

School-level Teacher Reward Practices and Quality of Students' Academic Achievement in Secondary Schools in Masaka District, Uganda

Francis Xavier Lubega^{1,*}, Gyaviira Musoke Genza², Jessica Norah Aguti³

¹School of Education, College of Education and External Studies, Makerere University, P.O. Box 7062 Kampala, Uganda

²Department of Foundations and Curriculum Studies, School of Education, College of Education and External Studies, Makerere University, P.O. Box 7062 Kampala, Uganda

³Faculty of Science & Education, Busitema University, P.O. Box 236 Tororo, Uganda

*Corresponding author: lubegafx@yahoo.com

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Abstract The difficulty of finding an appropriate teacher reward system which can sustainably promote quality education prompted the study from which this article arises. This article focuses on two objectives: i) to examine the relationship between prevalent school-level teacher reward practices and students' academic performance and ii) to examine the relationship between prevalent school-level teacher reward practices and teachers' ratings of students' academic performance. Hinged on the philosophical paradigm of pragmatism, the study was conducted in 23 secondary schools through a cross-sectional concurrent mixed methods research design, over a sample of 368 participants, using stratified random and purposive sampling. Data collected using questionnaires, interviews and documentary review was analysed using themes, frequency distribution, and Chi-square test of independence. The study discovered that the practices of involving teachers in reward-related decision making and espousing performance-based reward programs as well as making effort to achieve attractive salaries promise to support teacher-facilitated learning. It was then concluded that improved remuneration mainly in form of higher and more prompt salaries as well as greater participation of teachers especially in the management of school-level reward-for-performance schemes can more effectively promote quality teaching leading to students' gains in learning achievement. It was therefore recommended that reward managers at school level should cherish practices which, on the one hand, enable teachers to receive competitive and more prompt remuneration and, on the other hand, attach special value to teachers' direct or representative participation in major decision making at least concerning merit-based rewards.

Keywords: *teachers, students, reward practices, teacher motivation, academic achievement, performance*

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1. Introduction

Since students' learning is the central objective of teachers' work [1,2], remuneration and other kinds of rewards given to teachers should be clearly linked to learning achievement. However, the link joining teacher rewards and learners' achievement is hard to define. For instance, it has been observed that despite so much knowledge about reward-for-performance programs for the teaching personnel, the influence of these programs on student learning achievement is not yet clear [3,4,5,6,7]. Likewise, it is noted in [8] and [9] that hardship allowance and fifth-year salary bonus, which these scholars respectively investigated, do not seem to affect the productivity of incumbent teachers and are, therefore, not

capable of impacting on student learning. This difficulty of establishing a clear relationship between different teacher reward practices and students' achievement implies that teacher rewarding carries the risk of wasting high sums of resources for wrong targets. Hence, there is a need for further research in order to guide reward strategies. So, this study forms part of the necessary research effort.

The study's purpose was to examine the motivating role of school-level teacher reward practices in relation to enhancing quality education in secondary schools in Masaka District, Uganda. The objectives handled in this article are two: i) to examine the relationship between prevalent school-based teacher reward practices and students' academic performance ii) to examine the relationship between prevalent school-based teacher reward practices and teachers' rating of students' academic performance.

1.1. Background to the Study

In line with the fourth sustainable development goal of the UN 2030 agenda, world focus is placed on achieving quality education for all [3,10]. Hence, educational policies and practices, including reward programs for teaching personnel, need to be aligned with the promotion of quality education. Among the various components of quality education, excellent learning achievement of students is key [2,11,12]. This study, being premised on the assertion that, among in-school factors, teachers have the greatest impact on student learning [13,14], assumed that if teacher motivation is sustainably supported using appropriate reward practices, the quality of students' learning can be boosted. Of course, motivation can also be supported by non-reward strategies, such as tactful persuasion or even coercion. But this study, which is rooted in the realm of reward management for staff, focused on the motivational role of reward practices many of which take a great deal of school resources.

According to [15], reward practice in any organisation ought to support the organisation's core goals, such that if a reward strategy is resulting in little or no gain for the organization's targets, it should be revised or abandoned. In the same line, teacher reward programs should focus on improving the quality of students' learning which, as noted by [1] and [2], is the central objective of teachers' work. However, almost every form of reward practice carries major problems which tend to obstruct the quality of teacher-facilitated learning. For instance, the popular single-salary reward system (which ensures that teachers with the same qualification and experience receive the same salary) does not seem to support teacher motivation that is needed to improve students' learning. In this respect, [1] and [13] note that the single-salary system fails to support teacher motivation simply because it was not designed to reward or encourage superior performance; it was rather intended to ensure objectivity and reward equity. It is also noted that the knowledge-based compensation model, which was in the early 1900s replaced by the single-salary system, was abandoned because it was also impaired by unfair pay discrimination based on gender, race, grade level taught, among other problems [16]. Such discrimination could certainly not support the motivation of teachers, especially the marginalised ones, to deliver quality service.

Hence, researchers and policy makers especially since the 2000s increased their quest for alternative reward practices which might maximize teacher morale in order to support quality learning. Consequently, various designs of performance-based reward programs have been tried across the world in order to enhance teacher motivation that would support superior performance of teachers [3,4,6,7,13]. But these reward-for-performance schemes are also encumbered by numerous problems which often make them ineffective drivers of teacher effort. Such problems include, for example, cases of cheating, favoritism, exclusion of low achieving students, focus on the tested subjects at the detriment of other learning areas, among other issues [7,13,14,17]. Hence, it is noted that although teacher incentive programs are growing in popularity, no one knows for sure if they have a positive effect on teacher practice and student achievement, or if

they are worth the expenditure of funds invested in them [6].

Thus, it is important to continue searching for a clearer link between teacher reward practices and students' learning achievement. Any particular set of reward practices which could be strongly linked to learner achievement would then constitute a suitable reward system which can sustainably motivate teachers to apply high effort in order to enhance the quality of students' learning. However, finding a suitable reward system to influence teachers' effort is said to be complex [1,2,3,7,18,19]. Thus, this study's main question is: What reward practices can sustainably motivate teachers to focus on the quality of students' learning achievement? Operationally, the study endeavored to search for those particular school-based reward practices which might be associated with high learning achievement, because such association could be expected from reward practices which incentivise teachers to offer best service in order to promote the quality of students' learning.

