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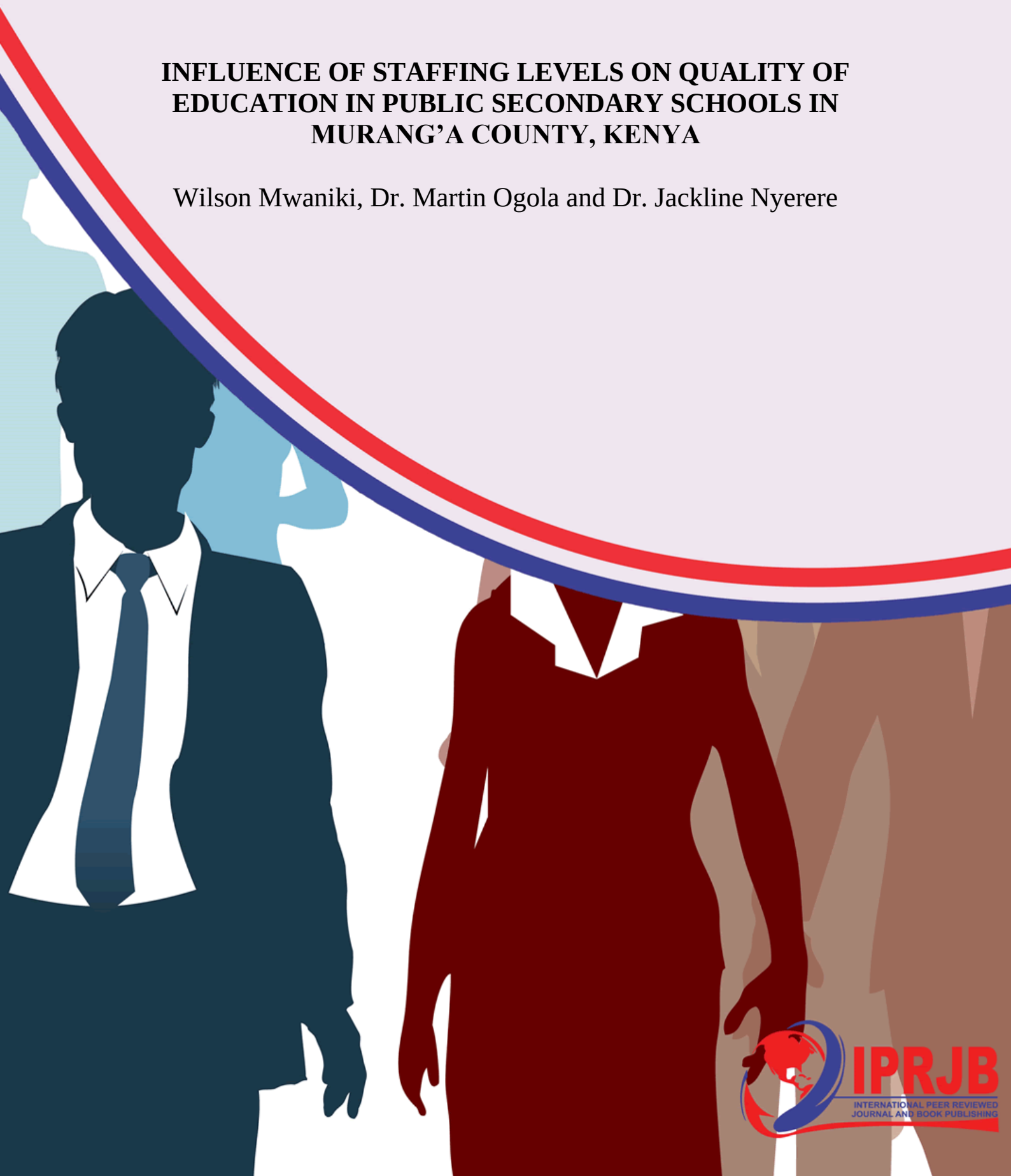

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INFLUENCE OF STAFFING LEVELS ON QUALITY OF EDUCATION IN PUBLIC SECONDARY SCHOOLS IN MURANG'A COUNTY, KENYA

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ABSTRACT

Statement of the Research Problem: Teaching staff is crucial in the provision of quality education in public secondary schools. However, in Murang'a County, many public secondary schools registering a low quality of education.

