

INFLUENCE OF TEACHERS' APPRAISAL ON TEACHING METHODS ON STUDENTS' ACADEMIC PERFORMANCE IN PUBLIC SCHOOLS FOR KENYA CERTIFICATE OF SECONDARY EDUCATION, KENYA

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Abstract

The Universal Declaration of Human Rights has declared that education is fundamental human rights to the well-being of any society. Therefore, the study was motivated by the need to improve students' academic performance in Kenya Certificate of Secondary Education examination, a case in Laikipia County, Kenya. The study was guided by one objective. To examine how appraisal of teachers teaching methodology influences students' performance in Kenya Certificate of Secondary Education in Laikipia County. The study targeted 94 public secondary schools which comprises of 94 principals and 1100 teachers in Laikipia County. Purposive sampling was used to select 45 principals while simple random sampling was used to select 300 teachers. Questionnaires were used to collect data from principals and teachers. The findings of the null hypothesis there is no significant relationship between teacher appraisal on teaching methods and students' academic performance using Chi square test was $= 0.9625 \leq 3.841$. The null hypothesis was rejected hence there is a significant relationship between teacher appraisal on teaching methods and students' academic performance. The study recommends TSC to establish, amend, the current appraisal process and provide professional development growth of teachers to enable them to be motivated when preparing and planning for instruction. To teachers, there is need to have high levels of commitments in preparation and planning, use of relevant teaching /learning materials and use diverse methods which leads to quality teachings and learning process in all classes.

Keywords: Teachers' appraisal, teaching methods, students' performance, public secondary schools

1.0 Introduction

The Universal Declaration of Human Rights has declared the education is a fundamental human rights and its indispensable role is imparting desired knowledge, skills and attitudes that enable their full potentials for individuals and countries growth and development (UNESCO, 2013). Then MOEST 2017 emphasize that progress towards better quality education is constantly achieved by appraising performance of teachers on students' achievement in a national examination result. Sekaran & Bougie, 2011 defines Performance Appraisal as the process through which an individual employee's behaviour and accomplishments for a fixed time period are measured and evaluated. Performance Appraisal as postulated by Wild blood (2006) is a management function, which is a continuing process to determine how effectively employees are performing certain tasks in their positions with the aim of correcting their weak points and to recommend for promotion to better jobs and for making 'merit', increase in hourly rates and salaries. It is used as a check on

the success of recruitment, selection, placement, training, lay off procedures, transfers, dismissals and help to identify people with promotion potential and pinpointing development needs which will leads to increase productivity. An effective Appraisal helps keep people's attention focused on the work results they are trying to achieve.

A study by finding by Anuna (2010) in River State Nigeria proclaims that poor appraisal processes lead to poor students' results in national examinations. The National Policy on Education (2004) in Nigeria emphasizes the need to ensure quality education is through regular appraisal and continuous inspection of instruction and other educational services by school heads. Such regular appraisal by principals enhances classroom work through direct visitation in class during teaching, observation of professional documents that include schemes of work, lesson notes, records of work and progress records of students' performance.

Teachers meet students with different academics' standards in classroom learning and behaviour characteristics as they are struggling to look for better instructional teaching methods and classroom organization tactics (Tournaki & Cricitiello, 2003). Professionals in education are looking for the appropriate methods that can be applied in teaching/learning to make learners master concepts in learning activity (Hightower, 2011). A research study by Ojogan and Oganwn, (2006) observed that the major problem that teachers experience is how to handle the learning process so that caters for all levels of students in a classroom setting. Therefore, the inability of a teacher to teach in an effective way is classified as one of the factors leading to students' poor performance in both internal and National examinations. The learners' interest and the mastery of concepts they show in their fields of study at the accomplishment of the programme is governed on how they were educated. According to Adunola, (2011), it is believed that persistent poor academic performance by majority of learners is due to use of ineffective instructional teaching methods by teachers to transfer knowledge to the learners. Appraisal on effectiveness of the instructional methods shows that the worth of teaching is reflected by the performance of learners. Educators, Scholastics and psychologist have made intense struggle at evolving psychological basis that is crucial for answering the question, how best subjects should be taught to ensure effective and expressive learning (Adunola, 2011). As a results of this, several instructional methods have been established based on the theory that meaningful learning takes place when the learners are actively involved in the knowledge getting process than being passive (Zaare, 2013). These methods include peer tutoring, project and inquiry-based teaching methods. These methods guarantee a move from teachers dominating in classrooms to learners' use of their inquiry and inborn capabilities in explorative and informative ways to realize realities and values, form new ideas and reformulate their awareness, with the instructor working as an initiator in the knowledge receiving process.

