INFLUENCE OF PRINCIPALS' HUMAN RELATIONS STRATEGIES ON TEACHER PRODUCTIVITY IN PUBLIC SECONDARY SCHOOLS IN MACHAKOS COUNTY, KENYA

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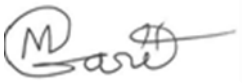
DECLARATION AND APPROVAL

Declaration by the Student

This research thesis is my original work, and it has not been presented at any other university or for any other award.

Signature  **Date: 20/10/2024**

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DEDICATION

The thesis is dedicated to Carren, my wife, my children: Everlyne, Brian, Clinton, Gilbert, and Melody, my late dad, Gari, and my late mum Mongina.

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Thanks to my supervisors, Dr. Ruth Thinguri and Dr. Gilbert Nyakundi, for supporting me. I appreciate friends and persons who vigorously gave inputs in the development of this document. Thanks to the authors of materials referenced in this thesis. Appreciation goes to all participants who gave valued information for this study. Lastly, I thank God for His divine guidance during my research work and analysis of the data.

ABSTRACT

There is growing global concern about the human relations strategies employed by school principals to foster positive teacher productivity. This research aimed to explore the impact of principals' human relations strategies on teacher productivity in public secondary schools in Machakos County, Kenya. The study objectives were: to evaluate how principals' motivation strategies influence teacher productivity; to examine the effect of principals' professional development strategies on teacher productivity; to investigate the impact of principals' welfare strategies on teacher productivity; and to assess the role of principals' communication strategies in promoting teacher productivity, all within the context of public secondary schools in Machakos County, Kenya. The research was anchored in two theoretical frameworks: the human relations theory and the theory of educational productivity. A mixed methodology was employed, utilizing a descriptive correlational design with concurrent triangulation. The target population was 4,921, which included 4,312 teachers, 291 principals, 291 Board of Management (BoM) chairpersons, 18 Ministry of Education/Teachers' Service Commission officers, and 9 Teachers' Service Human Resource Officers. A sample of 518 participants was selected, consisting of 433 randomly sampled teachers, 29 randomly sampled principals, 29 randomly sampled BoM chairpersons, 18 purposively sampled Ministry of Education/Teachers' Service Commission officers, and 9 purposively sampled Human Resource Officers. Data was collected using questionnaires for teachers, principals, and BoM chairpersons, while interview schedules were employed for Ministry of Education/Teachers' Service Commission officers and Human Resource Officers. Pilot testing was conducted in Makueni County, involving 52 participants, including 44 teachers, 4 principals, and 4 BoM chairpersons. The validity of the instruments was confirmed through expert analysis in educational management, while reliability was assessed using the test-retest method, with a Cronbach Alpha reliability index of $r \geq 0.75$, indicating strong internal reliability. The credibility of the study was enhanced through data triangulation, while dependability was ensured by providing detailed reporting of each data collection process. Quantitative data was analyzed using descriptive statistics, such as frequencies, percentages, and tables, and inferential statistics, including linear regression, using the Statistical Package for Social Sciences (SPSS) Version 24. Qualitative data was analyzed thematically and presented through narrative descriptions and verbatim quotes. The findings revealed that principals were not effectively utilizing motivation strategies or professional development initiatives. Although staff welfare strategies were applied moderately, they did not have a significant impact. Additionally, communication between staff and principals faced some challenges. The study recommended that educational stakeholders collaborate with schools to enhance human relations, thereby improving teacher productivity. Further research, involving different participants, was also suggested for the same area of study.