Purpose of the Study: This study aimed at determining the influence of staffing levels on quality of education in public secondary schools in Murang'a County, Kenya.

Methodology: The study adopted a correlation research design. This study targeted 292 principals and 3206 teachers totaling 3498 from which a sample of 360 respondents (10.3%) was determined using Yamane's Formula. Using stratified sampling, eight strata considering sub-counties were created. From every sub-county, three principals were selected using purposive sampling. However, from each sub-county, 42 teachers (14 teachers per school) were selected using simple random sampling to avoid bias. Questionnaires were used to gather information from principals and teachers whereas a documentary checklist guide was used by the researcher. Quantitative data were analyzed using descriptive statistics such as frequencies and percentages and inferentially using Pearson's Product Moment Correlation Analysis with the help of Statistical Packages for Social Sciences (SPSS 23) and presented by using tables.

Research Findings: The study established that students' academic performance in national examinations (KCSE) is low, students' completion rates with quality grades (C+ and above) are on a decreasing trend and levels and frequency of participation in co-curricular activities are low. From the study findings, the student-teacher ratio in public secondary schools is high owing to the high number of students enrolled courtesy of the Free Day Secondary Education Policy. This implies that, by having an inadequate number of teachers, it is difficult to attend to academic and other delegated duties and thus, not possible to accord students individual attention, which is the essential aspect of quality education.

Unique Contribution to Theory, Policy and Practice: The findings of this study lend credence to the premise of the Education Production Function Theory since it revealed that there is a correlation between instruction resources and quality of education. As a practice, secondary schools should engage in alternative income-generating activities to acquire more financial resources to hire more teachers to supplement government's efforts to bridge the gap in the student-teacher ratio. As a policy, the government should ensure adherence to the policy on fair distribution of teachers based on the number of students.

Keywords: *Staffing levels, quality of education, secondary schools.*

INTRODUCTION

A teacher, as a resource, plays a critical role in the achievements of educational aims and objectives. Besides, teachers form critical actors in the successful implementation of a new programme in the training or in-servicing of teachers, principals and the educational supervisors (Gross, Glacquinta & Bernstein, 2010). A study carried out in Australia by Goddard and Leask (2012) found that teachers work with the mind and much of their work is unseen which makes a judgment of their effectiveness difficult. This points to the fact that poor teaching is insidious and its effects may not be seen for many years since it gives room for superficial judgments about what the work of the teacher involves. Quality education can only be achieved if the teaching and learning are underpinned by a model of learning for service as a whole. In the United States of America, teacher quality is a priority area in policies of education. The Federal No Child Left Behind Act of 2001 requires that every state put a highly qualified teacher in every classroom (Gross et al, 2010). To meet the "highly qualified" teachers' challenge, the role of teacher quality and variables that influence student learning comes to the forefront in current educational goals. This implies that, for learners to become better learners, the teaching process demands that teachers must be engaged in continuous learning throughout their careers for them to remain effective.

In a study conducted in Nigeria, Balarabe, Aisha, Rahanatu, Ibrahim (2019) found that teacher characteristics found to be dominant in cross-country studies are related to; qualification, experience, attitude and personality. Akinsolu (2010) further asserts that the availability and adequacy of qualified teachers determined the performance of students in schools. This, therefore, meant that teachers' qualifications and attitudes directly affect the quality of education manifested through academic performance. However, Balarabe et al (2019) failed to articulate how universal free secondary school education addresses teacher shortage arising from the free secondary education policy and how this compromises the quality of education.