In inquiry-based learning, learners are actively involved in the learning process where they frame questions, explore broadly and then form innovative understandings, implications and facts. TSC (2016) study proposed that using inquiry-based learning with learners can help them develop their creativity become more confident and self-governing. This may be applied to all learners

comprising those with special needs who require more distinct devotion during the learning process. As well inquiry-based learning learners' attainments in academic progress.

In Laikipia County the performance of students has been poor. Findings advocated that appraisal activities in secondary schools have been largely attributed to gaps in teachers' competence in curriculum instructional activities (Wanjiku, 2012). This calls for the principals in public secondary schools to improve performance appraisal process to enhance students' performance in KCSE Examinations. The number of candidates scoring above C+ and above which is the minimum requirement for admission to the university has been relatively low, with only 13% of the registered candidates qualifying to join higher education institutions (Laikipia County director office, 2020). Therefore, the researcher anticipated that classroom instruction was ineffective and unproductive in most of public secondary schools in Laikipia county to make Kenyan youth globally competitive. The reasons for poor students' academic performance at KCSE Examinations are varied and not yet clear. These could be poor appraisal systems, lack of enough instructional materials and leadership styles among others. Before 2005, Teachers Service Commission (TSC) employed a confidential teacher's appraisal approach that was found to have shortcomings, as teachers were not aware of the ratings posted on their evaluation by their respective principals. Kassahum (2014), notes that the perception of teachers about appraisal had a significant influence on the outcome of the exercise making it very subjective and prone to abuse. It is important that those charged with responsibility for appraisal of teachers promote positive attitude towards appraisal and the role of appraisal in enhancing performance of students (Verspoor 2008). Therefore, continued poor performance of students in KCSE Examinations in public secondary schools in Laikipia provoked this study to carry further investigation on examine how appraisal of teachers teaching methodology influences students' performance in Kenya Certificate of Secondary Education in Laikipia County.

It is pertinent to note that the appraisal of the teachers is necessary to guarantee and instill professional standards in teaching profession. As such, principals should assist teachers through appraisal to diagnose a remedy challenge that hinder teachers' performance, growth and provide effective guidance in promoting, teachers' professional abilities to enhance good performance of students. It is on this note that the researcher was interested in investigating teachers' appraisal on students' performance in public secondary schools Laikipia County.

According to Wanjiku (2012), findings advocated that appraisal activities in secondary schools have been largely attributed to gaps in teachers' competence in curriculum instructional activities. In Laikipia County the performance of students has been poor. This calls for the principals in public secondary schools to improve performance appraisal process to enhance students' performance in KCSE Examinations. Laikipia County performances in KCSE mean scores for the period 2014-2019 are shown in Table 1

Table 1: Laikipia County and the Neighbouring Counties KCSE Analysis 2014 – 2019

Year	2014	2015	2016	2017	2018	2019
National Index	28.36	27.46	30.78	31.52	24.64	26.98
Laikipia county	20.64	19.61	18.45	19.01	14.83	17.97
Nyeri county	23.42	23.91	24.85	19.31	20.92	23.91
Nyandarua county	23.82	24.01	25.08	26.21	20.41	21.34

Source: Laikipia County, Education Department (2020)