1.2. Literature Review

Several studies have looked at students' achievement as the principal focus in teacher reward practices. For instance, [8] studied the impact of the Gambian teacher hardship allowance on student performance, but found no effects of the allowance on average test scores. Of course, hardship allowance does not focus on promoting superior learning; it rather seeks to persuade staff to work in relatively more difficult contexts. Similarly, [9] concluded that salary-raise in form of quinquennium bonus (increment after five-year service) does not seem to affect the productivity of incumbent teachers and, therefore, is not capable of impacting on student learning. One notes that even this bonus, which was not tied to teacher performance or demonstrated skill, would hardly be expected to drive teacher motivation towards improvement of learner's achievement. Moreover, it is even possible that an unscrupulous person would spend five years rendering mediocre service merely to elude penalties.

Likewise, a study in [5] investigated the impact of teacher performance-pay programs on student achievement but found that receipt of a financial reward did not consistently relate to test score gains. However, it is noted in [20] that, among the U.S. based studies, the effect of teacher merit pay on student test scores is positive and statistically significant. Similarly, the study in [21] investigated the impact of pay-for-performance in USA and noted that the practice led to slightly higher student achievement in Literacy and Mathematics. Relatedly, it was found that incentive schemes tied to low achieving learners can effectively address teacher neglect of this category of students [17]. These studies which report positive relationship are commonly looking at performance-based reward schemes, implying that the role of other reward practices (e.g. staff benefits and allowances attached to special responsibilities) might be more difficult to establish.

Moreover, even the impact of performance-based reward options is still uncertain. For instance, it is noted in [6] that the effect of teacher incentive programs on

student achievement is not yet clear. Similarly, it is asserted in [4] that although merit pay for teachers has over the last decades been tried many times, it doesn't raise test scores, or improve teacher attraction and retention, and it doesn't improve teacher morale. Likewise, a view in [3] holds that while many systems have experimented with motivating teachers through bonus pay for meeting specific targets, the results on teacher motivation have been mixed. Such unclear effect on teacher motivation implies unclear impact on learners' teacher-facilitated achievement. Hence, a conclusion in [6] states that no one is sure if teacher incentive programs have a positive effect on students' achievement.

Meanwhile, there is growing focus on salary reforms. For instance, reports in [22] indicate that in all research locations studied, teachers were not interested in career reforms unless such reforms included salary increases. In this respect, a closing remark in [22] asserts that salary review is an indispensable prerequisite for any attempt to upgrade the status of teaching careers. In another context beyond the teaching profession, it is argued in [23] that higher salaries can even compensate for the negative effects of problems in pay systems. But still, salary is certainly not the only factor that needs to be considered when it comes to enhancing teacher motivation [9, 14, 22]. Thus, it is remarked in [7] that, although over time higher salaries could attract more capable candidates to the teaching profession, raising salaries is no quick fix for shortcomings in teacher motivation or effort. So, literature has not yet established a firm relationship between teacher reward practices (both at the school and supra-school levels) and students' achievement, implying the need for further research effort.

However, at least a weak relationship has been reported with regard to particular reward strategies, especially salary enhancement and performance-based reward schemes. So, considering such findings, and premising the argument on the notion that reward influences motivation [23-26], this study assumed that a firm relationship between school-based teacher reward practices and students' academic achievement could be established. Hence, the study endeavoured to identify those school-based teacher reward practices which may positively be linked to students' academic achievement. The focus was placed on the school-level practices, because it was assumed that effective daily measures to promote teacher morale and its impact on learning achievement can best be applied at the school level.

1.3. Theoretical Background

Vroom's expectancy theory guided this study. The theory postulates that people will put in high effort if they believe that their effort will yield expected performance level and that the performance will be rewarded [23,27]. Although the theory's title only indicates expectancy, three major factors which determine a person's motivation constitute the theory; namely expectancy on effort, instrumentality of performance, and valence of rewards [28,29].

The theory was adopted for this study because it looks at motivation as driven by a clear link (line of sight) between effort, performance and rewards [15,23,30]. It

implies that a person's motivation will be supported when reward practice demonstrates that cherished rewards depend on exerting sufficient effort required to yield defined performance. The theory is also reasonably comprehensive, embracing extrinsic rewards, intrinsic rewards and the real worth (nominal value) as well as valence (perceived value) of rewards. However, Vroom's theory is criticized for wrongly assuming that individuals always make conscious considerations in relation to their effort and performance and that they are fully aware of the relative value of short-term and long-term rewards related to the current job [29]. This criticism implies that the theory tends to ignore cases when a person's effort may be motivated by unique dedication which is apparently independent of reward considerations. Despite such limitations, however, the theory can largely guide reward policy and practice.

In the teaching context, the theory implies that teachers will put a lot of effort in their professional work if they firmly expect that their effort will not be frustrated, but will lead to the desired performance levels (e.g. students' impressive academic grades), and that one's high performance will lead to desirable returns in form of intrinsic or extrinsic rewards, such as formal recognition, bonus pay, promotion, self-esteem and worthwhile contentment.

1.4. Conceptual Background

First, the notion "school-level reward practices" is part of the broader concept of reward management which is defined as the designing, implementation and maintenance of reward systems [23,26]. In this article, reward management can be viewed as the process of designing, implementing, and controlling matters of employee recompense involving extrinsic and intrinsic as well as pleasant and unpleasant rewards, which employees may receive from their job. Under this definition, school-level teacher reward practices concern the actual implementation of reward programs which are entirely or largely managed at school-level, as contrasted with reward arrangements imposed by above-school authorities.