To corroborate these assertions, Bennaars, Otiende and Boisvert (2010) also observe that untrained, poorly trained, discontented and frustrated teachers cannot bring about the anticipated economic, cultural and moral change spelt out in the aims and goals of education as envisaged in free secondary education. The change from paid secondary education to free secondary education which occasioned increased enrollment in secondary schools is much more visible and will need to receive more attention from teachers and school administrators. In Kenya, fair teacher distribution continues to be a major challenge in teacher management. Teacher adequacy has remained a major challenge for quite a long time despite the increase in enrolments and proliferation of schools (Onyango, 2010). This has occasioned an imbalanced teacher distribution which has affected access and the quality of education. Onyango (2010) stresses that human resource plays a critical role in a secondary school of which teaching staff constitutes a critical segment in the school. In Murang'a County, the Ministry of Education (2012) notes that some of the challenges facing secondary education in Murang'a County include; low performance in KCSE, cases of high dropout rates (21% do not complete school) and dismal performance in CCAs in comparison to other counties in the region. Njoroge (2021) also reports that secondary schools in Murang'a County have witnessed a decline in quality of education with most students registering dismal grades in

national examinations. For instance, a report authored by the Ministry of Education (2019) shows that public secondary schools registered a mean grade of 37.2% in KCSE in 2016, 35.7% in 2017 and 30.03% in 2018 which depicts a decreasing trend in academic performance. Many public secondary schools witness low completion rates and dismal performance in co-curricular activities (MoE, 2019). However, much still needed to be done to interrogate how staffing levels influence the quality of education in public secondary schools.

STATEMENT OF THE PROBLEM

Teachers constitute a key component for realization of quality education in public secondary schools. However, the situation is different in Murang'a County with many public secondary schools registering a low quality of education. As stated in the background, Murang'a County registered a mean grade of 37.2% in KCSE in 2016, 35.7% in 2017 and 30.03% in 2018 pointing to a decline in academic performance in public secondary schools. The report also shows that there have also been cases of low completion rates. Public secondary schools in Murang'a County rank low in performance as far as co-curricular activities are concerned. For example, in regional ball games which took place in 2018, Murang'a County was ranked position three out of six counties, number four in athletics and five in music activities. Despite these statistics, much is yet to be done to interrogate the influence of staffing levels on quality of education in public secondary schools, thus, the study.

THEORETICAL FRAMEWORK

This study was guided by the Educational Production Function (EPF) Theory (Hanushek, 2000). Proponents of EPF theory compare students' academic performance with a firm's production process (Hanushek, 2000). The theory associates diverse inputs such as instructional resources affecting a student's learning as well as learning environments with measured outputs including subsequent labor market success, transit from one level of education to the next, class attendance, graduation rates, and, most commonly, standardized examination results. The central idea is that education is an investment that increases earnings by providing long-term benefits such as social and economic development. In this study, quality of education (KCSE performance, students' completion rates and frequency of schools' participation in CCAs) as a function was expressed in terms of staffing levels. This theory was represented as $E= f (X_1)$ whereby: E-is the quality of education and X_1 are the staffing levels in secondary schools. Therefore, the relevance of this theory was that it highlighted how staffing levels determine the quality of education in secondary schools.

OBJECTIVE OF THE STUDY

i. To assess the status of the quality of education offered in public secondary schools in Murang'a County;
ii. To examine the influence of instructional resources on quality of education in public secondary schools in Murang'a County.

RESEARCH GAPS FILLED BY THE STUDY

The reviewed studies have underscored the fact that teachers, as human resource, plays a critical role in a secondary school (Balarabe et al, 2019). However, as a research gap, this study has established that staffing levels to cater for the influx of students is directly linked to the quality of education by lowering teacher workload and provides opportunities for students to benefit from individualized attention.

RESEARCH METHODOLOGY

The study adopted a correlation research design. This study targeted 292 principals and 3206 teachers totaling 3498 from which a sample of 360 respondents (10.3%) was determined using Yamane's Formula. Using stratified sampling, eight strata considering sub-counties were created. From every sub-county, three principals were selected using purposive sampling. However, from each sub-county, 42 teachers (14 teachers per school) were selected using simple random sampling to avoid bias. Questionnaires were used to gather information from principals and teachers whereas a documentary checklist guide was used by the researcher. Quantitative data were analyzed using descriptive statistics such as frequencies and percentages and inferentially using Pearson's Product Moment Correlation Analysis with the help of Statistical Packages for Social Sciences (SPSS 23) and presented by using tables.

