

Full Length Research Paper

Determinants of teachers' motivation and professional development in public secondary schools in Kenya

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Teacher motivation is by and large the major determinant of students' success during the schooling process. This is primarily because a motivated teacher is likely to be more engaged and enthusiastic in the workplace. Kenya's education sector has in the recent past experienced industrial disharmony which has been occasioned by teachers' demand for higher remuneration. This demand, however, could be a pointer to the existence of other unmet needs among teachers in the country. This is what informed the study whose overall objective was to determine whether besides compensation other factors, specifically work environment, opportunities for career progression, performance appraisal, recognition and training opportunities could also be impacting teachers' motivation in public secondary schools in the country. Additionally, the study sought to establish the relative influence of the six factors (predictor variables) on teachers' motivation (criteria variable). Data were collected through a self - delivered questionnaire from 255 teachers who were randomly selected from 752 teachers in public secondary schools in Kwale County. Data were analyzed by way of arithmetic mean and multiple regression analysis at 0.05 alpha level. The findings demonstrated that the factor that had the highest teachers' motivation impact was opportunities for career progression (mean=3.720; $\beta=0.238$), followed by compensation (mean=3.477; $\beta=0.175$), recognition (mean =2.489 $\beta=0.0168$), performance appraisal (mean =2.410; $\beta=.120$), training opportunities (mean=2.388; $\beta=0.075$) and lastly work environment (mean =2.053; $\beta=.041$).The six predictor variables accounted for 81% of total variation in teachers' motivation. These findings have important lessons and implications for teachers' motivation in the country. Specifically, teacher managers at the school and national level should rethink their approach to teachers' motivation. In particular, they need to not only focus on teacher remuneration but also the unmet needs in areas relating to work environment, performance appraisal, training opportunities and recognition.

Key words: Teachers' motivation, secondary schools, Kenya.

INTRODUCTION

Formal education is undeniably the most valuable investment in our children and youths. This is because, through the schooling process, individuals acquire skills, knowledge and attitudes necessary for personal and

national development. Indeed Cohen and Soto (2007) have observed that education unleashes the potential of the human mind thereby enhancing their capacity to not only improve their own lives but also that of the entire

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nation. In view of this reality, there is a need to provide quality education at all levels of education and training. Put differently, learners must be provided with an education that is pedagogically and developmentally sound so that they can become active and productive members of the society.

According to Chiuri and Kiumi (2005), education quality is highly dependent on the level of public investment in the education sector. For instance, higher government spending in the sector goes a long way in ensuring that an education system has adequate inputs such as infrastructure, teachers and teaching - learning materials. Although these inputs play a critical role in enhancing the attainment of the desired learning outcomes, studies (see for example Ifeoma and Iliya, 2015; Glass, 1982; Ofojebe and Ezugoh, 2010) have consistently indicated that teachers are the most significant factors in terms of quality assurance in an education system.

The centrality of the teacher in a country's endeavor to raise productive and responsible citizens cannot be gainsaid. Oper (2019) has for instance averred that teachers' effect is estimated to have two to three times the effect of any other school factor including facilities and leadership. This view is predicated on the fact that the role of the teacher goes beyond classroom instruction. For instance, apart from curriculum delivery, teachers act as role models which are one of the critical ingredients regarding learners' character development.

Drawing on the foregoing observations, it can rightly be reasoned that attainment of quality learning outcomes in an education system is contingent upon the extent to which the society creates conditions in which teachers can maximally operationalize their role expectations. Specifically, in order for teachers to release their maximum potential, their needs have to be met (Jesus and Conboy, 2001). These needs as implied in the Needs Hierarchy Theory and the Two -Factor Theory include but not limited to opportunities for professional growth, reasonable compensation, manageable workload, and recognition for their role within and outside the school (Han et al., 2016).

In spite of the significant role that teachers play in our children's education, it appears that threats to teacher motivation is a common feature in low - income countries (Bennel and Akyeamong, 2007; Richardson, 2014; KNUST, 2015). Since teacher motivation is closely linked to students' motivation to learn (Michaelowa, 2002), it is reasonable to conclude that students in low - income countries are more likely to experience achievement gaps including gains in other measures of school success (e.g., school attendance, retention and transition to subsequent levels of education) compared with their counterparts in high-income countries.