Secondly, the notion "quality of student's academic achievement" is part of a broader educational target "student achievement" which entails many desirable learning outcomes, including good academic grades, students' ability to use knowledge in real life, vocational skills, problem-solving skills, humanitarian attitudes, democratic values, among others [31,32,33]. Along this line, [34] remarks that insights from the science of learning and child development emphasize the need for a whole-child approach to education that takes into consideration each student's academic, social, and emotional development in learner-centered and culturally relevant ways. This whole-child approach too implies many achievement targets. Since many of the learning outcomes entailed in the concept of student achievement are difficult to measure, the narrower notion of academic achievement, especially in form of test scores, is often used as a practical indicator of learner achievement [9,13,35]. So, this study targeted academic scores, in terms of Uganda Certificate of Education [UCE] results, to study students' achievement, because the relevant data

was available and the researcher would not need to conduct fresh tests, or compile school-based scores which could be associated with challenges, such as diverse data systems and questions of validity and reliability. In this respect, UCE results available in school records were targeted. In addition, teachers' rating of the same UCE performance was targeted because such evaluation carries something more than mere reporting of results; it carries motivational sentiments such as attachment to the school and desire to paint an impressive image of one's place of work. For instance, persons who feel attached to the school could be expected to describe performance at their schools as 'very good' or 'good' in order to project a positive image. They could also put in effort in their service delivery in order to sustain the desired impression. On the other hand, people who are demotivated due to distressful reward-related experiences, among others issues, could perhaps select 'poor' or at best 'average' ratings.

The study used UCE results because, in Uganda's secondary schools, these exams involve the majority of learners and teachers as compared to the smaller numbers that proceed to Uganda Advanced Certificate of Education [UACE] level. So, UCE results were considered to be a practical and useful indicator of overall students' academic performance and teacher effort in each school. Thus, the interaction between prevalent teacher-reward practices and the learner achievement facilitated by the teachers who experience these reward practices could be greatest at lower secondary school level where UCE exams are done. Operationally, high quality academic achievement was indicated by scores or grades that could be ranked as high or above average, while low quality was indicated by below-average grades. To ensure accuracy of data, the original sheets released by Uganda National Examinations Board were preferred. The schools were expected to allow the researcher to look at these sheets, since this information is usually treated as non-confidential material which is often shared in meetings of parents and school governing body or even displayed to the public in order to advertise the school's prestige.

Thirdly, teacher reward practices were examined with reference to their motivating effect, since motivation supports effective teaching that will be translated into high quality learning achievement of students. According to [36] and [27], employee motivation consists of a batch of psychological forces that determine the initiation and direction of a person's behavior, a person's intensity of effort, and a person's level of persistence in the face of obstacles. In the employment context, [27] defines employee motivation as the drive to act as desired by the organization. So, staff motivation is the drive to behave as desired by the employer. Applying such definition to the teaching profession, teacher motivation is then the drive to act in ways that promote quality teaching, excellent learning achievement of students and other outstanding results of teachers' professional work, which are desired by the managers and beneficiaries of educational service.

In this article, motivation is regarded as an underlying main receptor of reward effect and transmitter of the same effect towards students' teacher-facilitated learning. When reward practices are appropriate, the motivation level will

rise and transmit the reward effect towards teachers' effort to promote learners' achievement.

2. Methodology

This study's methodology was hinged on the philosophical paradigm of pragmatism which was considered capable of guiding decisions in terms of what could work best both in this study and in reward practice. Conducted through a cross-sectional survey design, using a quantitatively driven concurrent mixed methods strategy, the study targeted government and private secondary schools in Masaka District, in the southern part of Uganda, where several of the issues related to reward practice and quality outcomes were observed by the researcher.

The target population consisted of 61 secondary schools whose accessible population consisted of 23 schools (37.7%). Instead of about six to twelve schools constituting the sample, as [37] recommends in case of studies that are largely descriptive, a bigger sample of 23 schools, with an average of 12 teachers per school were selected in order to obtain a sufficient number of teacher-respondents. Other participants included students, head-teachers, directors of studies [DOS] and District Education Officers [DEO] who directly deal with (or are affected by) important school affairs including teacher reward systems, instructional quality and learning results. The sample size of 368 was used. The study employed stratified random and purposive sampling techniques. Questionnaire, interview and documentary analysis, whose corresponding tools were designed by the researcher, were used as the main methods of data collection. The parent questionnaire, from which other instruments were derived, had validity and reliability indices of 0.77 and 0.822, respectively, implying that the central instrument was sufficiently valid and reliable.

The study explored the prevailing reward practices in order to identify prevalent ones which were required to form an emerging sample for this study. Quantitative data was analysed using frequency distributions and Chi-square test of independence, interpreted at 0.05 level of significance. Qualitative data was analysed following themes identified in participants' responses. Among ethical concerns, the possibility of involving under-age students was handled by obtaining informed parental consent. For adults, consent was confirmed by their signing of the informed consent forms designed for them. In addition, the study got ethical clearance from both Makerere University School of Social Sciences Research and Ethics Committee and Uganda National Council for Science and Technology. Likewise, an introduction letter from the Dean of School of Education of Makerere University as well as authorization letters from Masaka District administration were secured.

3. Findings

By examining school-level teacher reward practices with special focus on motivating teachers to concentrate on the quality of students' learning achievement, the study

arrived at several findings. These findings are presented under each objective

3.1. Reward Practices and Students' Academic Performance

Under objective one, the prevalent reward practices were examined in relation to UCE results for five most recent years. Table 1 summarizes the performance and shows the ranking used.

Table 1 shows that, with the use of academic ranking based on UCE results, students' learning achievement in each school could be categorized as: i) high performance, ii) average performance and iii) and low performance. In considering UCE grades, the candidates who scored 1st or 2nd grades were considered to have registered above-average (or good) academic performance. Since 1st and 2nd grades are basically obtained by candidates who get score levels referred to as distinctions and credits, their raw scores are generally above 50% in each subject. Hence, these 1st and 2nd grades were, for purposes of this study, described as high or above-average performance, pointing in the direction of educational quality notions like higher standards, on-going improvement, and never to be content

with average performance. On the other hand, the 3rd and 4th grades may be described as ordinary or even below average achievement.

The table was obtained by compiling documentary data concerning grades and numbers of students who sat UCE exams in five most recent years, such that the numbers of candidates regarded as having performed above average were added together and their sums (in column C) were used to calculate percentages (in column F) of the total number of UCE candidates in each school (column B) in the period of five years. The performance relativities obtained using percentages in column F are premised on the idea that better-performing schools tend to enable a higher percentage of their candidates to score good grades as compared to their counterparts. Hence, the values in column F are regarded as reflecting the general level of academic performance at every school. Hence, this study's ranking of each school's performance level was based on the proportion of better-than-average performers produced by each school in the selected time frame. Thus, documentary data could be utilized to study the interaction between reward practices and students' learning achievement. In Table 2 the results of Chi-square analysis using the data are summarized.

