



School environment and performance of public primary school teachers in Uganda

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Abstract

This paper discusses how the school environment affects teachers' performance in public primary schools in Bugisu sub region in Uganda. The paper is based on research that was conducted in 2015 involving teachers, head teachers, District Education Officers, District Inspectors of schools, and members of the school management committees. Of the 630 subjects who were sampled, 559 returned the survey instrument suggesting a response rate of 88.73%. The school environment was found to have a statistically significant effect (0.000 at $p < .05$ level) on teachers' performance. We conclude that an improvement in the school environment leads to a significant increase in teachers' performance and teachers in Bugisu sub region are at times victims of their work environment. The findings are compared with both local and international empirical studies to suggest policy and managerial recommendations.

Key words: School environment, teacher performance, public primary schools, Bugisu sub region, Uganda

Introduction

This article is based on research that was carried out in 2015 in Bugisu sub region in Uganda to investigate why teachers in public primary schools no longer perform some of their duties as educators. In addition to the introduction, we highlight some perspectives on teachers' performance according to previous studies; present the theoretical underpinnings, the methodology, study findings and conclusions.

The article discusses how the school environment affects teachers' performance in public primary schools in Bugisu sub region. Various scholars and agencies such as Akintayo (2012), Ntho and Lesotho Council of NGOs (2013) and Odeku and Odeku (2014), have defined the school environment variously. However, we follow the thinking of Moore (2012) who provided a more compelling definition of school environment as a hierarchical system with many sub systems such as the school leadership, drainage, classroom, the blackboards, school compound, sanitation, toilets and urinals, staffroom, sitting facilities, teaching and learning materials, leadership styles of the head teachers, monitoring and evaluation, the school neighbourhood and the community.

Unlike other scholars (Akintayo, 2012; Ntho and Lesotho Council of NGOs, 2013 and Odeku & Odeku, 2014), Moore's (2012) conceptualization of the school environment considers the human, technological and organizational aspects of work environment. In this article, the school environment is conceived as provision of classrooms, blackboards, drainage, sanitation, toilets, urinals, staffrooms, teachers' working table and teachers' sitting facilities. Performance implies different things to different people depending on the perspective from which one approaches it. It may imply efficiency, economy, results, or return (profits) on investment (Summermatter & Siegel, 2009; Herath & Rosli, 2013). Some scholars (Armstrong, 2003; Feng, 2010) have viewed performance as the behavioural aspect that defines the way in which organizations, teams and individual employees get work done; it is the output record of a specific job function or activity at a given time. Performance is the degree to which an employee and organizational goals are met and it comprises both behaviour and outcomes (Feng, 2010; Armstrong, 2003). In this article, teacher performance refers to teacher lesson preparations, involvement of co-curricular activities of work, pupil discipline management, counselling and guidance, participating in staff meetings, actual teaching, and routine assessment of learners, maintenance of record of work covered and learners' records and time management. These are some of the core aspects of a teachers work. Unlike most studies that have tended to concentrate on learners' achievement measured in form of results in national examinations which is an outcome of a combination of factors (Tao, 2013; UNESCO, 2015; Uwezo, 2012; Kasiisa and Tamale, 2013; Wandira, Onen & Kimoga, 2015), this paper discusses the effect of the school environment on various aspects of teachers' performance which serve as pre-cursors to children's learning achievement. Our focus is therefore on how teachers fulfill their teaching responsibilities in light of challenging working environments characteristic of rural public schools.

It has been acknowledged that the performance of teachers in rural public primary schools is deteriorating; their performance is characterized by absenteeism, inadequate lesson preparation and rote-teaching, the status of teachers and working conditions too are getting worse (Kitunga, 2009; Tao, 2013; Wandira, Onen & Kimoga, 2015). The 2015 Education for All Global Monitoring Report shared the consensus that there was inequality in education and quality of learning at primary level was still poor, with millions of pupils leaving primary schools without basic skills (UNESCO, 2015). Uwezo (2012) presents findings of national assessments conducted in Kenya, Uganda and Tanzania in which 350,000 children in over 150,000 households were tested on their ability to perform basic numeracy and literacy tasks after completing two years of primary education. This assessment shows that although children were enrolled in schools, they were found not to have acquired the core skills expected at their age and grade level. According to the National Planning Authority (NPA), the low quality of primary education demonstrated by low learning achievement, below average literacy and numeracy proficiency at primary six (P6) is a main challenge to Uganda's education sector (NPA, 2015). Schooling quality ought to be a priority in Uganda for development to be meaningful (Jones, 2015; Unoma, 2015). Schooling quality involves teachers performing all their duties as educators in a good environment and pupils having access to all necessary materials.