Teachers' demotivation in low- income countries has the implications that resources invested in education are less likely to generate the desired benefits at the individual and societal levels. For instance, these nations are likely to experience gaps in human capital formation

(and by implication economic growth), the capacity of citizens to make informed livelihood choices including their willingness and capacity to exercise their democratic rights (Chiuri and Kiumi, 2005).

From a policy and practice perspective, we need empirical and theoretical based knowledge on issues surrounding teacher motivation. This will go a long way in enabling individuals and entities involved in teacher management to identify the factors that have the potential to impact teacher motivation and their relative influence on this dimension of teacher management. This is the only way the society will be able to address teacher management gaps in low - income countries so as to ensure that both individuals and the society at large get value for money invested in education.

The study focused on six factors which were constructed as potentially capable of impacting teachers' motivation. They were: compensation, work environment, opportunities for career growth, performance appraisal, recognition and openings for workplace training. In this regard, the purpose of the study is three fold. First, an attempt was made to determine the extent to which the six factors may impact teachers' motivation. Second, the study sought to find out the joint effect of the six factors on teachers' motivation. Finally, the study undertook to establish the relative influence of the six job factors on teachers' motivation.

LITERATURE REVIEW

A review of literature on teachers' motivation has demonstrated that teachers' willingness and drive to engage in productive teaching is materially linked to extrinsic and extrinsic factors. The former include factors such as compensation, working conditions and feedback on performance. The latter include factors relating to recognition or simply appreciation for a job well done, opportunities for career growth and involvement in decision making.

Previous studies (Adams, 2009; Glass, 2011; Seniwoliba, 2013; Adelabu, 2005; Denmar and Marmoah, 2017; Louis et al., 1996; Javaid, 2009) demonstrated that higher pay and a favourable working environment had a positive impact on teachers' motivation. Specifically, the studies consistently showed that teachers are highly likely to be enthusiastic and engaged in the workplace if they are well remunerated. This form of teachers' behaviour is attributable to the fact that higher pay enhances teachers' capacity to meet their family obligations, thereby lowering the propensity to engage in secondary income generating activities (Mukolozzi, 2015). The studies similarly proffered the view that teachers will be more than willing to maximize their performance in an environment in which they can not only work with ease and practice their skills but also meet their affiliative needs. This has the implication that in order for teachers to be motivated and committed to their instructional roles,

schools need to be well resourced and also nurture collaborative and collegial culture (Shah, 2012).

Several researchers (Asaari et al., 2019; Kumar and Hossain, 2017; Emenike, 2013; Momanyi, 2015; Haq and Islam, 2005; Kyongo, 2006) have also shown that teachers' motivation tends to increase towards schools that recognize teachers work by significant others, opportunities for career growth, including involvement in decision making and execution of school policies and programmes. Based on these observations, it can be deduced that apart from remuneration and motivating work environment, the level of teachers' inspiration to unlock learners' potential is also dependent on the extent to which their intrinsic needs are fulfilled.

Theoretical framework

In order to conceptualize how the six job factors may impact teachers' motivation, the study adopted the Needs - hierarchy theory and the two-factor theory. Postulations put forth by the two theories and their implications for teachers' motivation are discussed herein.

Needs – hierarchy Theory

The needs - hierarchy theory was put forth by Abraham Maslow (1943, 1954) in which he averred that humans are motivated to fulfill their needs and that these needs are arranged in a hierarchical order. Maslow grouped the hierarchy of needs into five categories : Physiological needs (e.g., the needs for shelter, clothing, food and water) ; security needs (e.g., the need for emotional and physical security) social related needs (for instance, the need to affiliate and be accepted by members of a group) ;esteem needs which comprise the need for power, achievements, recognition, status and respect and lastly self- actualization needs which consist of an individual's desire to accomplish everything he or she is capable of achieving. According to Aruma and Hanachor (2017), the need to self -actualize is primarily the force behind individuals effort to maximally use and exploit their talents and capabilities.