Table 1. Ranking of academic performance based on UCE results

A	B	C	D	E	F	G	H	I
		Above-average	Average	Below-average	Percentage of above-average performance			
School ID	Candidates in five years	Grade 1 & 2	Grade 3 & 4	Grade 7, 9 & absent	C/B x 100%	Relative values	Quartile	Performance Ranking
School 1	806	433	359	14	53.7	100.0	Top	1. High
School 2	647	301	313	33	46.5	86.6	Top	1. High
School 3	250	107	141	2	42.8	79.7	Top	1. High
School 4	566	219	331	16	38.7	72.1	Third	2. Average
School 5	294	110	178	6	37.4	69.6	Third	2. Average
School 6	841	296	511	34	35.2	65.5	Third	2. Average
School 7	282	89	180	13	31.6	58.7	Third	2. Average
School 8	140	41	91	8	29.3	54.5	Third	2. Average
School 9	267	77	174	16	28.8	53.7	Third	2. Average
School 10	249	68	170	11	27.3	50.8	Third	2. Average
School 11	273	72	194	7	26.4	49.1	Second	3. Low
School 12	309	74	221	14	23.9	44.6	Second	3. Low
School 13	196	46	131	19	23.5	43.7	Second	3. Low
School 14	511	119	349	43	23.3	43.3	Second	3. Low
School 15	321	73	226	22	22.7	42.3	Second	3. Low
School 16	262	57	186	19	21.8	41.1	Second	3. Low
School 17	534	97	395	42	18.2	33.8	Second	3. Low
School 18	144	20	116	8	13.9	25.9	Second	3. Low
School 19	99	10	83	6	10.1	18.8	First	3. Low
School 20	199	13	159	27	6.5	12.2	First	3. Low
School 21	306	16	216	74	5.2	9.7	First	3. Low
School 22	10	7	3	0	70.0	Not ranked; had results for one year		
Total	7506	2345 (31.2%)	4727 (63.0%)	434 (5.8%)				
School 23	968	968	00	00	100	Outlier	Top	High
TOTAL	8474	3313 (39.1%)	4727 (55.8%)	434 (5.1%)				

Table 2. Reward practices and students' UCE performance

No	Significant relationship observed	χ^2	df	α -level	Cramer's V	Cells with expected count less than 5
1	Teachers' salary level and students' performance ranking based on UCE results	25.125	4	.000	0.217	0 cells (0.0%)
2	Holiday-pay practices and students' performance ranking based on UCE results	23.359	4	.000	0.216	0 cells (0.0%)
3	Prevalence of performance-based reward practice and students' performance ranking based on UCE results	17.032	4	.002	0.179	0 cells (0.0%)
4	Performance-based rewards given to individuals or teams or entire staff and students' performance ranking based on UCE	13.860	4	.008	0.170	0 cells (0.0%)

According to Table 2, various reward practices were significantly related to students' academic achievement as measured using UCE results. For example, entry 1 shows that crosstabulation of teachers' salary level and the ranking of students' academic performance yielded a Chi-square value of 25.125 which is significant at α -level of 0.000. Judging from the frequency distribution generated by the analysis, the finding implies that lower salaries are associated with relatively poorer academic performance of learners as compared with higher salary levels. Although, the prevalent salary levels for teachers in the study context were almost all low, the relative differences between the observed salary ranges reflect a useful relationship.

Concerning the need to enhance salaries, one director of studies in a Government-aided school recommended:

There should be salary increment of teachers yearly, because the standard [cost] of living is always high. The little pay given to teachers is not enough to cater for their needs and as such they end up part-timing in many schools to make ends meet. Hence, no time to cater for individual attention of learners (Extracted from DOS questionnaire, Case 5).

This recommendation implies that a low level of basic pay for teachers exacerbates financial anguish which disrupts teachers' attention to individual learners and commitment to their instructional services. In such scenario, it would be difficult to expect quality learning achievement.

Similarly, one teacher politely appealed for salary improvement:

Teachers are not very demanding in their nature and they are normally committed. If someone can survive on five hundred thousand [UGX 500,000 or USD 143], one can do very well with one point five M [UGX 1,500,000 or USD 429]. They will be happy when some salary increment is done (Interview with teacher, Feb 23, 2021).

This comment implies that some decent improvement of salaries is needed to cater for survival pressures which threaten to disrupt teachers' motivation and dedication. The response also reveals that teachers' call for salary enhancement does not suggest that teachers are inconsiderate and exacting. It rather implies that the sustainability of teachers' natural motivation calls for enhanced pay which can enable teachers to meet at least the basic needs of life.

So, the finding in entry 1 of Table 2 coupled with qualitative responses mean that basic pay exerts special impact on teachers' instructional effort. Hence, reward managers both at school and other levels will have to strive to ensure that teachers' salaries are reasonably competitive, in order to utilize the associated potential of improving teachers' effort which can lead to better learning outcomes.

Further still, entry 2 in Table 2 shows that holiday pay practice was associated with students' academic performance, as indicated by the Chi-square value of 23.359 which is significant at α -level of 0.000. The results imply that holiday pay forms one of the aspects of favorable remuneration which incentivize teachers to apply higher effort that will be translated into better learning. Similarly, entries 3 and 4 reveal that espousal of performance-based reward programs and the choice to give these merit rewards to individuals or teams or entire staff were significantly associated with students' performance, as the Chi-squares of 17.032 (at $\alpha = 0.002$) and 13.860 (at $\alpha = 0.008$) reveal. The data distribution implies that teachers who receive rewards pegged on performance tend to be motivated to deliver better instructional service which can lead to higher attainment scores. However, the recipients of these rewards need to be fairly determined, if problems of perceived inequity are to be avoided. Likewise, the findings imply that giving to individuals the performance-based rewards pegged on UCE results is associated with poorer or average academic results as compared to the better results linked to rewarding teams or entire staff. This finding implies that attributing good academic results to individual teachers would unfortunately demotivate other teachers who contribute to the same performance. Hence, subsequent instructional effort would be disrupted.