Perspectives on teachers' performance

Numerous empirical studies have highlighted factors that account for teachers' poor performance and the declining quality of education. Travers and Cooper (1996, Chan (1998), Bennell and Akyeampong (2007), Kokkinos (2007) and Singh and Sarkar (2015) have identified inadequate teacher monitoring, lack of professional recognition, discipline problems in the classroom, workload, large class size, role ambiguity, lack of transport, long-distance travel, inadequate provision of instruction materials, bureaucracy, low salaries and limited professional opportunities for professional development as some of the factors inhibiting teachers' performance.

Research by Moore (2012) on the role of the school environment on teacher dissatisfaction among US public school teachers suggests that a positive school environment includes a supportive administration, enforcement of rules by the principal and other teachers, shared beliefs and values, communication among principal and staff, cooperation and hard work by the principal and the belief that the school is run well. The study further suggests that teachers who perceive a more positive school environment have more control

over their classrooms and are more satisfied with their jobs. Teachers' perceptions of student and community problems also increase teacher dissatisfaction.

Duze (2012) analyzed educational policies/programmes in relation to the school environment that were responsible for high pupil attrition or dropout in Nigeria. He found out that dropout rates were at 50% and above, and that this was not only high but also embarrassing considering the huge inputs in the education system in Nigeria. He recommended the creation of a data bank to continuously capture the flow of students in each cohort from start to graduation to facilitate analysis on cumulative dropout and attrition rates. In Delta States in Nigeria, Nakpodia (2011) investigated the degree to which the performance of teachers in secondary schools depends on the capacity of school principals to maintain and enforce adequate supervision. The findings of the study revealed that teachers' performance significantly depended on the principal's capacity to effectively conduct adequate and valuable supervision which validates the importance of discipline, record keeping and teaching aids. The researcher recommended that school principals should routinely adopt reasonable supervisory behaviour to improve teachers' performance in the classroom.

Research by Ofejebe and Chinelo (2010) on teachers' motivation and its influence on quality assurance in the Nigerian educational system, points to the fact that satisfaction of the motivational factors leads to quality performance and high production which improves quality assurance in the education sector. They recommended a good learning environment and good working conditions to guarantee good quality assurance in education. And that teachers' welfare was another important factor of good working conditions. Good working environment implies availability of facilities and materials needed for teachers to perform their duties as educators (Ofejebe and Chinelo, 2010).

Research by Musau, Migosi and Muola (2013) on determinants of girls' performance in science, mathematics and technology in Kitui central district, Kenya, suggests that the more the number of lessons a teacher had, the lower, the girls' academic performance. They found that the larger the class size, the lower the girls' academic performance in science, mathematics and technology at form four level. The researchers recommended that school management should provide sufficient classrooms, to improve interaction between teachers and learners which would help teachers to give and correct several assignments immediately and also be in position to manage students' behaviour in class more effectively. Some of the recommendations of this study concerned the school environment in which teachers operate but it did not establish its effect on their performance.

Mkumbo (2012) undertook a qualitative study that examined teachers' commitment to, and experience of, the teaching profession in six regions in Tanzania. This study revealed that a poor teacher working environment and poor government and community attitudes towards the teaching profession were the key de-motivators for the teachers. From this study, it was recommended that the government of Tanzania and other education stakeholders improve teachers' working conditions such as housing and social welfare facilities and services.

Tao (2013) pointed out poor working conditions and the need to generate extra income from other businesses due to insufficient salaries as some of the causes of teachers' poor performance. However, this study did not address the effect of school environment on teachers' performance in public primary schools. Ochwo (2013) studied pupil, teacher and school factors that influence student achievement on the primary leaving examination in Wakiso district. The findings revealed no significant differences between boys and girls on English achievement, but found significant differences between boys and girls on mathematics achievement with boys having higher scores. The researcher recommended further research to develop insights about the network of relationships between pupils and teachers and school-level factors and learner achievement without changing the measure revision and validation process of the teacher quality measure.

