The Relationship Between Management of Teachers and The Learning Outcomes of Competency Based Education in Junior Schools, Turkana County.

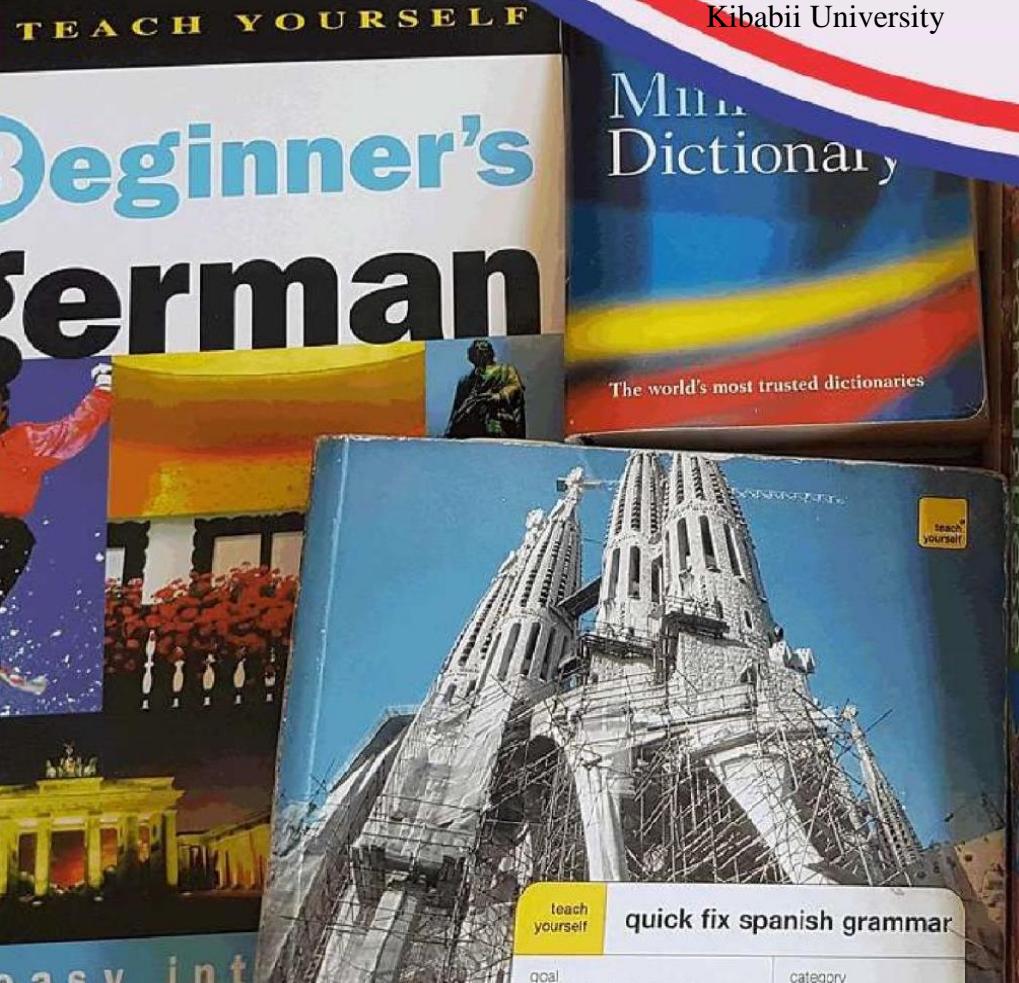[1]**Barasa Moses Wafula**

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ABSTRACT

The effective management of teachers plays a pivotal role in determining the quality of learning outcomes in any education system. In the context of Competency Based Education (CBE), which emphasizes the acquisition of practical skills, values, and competencies rather than rote memorization, the role of teachers extends beyond traditional instruction to include mentorship, facilitation, and learner-centered approaches. This research investigated the the relationship between management of teachers and the learning outcomes of competency based education in junior schools, Turkana County.The research employed mixed methodology, combining qualitative and quantitative data collection approaches. From a target population of 3,461 participants which included 11 education officers, 335 junior secondary students, and 23 headteachers where proportionate stratified random sampling technique yielded 359 respondents. Data collection involved interview schedules, observation guide, structured questionnaires for primary data, while secondary data came from document analysis of school records and county education office files. Analysis utilized SPSS Version 25, applying both descriptive statistics (means, frequencies, percentages) and inferential methods (correlation and regression analysis). The findings addressed essential questions on the key objectives showing varying levels of significance where teacher management ($\beta = 0.287$, $p < 0.001$) had statistical significance confirming their independent contributions to learning outcomes. The research concluded that management dimensions significantly influence learning outcomes, human capital factors (teacher management and management interventions) demonstrate stronger relationships with educational achievement than physical resources (infrastructure and materials). This conclusion suggests that effective resource mobilization and utilization strategies can partially compensate for absolute resource constraints, providing optimism for educational improvement in resource-limited environments.Schools should allocate available resources to ensure continuous professional development opportunities for teachers, particularly in CBE implementation strategies. Given the strong correlation between teacher management and learning outcomes, investments in human capital development should receive priority over physical resource acquisition when resource allocation decisions are necessary.

Key Words: *Management of teachers, learning outcomes & competency-based education in junior schools*

1.0 INTRODUCTION

The effective management of teachers plays a pivotal role in determining the quality of learning outcomes in any education system. In the context of Competency Based Education (CBE), which emphasizes the acquisition of practical skills, values, and competencies rather than rote memorization, the role of teachers extends beyond traditional instruction to include mentorship, facilitation, and learner-centered approaches (Muchira, 2023).Teacher management encompasses aspects such as recruitment, deployment, training, supervision, motivation, and professional development, all of which influence instructional quality and learner engagement. In Turkana County, the implementation of CBE in junior schools presents unique challenges and opportunities. The county's geographical vastness, socio-economic constraints, and infrastructural limitations demand innovative teacher management strategies to ensure equitable access to quality education. Effective teacher management in this setting involves ensuring adequate staffing, continuous capacity building on CBE pedagogy, provision of teaching resources, and fostering a supportive professional environment that encourages creativity and adaptability (Mwikali,2024).