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LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	**:**	Acquired Immunodeficiency Syndrome
BoM	**:**	Board of Management
CCAs	**:**	Co-Curricular Activities
EO	**:**	Education Officer
HIV	**:**	Human Immunodeficiency Virus
HRO	**:**	Human Resource Officer
ICT	**:**	Information and Communication Technologies
KCSE	**:**	Kenya Certificate of Secondary Education
KNBS	**:**	Kenya National Bureau of Statistics
MoE	**:**	Ministry of Education
NACOSTI	**:**	National Commission for Science, Technology, and Innovation
PhD	**:**	Doctor of Philosophy
PTA	**:**	Parent and Teachers' Association
SCDEs	**:**	Sub County Directors of Education
SPSS	**:**	Statistical Package for Social Sciences
TSC	**:**	Teachers Service Commission
UNESCO	**:**	United Nations Educational, Scientific and Cultural Organization
USA	**:**	United States of America
VET	**:**	Vocational Education and Training

CHAPTER ONE

INTRODUCTION

This chapter provides a foundational overview of the study, beginning with an examination of the background, which sets the context and highlights the significance of the research title. The statement of the problem is then addressed outlining the specific issues and challenges that the study aimed to address, thus justifying the need for this research. The purpose of the study is detailed, emphasizing the intended contributions and overall objectives of the research. Subsequently, the four key research objectives are articulated, and by their corresponding research questions. These elements are designed to guide the investigation and ensure focused inquiry into the specific aspects of the topic. Additionally, the hypotheses are presented, outlining the expected relationships between variables and providing a basis for empirical testing. The rationale and significance of the study are then examined, demonstrating the value and potential impact of the research on both theoretical understanding and practical applications. This section explains why the study is important for stakeholders, such as educators, policymakers, and academic researchers. Moreover, the scope of the study is defined, clarifying the boundaries of the research in terms of content, location, and population, while also addressing the limitations that may affect the generalizability of the findings. The delimitations are discussed to specify the choices made by the researcher in defining the study's focus. The chapter also outlines the assumptions that underpin the study, providing transparency regarding the conditions presumed to be true for the research to proceed effectively. Finally, the operational definitions of key terms are provided to ensure clarity and consistency, establishing a common understanding of critical concepts throughout the study. This comprehensive

introduction lays the groundwork for the subsequent chapters, ensuring that all essential elements are addressed for a cohesive research framework.

1.1 Background to the Study

The focus on principals' human relations strategies as a key influence on teacher productivity in public secondary schools finds its origins in the human relations movement of the early 20th century. The human relations approach to management gained prominence through the work of Elton Mayo and the Hawthorne Studies, which highlighted the importance of social relations, employee morale, and motivation in increasing productivity (Lumadi, 2023). These foundational studies showed that when managers took an interest in their employees' welfare and created a supportive environment, productivity increased. This concept has since been adapted in educational leadership to examine how school principals can enhance teacher productivity through effective human relations strategies (Kumar, 2021).

The recognition of the principal's role in teacher productivity led to a growing interest in the human relations strategies employed by school leaders. These strategies involve actions such as promoting open communication, providing emotional support, engaging in active listening, conflict resolution, and recognizing and rewarding teachers' efforts (Akinwale & George, 2022). As educational systems expanded globally, the role of principals evolved to include being leaders who could cultivate positive relationships within their schools to ensure that teachers remain motivated and productive. This shift in leadership responsibilities was evident in developed nations during the latter part of the 20th century, and similar practices have been gradually adopted in developing countries, including Kenya (Mutisya & Nyamwaka, 2023).

Research in recent years has increasingly pointed to the importance of human relations approaches in school management, especially in enhancing teacher satisfaction and

reducing turnover. For instance, Akinwale and George (2022) argued that the productivity of teachers is highly dependent on how principals manage interpersonal relationships, suggesting that human relations strategies are not just supplemental but are central to effective school leadership. In public secondary schools, where teachers often work under challenging conditions, these strategies are vital for creating a positive working environment.

With the growing recognition of the link between school leadership and teacher productivity, recent studies have explored specific human relations strategies used by principals. For example, Owusu-Acheampong and Kusi (2022) found that leadership styles that emphasize support and inclusion tend to have a significant positive impact on teacher morale and productivity. This suggests that when principals adopt human relations strategies that are participative, empathetic, and transparent, they are more likely to foster an environment where teachers feel valued and are willing to invest more effort into their teaching responsibilities.

Further, Lumadi (2023) highlights that effective human relations strategies by principals lead to improved communication, greater collaboration among staff, and enhanced teacher commitment. These factors collectively contribute to an overall improvement in school performance. The principal's ability to foster a sense of belonging and community is crucial for the holistic development of the school, which, in turn, enhances the productivity of individual teachers.