Table 1 shows declining KCSE mean scores of public secondary schools in the last six years. The grades are actually low. The number of candidates scoring above C+ and above which is the minimum requirement for admission to the university has been relatively low, with only 13% of the registered candidates qualifying to join higher education institutions (Laikipia County Director Office, 2018). Therefore, the researcher anticipated that classroom instructions were ineffective and unproductive in most of public secondary schools in Laikipia county to make Kenyan youth globally competitive. The reasons for poor students' academic performance at KCSE Examinations are varied and not yet clear. These could be poor appraisal systems, lack of enough instructional materials and leadership styles among others. Before 2005, Teachers Service Commission employed a confidential teacher's appraisal approach that was found to have shortcomings, as teachers were not aware of the ratings posted on their evaluation by their respective principals. Kassahun (2014) notes that the perception of teachers about appraisal had a significant influence on the outcome of the exercise making it very subjective and prone to abuse. It is important that those charged with responsibility for appraisal of teachers promote positive attitude towards appraisal and the role of appraisal in enhancing performance of students (Verspoor, 2008). Therefore, continued poor performance of students in KCSE Examinations in public secondary schools in Laikipia provoked this study to carry further investigation on some of the underlying causes such as teachers' performance appraisal.

1.2 Statement of the Problem

The Kenyan government immensely invests in training educationalists to enhance establishment of effective evaluation practices among teacher trainees and provision of quality education for all schools to enable learners achieve good performance in national examination.

The introduction of performance contract was to have an open system to teacher performance appraisal. This would also lead to meeting the gaps and provide professional involvement for Promotion of teachers. TSC was supposed to be regularized. Despite these, the KCSE performance in the last three years is still poor. Though there are few studies in education on teachers' appraisal, findings show that professional growth (training) and recognition of teachers' efforts have positively enhanced teaching and students learning. Based on the new teacher appraisal policy TSC, (2015), poor academic performance raises concern as to whether principals' instructional appraisal activities are effective in schools. Principals are expected to motivate, stimulate and consult with teachers in order to improve student's learning, skills and knowledge on instruction

process management. With these interventions in place it would seem reasonable and indeed necessary, to investigate the influence of principals' appraisal of teachers' teaching methodology on students' performance in public schools for Kenya certificate of secondary education, A Case of Laikipia County, Kenya.

1.3 Objectives and Hypotheses of the study

To examine how appraisal of teachers teaching methodology influences students' performance in Kenya Certificate of Secondary Education in Laikipia County.

1.4 Research Hypotheses

H₀1: There is no relationship between principals' appraisal of teachers' methods of teaching on students' performance at Kenya Certificate of Secondary Education in Laikipia County.

2.0 Literature Review

2.1 The Concept of Students' Academic Performance

The student's academic performance refers to the enhancement of the students' current state of knowledge and skills reflected in their GPA and also in the formulation of their personality and academic growth from lower levels of study to higher levels (MOET, 2019).

Education is one of the imperative aspects that not only inculcates the essential skills, abilities and knowledge among the individuals, but also leads to overall growth and progress of the individuals, community and globally. The inculcation of academic knowledge, skills, abilities and proficiency among the individuals is enhanced through learning and academic performance. The academic performance determines the future goals and objectives of students, what subjects they will specialize in, colleges and university they will be enrolled into and what career opportunities they would take up.

Students' output (educational excellence) is critical in producing high-quality achievers, leaders and provide workforce for the nation, ultimately responsible for the region's social economic development. Measuring student's academic performance has previously been a source of concern. Researchers have discovered that there are numerous factors that influence students' learning performance. As per Wisconsin Education Association Council [WEAC], top student tend to have common attributes, positive emotions about their college experience; accredit their high school accomplishment to factors like hard work, conscientiousness, organization, capabilities and self-motivation; watch comparatively little media during school week, correlate with classmate who are also academically successful (Mulatya, 2022).