In Uganda, Kakuru (2006) has attributed teachers' absenteeism and ultimately poor performance to the magnitude of AIDS affliction and its direct and indirect effects on school communities. Jones (2015) sought to establish how classroom composition affected learning outcomes in Ugandan primary schools. The study

revealed that a classroom compositional factor like class size had little influence on learning outcomes to justify stand-alone policy interventions. This study focused on pupil learning outcomes using test score data for over 250,000 children. The studies highlighted above are inadequate as they did not address the effect of school environment on teachers' performance in public primary schools in Bugisu sub region in Uganda.

According to Ntho and Lesotho Council of NGOs (2013), and Akinsolu (2010), teachers are a crucial resource. They are a key determinant of quality in education and if they are unmotivated, then development in a nation is doomed because education is a fundamental instrument of social, economic and political transformation. This view is supported by Kosgei (2014) and Lyimo (2014) who opine that quality of education is the foundation of the wealth and security of every country. This is in congruence with Namuddu (2010), Khan and Mansoor (2013), Awan and Asghar (2014) who point to the fact that the performance of teachers is critical to the survival of quality education.

Theoretical underpinnings

The article is underpinned by the Herzberg's two-factor theory (Herzberg, 1959 in Vroom, 1966) and the premise that certain factors in the workplace can cause job satisfaction while others cause dissatisfaction. Herzberg divided the factors into motivating and hygiene factors. The motivating factors are strong contributors of job satisfaction and include things like challenging work, recognition and responsibility (Nairuba, 2011; Bhatnagar, 2014; Atieno and Orwa (2015)). However, the hygiene factors are not strong contributors of job satisfaction but must be present to meet employee expectations and prevent job dissatisfaction. Hygiene factors include: provision of employee accommodation, break tea, lunch, medical care, compensation and good working environment to ensure that an employee is not dissatisfied, and ultimately promote effective employee performance (Namuddu, 2010; Bhatnagar, 2014). All aspects of the school environment discussed in this article fall under either motivating or hygiene factors.

A descriptive cross-sectional survey research design was adopted with both qualitative and quantitative approaches as a way of triangulating and enhancing the quality of the findings of the study (Amin, 2005). A descriptive cross-sectional survey research design is a research plan that is concerned with systematic description of the characteristics of an event, place, population or item being studied at a given time (Amin, 2005; Kothari, 2010). This study was cross-sectional because we picked a cross-section of respondents over a short period of time and follow up of the respondents was not necessary (Picho, 2014). A survey was chosen because it allowed us to get a detailed description of the effect of welfare on the performance of public primary school teachers in Bugisu sub region. Since we were interested in a systematic description of the effect of environment on teachers' performance, this research design was most appropriate.

The target population for the study consisted of district education officers (DEOs), district inspectors of schools (DISs), staff of the directorate of education standards (DES) and members of school management committees (SMCs), head teachers and teachers in selected public primary schools in Bugisu sub region. The sample size was 630 respondents with a response rate of 88.73%. We employed multi-stage, purposive, cluster and convenience sampling. Multi-stage sampling was applied during the selection of districts, sub counties and schools. Districts, sub-counties and schools were selected by simple random sampling to avoid bias. In the selected schools, cluster sampling was employed. Cluster sampling is a technique which involves identifying the clusters of informants that represent a sample and including them in the study in order to increase levels of efficiency of sampling while reducing costs (Amin, 2005; Koul, 2009). The respondents (teachers) were grouped into two clusters, males and females, and simple random sampling was performed on the clusters. Purposive sampling was applied when collecting data from the district education officers, district inspectors of schools and staff of the directorate of education standards because they were few and directly involved in the management of schools at the district level; hence they were expected to be knowledgeable about the status of welfare and performance of public primary school teachers. Purposive sampling, also referred to as judgment sampling, is a non-random sampling technique which is a deliberate choice of an informant due to the qualities an informant possesses (Amin, 2005; Tongco, 2007). For members of the

school management committee (SMC), convenient sampling method was applied. Convenient sampling is a technique that involves selecting informants because it is easy to access them (Amin, 2005; Koul, 2009; Kothari, 2010), and this helped us to save time.