RESULTS AND DISCUSSIONS

This section presents the findings of the study based on the objective. It also outlines the methods of presentation of the study findings and discussions.

Questionnaire Return Rate

In this study, 24 questionnaires were administered to secondary school principals as well as to 336 teachers after which 16 and 334 were filled and returned by principals and teachers respectively. This yielded return rates as shown in Table 1;

Table 1: Questionnaire Return Rates

Respondents	Sampled Respondents	Those Who Participated	Achieved Return Rate (%)
Principals	24	16	66.7
Teachers	336	334	99.4
Total	**360**	**350**	**97.2**

Table 1 shows that principals registered a questionnaire return rate of two-thirds (66.7%) whereas secondary school teachers registered 99.4%. This yielded an average questionnaire return rate of 97.2%. According to Creswell (2014), a questionnaire return rate of 75.0% and above is adequate for the generalization of the study outcomes to the target population.

Status of the Quality of Education in Public Secondary Schools

The study sought to assess the status of the quality of education offered in public secondary schools in Murang'a County. This was measured by focusing on KCSE performance (mean points ranging between 1-2.9, 3-4.9, 5-6.9, 7-8.9 and 9-11.5), completion rates (%) and performance in co-curricular activities. Descriptive data were collected and results are shown in Table 2.

Table 2: KCSE Performance in Public Secondary Schools in Murang'a County

KCSE Results in Mean Score (Points)	Years of Examination				
	2016 %	2017 %	2018 %	2019 %	2020 %
1-2.9 points (Poor)	40.2	43.5	44.2	47.3	48.9
3-4.9 points (Below Average)	36.9	35.1	34.9	33.5	32.5
5-6.9 points (Fair)	15.4	15.1	14.8	13.7	13.4
7-8.9 points (Good)	5.3	4.4	4.3	3.8	3.6
9-11.9 points (Excellent)	2.2	1.9	1.8	1.7	1.6

Table 2 shows that, in 2016, 40.2% of the secondary schools had mean points ranging between 1-2.9 in KCSE, 36.9% scored between 3-4.9 points, 15.4% scored between 5-6.9 points, 5.3% scored between 7-9 points whereas only a paltry 2.2% of the secondary schools scored between 9-11.9 points in KCSE. In the subsequent years, the performance has been on a declining trend. For example, from Table 2, 43.5% of secondary schools scored between 1-2.9 points in 2017, 35.1% scored between 3-5 points, 15.1% scored between 5-7 points, 4.4% scored between 7-8.9 points whereas 1.9% scored between 9-11.9 points in KCSE. In 2018, 44.2% of secondary schools registered between 1-3 points in KCSE, 34.9% scored between 3-5 points, 14.8% scored between 5-7 points, 4.3% scored between 7-8.9 points whereas 1.8% scored between 9-11.9 points.

Table 2 further shows that, in 2019, 47.3% of secondary schools scored between 1-2.9 mean points in KCSE, 33.5% scored between 3-4.9 mean points, 13.7% scored between 5-6.9 mean points, 3.8% scored between 7-8.9 mean points while 1.7% scored between 9-11.9 mean points in KCSE. In a similar trend, 48.9% of the secondary schools scored between 1-3 mean points, 32.5% scored between 3-4.9 mean points, 13.4% scored between 5-6.9 mean points, 3.6% registered between 7-8.9 mean points whereas 1.6% registered between 9-11.9 mean points in KCSE in 2020. These findings corroborate the findings of a report by MoE (2019) that the performance of students in Murang'a County in KCSE has been on a downward trend with a progressive decrease in the number of students who scored grade C+ and above. Academic performance constitutes a key component of quality education offered in secondary schools and outcome indicators can be defined based on the extent to which outcome measures are connected to learning content. In other words, classroom evaluation through academic performance plays an important role in shaping views of educational quality in secondary schools. This further implies that academic performance is the outcome of quality education and the extent to which a student or secondary school has achieved their educational goals.