The emergence of transformational leadership models in the 21st century also aligns with the principles of human relations in school leadership. Transformational leaders inspire and motivate teachers, not through coercive means but by addressing their higher-order needs, setting a clear vision, and empowering teachers to achieve their goals (Esenwa & Aina, 2021). This leadership style requires strong interpersonal skills,

empathy, and the ability to create a supportive environment—all core components of human relations strategies.

In the context of public secondary schools, particularly in developing regions like Machakos County, Kenya, the adoption of human relations strategies by school principals has been seen as a response to the diverse challenges facing the education sector. High student-to-teacher ratios, inadequate resources, and socio-economic pressures make teaching a demanding profession (Mutisya & Nyamwaka, 2023). Principals who employ effective human relations strategies are better equipped to mitigate these challenges by fostering resilience, motivation, and a sense of purpose among teachers.

Mutisya and Nyamwaka (2023) argue that the effectiveness of principals in public secondary schools in Kenya is increasingly judged not only by academic performance metrics but also by their ability to build and sustain positive human relationships within their schools. Principals who successfully employ human relations strategies contribute to higher teacher satisfaction, improved morale, and, ultimately, increased productivity.

The evolution of principals' human relations strategies in the context of teacher productivity in public secondary schools is rooted in the broader historical development of human relations theory. From the early work of Elton Mayo to recent developments in transformational leadership, the emphasis has been on recognizing the human aspect of school leadership. Principals who use effective human relations strategies can significantly influence teacher productivity, which is crucial for achieving educational goals, especially in challenging environments such as public secondary schools in Kenya.

Principals play a crucial role in achieving educational goals and ensuring quality schooling in public institutions. To succeed, diverse approaches, such as fostering

positive relationships among staff, are necessary. Clinton (2019) highlights that interpersonal strategies for school leaders encompass various activities aimed at fulfilling teachers' responsibilities and promoting students' growth and development. These strategies include motivation, professional development, teacher welfare, and communication initiatives.

In India, Deborah (2020) suggests that principals adopt various methods to cultivate strong staff relationships, including fostering a school culture conducive to teaching and learning through shared leadership and decision-making, encouraging risk-taking, empowering educators through discussions on instructional issues, and managing student discipline and co-curricular activities. This implies that to achieve educational goals, principals' ability to manage human relations is essential for institutional growth and academic development.

In the Netherlands, Moos (2019) found that effective teachers complete 85 % of the syllabus on time, participate in 80 % of co-curricular activities, and achieve a mean grade of over 75 % in internal assessments. This success is linked to principals who motivate teachers, engage them in professional development, address their welfare, and foster a positive communication environment. However, despite these strategies, teacher productivity remains low, with many failing to meet their teaching objectives. For instance, Marchington (2020) reports that in Colombia, only 27.8 % of teachers complete their syllabus on time, 31.9 % actively engage in co-curricular activities, and students achieve an average grade of just 35.9 % in national assessments.

In Kuala Lumpur, Adré and Sullivan (2017) emphasize that principals' strategies, such as teacher motivation, significantly impact teachers' self-regulation and productivity. These strategies align with Millette's (2019) findings, which stress that enhancing human relations in schools is key to improving teacher productivity. In highly effective

schools or those that have reversed declining performance trends, principals lead by setting the pace and creating a stimulating environment where teachers can perform their duties smoothly. This highlights the importance of principals' human relations strategies in helping teachers complete the syllabus on time, participate in co-curricular activities, and produce high-performing students.

In several Sub-Saharan African countries, principals' human relations strategies, such as motivation, professional development, welfare promotion, and communication, are central to improving teacher productivity in secondary schools. For instance, Bukola and Subair (2022) note that, in Nigeria, addressing human relations and teacher welfare, in addition to issues of teacher supply and training, is crucial for improving teacher performance. Schools, where teachers are motivated, given professional development opportunities, and supported through conducive working environments, see improved teacher productivity, syllabus completion, and student performance.