The determinants of academic performance of the students include, class participation, assignments, home-work, projects, tests, examination such as KCSE and minimum entry to university and participation in competition or other events. The pressure of the parents and other individual upon teachers and school's administrators to improve the academic performance has enabled schools to come up with advanced strategies. These include: promoting extra-classes for students, introducing effective teaching/learning methods and instructional strategies, using technology and rewarding students for good performance for motivation (Nyagosia, 2011). For

realization of good academic performance in schools, instructional resources must be put in place and effectively in classroom practice. During appraisal process on teachers the resources materials such as, the text books, notes learning materials, hand-out, technology, library facilities and laboratory facilities, especially in science subjects should include the essential materials during appraisal process. When students will be provided the necessary tools and equipment, they will be able to acquire a better understanding regarding academic concepts and how to perform the experiments (Otieno, 2022).

Leadership aspect which include-principals, teachers, HODs and administrative staff members of the school are vested with the authority to implement the managerial functions of planning, organizing, supervising, controlling and directing the activities. The principals primarily have the right to make decisions and appraise the teachers' performance according to (TSC, 2016). The decisions may include others and seek ideas and suggestions. The major role of appraisal aspects in influencing the academic outcomes of the students is based upon principals and management of the school of the school (Muia, 2018).

2.2 Concept of Teachers appraisal and performance

Today, all organizations have specific goals that they aim to achieve within a specified period of time. This is made possible if the work force is focused to their targets and is willing to work towards them. Unfortunately, most workers lose focus thus making organizations unable to attain their goals as planned. Performance appraisal came up as a tool to help employees and employers in assessing the performance of an individual in relation to the objectives, activities, output, and targets of job over a given period of time. In organizational settings, performance appraisal is defined as a structured formal interaction between a subordinate and supervisor, that is usually takes the form of a periodic interview [annual or semi-annual], in which the work performance of the subordinate is examined and discussed, with a view to identifying weaknesses and strengths well as opportunities for improvement and skills development. Appraisal may involve formative aspects that focus on developing performance, such as career development, professional learning and feedback. Summative aspects, on the other hand, evaluate performance for career progression, possible promotion or demotion and termination purposes. When used for both accountability and instructional improvement, performance appraisal that identifies and enhances teaching quality may be considered the ideal quality assurance mechanism [Danielson and McGreal, 2000].

The introduction of the new teacher appraisal system in Botswana came with number of new benefits which include, development of teachers in order to improve their delivery in schools, improvement of communication in schools through giving ideas and expectations as well as employees progress, improvement of quality working life by increasing the mutual understanding between managers and their staffs and also enhanced productivity through mutual interaction between the supervisor and the subordinates [OECD,2019]. In Kenya, formalized procedures for appraisal of teachers' performance have been viewed by educators as logical and essential for accountability, quality improvement and best practice in schools. In a school set up, appraisal draws its foundation and data from the events that take place inside and outside the classroom. It is through appraisal that the principals get a clear framework of activities and responsibilities of each member of staff in the school to undertake in a given period [Imoleit et al,2022].

As far as secondary education is concerned, effective appraisal should involve identifying the goals, objectives and standards of educational organization and should be conducted by professionals who are qualified. The obvious purpose of performance appraisal is to lead a teacher to improve his/her teaching capabilities in order to deliver his/her best (TSC, 2016). Good quality secondary education is desired because is a prerequisite for good quality human life, labour skills and economic productivity (URT, 2012). Zaare (2015) reported that appraisal of teachers is crucial because in order to succeed in educational reforms, there should be capable and high-quality teachers in classrooms. They also state that effective teachers can only be seen when there are high quality appraisal systems

So as performance appraisal to be effective, extensive training is necessary to provide trainees with broad opportunities to practice the specified skills, provide trainees with feedback on their practice appraisal performance and that a Comprehensive acquaintance with the appropriate behaviours to be observed. Also, Tesfaw & Hafman (2014) asserts that training of supervisors should be frequently updated and involves appraisal aspects as for example how to give and take feedback, active listening skills and conflict resolution approaches. Choi and Tang (2009) study finding also emphasizes the importance of training if implemented well, employees are less confused; less disappointed concerning measures and are more aware about the intentions of performance appraisal. This means that they will be capable of useful critique and feedback concerning the appraisal process.