11: LITERATURE REVIEW

2.1 Management of Teachers Role and Learning Outcomes

Teaching and learning are dependent on human resource availability. The government is having the responsibility and duty to support schools in training, recruitment and supporting teachers in realizing educational goals and objectives in the country. Further, management of the role of a teacher as a facilitator emanate from the training and teaching methodologies used for teaching at a college level or through in-service. The preparation of a teacher to handle complex and learner-centered approach of CBE therefore, is paramount. Further thought is that for the teacher to be able to carry out duties, proper management of the time through various aspects are necessary. For instance someone has to manage the timetable, provide resources and guide the teacher in delivery of the teaching

services neceaary. In this regard, the research considered teachers' role as a management aspect of the head of institution to guide and provide a supervisory and guidance to the staff members to be relevant in the delivery of CBE system.

Ali, (2023) contents that in Outcome Based Education (OBE) teachers are facilitators rather than lecturers. The role of a teacher is to provide a framework from which learners are guided to be innovative, original and creative in their work output as advocated in CBE curriculum.

A research title, 'Teacher Education in the United States of America: An Overview of the Policies, Pathways, Issues and Relevant Research', by Tatto, (2021), looks at reforms that have occurred from the 1990s to address the emerging competitiveness as students scored low grades in the U.S in a population of over three million teachers in both public and private schools. the question then is to address the teacher preparation to realize the quality envisaged. Policies that have emerged over time include the National Board for Professional Teaching Standards a body that professionalize teaching by developing standards on what teachers should know and be able to do backed by performance-based assessments to be a certified teacher. Further, the Common Core State Standards where each state leadership in Education come together to form a Council of Chief State School Officers and governors to align with graduation requirements, assessment and accountability system. Another policy examined was the No Child Left Behind Act of 2001 which encouraged all learners to access high-quality education and especially children from underserved populations. The Elementary and Secondary Education Act of 2015 examined and abolished the No Child Left Behind Act of 2001. This is in line with Kenya Gazette Supplement, (2022) that emphasises the fundamental rights and freedoms and states that the right to basic Education enshrined in the Constitution of Kenya, 2010 must be given to all people. To regulate teacher preparations since they are important in education program implementation, the teacher Education Report Card: Title II of the Higher Education Act 1965, amended in 2008 requires the states to report annually on key elements of their teacher preparation programs and requirements for initial teacher credentials.