Lethoko (2022) echoes similar sentiments in South Africa, stating that principals in Pretoria must focus on staff welfare, motivation, and fostering a supportive environment. Southworth (2019) adds that effective instructional leaders gain insights by understanding the curriculum and pedagogy while creating a stimulating teaching environment. Teachers who are actively engaged in teaching are motivated by the efforts their leaders put into instruction, which leads to improved productivity. However, this is not always the case in many secondary schools.

In Kenya, particularly in Machakos County, principals' ability to manage human relations is viewed as essential for providing effective instructional leadership to enhance teacher productivity. Akala and Maithya (2018) argue that principals are responsible for supervising teachers, conducting performance appraisals, and ensuring

teacher discipline and motivation as part of strategies to improve pedagogy in public secondary schools. Despite these efforts, the effectiveness of principals' human relations strategies in enhancing teacher productivity remains insufficient. The Ministry of Education (MoE, 2023) reports that secondary schools in Machakos County achieved a mean grade of 28.6 % in the 2018 KCSE exams, compared to the national average of 69.3 %. This trend has persisted over the past five years, indicating low teacher performance. Additionally, public schools in Machakos County show poor results in co-curricular activities, with minimal teacher participation, as highlighted in the table below.

Table 1: Machakos County Academic Performance in KCSE

	NAME OF SUB COUNTY MACHAKOS	2022	2021	2020	2019	2018	DEV.
1	MASINGA	4.427	3.996	4.251	0.20655	0.1777	0.431
2	MACHAKOS	4.371	3.389	3.699	0.26735	0.23834	0.982
3	MATUNGULU	4.363	3.954	4.242	0.24834	0.22491	0.409
4	KATHIANI	4.247	3.932	4.330	0.29697	0.27448	0.315
5	YATTA	4.154	4.066	4.240	0.43981	0.38055	0.088
6	ATHIRIVER	4.052	3.940	4.196	0.46097	0.41898	0.113
7	MWALA	3.821	3.537	3.866	0.41406	0.35685	0.270
8	KALAMA	3.419	3.195	3.482	0.65713	0.49385	0.224
9	KANGUNDO	3.226	3.163	3.390	0.54356	0.49592	0.063
TOTAL		**4.009**	**3.686**	**3.966**	**0.39275**	**0.34018**	**0.323**

Source: KCSE Analysis Essential Statistics (2024).

As previously noted, a report by the Ministry of Education (MoE) (2020) reveals that in many public schools in Machakos County, teachers unfortunately fail to complete their syllabus on time. Additionally, a significant number of them do not participate in co-curricular activities, and they record concerning results in public assessments, indicating sub-par performance in subject instruction. The MoE (2020) highlighted that public schools in Machakos County posted a mean grade of 28.6 % in the 2018 KCSE exams, compared to the national average of 69.3 %, with this trend continuing to

decline. According to the ministry, public secondary schools in Machakos County consistently perform poorly, even when considering all performance indicators. In 2018, during local ball games, Machakos County ranked fourth out of five sub-counties, came fourth in sports, and finished last in music festivals. This calls for a detailed analysis of how principals' human relations strategies affect teacher productivity in public secondary schools, which this review and study aim to address.

1.2 Statement of the Problem

The productivity of teachers in public secondary schools is crucial for ensuring high-quality education and improving student outcomes. However, concerns have been raised about the declining productivity of teachers in Kenya, particularly in Machakos County. This decline is partly attributed to the management practices of school principals, whose human relations strategies are vital in fostering a conducive working environment for teachers (Nyaga & Nyamweya, 2022). Effective human relations strategies—such as communication, motivation, and conflict resolution—can significantly impact teachers' morale and job satisfaction, which in turn influence their overall productivity (Mwangi & Kariuki, 2021). Despite the recognized importance of principals' human relations strategies, limited research has specifically explored their direct impact on teacher productivity in Machakos County. Most existing studies have focused on other regions of Kenya or different aspects of school management, such as resource allocation or instructional leadership (Ochieng, 2023). Consequently, there is a need to determine how the human relations skills employed by school principals affect teachers' ability to perform their duties effectively within the context of public secondary schools in Machakos County. Addressing this research gap is essential for informing policy and practice in educational management. By understanding the influence of principals' human relations strategies, stakeholders can implement targeted

interventions to enhance teacher productivity, ultimately leading to improved student performance and educational quality (Muthoni & Otieno, 2020). Therefore, this study aims to investigate the influence of principals' human relations strategies on teacher productivity in public secondary schools in Machakos County, Kenya.