Data was collected from both secondary and primary sources using questionnaires and interviews. We used the interview method through oral verbal interactions with purposively selected DEOs, DISs and head teachers in a structured way to minimize on time. Structured interviews require lesser skill, are more economical and provide room for inference. Interviews allow flexibility and this enabled us to adjust the interview to meet the diverse situations in the field (Koul, 2009; Amin, 2005). The interview guide contained open-ended questions that compelled the respondents to give more unrestricted responses, since open-ended questions have an added advantage of being less threatening (Picho, 2014). Interviews allowed explanations of meanings to the questions to eliminate ambiguity, and provided an opportunity of correcting any misunderstanding by respondents and the interviewer, and in-depth information search through further investigation of the responses that served the purpose of triangulation (Koul, 2009; Amin, 2005).

Quantitative data collected from the field was examined for its accuracy and completeness, cleaned, sorted and entered into the SPSS computer software (Version 20) for analysis. Descriptive statistics such as mean and standard deviation were used to generate reports for discussion while least square regression analysis was employed to determine the magnitude of the effect of each of the components of school environment on teachers' performance in public primary schools in Bugisu sub region in Uganda. Qualitative data analysis was done through thematic content analysis. We summarized the key findings by noting down the frequent responses of the respondents during the interview on various themes concerning the school environment and its effect on performance of public primary school teachers.

Analysis of teachers' performance

Our beginning point was to find out whether the status of teachers' performance was satisfactory or not. This was done through gathering information using a questionnaire with twenty items on teachers' performance. The findings are presented in Table 1.

Statement	MEAN	St.dv
Teachers always arrive at school by 7:30 am.	1.59	.702
There are schemes of work by the first day of the term.	1.34	.875
Teachers prepare lessons daily.	1.45	1.021
Teachers always come with lesson plans in class.	1.83	.992
Teachers always use lesson plans in class.	1.94	.987
Teachers are always present at school supervising all school activities.	1.57	.585
There is active teacher involvement in co-curricular activities in school.	1.53	.801
There is efficient teacher management of pupil's discipline at school.	2.00	.849
There is regular attendance to all lessons by all teachers at school.	1.80	.577
There is regular assessment of pupils through tests.	1.80	.768
There is efficient counselling and guidance of pupils by teachers at school	1.88	.976
Teachers maintain pupil's records properly (e.g. registers, academic progress records)	2.71	.976
The turn up of teachers in staff meetings is high.	2.63	1.253
There is effective teacher participation in staff meetings.	2.91	1.057
Teachers always maintain a record of work covered.	2.65	1.006
The head teacher is always at school supervising school activities.	1.30	.656
Teachers in this school mark pupils' work given in class	1.51	.786
Teachers in this school conduct remedial lessons for slow learners.	1.20	.398
Teachers always use pupil centred teaching methods in their lessons.	1.56	.632
Teachers in this school create a friendly learning environment for their pupils.	1.50	.783
Average Mean	1.835	.834

Source: Primary data adopted from Kigenyi (2016)

Legend; 1.01-2.00 not satisfactory, 2.01-3.00 fairly satisfactory, 3.01-4.00 satisfactory, 4.01-5.00 very satisfactory

In analyzing the responses from the five likert scale of the questionnaire, means and standard deviation generated through the SPSS package were obtained and a legend/scale to interpret the means was used.

Teachers' time for arriving at school was used as an indicator of performance and the respondents scored mean value was 1.59 and the standard deviation was .702. The scored mean value of 1.59 implies that teachers' time for reporting to school for work was not satisfactory. We concur with Kola et al (2015) late coming is a waste of instructional time and is a sign of unsatisfactory performance and ineffectiveness.

Regarding the availability of schemes of work, the scored mean value for this item was 1.34 and the standard deviation was .875. The scored mean value of 1.34 means that teachers' performance in terms of having made schemes of work by the first day of the term was not satisfactory. With respect to preparation of lessons daily, the scored mean value was 1.45 and the standard deviation was 1.021. The respondents' scored mean value of 1.45 implies that teachers' performance in terms daily lesson preparation was not satisfactory. Similarly, the findings revealed that teachers' performance in terms of going to class with lesson plans was not satisfactory with a scored mean value of 1.83 and the standard deviation of .992. The same result was obtained regarding the issue of teachers' usage of lesson plans in class, where the respondents' mean value score was 1.94 and standard deviation was .987. The respondents' scored mean value of 1.94 indicates that teachers' performance in terms of always using lesson plans in class was not satisfactory. Preparation of lesson plans not only helps teachers to plan their instruction so that content to be tested is covered during the lessons, while details for monitoring students learning progress are specified (Squires, Huitt, & Segars 1981), but also facilitates teacher development (Xu, 2015). The lack of schemes of work therefore has negative consequences on teachers' performance.