Apart from that central aim of appraisal, it has many other objectives like accountability and professional growth of teacher. Makpodia (2011) asserts that, accountability is crucial in order to ensure that a teacher is delivering the service as required by the institution and improvement leads to professional growth and development of a teacher. The effective monitoring and evaluation of teaching is central to the continuous improvement of the effectiveness of teaching in a school. There are many methods of appraisal used in education before such as 360-degree, merit, ranking, critical incident, management by objective (MBO) behaviourally anchored rating scale among other. Nevertheless, these methods were found be ineffective in appraising teachers' performance which led introduction of teachers' performance appraisal and development (TSC, 2016)

2.3 Teachers' appraisal of classroom teaching Methods on students' academic performance

The primary purpose of teaching at any level of education is to bring a fundamental change in the learner through various teaching and learning methods. The effectiveness of these teaching and learning processes largely depend on the choice of the teacher's teaching methods [TSC,2016]. Therefore, a teacher is an important figure in teaching and learning process because he/she follows the curriculum so that throughout the year all the important knowledge is provided to the students. Before Education act [2013] most of the traditional methods were teacher-center with no activity involving learners which made them passive and therefore obtaining knowledge from the teacher without building their engagement level with the subject matter; an approach that was less practical and involved more theoretical and memorizing.

Okoth [2008] study found that commonly used methods of teaching was lecture methods and least used methods being experiments, simulations, problem-solving, gaming and project work. Okoth [2008], further found that demonstration was rated average. The lecture method which is teacher centred does not foster knowledge unless applied with other methods.

Today, most teachers apply the student-centred approaches to promote interest, analytical research, critical thinking, discovery learning and enjoyment among students (Brindley, 2015). According to MOET, (2017) transferring knowledge requires teachers to use diverse appropriate methods of teaching such as: question and answers, assignments, projects, demonstration and group discussion among others. These methods best suit the students and go in line with objectives, goals, core values and desired outcomes. The poor performance in national examinations by majority of learners in various subjects is linked to the application of ineffective teaching methods by teachers to impact knowledge of learners and therefore teachers need to be conversant with various teaching methods that take the recognition of the magnitude of complexity of the concepts to be covered (MOET,2017)

Brindley (2015) describe a set of emotional support and institutional techniques that are equally important to learners as teachers' instructional methods. Teachers can help student become more self-reliant, motivated to learn and willing to take risks by making their delivery methods emotionally supportive and safer Channel (Okoth, 2018). Abubakar (2015) reiterated that the major role of instructional methods is to provide a wide range of alternative avenues through which the same unit of delivery can be presented to learners. He further submitted that the effective utilization of teaching aids in schools makes students to learn in a meaningful way so they become actively involved intellectually, perceptually and physically. According to Ayeli (2011), teaching is a continuous process that involves bringing about desirable change in learners through appropriate methods. Abubakar (2015) sustained that teaching methods work effectively especially if they suit the learner's needs since each learner interprets and responds to questions in a unique way.

Accordingly, particular attention should be paid to the actual process of teaching. Researches finding by Alimi and Akinfolarin (2012) in classroom activities provide the critical link between students' achievement data and teacher practices at classroom level. It is important to know what aspects of teaching and assessment contribute significantly to learners' achievement so that national discussions of classroom practices focus on the typical experiences of students (Ubogu, 2020).

Teaching is a purposeful activity; imaginative activities are directed towards certain desired learning. Therefore, establishing instructional outcomes entails identifying exactly what students will be expected to learn; the outcomes describe not what students will do but what they will learn. The instructional outcomes should reflect important learning and must lend themselves to various forms of assessment so that all students are able to demonstrate their understanding of the content. In so far as the outcome determine the instructional activities, the resources used, their suitability for diverse learners and the methods of assessment employed hold a central place (Danielson, 2011).