According to Maslow, the five level of needs fall into two broad categories: the low - level needs and high - level needs. The former include the physiological, security and social needs while the latter comprises the esteem and self - actualization needs. Maslow referred to the low - level needs as deficiency needs since they arise in a scenario where they are deprived. In such a situation, the affected individual will be motivated to fulfill them. The higher -order needs, according to Maslow, are the growth needs which do not stem from a lack or deprivation of something but rather the desire to grow as a person. Since the needs as averred in the theory are arranged like a ladder that must be climbed one rug at a

time, it follows that deficiency needs must be met before an individual can be motivated to fulfill the higher level needs or put differently the growth needs (Okumbe, 1998).

The need – hierarchy theory has a lot of implications for teachers' motivation. First, there is a need to create a work environment in which teachers can meet their low – level needs. For instance teachers should be offered reasonable compensation so as to satisfy their physiological needs such as food, clothing and shelter including the provision of the fundamental elements such as health and wellness, safety against injuries and monetary security. Additionally, the work environment should be characterized by a strong and healthy collegial relationship among teachers and between them and the school management (Bush, 2003). Specifically, teachers must feel accepted by their colleagues and seniors.

After the aforementioned lower - order (deficiency) needs have been taken care of, the next task should be to create conditions in which teachers will fulfill their higher - order (growth) needs, that is the esteem and self - actualization needs. The former needs can be met by respecting teachers and appreciating their work. The latter category of needs can be realized by giving teachers challenging responsibilities, task autonomy and opportunities for career advancement.

By way of conclusion, it is important to mention that both the deficiency and growth needs must be adequately addressed so as to enhance teachers' morale, motivation and satisfaction. This observation is predicated on the fact that if teachers' deficiency needs are not met, they are less likely to strive to achieve growth needs which are critical to quality teaching and students' learning achievement. A corollary to this is that even if deficiency needs are met, teachers are less likely to aspire for growth needs if the working environment lacks basic conditions for self - actualization.

Two - factor theory

The two - factor theory was proposed by Fredrick Herzberg in the late 1950s. The theory advances the view that employees have two sets of needs: Lower order needs and higher order needs. The theory further postulates that some of the factors in the workplace meet the first set of needs but not the second set of needs and vice versa. Herzberg called the first group of factors the hygiene factors or job dissatisfiers and the second group the motivators (Herzberg et al., 1959).

The hygiene factors are the job-context factors (the factors extrinsic to the job). These factors are also called maintenance factors in the job since they are necessary to maintain a reasonable level of employee satisfaction (Rozman et al., 2017). This implies that although hygiene factors do not directly motivate employees, they prevent dissatisfaction or bad feeling about work which is a

Table 1. Expected range of mean rating score by level of teacher motivation.

Mean score	Level of motivation effect
$1 \leq x \leq 2$	Slightly motivating
$2 \leq x \leq 3$	Moderately motivating
$3 \leq x \leq 4$	Highly motivating
$4 \leq x \leq 5$	Very highly motivating

critical prerequisite for employee motivation. This is because, a satisfied worker is more likely to be motivated to achieve higher level needs. Since hygiene factors are key to employees' satisfaction, they need to be taken care of so as to create a motivating work environment. This can be accomplished by offering employees' competitive remuneration, a conducive physical working environment, adopting humane supervisory practices, safeguarding employees' security and strengthening interpersonal relationships in the workplace.

Herzberg's two – factor theory has implications for teachers' motivation. First, educational management has a responsibility to create a work environment in which teachers can satisfy their needs. This can be realized by reducing job dissatisfiers and increasing opportunities for teachers to satisfy their growth or higher - order needs (Okumbe, 1998). Job dissatisfiers can be reduced to bare minimum by offering teachers a competitive salary, strengthening interpersonal (collegial) relationships in the workplace and ensuring that teachers working environment is physically conducive. Regarding growth needs, teachers need to be accorded a working environment in which they will experience a feeling of accomplishment. For instance, teachers can be given an opportunity to apply their different skills and talents through job enrichment. Moreover teachers should be given clear and regular feedback on their performance and task autonomy. Added to this is the need to promote teachers and facilitate their desire for further training so that they can experience some degree of personal growth.