While past research has shown that teacher absence affects their productivity (Miller, Murnane & Willett 2008), the findings on whether teachers are always present at school supervising all school activities indicate that the respondents scored mean value was 1.57 and the standard deviation was .585. The scored mean value of 1.57 implies that teachers' performance in terms of their regular presence at school supervising all school activities was not satisfactory. Teacher absence is likely to affect their involvement in co-curricular activities, discipline management, and their regular attendance to all lessons. The findings on teachers' performance in terms of their involvement in co-curricular activities at school gave a scored mean value was 1.53 and the standard deviation was .801. The respondents' scored mean value of 1.53 implies that active teacher involvement in co-curricular activities was not satisfactory. As regards efficient teacher management of pupils' discipline at school, the respondents' scored mean value was 2.00 and the standard deviation was .849. The scored mean value of 2.0 implies that teachers' performance in terms of management of pupils' discipline was fairly satisfactory. Regarding regular attendance to all lessons by all teachers at school, the findings reveal that the respondents' scored mean value was 1.80 and the standard deviation was .577 which implies that regular teacher attendance to all lessons was not satisfactory. Similar results were got with regard to regular assessment of pupils through tests by teachers. The respondents' scored mean value was 1.80 and the standard deviation was .768. The scored mean value means that teachers' performance in terms of regular assessment of pupils through tests was not satisfactory. Therefore teachers' performance in terms of their availability, participation in co-curricular activities, pupil discipline management and regular attendance to all lessons was found inadequate in the studied public schools.

Another aspect of teachers' performance related to their availability is their ability to provide guidance and counselling to their students. This involves helping students' whole-person development and helping students with problems concerning their academic and social life (Lai-Yeung, 2014). In this research we sought responses on the question of efficient counselling and guidance of pupils by teachers at school where

the respondents' scored mean value was 1.88 and the standard deviation was .976, implying that teachers' performance in terms of counselling and guiding pupils was not satisfactory.

Maintenance of pupils' records by teachers is important for various reasons including helping parents and school administrators to monitor pupils' performance and provide appropriate support (Adebowale and Alao, 2008). We measured teachers' maintenance of pupils' records properly (e.g. registers, academic progress records), Table 1 indicates that the respondents' scored mean value was 2.71 and the standard deviation was .976. The scored mean value of 2.71 implies that teachers' maintenance of pupils' records was fairly satisfactory. According to Olatomide and Oluwatosin (2014), effective record keeping depends on whether teachers have competencies and requirements to conduct continuous assessment and therefore generate the desired records. We observed that teachers were provided with class registers and school report cards which probably explain why the results are fairly satisfactory.

Another aspect of teachers' performance which was studied was their attendance and participation in staff meetings. Staff meetings are important for teacher professional development since they provide an avenue for teachers to share experiences and discuss issues with colleagues (Jung, Tryssenaar, & Wilkins, 2005; MacDougall and Drummond, 2005). Additionally, teachers are given an opportunity to sharpen their conversation skills, which is key to enhancing children's learning achievement (Tigelaar, Dolmans, Meijer, de Grave, & Van der Vleuten 2008). Although teachers' performance in terms of their regular presence at school to supervise all school activities was not satisfactory, table 1 reveals that the item concerning the turning up of teachers for staff meetings was high, with the respondents' scored mean value of 2.63 and the standard deviation of 1.253. The respondents' scored mean value of 2.63 implies that teacher turning up for staff meetings was fairly satisfactory. This can be attributed to the fact that staff meetings are scheduled in advance and teachers make an extra effort to be present for the meetings. We went ahead to find out whether teachers' participate in staff meetings beyond just attendance. Therefore with respect to effective teacher participation in staff meetings, the respondents' scored mean value was 2.91 and the standard deviation was 1.057. The scored mean value of 2.91 implies that teacher participation in meetings was also fairly satisfactory. A similar finding was obtained concerning teachers' maintenance of record of work covered, where the respondent scored mean value was 2.65 and the standard deviation was 1.006. The scored mean value of 2.65 implies that teachers' maintenance of record of work covered was fairly satisfactory.