3.0 Research Methodology

Ex-post-facto research design was used which involved observing and accurately describing the behaviours of individuals in a certain situation without influencing them in any way (Sekaran &

Bougie 2011). The study targeted 94 public secondary schools which comprises of 94 principals and 1100 teachers in Laikipia County. Purposive sampling was used to select 45 principals while simple random sampling was used to select 300 teachers. This study found Pagano and Gauvrean (2000) formula suitable to compute number of schools and teachers sample sizes respectively. Questionnaires were used to collect data from principals and teachers. To enhance the content validity of the instruments a pre-test of the instruments was carried out. Piloting aimed at testing the clarity of test items, suitability of language used and the feasibility of the study. The reliability of the instruments was determined using test-retest technique. Pearson product moment correlation was used to compute the reliability coefficient at $p < 0.05$ (Best and Khan 2011). The descriptive statistics used included frequencies and percentages while Chi-square (χ^2) test was used to compute inferential statistics at 0.05 degree of freedom.

4.0 Study Findings and Discussion

The section provides the data analysis and discussions under the extent to which Principals' appraisal of teachers' teaching method influences students' performance in Kenya Certificate of Secondary Education in Laikipia County.

4.1. Teachers' response on methods used to influence performance of students

Teachers have to pay particular attention to the actual process of teaching. There is a critical link between students' achievement and teacher practices at classroom level. For teachers, it is important to know what aspects of teaching and learning methodologies contribute significantly to learners' achievement. Teachers were expected to respond to aspects of teaching and learning that influence students' performance. Data obtained was recorded in Table 1. Table 2 shows Teachers' response on the aspects that influence performance of students

Table 2: Teachers' response on the aspects that influence performance of students

Methods	SA	%	A	%	U	%	D	%	SD	%
Communicating with students	191	66.6	96	33.4	-	-	-	-	-	-
Demonstration	222	77.4	65	22.6	-	-	-	-	-	-
Question and answers	184	64.1	103	35.9	-	-	-	-	-	-
Group discussion	170	59.2	117	40.8	-	-	-	-	-	-
Assignment	250	87.1	32	11.1	5	1.8	-	-	-	-
Lecture method	-	-	-	-	-	-	7	24.4	217	75.6

N=287

Table 2 shows that 66.6% of teachers strongly agree and 33.4% agree that communicating with students is vital prerequisite resulting in positive students' outcome. Teaching and learning require communication. Glushchenko\ {2016} indicates that most classroom activities involve communication. Therefore, effective classroom communication ensures that learning takes place, thus, all elements of communication such as verbal and non-verbal communication within the classroom settings should be observed. For instance, it is important for a teacher to generate different volumes, tones and inflections while delivering his lesson. According to Mitchell {2014},

a teacher should not slip into a monotone during class lessons. Different tones and inflections are useful in attracting students to focus on the lesson being conducted.

On the item of demonstration as a method of teaching results in Table 2 shows 77.4% of teachers strongly agreed and 22.6% agreed that demonstration is very influencing methods of teaching. From this study it's the second method of teaching that influence performance of students. Siahaan {2021} research obtained that applying the demonstration method could make students more active in participating in learning, because they could speak, trained to conduct experiments, ask and answer question. With demonstration students find evidence of the truth of the theory of something they are studying and making every learner self-oriented and able to solve problems on their own and come up with their own solution {MOEST,2018}.

On results also in Table 2 shows that 64.1% of teachers strongly agreed and 35.9% agreed that questions and answers influence performance of students. This is because thinking is not driven by answers but by questions. MOEST {2018} report review observed that there are more functions of questioning in our classrooms to develop interest and motivate students to become actively involved in lessons to develop critical thinking skills, to review learning and to stimulate students to pursue knowledge on their own and ask their own questions.