RESEARCH METHODOLOGY

The study adopted *ex-post facto* research design. This design was deemed ideal in light of the fact that the independent variables subsumed in the study, specifically compensation, work environment, opportunities for career progression, performance appraisal, recognition and training opportunities had already impacted teachers' motivation. This implies that the effect of the selected independent variables or put differently predictor variables on teachers' motivation could only be determined respectively (Kerlinger, 1986).

In order to determine the interaction effect between the six independent variables and teacher motivation, data were collected through a self – delivered questionnaires from 255 secondary school teachers (158 males and 83 females) in Kwale County, Kenya who were randomly selected from 752 teachers. The teacher participants age ranged from 30 to 60 years. With respect to

teaching experience, a majority (85 %) had been in the teaching profession for less than 11 years while only 3% had taught for a period ranging between 21 and 30 years. Eighty six percent of the teachers had Bachelor's Degree in Education, 13% had Diploma in Education; while only 3(1%) teachers had Master's Degree in Education. The questionnaire had 41 five – point Likert scale items.

The items were distributed as follows: Compensation (5 items), work environment (8 items), performance appraisal (8 items), recognition (6 items), and training opportunities (6 items). The instrument was validated through piloting in five secondary schools in the neighbouring Kilifi County. The piloting exercise involved 56 teachers (39 males and 17 females). Changes which were deemed necessary from the trial study were effected prior to administering the instrument to the sampled respondents. The instrument's external reliability was estimated through test – retest technique using the pilot group in the five pilot schools referred above; while its level of internal consistency was tested using Cronbach's alpha technique. The generated reliability coefficients from the two reliability tests stood at $r=.83$ and $r=.85$ respectively.

Collected data were analyzed at two levels: First, respondents' mean rating scores of the motivational effect of the six predictor variables were computed. The objective of computing the mean scores was to get a general view of the level of motivational effect of the six variables on the study participants. It was presumed that the mean scores would range from a minimum of 1 to a maximum of 5. This formed the basis of interpreting the mean rating scores as shown in Table 1.

The second level of analysis involved determination of the predictive capacity of the six independent variables on teachers' motivation. This analysis was carried out using multiple regression statistic. The objective was to establish whether the six independent variables were capable of jointly predicting teachers' motivation and whether this prediction was statistically significant. Additionally, the multiple regression analysis was utilized in establishing the relative effect of each predictor variable on teachers' motivation. The multiple regression analysis was guided by the following model.

$$TM = b_0 + b_1C_e + b_2W_e + b_3CP_e + b_4P_e + b_5R_e + b_6T_e$$

Where: TM =Teachers' Motivation; C= Compensation; W=Work Experience; CP= Career Progression; P= Performance appraisal; R= Recognition; T= Training opportunities

RESULTS AND DISCUSSION

The first research question sought to find out the level of influence of the six predictor variables on teachers' motivation. In response to this research question, teachers' mean rating scores of the six job factors predictor variables were computed. The mean scores are summarized in Table 2.

The data in Table 1 show that the generated composite mean rating of the six job factors was 2.756. Inferring from the expected mean rating scores in Table 1, it is reasonable to conclude that the overall impact of the six job factors (predictors variables) on teachers' motivation was moderate. The data further demonstrate that the job factors that had the highest motivational effect were opportunities for career progression and compensation while the factors that had the lowest motivational effect were work environment and training opportunities. Responses to the items relating to work environment revealed that the factors that tended to demotivate

Table 2. Teachers' mean rating of the motivational effect of the six predictor variables.

Job factor	Mean score
Compensation	3.477
Work environment	2.053
Career progression	3.720
Performance appraisal	2.410
Recognition	2.489
Training opportunities	2.388
Grand mean	2.756

teachers were heavy worked load, inadequate school security and non – collegial behavior in the workplace. The factors that were perceived as demotivators in regard to training included failure by the Teachers Service Commission (TSC) to financially support teachers' willing to pursue further studies, challenges relating to securing of study leave and limited opportunities for in-service training.