1.3 Purpose of the Study

The purpose of this study was to investigate the influence of principals' human relations strategies on teacher productivity in schools in Machakos County, Kenya.

1.4 Objectives of the Study

This work was steered by research objectives: -

i. To assess the influence of principals' provision of motivation strategies on teacher productivity
ii. To examine the influence of principals' provision of professional development strategies on teacher productivity
iii. To establish the influence of principals' provision of welfare strategies on teacher productivity
iv. To determine the influence of principals' provision of communication strategies on teacher productivity

1.5 Research Questions

This investigation was directed by questions: -

i. What is the influence of principals' provision of motivation strategies on teacher productivity?
ii. How does principals' provision of professional development strategies influence teacher productivity?

iii. To what extent does principals' provision of welfare strategies influence teacher productivity?

iv. What is the influence of principals' provision of communication strategies on teacher productivity?

1.6 Research Hypotheses

The following were the study hypotheses derived from the objectives: -

i. **Ho** There is no significant influence of principals' provision of motivation strategies on teacher productivity

The null hypothesis was rejected since the provision of motivation strategies significantly predicted teacher motivation at $B = 0.62$, $t(729) = 21.93$, $p < .001$.

ii. **Ho** There is no significant influence of principals' provision of professional development strategies on teacher productivity

The null hypothesis was rejected since the provision of professional development strategies significantly predicted teacher productivity at $B = 0.65$, $t(729) = 23.65$, $p < .001$.

iii. **Ho** There is no significant influence of principals' provision of welfare strategies on teacher productivity

The null hypothesis was rejected since the provision of welfare strategies significantly predicted teacher productivity at $B = 0.51$, $t(729) = 19.01$, $p < .001$.

iv. **Ho** There is no significant influence of principals' provision of communication strategies on teacher productivity

The null hypothesis was rejected since the provision of communication strategies significantly predicted teacher productivity at $B = 0.63$, $t(729) = 23.38$, $p < .001$.

1.7 Rationale of the Study

The principal's role in promoting a productive educational environment is pivotal, especially in terms of human relations strategies that can significantly influence teacher performance. This study seeks to examine the influence of principals' human relations strategies on teacher productivity in public secondary schools in Machakos County, Kenya. Understanding the dynamics of interpersonal relationships and leadership styles within the school context is crucial, as principals who effectively employ human relations strategies are more likely to foster a positive work environment, thereby enhancing teacher motivation and productivity (Aydin et al., 2019; Mwangi & Njagi, 2021).

Previous research has demonstrated that leadership approaches emphasizing empathy, communication, and conflict resolution contribute to increased job satisfaction and teacher effectiveness (Khan et al., 2020). However, there is limited empirical evidence specific to the Kenyan context, particularly in Machakos County, regarding how these strategies are operationalized and their direct impact on teacher outcomes. Addressing this gap provides valuable insights into how school leadership can be optimized to improve educational outcomes, benefiting both teachers and students (Oduor & Mungai, 2022).

Moreover, effective human relations strategies can mitigate teacher burnout and turnover, issues that are increasingly prevalent in public schools (Simatwa, 2020). By focusing on how principals' interactions and relationship-building contribute to a conducive work environment, this study aims to provide actionable recommendations for educational policymakers and school leaders to enhance productivity and job satisfaction among teachers. Consequently, this research is timely and significant, contributing to the ongoing discourse on educational leadership in the Kenyan context.

1.8 Significance of the Study

School heads may find this study valuable in identifying the most effective strategies to enhance human relations in schools, which in turn could boost teachers' motivation and performance, ultimately contributing to knowledge on teacher productivity. Principals may develop greater awareness and understanding of how to motivate their teachers, create professional development opportunities, address welfare issues, and foster a conducive teaching environment. Additionally, the study may offer principals alternative solutions to address factors that cause dissatisfaction among teachers and highlight effective methods for resolving them.