Thus, Tatto, (2021) concludes that in all the policies, valuable research efforts from educators continue to inform policy and practice. Teachers must develop capacity of teacher education programs to engage in evaluation research and to prepare future teachers in the same research to improve delivery and management of the learning outcomes. This chapter therefore, sets the argument of research that the management of teachers in the process of learning is key in realizing the learning outcomes. Failure to train teachers adequately can lead to poor performance and a collapse in the education system. Therefore, this research proposed key policy areas in teacher education that help the management of the learning process to achieve the learning outcomes in CBE. Since the study was conducted in the United States, it therefore, begs for a contextual gap that is needed to help evaluate the key management practices in the Kenyan context and especially in Turkana to address the challenges encountered and interventions that are required to benefit the learners through the learning outcomes.

Kafwa, Gaudencia, & Kisaka, (2015) carried out a study on teacher preparation practices in Kenya and the 21st Century learning as a moral obligation for the government. The study proposed that a good teacher preparation plays a key role in achieving the learning outcomes. The research critiques the current preparation, re-focusing and re-aligning to interactive modern teaching. The study criticizes the nature of teacher training programs which produces a teacher who will go out and produce an "A" grade learner with society appreciating and attaching value to test score rather than holistic learning envisioned in CBE. Much as this is within the Kenyan context, it still does not state the context of CBE as well as the area that this research was carried out in Turkana County contextually.

The African Educational Research Journal (2018) delved into the relationship between teacher quality and student performance in African secondary schools, specifically focusing on Ghana. Employing a case study approach, the research established a direct correlation between teacher competence and competency-based learning outcomes. This study is criticised for its limited regional diversity in the study sample, which potentially impacted the generalizability of the findings to other African nations, with unique challenges similar to Turkana County.

The Education Research and Development Organization (ERDO) conducted a study in 2019 titled "Improving Teaching Quality in ASAL Regions: Strategies and Challenges." This research employed surveys and interviews among teachers in ASAL regions, including Turkana, to explore teaching quality and its impact on competency-based education. The study identified specific challenges faced by teachers in Turkana County and proposed strategies for improvement. However, a critique was the limited scope in addressing individual teacher performance

variations, which are crucial to understanding the dynamics of competency-based teaching in diverse classrooms. This research missed out on the need to address a multifaceted educational resource which require coordination in order to achieve the desired learning outcomes proposed in the CBE system.

Kisirkoi & Mse, (2016) undertook a study on curriculum implementation strategies for improved learning outcomes in primary schools in Kenya. The study utilized survey research design on a population target of 490 primary school teachers from five counties which were selected using purposive sampling; a total of 402 teachers participated in the study. It was found that teaching approaches in the classroom were teacher centered and encouraged rote learning hence a student was a passive receiver of knowledge. However, the study failed to link a teacher as a resource that impacts on the learning outcomes in junior school under the CBE system. Hence, the current study sought to address the impact of management of teaching and learning resources on the learning outcomes as indicated in the learner output rubrics especially literacy and other areas of competencies witnessed during questionnaire responses.

III: RESEARCH METHODOLOGY

3.1 Study Locale

This research was carried out in Turkana County. Turkana County is a vast area measuring 77,000 square kilometres. The area borders three countries namely Sudan on the north, Ethiopia on the East and Uganda on the west. In the south, it borders Baringo and West Pokot counties. It is a semi-arid land with majority of residents being pastoralists. The climatic conditions are characterized by high temperatures. The population spread is spatial with market centres and towns recording density in population. Most people walk long distances to access social amenities such as schools, hospitals and essential services such banking. The national electricity distribution grid is limited to towns and major market centres and mostly solar-powered with limited diesel run engines. The distribution of school's electricity to enable ICT infrastructure therefore is limited. (Appendices 2: Turkana County map)