According to Rubin et al (2010), students' academic performance represents one of the essential building blocks for transparent secondary education systems and qualifications. Smith et al (2011) also noted that academic performance forms an important part of quality assurance approaches to secondary education and the reconsideration of such vital questions as to what, who, how, where and when to teach and assess. This affirms the fact that academic performance is a crucial tool for clarifying the results of learning for the students and teachers. From these results in Table 2, it is evident that students' academic performance has been progressively decreasing in public secondary schools. In summary, these findings point to the fact that, though an important measure of quality education, the academic performance of students in secondary schools has been low. Students have continued to register dismal grades in KCSE for five years. Having assessed KCSE performance of public secondary schools, the study also gathered information on students' completion rates (measured in percentages, %) from public secondary schools. Results are shown in Table 3.

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Table 3: Students' Completion Rates in Public Secondary Schools in Murang'a County

Students' Completion Rates (%)	Academic Years				
	2016 %	2017 %	2018 %	2019 %	2020 %
50-60	4.2	4.1	3.8	3.1	2.3
60-70	66.1	59.6	31.8	25.6	20.4
70-80	27.8	32.9	56.3	62.4	67.5
80-90	1.3	3.4	6.7	7.0	7.7
90-100	0.6	0.9	1.4	1.9	2.1

Table 3 shows that, in 2016, most of the secondary schools (66.1%) registered students' completion rates ranging between 60-70, 27.8% registered students' completion rates ranging between 70-80, 1.3% between 80-90, 4.2% registered completion rates between 50-60 whereas a paltry 0.6% of the secondary schools in Murang'a County registered students' completion ranging between 90-100. This indicates that students' dropout rates were high since most of the secondary schools registered a completion rate of between 60-70%. In 2017, students' completion rates witnessed a slight increase in the rates with 32.9% for rates between 70-80, 3.4% for rates between 80-90 and 0.9% for rates between 90-100. There was also a decrease in the rates between 50-60(4.1%) and 59.6% for students' completion rates between 60-70. Similar trends have been witnessed in the subsequent years.

In 2018, slightly more than half (56.3%) of public secondary schools registered students' completion rates ranging between 70-80, 31.8% for rates between 60-70, 6.7% for rates between 80-90, 1.4% for rates between 90-100 which represents an increase in students' completion rates. However, there was a decrease in the number of secondary schools which registered low completion rates between 50-60(3.8%). The same trend was witnessed in 2019 and 2020 with a majority of secondary schools (62.4% and 67.5%) registering students' completion rates ranging between 70-80 with a slight increase in completion rates ranging between 80-90 and 90-100. A national study undertaken by the Ministry of Education (2020) also revealed that completion rates are still low among students in public secondary schools. MoE (2020) also takes cognizance of the fact that, despite the efforts by the government to ensure that all KCPE candidates secure admission in all secondary schools, their retention in such schools is still a challenge due to a myriad of factors. Thus, despite this progressive increase in the number of students who complete their secondary education, many public secondary schools are yet to ensure that they achieve students' completion rates of over 90%. This is despite the efforts put in place by government agencies to ensure that students who are enrolled owing to FDSE and 100% transition policies complete their secondary education regardless of their socio-economic status and other dynamics such as teenage pregnancies.

Having assessed students' completion rates in public secondary schools, the study further assessed schools' performance in co-curricular activities. This was measured based on the frequency of schools' participation (Very Often = 5, Often = 4, Sometimes = 3, Rarely = 2 and Never = 1) in different co-curricular activities such as ball games, athletics, music festivals and results are shown in Table 4.