Thus, findings under objective one indicate that competitive salary levels, payment for holiday time, and espousal of performance-based reward practices are positively associated with learners' academic achievement. However, the decision to give performance-based rewards to individual teachers or teams or entire staff needs to be based on acceptable criteria which can guard against the risks of unfair or dubious dealing which can disrupt motivation.

3.2. Reward Practices and Teachers' Ratings of Students' Academic Performance

Under objective two, the prevalent reward practices were studied in relation to teachers' ratings of UCE performance in their respective places of work (schools).

In the first place, a count of teachers' ratings indicated 36.9% for 'very good' or 'good'; 49.6% for 'average'; 2.9% for 'poor' or 'very poor', and 10.6% for 'don't know' or none response. This response pattern shows that teachers' judgement of learners' academic performance tended to be skewed towards a more positive side represented by 'good' or at least 'average' responses. The data trend implies that either academic performance in the sampled schools could truly be described as good or average, or the teachers tried to avoid an unfavorable

impression of performance in the schools where the researcher met them. With the use of these responses, Chi-square analysis generated low expected frequencies in some cells of contingency tables, tending to confound interpretation. Nevertheless, Table 1 also confirms that the majority of students scored average grades. So, the responses were regarded as reflecting actual performance trends. Table 3 shows the results.

According to Table 3, several reward practices were significantly related to students' academic achievement. For example, entry 1 shows that crosstabulation of teachers' salary level and teachers' rating of academic performance yielded a Chi-square value of 12.629 which is significant at α -level of 0.013. Judging from the distribution generated by analysis, the finding implies that lower salaries are associated with relatively poorer academic performance as compared with higher salary levels. Hence, the findings mean that basic pay exerts special impact on teachers' instructional effort, such that reward managers both at school and other levels will have to strive to ensure that teachers' salaries are competitive in order to utilize the associated potential of improving teachers' effort which can lead to better learning outcomes.

In line with the idea of improved pay, one teacher from a private school opined:

A minimum pay of teachers (beginning pay) should be set by the district to avoid over exploitation of some teachers (Extracted from teachers' questionnaire, Case 136).

This remark implies that the minimum wage legislation can be one of the ways of improving on the low salaries which impact negatively on the quality of teaching and learning. Besides, the response reveals a feeling that low levels of pay imply exploitation of teachers. Such feelings point to demotivation which cannot support teacher-facilitated learning.

However, another teacher from a Government-aided school recommended thus:

[Our school] being a small institution, if the small cake around was shared honestly and equally, with polite communication, this would bring quality service and commitment of members (Extracted from teachers' questionnaire, Case 242).

This response indicates a self-motivated and understanding teacher who is ready to render valuable service amidst resource constraints, provided school administration endeavors to maintain an environment of fairness and clear communication. One could argue that such communication and the perception of fairness can be more effective when teachers' involvement is espoused, because involvement allows individuals to get informed and enables them to promote the level of fairness they desire.

Still, entries 2-3 in Table 3 show that consulting

teachers concerning reward-related decisions and the endeavor to achieve timely payment of remuneration were associated with students' academic performance, as indicated respectively by the Chi-square values of 23.351 (at $\alpha = 0.000$) and 9.434 (at $\alpha = 0.009$). The findings imply that teachers' professional participation in reward-related decision making will motivate them to focus on learners' quality achievement. Likewise, prompt release of salaries will incentivize teachers to apply higher effort which will be translated into better learning achievement.

Concerning involvement, teachers' recommendations called for involvement of teachers in reward-related decision making. For example, one teacher wrote:

Teachers should be involved in deciding who and when to give rewards. There is also need for a higher pay especially to better performers (Extracted from teachers' questionnaire, Case 131):

This example of teachers' recommendations, besides its additional call for higher pay, implies that teachers' involvement in reward-related decision making might motivate teachers to deliver good service. The view tallies well with the finding represented by entry 2 in Table 3.

With regard to timely pay, one teacher for example remarked:

In this school teachers are motivated by the timely salary payment, unlike in other private schools where salary delays are rampant. While Government pay is more timely, payment for private teachers both in private schools and Government schools is commonly delayed. The directors of schools tend to withhold the funds in order to serve their private interests at the expense of teachers (Interview with teacher, February 16, 2021).

This response implies that private teachers are more likely to suffer from the agonies of pay delays, simply because the resources, which would be used to pay the teachers in time, are rendered unavailable by the private dealings of school-based reward managers.

Furthermore, entries 4-5 in Table 3 reveal that espousal of performance-based reward programs and the choice to give these merit rewards to individuals or teams or entire staff were significantly associated with students' academic performance, as the Chi-squares of 32.642 (at $\alpha = 0.000$) and 10.700 (at $\alpha = 0.030$) show. The results imply that teachers who receive rewards pegged on performance tend to be motivated to deliver better instructional service which can lead to higher attainment scores. In the same way, the data distribution reveals that giving to individuals the performance-based rewards tied to UCE results is associated with poorer or average academic results as compared to the better results linked to rewarding teams or entire staff. This finding implies that attributing good academic results to individual teachers would unfortunately demotivate other teachers.

Table 3. Reward practices and teachers' ratings of students' academic performance

No	Significant relationship observed	χ^2	df	α -level	Cramer's V	Cells with expected count less than 5
1	Salary range and teachers' rating of UCE performance	12.629	4	.013	0.161	3 cells (33.3%)
2	Consulting teachers and teachers' rating of UCE performance	23.351	4	.000	0.206	3 cells (33.3%)
3	Timely payment and teacher's rating of UCE performance	9.434	2	.009	0.187	2 cells (33.3%)
4	Prevalence of performance-based reward practice and teachers' rating of UCE performance	32.642	4	.000	0.259	3 cells (33.3%)
5	Performance-based rewards given to individuals or teams or entire staff and teachers' rating of UCE performance	10.700	4	.030	0.156	3 cells (33.3%)

Thus, the findings under objective two indicate that the verbal remarks and teachers' ratings supported particular reward practices especially attractive salaries, involvement of teachers in reward-related decision making, prompt pay, and espousal of performance-based reward practice.

4. Discussion

This study's findings revealed that several of the prevalent school-level teacher reward practices were associated with students' academic achievement as measured using UCE results. Three outstanding findings are discussed in the following paragraphs.