3.2 Research Design

This study adopted mixed methods design. Dovetail Editorial Team, (2023) states that a mixed method is a blend of qualitative and quantitative data that allows for more thorough investigation of complex research questions that can neither be answered by quantitative nor qualitative alone. According to George, (2021) mixed method has elements of qualitative and quantitative approaches to provide for an in-depth collection, presentation, analysis, interpretation and discussion of the trends and relationships of the variables. The mixed method therefore, provided a triangulation which is necessary in eliminating data biases that occurred during the research analysis when only one method is used to collect data. Further, quantitative data is understood better when a detailed description of the numerical was presented on the complex nature of the issues surrounding the CBE system of education in Kenya. Further, this method was necessary in the research to put findings into context and add a detailed approach to the findings in order to justify the approaches and authenticating the research findings by eliminating the data biases.

3.3 Target Population

The study targeted a population size of 3,461 people as shown in table 3.1. This comprised of 11 education officers from the Ministry of Education drawn from 11 sub-counties of Turkana County, 225 headteachers of junior schools, and 3,225 learners of junior schools in Turkana County. 3,225 was the total number of learners enrolled in junior schools in 225 schools across Turkana County as of February 2025.

Headteachers were a necessary inclusion in this study since they are the managers charged with the responsibility of planning, coordinating, and ensuring utilization of school resources and monitoring the implementation of educational activities in the institution on behalf of the Ministry of Education. Also, as teachers, headteachers are teachers that interact with the day-to-day teaching and learning resources and so their input in the preparedness of other teachers was important in knowing the role of the teaching staff in ensuring the achievement of the learning outcomes. On the other hand, Education Officers from the Ministry of Education are responsible for providing facilitation, approvals and guidance of the school managers in ensuring that resources that affect the learning outcomes are provided and utilized effectively. The junior school learners were purposively included in this study to help in assessing the learning outcome of the management of teaching and learning resources in view of the learning outcomes in junior schools.

Table 3.1   Target population of study

Category of the population	Population size
Education officers	11
Head-teachers	225
Learners	3,225
Total population	3,461

Source: Turkana County Education Office (2023)

3.4 Sampling Technique

This research used probability sampling technique in arriving at the sample size that helped to get representative of each specific group of the population. Makwama, Engineer, Dhabi, & Chudasama, (2023) states that a probability sampling technique is where every member of the population has a predetermined chance of being selected to be included in the sample. Hence, every member of the population in the education sector had a potential respondent for the current research.

This research used a number of probability sampling techniques based on specific population presented which include headteachers as managers, education officers from the ministry of education and learners from the 225 junior schools and also the observation guide in 23 schools. The techniques for each category of the population are as presented in table 3.2

3.5 Sample Size
In order for the sample size to be manageable, the researcher utilized the following formulae to establish the study sample size. This size enabled the researcher to obtain detailed data based on time, finances and the human capital involved.
Equation 1: Formula for Determination of Sample Size (Yamane, 1967);

$$n = \frac{N}{1+Ne^2}$$
Where:

n = the sample sizes   N = the population size e^2 = desired level of statistical significance (0.05)
Therefore;

$$n = \frac{N}{1 + Ne^2} = \frac{3450}{1 + 3450(0.05)^2} = \approx 358$$

Thus, the study adopted a sample of 359 respondents that will be a representative of the study sample of the target population.

To determine the sample size of each ith item, the study used proportionate stratified random sampling for two categories of the sample, namely, the 3,225 learners and 225 head teachers. A proportion of the sample size was thus computed, and this proportion was used to determine the number of respondents in each stratum (i^{th} item) examined. The proportion was calculated based on the following formula:

$$Proportion = \frac{Sample\ size\ (n)}{Population\ size\ (N)} = \frac{359}{3450} = 0.1041$$

Therefore, the ith item sample size will be as calculated in table 3.2 below:

Table 3.2   **Study population, sampling technique and sample size**

Category	Population Size	Proportion	Sample size	Sampling technique	
Education officers	11		11	Census method	
Head teachers	225	0.1041	23	Proportionate random sampling	stratified
Learners	3,225	0.1041	335	Proportionate random sampling	stratified
Total			369		

Source: Researcher, 2025

From the above formulae, table 3.2 was generated to show a sample size of 23 headteachers selected as respondents of the study from 225 population and the specific respondents were picked by simple random sampling technique. The census method was used to select 11 education officers and stratified random sampling was used to select 335 learners from a population of 3,225. Makwama, Engineer, Dhabi, & Chudasama, (2023) affirm these methods as suitable when working with distinct subgroups to achieve the range through which values of the subgroups are estimated, control sample bias, save costs and improve quality of the data analysed.

