers and students. One Mr. Kenedy Ojwang (pseudonym) said "As a teacher before I became CSO, I received cutlery and a blanket for being the best in my subject. This really motivated me because I felt that my performance was recognized." They indicated that different schools give different material awards and take their teachers for outings as a way of motivation.

The findings that school based tangible non-monetary have low influence on motivation have also been revealed in a study in India by Gunawan and Febrianto (2014). Gunawan and colleague found out that tangible non-monetary incentives are the only factors having no significant impact on employees' motivation. Similarly, Tumaini (2015) also revealed in a study done in Tanzania that non-monetary incentives seem to influence teachers' retention positively and negatively as the findings indicated that those who were satisfied with the incentives remained in schools while, those who were not satisfied, quitted the teaching profession. However, findings by Jalava, et al (2014) tend to contrast revelations in the present study. They revealed in a study among Swedish primary schools that significant differences exist in test scores between the intrinsically motivated control group and three of four extrinsically motivated treatment groups. It is therefore emerging that influence of tangible non-monetary incentives for teachers in public secondary schools on students' academic performance is relatively low.

The level of student academic performance as rated by teachers was computed from frequency of responses. Mean Likert scale responses in each item was computed to create an approximately continuous variable but within an open interval of 1 to 5. This outcome was subjected to ANOVA with school-based tangible non-monetary incentives responses from teachers. The significant level (p-value) was set at .05, such that if the p-value was less than 0.05, the null hypothesis would be rejected. This is as shown in Table 5.

		School based tangible non-monetary incentives	Student academic performance
School based tangible non-Monetary incentives	Pearson Correlation	1	.805**
	Sig. (2-tailed)		.652
Student academic performance	N	169	169
	Pearson Correlation	.805**	1
	Sig. (2-tailed)	.652	
	N	169	169

** . Correlation is significant at the 0.01 level (2-tailed).

Table 5: Teacher Outcomes on influence of tangible non-monetary incentives on student academic performance in Kisumu Wset Sub-county (N=170)

The finding of the study (Table 5) shows that there was statistically significant positive correlation between school-based tangible monetary incentives in public secondary schools ($r = .805$; $p < .05$). Given that the relationship is statistically insignificant, the hypothesis that, "there is no statistically significant relationship between school based tangible non-monetary incentives and student academic performance in public secondary schools in Kisumu West Sub-county" was accepted.

V. CONCLUSION

The findings indicate an agreement by both the teachers and principals that provision of tangible non-monetary incentives to teachers have influenced students' academic performance to a low extent (M=2.18; SD=0.90) and (M=2.39; SD=0.89) respectively. In this regard, the teachers indicate that offering to meet retraining expenses for teachers (M=1.22; SD=0.45); offering of dinners in luxurious hotels (M=1.23; SD= 0.42); open parties sponsored by the institution (M=1.35; SD=0.55); offering of tokens, plaques, food material to teachers (M=1.50; SD=0.65) and giving certificates to performing teachers (M=2.28; SD=1.10) have low influence on students' academic performance. On the other hand, paid up trips and outings away from work stations (M=3.17; SD=1.40); and providing equipment, tools and machinery to outstanding teachers (M=3.10; SD=1.38) have moderate influence on students' academic performance. However, securing special clothes, stationery, beddings, furniture and cutlery to teachers (M=3.56; SD=1.25) have high influence on students' academic performance.

In addition, subjected to hypothesis testing to find out level of significance in relationship between school based tangible non-monetary incentives and student academic performance, it was realized that at ($r = .805$, $p = 0.5$), there is an insignificant relationship. Therefore the hypothesis that there is no significant relationship between non-monetary incentives and student academic performance was accepted.

VI. RECOMMENDATIONS

School management should not use their resources to avail tangible non-monetary incentives with the aim of motivating teachers.

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