The second and third research questions were answered through testing the formulated null hypothesis using multiple regression analysis. The hypothesis postulated that the combined effect of the six job factors had no statistically significant influence on teachers' motivation. In this analysis, the six job factors were treated as the predictor variables while teacher motivation was taken to be criterion variable. The results of the multiple regression analysis are summarized in Table 3. A closer observation of the data captured in Table 3 demonstrates that the F – value ($F=53.305$; $P=.000$) was statistically significant. This indicates that the predictive capacity of the earlier formulated regression model in regard to the influence of the six job factors on teachers' motivation was not only strong but also statistically significant.

The data in Table 3 further show the beta (β) coefficients (the independent contribution of a given job factor when other factors have been partitioned out) were statistically significant ($p<0.05$). This implies that each job factor was capable of predicting teachers' motivation. Put differently, the coefficients demonstrate that each job factor entered in the regression equation had a statistically significant contribution to the predictive capacity of the formulated regression model. The adjusted r^2 – value ($r^2=0.808$) further indicates that the six job factor jointly accounted for 81% of total variation in teachers' motivation while 19% was explained by job factors not included in the regression model. It can, therefore be concluded that an improvement of factors relating to the six predictor variables is highly likely to raise teachers' motivation by 81%. A corollary to this proposition is that if these factors are ignored or not taken care of, teachers' motivation will likely reduce by 81%. Based on the foregoing findings, the formulated null hypothesis was rejected and conclusion made that the joint effect of the

six job factors and teachers' motivation were not statically independent.

The beta coefficients further show that the job factors that had the highest contribution (the highest influence on teacher motivation) to the regression model was career progression ($\beta =0.238$) followed by compensation ($\beta=0.175$), recognition ($\beta =0.168$), performance appraisal ($\beta =0.120$), training opportunities ($\beta=0.075$) and lastly work environment ($\beta =0.041$). This implies that the best predictor of teachers' motivation was career progression while the weak predictor was work environment.

CONCLUSIONS AND RECOMMENDATIONS

The findings generated by the study have important lessons and implications in enhancing teachers' motivation within and outside the study locale. A major observation from the findings is that the six job factors have the capacity to account for the status of teachers' motivation in the sampled schools. For instance, it can be deduced from the findings that teachers' career progression and compensation related needs have by and large been catered for in the study area and by inference in other parts of the country. However, it appears that needs relating to work environment, performance appraisal, recognition and training opportunities are yet to be fulfilled to the satisfaction of teachers.

Since teachers' motivation is the backbone of teachers' engagement in the work place, it follows that the noted unmet needs should be addressed in order to create a happy teaching force in our schools. Specifically, policies on teachers' management in the country should capture and clearly articulate the needed teachers' motivation and professional development strategies. In order for these strategies to generate the desired outcome, they should be operationalized at the national and schools levels. For instance, Teachers Service Commission (the entity in charge of teacher management and professional development matters in the country) needs to come up with teachers' management friendly policies with a view to motivate teachers and by implication enhance their output in schools. These policies should also be operationalized at the school level. School managers, for example need to ensure that teachers are accorded a conducive working environment. This entails provision of not only security in schools but also comfortable working space. Added to this is the need to strengthen the relationship among teachers and between them and the school management. Furthermore, teachers should be sensitized on aspects of their professional expectations that will be evaluated during performance appraisal and also be provided with a clear feedback on their strong areas and aspects of their role expectations to improve on. The other equally important motivational strategy is appreciation of teachers for a job well done and offering

Table 3a. Multiple regression summary on the combined influence of the six job factors on teachers' motivation.

Dependent variable	r	r ²	Constant	df	F	P- value
Teachers' motivation	.899	.808	13.213	6,234	53.305	.000*

Table 3b. Multiple regression summary on the combined influence of the six job factors on teachers' motivation.

Independent variable	Beta (β)	Regression coefficient	t	p
Compensation	.175	.300	12.311	.000*
Work environment	.041	.065	2.875	.000*
Career progression	.238	.377	12.996	.000*
Performance appraisal	.120	.196	8.681	.000*
Recognition	.168	.235	8.903	.000*
Training opportunities	.075	.135	6.437	.000*

*Means significant at 0.05 alpha level.

them opportunities for personal growth through training and encouragement to set personal goals. These motivational strategies are highly likely to enhance teacher satisfaction and morale both of which have a huge potential for enhancing teachers' motivation and commitment in the workplace.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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