A census method was preferred to select 11 education officers to represent the 11 sub-counties within Turkana County in order to reach every part of the county to present a true data of the interior areas where junior schools exist. Further, it gave the research the precision, provided adequate confidence level and the variability to show the entire spectrum of the County status and effectiveness of the management successes and challenges experienced. According to Hossan & Alhasnawi, (2023) a census involves every unit in a population that is selected for a test. Therefore, a total of 369 respondents was the sample size for this research.

3.6 Data Collection Instruments

There are two sources of data which were used; primary and secondary data. The primary data is that which is collected first hand from the field. On the other hand, data which is collected from other existing sources is referred to as secondary data. This study used both secondary and primary data sources. Secondary data was obtained from official records of junior schools. In order to achieve this task, data collection was carried out in the eleven sub-counties of Turkana County from 23 sampled schools.

3.6.1   Questionnaires

This tool was used for collecting data from learners. In collecting primary data, structured questionnaires were used. The study developed statements for each of the study variables where respondents were asked to indicate their level of understanding and personal experiences of the CBE curriculum. They recorded their respondents and ideas in blank spaces provided.

Thus, the questionnaire was used to collect both quantitative and qualitative data. Open ended questions and closed-ended questions were developed in order to generate data. This tool was appropriate for the study since it took less time to respond to the questions as well as provide an opportunity for the researcher to code the responses and ascertain the percentile on responses.

3.6.2   Learners' questionnaire

Questionnaires were administered to 335 sample size of junior school learners in grade seven, eight and nine. The questions comprised of close-ended and some open-ended questions. The questionnaires were designed to collect

both quantitative and qualitative data. The sections of the questionnaires were: demographic section (4), frequency of using the facility (4), questions on learning outcome (9) and section on utilization of teaching materials (4).

3.6.3   Head Teachers' Interview Guide

The sampled 23 headteachers were asked to respond to structured questions on areas relevant to the research study. The interview guide had five parts that were referred to as sections. Each part had a specific area to address on the management aspects of teaching and learning resources and their thoughts on the parental role in CBE understanding and appreciation.

The headteacher's interview guides were divided into five areas: demographic information as section A with 4 questions, section B 5 questions on physical infrastructure, Section C 5 question on the role of teachers in the realizing teachers role, section D 5 question on teaching resources and section E 6 questions on the management interventions.

3.6.4   Interview Schedules for Education Officers

There will be interview schedule for which were administered through face-to-face interviews or video conference and phone calls involving the researcher approaching respondents to seek consent and create time for the interview of the education officer(s). The researcher, after introduction, asked respondents prepared questions and with their permission take notes of the responses given. Some of the officers agreed to recording of their responses. The responses rate for face-to-face interviews is higher than postal questionnaires as the researcher has the opportunity to sell the research to a potential respondent, Kelley (2003). This was important to obtain primary data that was detailed for ease of in-depth description of data.

The interview schedules included the following sections: section (a) self-introduction (4), section (b) interview guide rules (4), section (c) relevance of the interview the education officer (10), section d monitoring implementation of CBC in junior secondary school (4) and section (e) managerial interventions to realize learning outcomes (6).

3.6.5   Observation guide

A checklist on the observable infrastructure and teaching and learning materials was used to gather the data on their availability and the condition that the infrastructure was in. This was to ascertain the usability especially on the learning outcomes that required practical knowledge. The observation had two sections with section (a) being infrastructure and section (b) focused on teaching and learning materials.

3.6.6   Document Analysis

The study carried out document analysis to obtain data on CBC learning outcomes in Junior Secondary Schools from head teachers as well as education officers in the sub-counties of Turkana County. These documents included the enrolment records in junior schools that helped in retrieving relevant secondary data to be used in the research. One of the key areas here was to determine the relevant of the resources available in relation to the school population.