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Table 4: Frequency of Public Secondary Schools' Participation in Co-Curricular Activities at Interschool Levels in Murang'a County

Frequency of Schools' Participation in Different Co-curricular Activities	Years of Events				
	2016	2017	2018	2019	2020
	%	%	%	%	%
Very Often	23.7	22.1	19.6	18.4	16.9
Often	31.6	30.4	28.5	26.8	23.1
Sometimes	40.2	38.3	33.2	31.6	29.5
Rarely	4.2	7.8	16.9	20.1	24.2
Never	0.3	1.4	1.8	3.1	6.3

Table 4 shows that, in 2016, slightly less than a quarter (23.7%) of public secondary schools very often participated in co-curricular activities at interschool levels, 31.6% often participate in CCAs, most (40.2%) of secondary schools sometimes participated in CCAs, 4.2% rarely participated in CCAs whereas 0.3% never participated in CCAs. In 2017, the frequency of participation in co-curricular activities among secondary schools decreased with 22.1% very often took part, 30.4% often participated, 38.3% sometimes took part in CCAs, 7.8% rarely participated in CCAs and 1.4% never took part in CCAs. In the same token, in 2018, 19.6% of secondary schools very often participated in co-curricular activities, 28.5% often participated, 33.2% sometimes took part in CCAs. However, the number of secondary schools which rarely participated in CCAs increased to 16.9% and the ones that never participated in CCAs increased to 1.8%. Similar trends were witnessed in 2019 and 2020 with the frequency of participation in CCAs among secondary schools decreasing. For example, in 2019, the frequency of secondary schools which very often participated in CCAs decreased to 18.4%, 26.8% often took part and 31.6% sometimes participated. However, secondary schools which rarely participated in CCAs increased to 20.1% and those that never participate increased to 3.1%.

In 2020, 16.9% of secondary schools very often participated in co-curricular activities, 23.1% often participated in CCAs, 29.5% sometimes took part in CCAs, 24.2% rarely participated in CCAs whereas secondary schools never participate in CCAs increased to 6.3%. These findings lend credence to the assertions of Uwezo (2010) that, despite their role in shaping students' cognitive growth and development and being a major aspect of quality education offered in secondary schools, many secondary schools have tended to reduce and constrain time for participation in co-curricular activities. These findings point to the fact that, despite the noble role of co-curricular activities in improving the cognitive development of students, the frequency of participation among secondary schools is progressively decreasing to an extent where quite several secondary schools are not taking part. This indicates that, to ensure the provision of quality education, there is a need to interrogate how different secondary schools perform in co-curricular activities such as ball games, athletics and music activities at different levels.

Staffing Levels and Quality of Education in Secondary Schools

The study sought to assess the extent to which staffing levels influence the quality of education in public secondary schools. In this case, every respondent provided information on

staffing levels of their secondary schools. The collected data were then summarized according to the test items. The results are shown in Table 5.

Table 5: Views of Principals on Staffing Levels in Public Secondary Schools

Summary of Test Items	SA %	A %	U %	D %	SD %
In public secondary schools, the number of teachers is not adequate to provide quality education	56.3	12.5	6.3	6.3	18.6
Many teachers in public secondary schools face difficulties in handling a large number of students	62.5	6.3	0.0	12.5	18.7
In public secondary schools, teachers handle too many workloads	12.5	6.3	6.3	31.3	43.6
To lower the effect of inadequacy in the number of teachers, schools have opted to motivate the available ones to handle the workload	68.8	6.3	0.0	18.6	6.3

Table 5 shows that 9(56.3%) of the principals strongly agreed with the view that, in public secondary schools, the number of teachers is not adequate to provide quality education while 2(12.5%) agreed, 1(6.3%) were undecided, 1(6.3%) disagreed whereas 3(18.6%) strongly disagreed. Majority, 10(62.5%), of the principals strongly agreed with the view that many teachers in public secondary schools face difficulties in handling a large number of students, 1(6.3%) agreed, none 0(0.0%) were undecided, 2(12.5%) disagreed whereas 3(18.7%) strongly disagreed. Table 5 also shows that 2(12.5%) of the principals strongly agreed with the view that, in public secondary schools, teachers handle too much workloads as did 1(6.3%) who agreed, 1(6.3%) were undecided, 5(31.3%) disagreed whereas 7(43.6%) strongly disagreed. On their part, 198(59.3%) of the teachers also noted that they are overwhelmed by too much workload owing to the inadequate number of teachers in public secondary schools.