Teachers may benefit from this research by gaining insights into how various aspects of human relations impact their productivity, which could help them adapt to prevailing circumstances and enhance their performance. Students, in turn, may experience improved academic outcomes and access to quality education due to better working conditions for their teachers.

The Ministry of Education and the Teachers' Service Commission (TSC) may also gain from this research by understanding teachers' expectations, allowing them to take actions that foster more effective and enthusiastic teaching. The findings may further help the ministry understand how human relations affect teacher productivity, enabling it to devise strategies that assist principals in improving relationships within schools. Policymakers and educational stakeholders may benefit by using these insights to ensure that healthy human relations are maintained in schools, thereby improving teacher productivity and creating a foundation for future policy development.

For researchers and academicians, this study may reveal areas that require further investigation, helping to close knowledge gaps and expanding the current understanding of how principals' human relations strategies influence teacher productivity. This contribution to the existing body of knowledge could serve as a basis for future studies.

1.9 Scope of the Study

The scope of this study is confined to investigating the influence of principals' human relations strategies on teacher productivity within public secondary schools in Machakos County, Kenya. The study specifically focuses on examining the extent to which principals' strategies, such as effective communication, recognition, interpersonal relationships, and support, impact teachers' job performance and productivity levels. The target population includes all principals and teachers in public secondary schools in the county, emphasizing the differences in productivity based on the varied leadership approaches.

The research covers schools across urban, peri-urban, and rural areas of Machakos County, which allows for the comparison of different contexts to determine if geographic factors influence the effectiveness of human relations strategies used by principals. The study period covers the most recent academic years to reflect the current state of school management practices and their impacts on teacher productivity, allowing an updated understanding of the dynamic between school leadership and teacher performance.

Data was collected from principals and teachers through a structured questionnaire and interviews to provide both quantitative and qualitative insights. This mixed-method approach enables a more comprehensive understanding of the human relations

strategies utilized by principals and their subsequent effects on teacher productivity (Creswell & Creswell, 2018).

In line with recent literature, the scope includes an examination of leadership theories, such as the Transformational Leadership Theory and Human Relations Theory, to explore how these theoretical frameworks underpin the principals' strategies and their influence on teacher motivation and effectiveness (Northouse, 2021). Furthermore, this study limits its generalizability to public secondary schools in Machakos County, recognizing that different regions may have distinct socio-cultural dynamics that could influence the applicability of the findings to other areas (Kiprop, 2022). This study excluded private secondary schools and other levels of education (such as primary schools and tertiary institutions) due to the different administrative structures and challenges in those contexts. Therefore, the findings may be relevant specifically to the public secondary school sector within the given county.

1.10 Limitations of the Study

This investigation faced encounters: -

i. The study was limited to public secondary schools in Machakos County, which may not represent other regions or levels of education. As such, findings may not be generalizable to private schools or schools outside Machakos County. The researcher selected a sample that reflects a diverse range of public secondary schools within the county.

ii. Teachers and principals may have given socially desirable responses instead of honest answers, especially regarding sensitive topics like human relations and productivity. The researcher assured participants of anonymity and confidentiality, emphasizing that the data would only be used for research

purposes. Additionally, using triangulation—by collecting data from multiple sources, such as teachers, principals, and district officers—could reduce bias.

iii. Time limitations may have affected the depth of the study, particularly if the data collection period was short, leading to challenges in obtaining comprehensive responses. To mitigate this, the researcher used well-designed survey instruments that maximize information gathering in a limited time. Scheduling interviews at times convenient for respondents could also ensure that time was not a barrier to participation.

iv. Since data might have been collected through self-reported questionnaires, the accuracy of the responses could be questioned. The researcher used multiple data collection methods, such as interviews