The following documents were duly analysed: monthly enrolment returns, school inventory books on infrastructure repairs and maintenance, results rubrics for CBE assessments, school admission register, school registers for learners in junior school.

3.7 Validity and Reliability

This study reviewed validity and reliability in the study following specific procedures to administer and test the research instruments mentioned above.

3.7.1   Validity

Validity was tested using content and construct validity. Content validity was done by the supervisors as to whether the instruments adequately covered the areas and variables under the study. The supervisors from the Department of Educational Planning and Management of Kibabii university reviewed the content of the instruments and suggested adjustments to meet the standard measure of the research instruments. A pilot study was conducted in Pokot South Sub- County, West Pokot County in three junior schools and ascertained the construct and content validity that seek to show correlations between the variables of this study.

3.7.2   Reliability

Test-retest reliability is a statistical technique used to estimate components of measurement error by repeating the measurement process on the same subjects, under similar conditions as the actual area of study since both areas have similarity in the social and geographical placement, and comparing the observations Matheson, (2019). Reliability of the instruments was based on the responses on the question items of the research instruments. Together with the supervisors, a review was done to assess the consistency of results from the responses and adjustments done. For instance, reliability of the close-ended and open-ended question items were tested through the test re-test approach to three schools in Pokot South Subcounty, West Pokot County. This was carried out two times to check the consistency in the responses obtained. The results of the two trials generated a correlation and a co-efficient of correlation of $r = 0.765$ which denoted reliability since it was above $r = 0.7$ which was the minimal recommended correlation as per the Pearson's Moment Correlation Coefficient statistical method of testing relationships between variables.

3.8 Data Collection Procedure

The researcher obtained a research approval letter from the School of Graduate Studies that was used to apply for a research permit from the National Commission of Science and Technology and Innovation (NACOSTI). After obtaining a research permit from NACOSTI, the researcher sought clearance from the relevant Education offices in Turkana County to carry out the research starting with the Ministry of Education Official, County Director of Education office, the subcounty directors of education and headteachers of institutions. After clearance by the County Education Ministry officials and other relevant bodies, the researcher proceeded to schools and sought appointment, then obtained permission from headteachers as per their convenience and availability and then, established rapport with respondents for actual collection of data in administering questionnaires as well as interviewing head of schools.

3.9 Data Analysis Methods

A parallel analysis of the qualitative and quantitative analysis was used on the data collected. The qualitative data was analysed through descriptive statistical data analysis which included organizing data based on the recurring themes, coding and interpreting data using measures of central tendency (means, median, and standard deviation), trend analysis, frequencies, and percentages. The second analysis of quantitative data was inferential statistical analysis of the quantitative data using Pearson Moment Correlation and regression analysis. The correlation and regression analysis were used to show the relationship between variables and test the hypothesis of this study. Ultimately, the study adopted a convergent model of analysis where both qualitative and quantitative data was gathered simultaneously and then merging the analysis in convergent model. Younas & Sundus, (2022) states that a convergent model is an approach where analysis and integration was a case-by-case integration of various levels by identifying linkages within cases across the whole data set and focusing on relational connections and emerging patterns.

3.10 Ethical Considerations

The study observed principles of confidentiality, anonymity, informed consent and anti-plagiarism. Consequently, prior information was given to the respondents through appointments, and phone calls made for follow ups that sought the permission and consent of the participants to willingly and freely accept to respond to the research questions.

Further, all respondents were assured of confidentiality of the information obtained since it was explained that the process was meant for academic purposes and not any other benefit or gain. Also, consent was obtained from the learners through their headteachers and class teachers who asked only those willing to participate in the questionnaire process were allowed. They were instructed to avoid writing their names on the questionnaires to maintain anonymity and inspire genuineness in their responses.

Also, time allocation was strictly adhered to in the interviews to maintain trust and focus on key areas necessary. Professionalism was also observed to avoid biases in responses and encouraged focused responses to the questions and of course keeping to the time of the appointment was a necessary ethical consideration to avoid keeping respondents waiting since majority were busy and engaged. Further, the findings and final copies of this document was subjected to anti-plagiarism checker to ensure originality of the research outcome.