There is no doubt that the head teacher is central to the success or failure of any school (Harber, and Dadey, 1993). This research investigated whether or not the head teacher is always at school supervising school activities. Despite the importance of head teachers' availability, the scored mean value was 1.30 and the standard deviation was .656. The scored mean value of 1.30 implies that the performance of head teachers in terms of being at school supervising school activities was not satisfactory. It is therefore no wonder that table 1 also shows that with regard to the results concerning teachers marking pupils' work given in class, the respondents' scored mean value was 1.51 and the standard deviation was .786. The scored mean value of 1.51 implies that teachers' performance as regards marking pupils' work given in class was not satisfactory. The researchers found similar results regarding teachers' performance in terms of conducting remedial lessons for slow learners. Table 1 reveals that the respondents' scored mean value was 1.20 and the standard deviation was .398. The scored mean value of 1.20 implies that teachers' performance in terms of conducting remedial lessons for slow learners was not satisfactory. With respect to teachers' usage of pupil-centred teaching methods in their classes, table 1 reveals that the respondents' scored mean value was 1.56 and the standard deviation was .632. The scored mean value of 1.56 implies that teachers' performance in terms of using pupil-centred teaching methods in their lessons was not satisfactory. The last sub-construct concerned teachers creating a friendly learning environment for their pupils; and table 1 reveals that the scored mean value was 1.50 and the standard deviation was .783. The respondents' scored mean value of 1.50 implies that teachers' performance in terms of creating a friendly learning environment for their pupils was not satisfactory.

The above findings about teacher performance indicate that the respondents' scored average mean value on the status of teachers' performance was 1.835 and the standard deviation .834. This implies that the status of

teachers' performance in public schools in the research project was not satisfactory and there was not much variation in the opinions of the respondents as alluded to in Kigenyi (2016) and Kigenyi and Kakuru (2016).

School environment and teachers' performance

After establishing that teachers' performance was not satisfactory as demonstrated by the findings in Table 1, further analysis was done to determine the effect of school environment on teachers' performance. Ordinary least square regression analysis (Field, 2009; Hair et al.; 2006) with teacher performance in public primary schools in Bugisu sub region as a dependent variable was performed to establish the level of significance ($p < .05$) of each of the components of environment as reported in Table 2 below.

Table 2: Ordinary Least Squares Regression with Performance as Dependent variable

	Coefficient	T	P > t	[95% Conf. Interval]
Environmental Factors				
Availability of Facilities	0.12	4.76	0.00	0.070.17
Quality of Pupil's Facility	-0.05	-2.89	0.00	-0.08-0.02
Quality of Teachers Facility	0.17	10.29	0.00	0.140.20
Adequacy of Facilities	0.07	3.93	0.00	0.040.11
Safety	-0.07	-3.74	0.00	-0.10-0.03
Sex				
Male	0.08	2.21	0.03	0.010.15
Duration in Service				
1 - years	0.15	2.42	0.02	0.030.27
3 - 4 years	0.10	1.96	0.05	0.000.21
5 - 6 years	0.02	0.4	0.69	-0.090.14
More than 6 years	0.22	4.22	0.00	0.120.33
Category of Respondent				
SMC Member	-0.04	-1.03	0.30	-0.130.04
District				
Sironko	0.17	3.44	0.00	0.070.26
Manafwa	-0.14	-2.15	0.03	-0.27-0.01
Marital status				
Single	-0.11	-2.78	0.01	-0.19-0.03
Divorced	-0.01	-0.13	0.89	-0.130.11
Widowed	-0.12	-2.17	0.03	-0.23-0.01
Constant	1.73	23.82	0.00	1.591.87

R Square 33.2%; F test 17.9 (0.000); Ramsey RESET test 6.88 (0.0002).

For categorical variables, reference categories were dropped – Sex (Female); Duration (<1 year); Category (Teacher), district(Bulambuli) and Marital Status (Married).