In the first place, instances of offering higher salaries were positively associated with students' academic achievement, implying that salary exerts impact not only on the teachers' private life but also on the teaching effort which in turn gets translated into students' test scores. In addition, prompt pay and holiday time remuneration, which were observed to be positively related to students' academic performance, may be regarded as components of attractive pay or improved remuneration situation since timely payment implies greater convenience while pay for holiday time implies increased sum of teacher's annual pay. The findings on improved remuneration situation agree with the observation that the competitive levels of teacher salaries in Finland and Thailand constitute one of the important factors which are making the teaching profession a coveted one in those countries [7,22]. If the teaching profession in a given country is coveted, then it implies attraction of better talent into the profession and improved retention of good teachers. Such positive image of the profession and the improved teacher retention as well as enhanced morale of incumbent staff imply teachers' greater readiness to engage the students in learning activities, thereby pointing in the direction of good learning achievement. In addition, the finding tallies with the argument that base pay exerts great influence because it not only enables the teacher to procure basic items, but it is also what the teacher writes on applications for loans or mortgages and determines a person's pension benefits [4]. Such importance of salary reflects the argument that higher salaries can even compensate for the negative effects of several problems in reward systems [23]. These arguments support the assertion in [22] that salary review is an indispensable prerequisite for any attempt to support teachers' morale and to upgrade the status of teaching.

However, the view that improved salaries for teachers will influence students' academic achievement does not tally with the contention that salary increases for incumbent teachers do not seem to affect their productivity and are therefore not capable of impacting student learning [9]. Similarly, [7] reports that when pay was doubled for certified teachers in Indonesia, no impact was observed on either measurable effort for existing teachers or the performance of their learners. Such observations reflect the remark in [14] that, since increased monetary pay may not be a silver bullet, salary enhancements will be effective only if they are part of a comprehensive teacher incentive framework which focuses on various motivators. Relatedly, [4] notes that

effective teaching seems to be its own reward while bad teaching carries its own punishment, implying that teachers are more motivated by experiences obtained during teaching and interaction with learners rather than extrinsic rewards such as salary increase.

The allusion to other motivators beyond financial rewards points to another outstanding finding that the practice of involving teachers in reward-related decision making is significantly related to students' academic achievement. This finding implies that where the practice of involving teachers in reward-related decisions is prevalent, teachers are likely to be motivated to exert good effort in their pedagogical service. The finding agrees with [34,38] and [39] who note that enabling teachers to play an influential role in the decision-making process promotes good motivation which impacts positively on various school aspects. Such aspects should certainly include school-level reward practices and matters of students' learning achievement. Likewise, [40,41], and [42] observe that skilled employees such as teachers tend to be motivated by systems where their voices are heard and where they feel valued as respectable professionals who should actively participate in major decision making. In a wider context beyond education, [43] also observes a significant and positive relationship between employee voice and job engagement.

However, some unscrupulous administrators may abuse the idea of participation, especially in form of pretending to collect staff views only to discard them at the end. For instance, [44] notes that although participating employees have potential influence within an organization, management is free to ignore their views and opinions. In a school context, such disregard of expressed views could be detrimental to teacher motivation. Thus, not only should the practice of involvement seem to be adopted, but the expressed views of staff should also be accorded the respect they deserve. Of course, the notion of respect for staff views does not imply implementing every idea from the teachers, but it emphasizes the need to desist from dishonest and deceptive handling of staff participation. Hence, it is important to avert the bad impression that staff involvement has become an empty ritual in which views are apparently sought out but then simply thrown away afterwards. Such impression could be averted when school administration makes worthwhile feedback about the deliberations held and the decisions finally adopted. So, since teachers are resourceful professionals who can offer valuable contribution for school improvement [34], their voice remains vital in important decision making concerning their rewards and indeed in other important aspects of school life.

Lastly, it was found that the prevalence of performance-based reward practice implies greater teaching motivation which can lead to improved learning achievement. The finding agrees with views which suggest that teacher reward systems should include performance-based reward options [1,7,13,14]. These views emphasize that performance-based reward schemes can support excellent teacher performance indicated by learners' academic results, among other criteria. In this respect for example, [20] observed that, among the U.S. based studies, the effect of teacher merit pay on student test scores was positive and statistically significant.

However, the idea that performance-based reward schemes imply greater teaching motivation leading to improved learning achievement disagrees with the contention that no one is sure if these schemes have a positive effect on students' achievement [3,4,6]. Such mixed views about the influence of performance-based reward practice could explain the observation in [7] that education systems in many countries do not reward teachers for performing well. This observed hesitation could be due to doubts about the merit of the wide variety of performance-based reward designs whose evidence of effectiveness is, according to [7], still limited. The wide variety of these reward designs has been well described in [1,7,13,14,45]. Nevertheless, [7] argues that, while details of performance-based reward schemes may vary, no education system will be successful unless it provides performance- or effort-based incentives. In this respect, as opined in [6], if teacher incentive programs are properly designed, they can improve student achievement. Unfortunately, achieving proper design of merit incentives continues to be a challenge.

Perhaps such proper designs could also appear in several forms, e.g. teachers receiving a separate bonus for teaching practices, another bonus for students' test scores and still another reward for other areas of professional service [6], or basing performance-based rewards more on teachers' classroom successes than students' performance [14], or using appraisal-based salary progression as one of the forms of linking pay to performance so that the possibility of faster progression will exert the motivating force [22]. Amidst this debate, it has been suggested that education systems need to invest in a comprehensive teacher motivation framework which focuses on rewards that are highly valued, including competitive salaries, professional development, on-going promotion, feeling of accomplishment, and professional prestige [3,7,12,22,42,46]. But such comprehensive approach may be costly for many education systems. So, in several contexts, especially in poorer societies, the reward options need to be less resource-intensive.