1.11 Delimitations of the Study

This thesis had restrictions: -

i. It was restricted to teachers, heads, BoM members, SCDEs and TSC officers in the sub counties in Machakos County

ii. It was only on human relations tactics adopted by principals like teacher motivation, opportunities for professional development, welfare provision and communication strategies on teacher productivity

iii. It dealt only with public secondary schools in the study county

1.12 Assumptions of the Study

Expectations were that: -

i. Principals adopted a multiplicity of human relations strategies geared towards improving teacher productivity in public secondary schools.

ii. Principals' teacher motivation, professional development, and welfare communication strategies influence teacher productivity in secondary schools.

iii. Participants were ready to provide credible evidence on the matter in discussion

1.13 Operational Definitions of Key Terms

Accommodation: means housing given by schools already furnished with basic furniture and simple necessities

Advocacy for promotion and salaries: it means that principals take lead in advocating for their teachers' salaries and promotions working together with the teachers' unions

Conflict resolution: is the process of ending disputes in schools and reaching an agreement that satisfies all school community members to avoid friction

Contract performance: a legal agreement between teachers and TSC that they successfully complete teaching task and produce good outcomes

Extrinsic motivation: in this work means that the principals give items or payments

Financial rewards: in this thesis it means all financial means of pay provided by principals, BoM, PTA or any well-wisher in return for teachers' efforts

Material rewards: in this research they include toys, candy, or other things that cost money or any tangible items

Memos: are memo are actually short for messages used means of official communication among the teachers from the principals' main purpose being to serve as a reminder or to give some instructions

Principals' communication strategies: refer to the maneuvers principals apply in official and unofficial communication daily. It may be intentionally put in place, or when needed, computer-generated, face to face, in black and white, film or spoken, digital or non-digital geared towards improved healthy interactions.

Principals' human relations strategies: They are the interactions between principals and their employees, shaping the workplace culture and relationships or a set of activities which principals engage in to ensure that teacher perform their duties and improve students' holistic growth and development. In this study, these included teacher motivation, professional development, welfare promotion, and communication strategies.

Professional development strategies: refer to a set of strategies that secondary school principals adopt to make sure that staff get additional skills to enhance their teaching capability Sabbatical leave is a period of extended break like one week or so that a teacher takes from teaching work for personal matters

Social rewards in this study are positive reinforcements that are provided by other people such as praise, recognition, attention, or acceptance. They are cheap or free and can be even more powerful than material rewards

Staff development funds are funds available for teachers to participate in specialized development activities that enhance their teaching capacity

Staff development programme means support to teachers' growth through partial or full payment of the cost of courses, seminars, and workshops that enable them to improve performance while they continue to teach

Staff meeting is a time when all the teachers in the school gather together to talk about work occasionally and principals take the opportunity to communicate with staff

Teacher motivation strategies: refer to approaches established by principals to inspire staff work hard and record high productivity

Teacher productivity: it means outcomes by the teaching staff. This necessitates improved coverage of syllabus, frequency of participation in CCAs, improved teaching subject scores, improved performance contract scores and increased teacher job satisfaction

Teachers' job satisfaction is explained as the emotive responses of teaching staff to their occupations or instruction accountability

Teachers' welfare includes a broad range of benefits and services that teachers may be offered by schools. In this case, when teachers lose their loved ones or fell sick, other teachers contribute towards this function. It includes common lunch too

Verbal communication is a type of communication where principals use spoken words to get our message and information across to the teachers

Welfare strategies: refer to a set of activities which principals engage in to ensure that personal challenges which affect teachers are addressed. In this study, these included provision for accommodation, advocating for staff promotion and improved staff salary and incentives.

Written reports are documents designed to record and convey information to the teachers like the weekly or monthly reports

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Literature in the past investigations was highlighted here in this section. The independent and dependent variables were considered. All the four objectives were covered. The theories used were also included. There was a conceptual framework and study gaps established. Then the summary of the section came last.

2.1 Empirical Literature Review

This was based on the concept of principals' human relations strategies, teacher productivity in secondary schools, and the influence of principals' motivation, professional development, welfare, and communication strategies on teacher productivity in secondary schools.