Teachers noted that, by having an inadequate number of teachers, it is difficult to attend to academic and other delegated duties and thus, not possible to accord individual attention to students, which is the essential aspect of quality education. This corroborates the assertion of Onyango (2011) that teacher adequacy has remained a major challenge for quite a long time despite the increase in enrolments and proliferation of schools and has occasioned an imbalanced teacher distribution which has affected access and the quality of education. Onyango (2011) further notes that, in Murang'a County, due to the high enrollment of students attributed to free day secondary education, the ratio of students to teachers is alarmingly high which has occasioned increased workload for teachers. However, the principals who disagreed and teachers who responded, on the contrary, 136(40.7%), besides appreciating the place of student-ratio as a key determinant of quality education, indicated that quality of education offered in secondary schools does not largely depend on the number of teachers but the characteristics and attributes of the available teaching staff. To them, teachers' educational level, experience, attitude and personality traits play a key role in enhancing the quality of education offered to students. Goddard and Leask (2010) also posit that teacher adequacy is paramount since it influences student learning by lowering the student-teacher ratio in schools. According to Goddard and Leask (2010), for learners to become better learners, the teaching process demands that teachers must be engaged in continuous learning, improve their teaching experience and have attitude change with new

pedagogical approaches throughout their careers for them to remain effective. Their views are further supported by Fullan (2011) who posits that the quality of instruction relies on the teachers' competence. Fullan (2011) opines that effectiveness and efficiency in teaching and learning are determined by a teacher's professional characteristics and teaching experience.

In Nigeria, Balarabe et al (23019) also established that the student-teacher ratio is critical to the success of students just like other characteristics such as level of education and training, experience and attitude. This implies that, besides their number at school to bridge the student-teacher ratio, their characteristics also come in handy as a major contributor to the quality of education offered to students. Despite these contradictions, the student-teacher ratio is a major dynamic that determines the quality of education. That is, the higher the number of teachers employed to reduce the influx of students enrolled in secondary schools, the lower the workload and much more time are thus, allocated to cater for students' needs and academic challenges. The study also revealed that 11(68.8%) of the principals strongly agreed with the view that, to lower the effect of inadequacy in the number of teachers, schools have opted to motivate the available ones to handle the workload whereas 1(6.3%) agreed. However, none (0.0%) of the principals were undecided, 3(18.6%) disagreed whereas 1(6.3%) strongly disagreed.

On the same, majority (70.1%) of the teachers concurred with the principals that, increase in the provision of resources to motivate teachers, their working morale has been boosted and thus, work hard to ensure that their students register impressive grades in internal and national examinations. They noted that, with the provision of resources for other extra-curricular activities such as ball games, athletics and music festivals, they feel motivated to actively participate and ensure that students maximize and realize their full potential. However, the principals and teachers (29.9%) who disagreed stated that the provision of resources for teacher motivation has not been forthcoming.

Many principals and teachers observed that resources from the government are often tied to different specific voteheads and none for motivating teachers. Bennaars et al (2010) also noted that unmotivated, discontented and frustrated teachers cannot bring about the anticipated economic, cultural and moral change spelt out in the aims and goals of education as envisaged in free secondary education. According to Bennaars et al (2010), teachers are expected to teach in the classroom while working within a complex social system whose success can only be achieved through motivation and in-servicing of teachers. These findings are indicative of the fact that, despite the contradicting views of respondents, the role of teacher motivation as an ingredient to the realization of quality education in secondary schools cannot be overlooked. This implies that, while efforts are made to recruit more teachers to reduce the student-teacher ratio, much attention should equally be paid towards motivating the already existing teachers, which are directly linked to the quality of education offered to students.