The results also on Table 2 on group discussion shows that 59.2% teachers strongly agree and 40.8% agree that group discussion influence performance of students. Abubakar {2015} explained that the discussion methods work on the principle that the knowledge and ideas of several people are likely to find solutions or answers to specified problems or topic. It also develops in students' social skills of talking and listening. The method also has some demerits including academically weak students may not actively take part in the lessons while brilliant ones may likely to take over the discussion. The problem may arise as a result of poor handling of the discussion method. This is contrary to CBC curriculum which main objective is to take care of all levels of learners {TSC,2016}.

On the item about assignment method of teaching the Table 2 results show that 87.1% of teachers strongly agree and 11.1% agree meaning 100% in agreement that assignment is the most influencing method of teaching and learning. This is with line with CBC curriculum which engage learners with projects assignments which is evaluated in form of assessments {MOEST.2018} According to CBC curriculum teachers are strongly advised to use the students' activity based and inquiry mode, involving substantial workshop activities in their teaching so as to ensure proper achievement and learning of concepts in the classroom. Assignment method allow learners to decide how they will demonstrate that they have learned the required information or skills in a manner of ways either by writing, speaking, drawing, illustrating and building. {Jones & Barlett,2014}

Finally, the results on Table 2 shows 24.4% of teachers disagree that lecture method influence performance of students and 75% strongly disagree. This means 100% disagree. Therefore, the

study concludes that teaching methods has significant effect on students’ satisfaction rate and academic achievement in basic education.

Hypothesis Testing Null

H₀1: There is no relationship between principals’ appraisal of teachers’ methods of teaching on students’ performance at Kenya Certificate of Secondary Education in Laikipia County. Table 3 shows The Phi correlation co-efficient test on the teachers’ methods of teaching and students’ academic performance.

Table 3: The Phi correlation co-efficient test on the teachers’ methods of teaching and students’ academic performance.

Response	Yes	No	Total
Teachers Subgroup			
1 st	17 ^B	153 ^A	170
2 nd	17 ^D	100 ^C	117
Total	34	253	287

Solution

Using alpha at 0.5 level of significance, $\alpha = 0.05$

H₀ : $r\phi = 0$

H_a : $r\phi \neq 0$

Where $r\phi$ is the degree of association between teacher appraisal on method of teaching and student academic performance.

$\alpha = 0.05$

Compute for the phi coefficient

$$r\phi = \frac{AD - BC}{\sqrt{(A+B)(C+D)(A+C)(B+D)}} = 0.0688$$

$$\sqrt{(A+B)(C+D)(A+C)(B+D)}$$

$$r\phi = 0.0688$$

based on the guide for interpreting phi coefficient above, there is a strong correlation between teacher appraisal on method of teaching and student academic performance.

Strong correlation (0.50-0.69)

To test if this association is significant, we compute for chi square X^2

SOLUTION

$$X^2 = \frac{N(AD - BC) - N/2)^2}{(A+B)(C+D)(A+C)(B+D)}$$

$$X^2 = 0.9625$$

The data in Table 3 shows that Since $X^2 = 0.9625 \leq 3.84$, then we reject the null hypotheses and accept the Alternative hypotheses. At 0.05 level of significance there is significant relationship between teacher appraisal on teaching methods and students’ academic performance.

Education the most effective agent of social and personal transformation that leaves a relatively formative effect on learners. The primary purpose of teaching at any level of education is to bring a fundamental change in the learners through various teaching and learning methods {MOEST,2019}. The effective of this teaching and learning process largely depends on the choice of teachers’ teaching methods. Brindley {2015} alludes that effectiveness of a teaching method is reflected in the outcome of the teaching-learning process inform of marks, grades, mean scores and minim entry to university.