Each dimension of school environment was extracted using principal component analysis and details are available in a rotated component matrix. The interpretation of these coefficients are however linear, showing change in performance, given a unit change in the predictor variable.

Post diagnostic tests and the F-test support the plausibility of linear functional form of association. Residuals versus predictor plots, for instance, showed no association with predictors, clarifying on multi-collinearity.

To improve the estimation power of the model, we have included additional covariate from the demographic variables – Gender, duration in service, category of respondent, district and marital status, intended to control for some other factors, while modeling performance on environment and this lifted the R-Square value to 33.2%.

The dimensions of environment were extracted using Principal component analysis, guaranteeing zero correlation among the predictors. The problem of unobserved time invariant factors was not particular to this cross sectional data. Similarly, we have only come across a number of qualitative studies in this subject, making quantitative comparison limited.

The data in Table 2 implies that availability of facilities, quality of pupils' facilities, quality of teachers' facilities, adequacy of facilities and safety and security were significant at 0.00. The R Square value (33.2%) means that the school environment accounts for 33.2% variation in teachers' performance in public primary schools in Bugisu sub region.

This implies that an improvement in teachers' working environment will lead to a significant increase in teacher performance. The positive nature of the relationship implies that the change in the two variables was linear whereby an improvement in teachers' working environment was related to better teachers' performance in public primary schools in Bugisu sub region and vice versa. Thus, if schools want to increase teachers' performance, they need to pay much attention to teachers' working environment.

Similarly, the findings in Tables 1 and 2 are in consonance with Faizi, Shakil and Lodhi (2011) who have argued that ineffective administration, non-flexible curriculum, improper health facilities, bad inspection and lack of co-curricular activities were the reasons for the declining education standards at secondary level in Pakistan. Whereas these findings were at secondary school level in Pakistan, they compare well with findings of this research that have established that school environment has an effect on teachers' performance in public primary schools in Bugisu sub region.

To triangulate these quantitative data from the questionnaires that were administered to teachers and school management committee members, structured interviews were conducted with the DEOs, district inspectors of schools, staff of directorate of education standards and head teachers. The interviews were supportive of the findings in Tables 1 and 2. When asked whether schools had enough classrooms and good black boards, the responses of head teachers were varied and they included:

Head teacher BH1, "My school has enough classrooms and the black boards are in fairly good conditions and our teachers use them very well."

Head teacher BH4, "The classrooms are not enough but we have good black boards. Even classes that learn under shades have good portable black boards"

Head teacher MH 19, "Our classrooms are not enough and even our black boards are in poor conditions and this has really affected our performance"

The views of the DEOs and DISs were similar to those of the head teachers. They agreed that some schools had enough classrooms for every class and good black boards while others did not have and the various schools were thus affected differently. Those with few classrooms found it very difficult to conduct lessons during the rainy season. Poor black boards also made teachers' work quite difficult when it came to writing and this has a direct effect on their performance.

When asked if schools had good sanitation for teachers, head teacher SH21 remarked that, "the sanitation is generally good especially in the dry season but during the rainy season it becomes poor".

On the issue of schools having enough latrines for teachers, the views of the head teachers included SH11, “My school has two latrines for the teachers, one for the females and another for the male teachers.”

MH23: “We have enough latrines for the pupils but our teachers share one pit latrine. The female teachers are not comfortable sharing this one latrine but we cannot do much at the moment.”

We asked the head teachers whether the availability of good latrines affected teachers’ work in terms of lesson preparation, and their responses included the following:

BH7: “A bad latrine shames the teachers before the pupils and the general public. No teacher would like to go to a bad or dirty latrine. It is worse for the female teachers who are always concerned about cleanliness.”

MH39: “If pit latrines are in bad conditions, then teachers will start going to the latrines of neighbors of the school and this will lead to complaints. Some teachers who come from near the school will go to their homes and this is time wasting and affects syllabus coverage. At the end of it all, the school will have poor results.”

MH47: “Bad latrines are a sign of bad management and they lead to poor teacher performance which translates into poor academic performance in the school.”

The above views were in tune with the views of the DEOs, for example the DEO of district **W** remarked that “bad latrines will lead to poor health of the teachers and this will lead to poor performance”.