IV: RESULTS

4.1 Management of Teachers and Learning Outcomes

Teachers play a critical role in ensuring delivery of a curriculum across the world. They are judged with the responsibility to interpret, sieve and provide a detail yet focused areas of study. This is possible through various approaches to teaching using available materials and being organised in the institutions by the management. Thus, the key areas of teacher management are necessary and the research undertook the study to establish the contribution of teachers in the CBE system as a resource that must be well managed to ensure the learning outcome. The research found that teacher profile was a key management indicator through their qualifications, student-teacher ratio, retention and job satisfaction parameters. The results of this investigation were presented in table 4.9 below.

Table 4.1:   Teacher Management Profile

Teacher Management Indicator	Statistics
Teacher-Student Ratio	1:52 (National Standard 1:35)
Minimum qualifications	78.3%
Comprehensive CBE training (past 2 years)	43.7%
Annual teacher turn-over	23.4%
Well Managed schools' mean score	3.8/5.0
Poorly Managed schools' mean score	2.4/5.0

Teacher management analysis in table 4.1 revealed complex challenges affecting CBE implementation in Turkana County. The average teacher-student ratio stood at 1:52, significantly exceeding the recommended national ratio of 1:35 in most schools. This shows that majority of the schools had overcrowded classrooms and other facilities for teaching and learning. This ratio therefore, affected quality education as well as constrain of teachers handling such population. It was reported that teachers had to ensure all learners were able to benefit although majority reported to suffer fatigue and inability to reach individual-weak students rendering poor learning outcomes. Teacher qualification analysis showed that 78.3% of teachers possessed the minimum required qualifications for CBE delivery, though subject-specific training remained inadequate, particularly in integrated learning areas. The trained teachers were available in most schools but they reported challenges in handling certain learning areas. Majority reported to have been trained to teach humanities yet due to teacher shortages, they find themselves teaching sciences leading to poor learning outcomes of learners.

Professional development opportunities were limited, with only 43.7% of teachers having received comprehensive CBE training within the past two years. The training gap was more pronounced in remote schools, creating implementation disparities across the county. It was reported that the retooling training though helps induct new employed teachers, in the long run it is insufficient. Teacher retention emerged as a significant challenge, with annual turnover rates averaging 23.4% against the national turn-over of 18.7% as of 2023 (Wanjiru, Karanja, & Muceek, (2024) disrupting continuity in CBE implementation. This was reported to be caused by various factors including poor working conditions, insecurity in some schools, poor remunerations among others. The study also noted variations in teacher motivation and job satisfaction levels. Teachers in schools with better management practices reported higher satisfaction (mean = 3.8/5.0) compared to those in poorly managed institutions (mean= 2.4/5.0). This disparity affected teaching quality and, consequently, learning outcomes.

4.1.1 Relationship between Teacher Management and Learning Outcomes

With reference to table 4.7, the correlation analysis revealed a strong positive relationship between teacher management practices and CBE learning outcomes (r = 0.721, p < 0.01). This relationship was strong, highlighting the critical role of human resources in educational achievement. Regression analysis indicated that teacher management explained 52.0% of the variance in learning outcomes (R^2 = 0.520, F = 189.3, p < 0.001). These findings point to a significant statistic that teacher management practices and learning outcomes move together in a highly predictable pattern. Thus, the high p-values in the findings provide the evidence that this relationship cannot be attributed to random variations rather a fundamental connection between teacher management and the effective learning under the CBE system.

Therefore, the 52.0% variance explanation indicates that effective teacher management practices are primary in determining learning outcomes. This challenges conventional education policy that often prioritizes facility development over human resource optimization. This analysis suggests that investing in sophisticated teacher management systems could yield greater returns in student achievement than comparable investments in physical resources.

The strength of this correlation also reveals the multiplicative effect of teacher management quality on CBE implementation. Unlike traditional pedagogical approaches that may function adequately with minimal management support, CBE's emphasis on individualized learning, competency-based assessment, and innovative teaching methods appears to require intensive teacher support and management. It was established through the above statistics that CBE's success is fundamentally dependent on creating management environments that enable teachers to effectively adapt their practices to competency-based frameworks.