According to CBC curriculum its emphasis on student led learning approach that students influence the content, activities, materials and pace learning {TSC,2016} The students -learning model puts more emphasis on a student as a central component of teaching-learning process in school. The finding of this study concurs with Ayeni {2011} that the teacher creates platforms and avenues for students to learn independently and from one another and offers supportive assessments to students as they learn. The efficiency of this teaching and learning procedure largely rests on the choice of the teacher’s teaching methods. Table 4 shows Principals’ response to challenges encountered during appraisal process

Table 4: Principals’ responses to challenges encountered during appraisal process

Challenges	Principals	%
Uploading data	17	40.5
Indicating real time in classroom attendance	4	9.5
Some teachers not keen	7	16.7
Insufficient evidence from teachers	14	33.3
Total	42	100.0

Table 4 shows 40.5% of principals said uploading data was a major challenge principals encountered during appraisal process while 33.3% was insufficient evidence from teachers and 16.7% was some teachers are not keen. These challenges imply that there is need for effective provision of internet services in schools to boost the appraisal process. Insufficient evidence from the teachers could be an indicator that teachers may not have been oriented well on how to fill in the appraisal forms. These challenges have to be observed because whatever data principals post

to the TSC could not be a true reflector of what happens in public secondary schools so as to realize good results. It is against this background that the researcher sought to fill the knowledge gap by investigating on the influence of principals’ appraisal of teachers on students’ performance at Kenya Certificate of Secondary Education examination a case in Laikipia County, Kenya. Table 5 shows Teachers’ response to challenges encountered by principals during appraisal process

Table 5: Teachers’ response to challenges principals encounters during appraisal process

Challenges	Teachers	%
Uploading data	88	30.7
Hallo effect	30	10.5
Personal bias	12	4.1
Strictness/ Leniency	13	4.5
Basing on teacher’s recent behaviour	68	23.7
Insufficient evidence	76	26.5
Total	287	100.0

Table 5 shows 30.7% of teachers said uploading data was a major challenge principals encountered during appraisal process while 26.5% said insufficient evidence and 23.7% said basing on teachers’ recent behavior. These challenges posed by teachers is just an indication that whatever data principals post to the TSC could not be a true reflector of what happens in public secondary schools so as to realize good results.

5.0 Conclusions

Appraisal of teaching methodologies

Classroom teaching is nearly universal activity designed to help students to learn. It is the process that brings the curriculum into contact with students and through which educational goals are to be achieved. A good percentage of teachers accepted that principals’ appraisal of given items influence students’ performance to great extent. Results from Table 5.1 above indicate that aspects of teaching and learning methodologies contribute significantly to learners’ achievement, assignment (87.1%), demonstration (77.4) and communicating with students (66.6%) rating highly among others. This is clearly in line with researches finding by Alimi and Akinfolarin (2012) which directed that classroom activities provide the critical link between students’ achievement data and teacher practices at classroom level. It is important to know what aspects of teaching and assessment contribute significantly to learners’ achievement so that national discussions of classroom practices focus on the typical experiences of students (Richard, 2003).

The results from Table 5.2 give a Phi of $-.07$. This implies that we reject H_0 and accept H_1 . It indicates that there is a correlation that exists between teachers’ teaching and learning methods and students’ performance at KCSE examinations in public secondary schools in Laikipia County.

Teachers feel that for students to perform better in exams there is need to embrace proper teaching methodology before embarking on teaching.

6.0 Recommendations

Basing on the indicated findings, the study recommended the following:

1. The ministry of education and the schools should make sure to implement teacher performance evaluation system feedback on teaching methods in order to ensures student performance improves.
2. The ministry of education in conjunction with the principals should enhance network connectivity in schools to enable Teachers to be conversant with numerous teaching strategies/methods that take recognition of the magnitude of complexity of the concepts to teach the students.
3. TSC should strengthen teachers' refresher training to improve their instruction on teaching method for creation of a conducive environment for learning in order to enhance the development of students' learning experiences.

Suggestions for Further Research

1. A similar study to this be carried out in other public secondary schools in other Counties across the country and findings be compared which can help educational planners and managers find concrete solutions to cases of poor performance of students at KCSE.
2. Factors affecting the implementation of appraisal process in public secondary schools in Kenya.

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