Influence of Staffing Levels on Quality of Education in Public Secondary Schools

To verify the influence of staffing levels on the quality of education offered in public secondary schools, data were collected on the number of students per teacher from the 16 sampled secondary schools (independent variable) and dependent variable (KCSE results for 2020, students' completion rates and frequency (Very Often = 5, Often = 4, Sometimes = 3, Rarely = 2 and Never = 1) of participation in co-curricular activities). Results are shown in Table 6;

Table 6: Number of Students Per Teacher and Quality of Education in Secondary Schools

Number of Schools	No. of Students/Teacher	KCSE Meanpoints for 2020	Students' Completion Rates (%)	Frequency of Participation in CCAs
1	25	9.70	51	2
2	27	4.90	61	2
3	29	6.20	81	5
4	34	2.40	79	3
5	37	6.01	82	3
6	39	4.30	77	3
7	40	4.11	81	3
8	41	3.43	77	4
9	42	3.20	88	4
10	45	2.90	74	4
11	49	4.60	93	2
12	51	3.70	86	5
13	53	2.91	67	5
14	56	2.47	81	5
15	57	3.12	78	5
16	58	5.80	89	4

Table 6 shows that public secondary schools with a smaller number of students per teacher (low student-teacher ratio) register higher grades in KCSE, fairly higher students' completion rates though do not guarantee their frequent participation in co-curricular activities. However, many public secondary schools are yet to achieve the student-teacher ratio with most ranging between 40-60. This implies, in many schools, a realization of quality education has been a challenge due to the high student-teacher ratio. These results were subjected to Pearson's Product Moment Correlation Analysis and the results are shown in Table 7:

Table 7: Relationship between Staffing Levels and Quality of Education in Public Secondary Schools

		X3	B	C	D
X3	Pearson Correlation	1	-.532*	.531*	.588*
	Sig. (2-tailed)		.034	.034	.017
	N	16	16	16	16
B	Pearson Correlation	-.532*	1	-.413	-.468
	Sig. (2-tailed)	.034		.112	.067
	N	16	16	16	16
C	Pearson Correlation	.531*	-.413	1	.291
	Sig. (2-tailed)	.034	.112		.274
	N	16	16	16	16
D	Pearson Correlation	.588*	-.468	.291	1
	Sig. (2-tailed)	.017	.067	.274	
	N	16	16	16	16

*. Correlation is significant at the 0.05 level (2-tailed).

Key: X_3-Number of Students Per Teacher; B-KCSE Results for 2020; C-Students' Completion Rates (%); D-Frequency of Schools' Participation in Co-Curricular Activities.

Table 7 shows that there is a positive correlation between staffing levels and provision of quality education in public secondary schools ($r(16) = -0.532, 0.531, 0.588$, $p = 0.034, 0.034, 0.017$ at $\alpha = 0.05$). These findings further affirm the fact that, despite the challenges in realizing ideal staffing levels to mitigate the influx of students, the role of teachers in the realization of quality education in public secondary schools cannot be overlooked. With a reduced student-teacher ratio, teachers can attend to reduced workloads and thus, spare some time to attend to the individual needs of students, which, in turn, leads to their improved performance in internal, joint and national examinations, completion with quality grades and effective participation in co-curricular activities.

SUMMARY OF FINDINGS AND CONCLUSIONS

Drawing from the above findings, it is evident that the quality of education in public secondary schools is still low. In other words, students' academic performance in national examinations (KCSE) is low, students' completion rates are on a decreasing trend and levels and frequency of participation in co-curricular activities are low. From the study findings, the student-teacher ratio in public secondary schools is high owing to the high number of students enrolled courtesy of the Free Day Secondary Education Policy. This implies that, by having an inadequate number of teachers, it is difficult to attend to academic and other delegated duties and thus, not possible to accord students individual attention, which is the essential aspect of quality education. In other words, the few teachers find themselves under immense pressure to handle increased workloads which range from classroom instruction to delegated administrative tasks.

RECOMMENDATIONS

The findings of this study lend credence to the premise of the Education Production Function Theory since it revealed that there is a correlation between instruction resources and quality of education. As a practice, secondary schools should engage in alternative income-generating activities to acquire more financial resources to hire more teachers to supplement government's efforts to bridge the gap in the student-teacher ratio. As a policy, the government should ensure adherence to the policy on fair distribution of teachers based on the number of students.

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