In the light of Vroom's expectancy theory which guided this study, the findings imply various motivational benefits. For instance, attractive salaries will carry high valence which will motivate teachers to dedicate their energies into improving students' achievement scores. Similarly, the involvement of teachers in the reward-related decision making processes will enable teachers to enjoy a significant degree of ownership privileges, including greater opportunity to determine performance targets and relevant reward packages. This means that agreed and achievable results will increase expectancy on effort while the worth of available rewards within the school's contextual limitations will be appreciated and freely accepted by the teachers. So, genuine participation of teachers improves the sense of belonging and citizenship behavior in the school, implying greater motivation and self-application both in administrative deliberations and in determining the best way of improving learners' achievement. Likewise, when performance-based reward practice is perceived (at least by sound-reasoning persons) to be trustworthy, the expectancy on effort and instrumentality of performance, which drive teacher motivation to focus on students'

learning, will be enhanced. Such trustworthiness can be attained when teacher performance is assessed as objectively as possible and every teacher who attains specified targets receives the promised rewards without discrimination.

Hence, considering the importance of teacher involvement as noted by this study, a teacher-managed scheme involving performance evaluation and merit-reward decisions is likely to enhance objectivity and be able to motivate teachers in their respective school contexts. In this way, the teachers themselves will be able to determine whether a given form of merit together with its attached rewards should be accorded to individuals or a given team of teachers or even the entire staff. However, schools which have a big number of teachers may not be able to directly involve every teacher in reward-related decision making. Thus, each school context needs a specific team or committee elected by the teachers, so that individuals may either be involved directly or through their preferred representatives.

5. Conclusion, Contribution and Limitations

In answering this study's major question, 'Which reward practices can sustainably motivate teachers to focus on the quality of students' learning achievement?', the study found three outstanding strategies. These include feasible enhancement of remuneration especially in form of higher and more prompt salaries, greater and genuine participation of teachers in reward-related decision making, and espousal of performance-based reward programs governed by the teachers themselves. These three strategies promise to promote effective teaching which leads to students' quality learning. In addition, improved salary conditions will attract more talented persons into the teaching profession. Likewise, genuine involvement of teachers constitutes part of good personnel handling which will encourage excellent teachers to stay in the service. Thus, improvement of teachers' salaries, promotion of genuine teacher participation in reward-related decisions, and espousal of school-level performance-based reward programs governed by teachers are key components of using reward practice to sustainably enhance teacher motivation which will support quality learning achievement of students.

However, this study limited itself to the academic scores of one grade level (Senior four) to represent the wide notion of students' achievement in an entire school. So, in the first place, it remains necessary to search for best possible ways of measuring learner achievement using more than academic results. Other indicators could include scores generated by skills assessment and attitudinal tests, if proper metrics for these dimensions are firmly established. Secondly, using school-wide scores instead of targeting a particular grade level or selected subjects could better reflect overall learning achievement in each school. So, it is important to find ways of using assessment results from the different classes and various learning areas in the school. Thirdly, the concept of teacher performance, which is central in the management of merit-based reward programs, remains elusive. So,

there is need for further examination in order to clarify this concept, so that performance assessment and merit reward decisions may be based on an agreed notion of performance.

6. Recommendations

In order to enhance the impact of teacher reward practices on students' learning achievement, school-level reward managers should cherish practices which enable teachers to receive competitive and more prompt remuneration. Equally important, each school's reward practice should be designed in such a way that it accords due respect to teachers' professional participation in major decision making concerning rewards, and preferably in all important affairs of school life. Likewise, reward managers should espouse reward-for-performance schemes that are governed by the teachers themselves. Given the complex nature of teacher motivation and teacher performance, teachers should as much as possible be the drivers of performance assessment and merit-based reward decisions. If teachers are allowed to be the drivers of such matters, the factor of genuine involvement, which this study has found to be crucial, will enhance teaching motivation which will support the desirable quality of student's learning achievement. However, a school with a big number of teachers will have to constitute a specific team voted by teachers, so that individuals can either be involved directly or represented by elected colleagues. In addition, teachers' involvement needs to be governed by clear guidelines in order to streamline reward practice, avoid unethical manipulations and minimize tendencies which may overstretch the school's budget. Such guidelines have to be issued by each school's governing body or similar authority in line with national regulations.

Finally, the authors have no competing interests which could have influenced the findings and conclusions of the study.

List of Abbreviations

DEO	– District Education Officer
DOS	– Director of studies
UACE	– Uganda Advanced Certificate of Education
UCE	– Uganda Certificate of Education
UGX	– Uganda Shilling
UN	– United Nations
USD	– United States Dollar