These statistical results have profound implications for educational leadership and policy development in Turkana County. The 72.1% correlation suggests that improving teacher management practices will serve as a high-leverage intervention for enhancing CBE learning outcomes across the entire educational system. This finding redirects attention from teacher training deficits toward management system inadequacies as the primary barrier to effective CBE's learning outcomes. It therefore indicates that successful CBE delivery requires not just competent teachers but sophisticated management systems that support, evaluate, and continuously develop teacher capacity in competency-based pedagogical approaches.

A further analysis was carried out on specific teacher management practices relationship aspects of professional development, retention and performance management and the correlation results presented in table 4.2 below. This was to identify further the need for a teacher's role in enabling learners to achieve the learning outcomes.

Table 4.2 Specific Teacher Management Correlations

Management Practices	Correlation with the Learning Outcomes
Professional Development	r = 0.694
Teacher retention strategies	r = 0.658
Performance management	r = 0.623

Specific teacher management practices in table 4.2 showed varying correlations with learning outcomes. Professional development opportunities demonstrated the strongest association (r = 0.694, p < 0.01), followed by teacher retention strategies (r = 0.658, p < 0.01) and performance management systems (r = 0.623, p < 0.01). Schools with comprehensive teacher support systems where professional development was given priority consistently outperformed those with limited support structures. The analysis revealed that teacher quality indicators achieved through professional development in areas such as subject mastery, pedagogical skills, and commitment to learners' success were better predictors of learning outcomes than mere qualification levels. This finding emphasizes

the importance of continuous professional development and supportive management practices in enhancing teaching effectiveness. Teacher retention strategies such as provision of housing, capacity building, improved welfare provision, security provision showed an improved retention of the teachers in most schools. Ultimately, these schools recorded a correlation of r=0.658 with a p-value of <0.01 pointing to a strong relationship between teacher retention to the achievement of the learning outcomes in most of the schools that reported such management strategies as mentioned above.

Consequently, a correlation of r=0.623 and p-value of <0.01 in performance management showed that schools with high performance index were well managed, teachers were well motivated and the work environment was reported to be conducive to allow for teaching and learning processes. Some schools reported to have a very supportive community around where assistance of schools was a community responsibility because the school performed well in all areas making the community proud in all levels of academic and non-academic areas.

V: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Summary

On other hand, teacher management emerged as the most influential factor among the management dimensions examined. The analysis revealed positive correlation of ($r = 0.721$, $p < 0.01$) between teacher management practices and learning outcomes. With a significance level of $p < 0.01$, the statistical evidence was sufficient enough to reject the null hypothesis (H_{02}) that there is no significant relationship between management of teachers and learning outcomes in junior schools. The regression analysis ($R^2 = 0.520$, $F = 189.3$, $p < 0.001$) demonstrated that teacher management explained 52.0% of the variance in student achievement, representing the strongest predictive relationship among all management dimensions studied in Turkana County junior schools.

The average teacher-student ratio of 1:52 exceeded recommended standards, while only 43.7% of teachers had received comprehensive CBE training within the preceding two years. Professional development opportunities demonstrated the strongest association with learning outcomes of ($r = 0.694$, $p < 0.01$), followed by teacher retention strategies and performance of management approaches necessary to achieve the learning outcomes. Schools with comprehensive teacher support frameworks consistently outperformed those with limited support structures, emphasizing the critical importance of human resource development in educational success.

5.2 CONCLUSIONS

While all management dimensions significantly influence learning outcomes, human capital factors (teacher management and management interventions) demonstrate stronger relationships with educational achievement than physical resources (infrastructure and materials). This conclusion suggests that effective resource mobilization and utilization strategies can partially compensate for absolute resource constraints, providing optimism for educational improvement in resource-limited environments.

5.3 RECOMMENDATIONS

Schools should allocate available resources to ensure continuous professional development opportunities for teachers, particularly in CBE implementation strategies. Given the strong correlation between teacher management and learning outcomes, investments in human capital development should receive priority over physical resource acquisition when resource allocation decisions are necessary.

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