The DEO of district **X** was of also of the same view but added, “Bad latrines lead to poor health not only of the teachers but also of the pupils in the school and we cannot allow this to happen because it means that the head teacher in that school is a poor leader whom we have to act on for negligence of duty. Where the government has constructed latrines for schools, we ensure that head teachers maintain them to the required minimum standards for both pupils and teachers. We have some cases in the district where we do not have adequate latrine facilities for both teachers and pupils but we are improving them every financial year.”

When asked to comment about quality of facilities in schools in their respective districts, the DEO of district **W** said, “Overall, facilities in our schools are still not enough and you cannot start by addressing the issue of quality before addressing the issue of availability. Generally, the quality is not the best for both teachers and pupils. Most schools do not have enough latrines and classroom. Some schools do not have cemented classrooms, but these are few. The classes also need repairs. All these issues affect both teachers’ and pupils’ performance.” The views of the DEO of district **X** were not different from those of the DEO of district **W**.

As clearly indicated in Table 2, the school environment was found to have a statistically significant effect on teachers’ performance in public primary schools in Bugisu sub region. The findings in Table 2 are consistent with findings by Ntho and Lesotho Council of NGOs (2013) that revealed that many schools in Lesotho were not attractive and had inadequate furniture, water and sanitation facilities and were overcrowded, leading to irregular attendance by learners. This implies that a more safe, secure and protective school environment is key in both teachers’ and pupils’ performance in public primary schools in Bugisu sub region.

The findings indicate that most schools in Bugisu sub region did not have adequate toilets and staff rooms. During the data collection process, teachers were observed working under trees and on verandahs due lack of classrooms. Some schools were also dilapidated with cracked walls, floors and bad blackboards. This accounts for the current unsatisfactory status of teachers’ performance in public primary schools in Bugisu sub region.

The findings in Tables 1 and 2 are in tandem with findings by Mkumbo (2012) who argues that poor teacher working environment and poor government and community attitudes towards the teaching profession are key demotivators for teachers. This is supported by Ofejebe and Chinelo (2010) who posit that a good learning environment and good working conditions are a guarantee to good quality assurance in education. Given that the school environment in Bugisu sub region was not satisfactory, then it is not surprising that teacher performance was also not satisfactory. The effect of school environment on teachers' performance in public primary schools in Bugisu sub region compares well with these international studies (Mkumbo, 2012; Ofejebe and Chinelo, 2010) .

These findings are buttressed by Bilal (2012) who found a positive relationship between working environment, rewards and leadership and administrative support and job satisfaction of university teachers in Pakistan. This is further supported by Erat, Erdil, Kitapoi and Comlek (2012) who have asserted that organizational environment has a significant effect on individual performance in Turkish state universities. Whereas these international findings were in universities, they compare well with the school environment in public primary schools in Bugisu sub region. Teachers' performance in public primary schools in Bugisu sub region is therefore dependent on the environment in which they work.

Conclusion and Policy Implications

This article is based on research that was conducted on the effect of school environment on the performance of teachers in public primary schools in Bugisu sub region in Uganda. The research relied on quantitative and qualitative data collected from teachers, head teachers, DEOs, DISs, and members of the SMCs. A key question addressed in the article is whether or not the school environment affects teachers' performance. The findings revealed that the school environment had a positive significant effect on the performance of teachers in public primary schools in Uganda's Bugisu sub region as it accounted for 33.2% variance. Based on the data analysis, there is evidence to suggest that a poor school environment leads to poor teacher performance. We therefore conclude that an improvement in the school environment leads to a significant increase in teacher performance and teachers are at times victims of their work environment. Thus, if the government is to increase teachers' performance, improve quality of primary education and move closer to the attainment of SDGs and Vision 2040, efforts must be made to address the various issues in the public primary school environment within which teachers work. There is need for amore safe and secure environment, sufficient classrooms to improve interaction between the pupils and the teachers, and separate latrines for female and male teachers in public primary schools in Bugisu sub region to enhance teachers' performance. We therefore contend that unless the various issues concerning teachers' working environment are addressed in such a way that their performance is guaranteed, pupils' access will not yield learning achievement. Our contention in this article is that if Uganda is to attain Sustainable Development Goals (SDGs) and her Vision 2040, then the discourse on why teachers no longer perform their duties as educators is very important. We need to move beyond the enrolment and access rhetoric towards the achievement of quality education through enhancement of the teachers' environment and subsequently their performance.

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