References

- [1] OECD, Building a high-quality teaching profession: Lessons from around the world, 2011. www.oecd.org/publishing.
- [2] TIF, A teacher incentive framework for Uganda. 2017. <http://www.radixconsults.com/wp-content/uploads/2017/06/A-TEACHER-INCENTIVE-FRAMEWORK-IN-UGANDA.pdf>.
- [3] UNESCO, Teacher motivation and learning outcomes, 2021. <https://learningportal.iiep.unesco.org/en/issue-briefs/improve-learning/teachers-and-pedagogy/teacher-motivation-and-learning-outcomes>.
- [4] Greene, P., Teacher merit pay is a bad idea: Policies and practices from the classroom perspective. 2019. <https://www.forbes.com/sites/petergreene/2019/02/09/teacher-merit-pay-is-a-bad-idea/?sh=45dd2a424ffb>.
- [5] Shifrer, D., Turley, R.L. and Heard, H., "Do teacher financial awards improve teacher retention and student achievement in an urban disadvantaged school district?", *American Educational Research Journal*, 54(6). 1117-1153. 2017.
- [6] University-of-California, "Teacher incentive programs can improve student achievement: Programs that combine group and individual rewards can have good results and be cost-effective", in *Science Daily*. University of California – Riverside, 2019. www.sciencedaily.com/releases/2019/07/190723104114.htm.
- [7] World-Bank, World development report 2018: Learning to realize education's promise. Open Knowledge at World Bank, 2018. <https://openknowledge.worldbank.org/handle/10986/28340>.
- [8] Pugatch, T. and Schroeder, E., "Teacher pay and student performance: Evidence from the Gambian hardship allowance", *Journal of Development Effectiveness*, 10(2). 249-276. 2018.
- [9] Tavares, P. and Ponczek, V., "Teacher pay and student performance: Evidence from Brazil", *Brazilian Review of Econometrics*, 38(2). 197-219. 2018.
- [10] UN Transforming our World: The 2030 agenda for sustainable development. 2015. www.un.org/sustainabledevelopment/sustainable-development-goals/.
- [11] UNICEF, Defining quality in education. 2000, United Nations Children's Fund, New York. <https://www.unicef.org/education>.
- [12] Eren, O., "Teacher incentives and student achievement: Evidence from an advancement program", *Journal of Policy Analysis and Management*, 2019. 38(4): p. 867-890.
- [13] Santibañez, L., *Teacher incentives (Chapter 31)*, in *The Economics of education: A comprehensive overview*. 2020. p. 431-441.
- [14] Weldon, T. Does merit pay for teachers have merit? Pros and cons of new models for teacher compensation. 2011. https://knowledgecenter.csg.org/kc/system/files/Does_Merit_Pay_For_Teachers_Have_Merit_0.pdf.
- [15] Armstrong, M. and Taylor, S., *Armstrong's handbook of human resource management practice*, 15th ed., Kogan Page, London, 2020.
- [16] Department-of-Education, *History of teacher pay changes*. 1995: CPRE Finance Briefs.
- [17] Chang, F., et al., "The impact of pay-for-percentile incentive on low-achieving students in rural China", *Economics of Education Review*, 75, 1-10. 2020.
- [18] Jacobson, S.L., "Monetary incentives and the reform of teacher compensation: A persistent organizational dilemma", *International Journal of Educational Reform*, 4(1), 29-35. 1995.
- [19] Murmane, R.J., Economic incentives to improve teaching, in *Teachers in developing countries: Improving effectiveness and managing costs*, J.P. Farrell, et al., Editors. Economic Development Institute, World Bank. 1993.
- [20] Pham, L.D., Nguyen, T.D. and Springer, M.G., "Teacher merit pay and student scores: A meta-analysis", *American Educational Research Journal*, 58(3), 527-566. 2020.
- [21] Chiang, H., et al., Evaluation of the teacher incentive fund: Final report on implementation and impacts of pay-for-performance across four years. 2017. <http://ies.ed.gov/ncee>.
- [22] UNESCO Teacher salaries: A prerequisite for reform. 2020. <http://www.iiep.unesco.org/en/teacher-salaries-prerequisite-reform-13479>.
- [23] Armstrong, M., *Armstrong's handbook of reward management practice: Improving performance through reward*. 5th ed. 2015a, London, England: Kogan Page Ltd.
- [24] Maslow, A.H., "A theory of human motivation", *Psychological Review*, 50(4), 370-396. 1943.
- [25] Vroom, V., *Work and motivation*, Wiley, New York, 1964.
- [26] Armstrong, M. and Brown, D., *Armstrong's handbook of reward management practice: Improving performance through reward*, 6th ed., Kogan Page, London, 2019.
- [27] Jones, G.R., George, J.M., and Hill, C.W.L., *Contemporary management*, 2nd ed., McGraw Hill Education, New York, 2000.
- [28] Lunenburg, F.C., "Expectancy theory of motivation: Motivating by altering expectations", *International Journal of Management, Business, and Administration*, 15(1), 1-6. 2011.

- [29] Parijat, P. and Bagga, S, "Victor Vroom's expectancy theory of motivation – An Evaluation". International Research Journal of Business and Management, 7(9). 2014. www.irjbm.org.
- [30] Armstrong, M., *Armstrong's handbook of performance management: An evidence-based guide to delivering high performance*. 5th ed. 2015b, London, England: Kogan Page Ltd.
- [31] ESSP, *Education and sports sector strategic plan (2017/18 - 2019/20)*. 2017, Ministry of Education and Sports, Kampala.
- [32] Scheerens, J., Luyten, H. and van Ravens, J. eds. "Perspectives on educational quality: Illustrative outcomes on primary and secondary schooling in the Netherlands", in *SpringerBriefs*, New York. 2011.
- [33] UNESCO Towards indicators for a post-2015 education framework. 2014. www.unesco.org.
- [34] Darling-Hammond, L. Teachers innovating for education transformation. 2022. <https://teachertaskforce.org/blog/teachers-innovating-education-transformation>.
- [35] Cunningham, J. Student Achievement Student Achievement. 2012. <https://www.ncsl.org/documents/educ/CharterSchoolStudentAchievement.pdf>.
- [36] Campbell, J.P. and Pritchard, R.D. *Motivation theory in industrial and organizational psychology*, in *Handbook of industrial and organizational psychology*, M.D. Dunnette, Editor. Rand McNally, Chicago. 63-130. 1976.
- [37] Gay, L.R., *Educational research: Competencies for analysis and application*, 5th ed., Prentice-Hall, Inc., New Jersey, 1996.
- [38] Fang, X., "Exploring effective measures for improving teacher leadership in junior high schools in china" International Journal of New Developments in Education, 3(1), 16-23, 2021.
- [39] San, S.M.H.S. and Ni, K.M, "Relationship between teachers' empowerment and teachers' professional commitment", *Journal of the Myanmar Academy of Arts and Science*, 18(9), 179-193, 2020.
- [40] Chimaobi, I. and Chikamnele, M.J, "Employee participation in decision making and its impact on organizational performance: Evidence from government owned enterprises, Port Harcourt, Nigeria", *SSRN Electronic Journal*, 27(18), 1-18, 2020.
- [41] Ike, P.R., Ezeh, L.N., and Etodike, C.E, "Employee participation in decision making: A correlate of employee citizenship behaviour and counterproductive workplace behavior", *International Journal of Academic Research in Business and Social Sciences*, 7(7), 934-948, 2017.
- [42] Tournier, B., et al. Teacher career reforms: Learning from experience. 2019. <http://www.iiep.unesco.org/en/teacher-career-reforms-learning-experience-13308>.
- [43] Ruck, K., Welch, M., and Menara B, "Employee voice: An antecedent to organisational engagement?". *Public Relations Review*, 43(5), 904-914, 2017.
- [44] Katkhede, V.R. Pillars of industrial democracy. 2018. <https://www.kobo.com/us/en/ebook/pillars-of-industrial-democracy>.
- [45] Gupta, N. and Shaw J.D, "Employee compensation: The neglected area of HRM research", *Human Resource Management Review*, 24(1), 1-4, 2014.
- [46] Loyalka, P.K., et al., "Pay by Design: Teacher performance pay design and the distribution of student achievement", *Journal of Labor Economics*, 37, 621-662, 2016.



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