2.1.1 The Concept of Principals' Human Relations Strategies

Human relations strategies refer to the leadership approaches used by principals and educational leaders to foster positive interpersonal relationships within the school environment. These strategies prioritize the well-being, morale, and motivation of teachers, staff, and students, recognizing that effective communication, collaboration, and understanding among individuals lead to a more successful and harmonious school climate. The concept draws from Human Relations Theory, which emerged from management studies in the early 20th century. This theory emphasized the importance of social factors at work, moving away from rigid, mechanistic models that focused solely on efficiency. Instead, the human relations approach emphasizes that employees (in this case, teachers and staff) are motivated not only by financial rewards but by social interaction, recognition, and a sense of belonging. Principals who use human

relations strategies apply principles like Effective Communication: Ensuring that there is open dialogue between teachers, staff, students, and parents. Emotional Support and Motivation: Collaboration and Teamwork: Creating a sense of teamwork and shared goals. Conflict Resolution: Addressing and resolving conflicts constructively. Recognition and Appreciation: Recognizing the contributions and efforts of teachers and staff. These strategies are rooted in the belief that a school's organizational effectiveness is closely tied to the interpersonal relationships between its members (Wang, 2021).

In the United States, Rivkin, et. al., (2021) posited that principals' human relations strategies consist of, but are not limited to, promoting, dismissal, in-service training, and expert improvement. Similarly, it was opined that most often handling inside the system approach left teachers alone without consideration. This tends to lead to a decline in the perceived importance of coaching and the need to improve coaching. To remedy this trouble, Mulford (2018) asserts that international locations of Australia and Ireland have created special-graded training positions that offer more duty and better pay to elevate teachers. This study examined the principals' relations in Machakos.

In New Zealand, Timperley et al. (2020) suggest that authoritative governments often dictate the methods for appointing individuals to higher-level positions. It was observed that relevant, consistent, and practical in-service training is effectively implemented and considered essential for achieving school excellence. Recognizing that, for practical and equitable reasons, it is important to design in-service courses that align with the education system's structure and geographical conditions. In South Asia, teachers' unions and other organizations outside the education sector provide training (Nilsson, 2019). This alleviates some of the burden from central governments and can result in higher-quality training programs. Involving teachers in their own professional

development process is crucial, as it gives them a sense of ownership and participation in their work. One approach to engage teachers is to have them design and deliver their own in-service training courses. Nilsson (2019) also suggests fostering collegial working relationships within and between schools to encourage greater interaction among teachers, allowing them to learn from one another.

In African countries, principals adopt a range of human relations strategies, including the terms and conditions of teachers' employment, which are pivotal in determining the quality of candidates attracted to the profession. Vegas and De Laat (2018) note that governments are understandably cautious about decentralizing decision-making power because many local communities struggle to offer competitive salaries, benefits, and job security for teachers. For instance, in Malawi, Van Graan et al. (2018) report that schools are often forced to hire underqualified or unqualified teachers to meet staffing needs, which limits incentives for the existing teachers to improve their performance.

In Kenya, particularly in Machakos County, Owuor and Odera (2020) assert that principals' human relations strategies are a key aspect of management, aimed at enhancing teacher productivity in secondary schools. The study emphasizes that teachers and schools rarely see feedback or evaluations, leaving them unaware of their performance and, as a result, lacking the motivation or means to improve their skills or career prospects. This analysis focuses on principals' use of motivation, professional development, staff welfare, and the creation of a conducive teaching environment as the primary human relations strategies employed to influence teacher productivity.

Thus, principals' human relations are vital to teacher productivity. This study had to establish the roles played by the principals. The study used indicators for this

independent variable. There was a relationship between the relations and productivity as seen in the hypotheses.

2.1.2 The Concept of Teacher Productivity

This was the dependent variable. Teacher productivity refers to the individual performance of a teacher about his/her teaching competence and his/her belief/expectations that it can positively affect students' learning. Teacher productivity refers to the effectiveness and efficiency with which teachers perform their roles and responsibilities in the educational environment. It involves maximizing instructional quality and outcomes (student learning, engagement, and achievement) while efficiently managing the available resources such as time, materials, and support systems. Teacher productivity is influenced by several factors, including the quality of professional development, motivation, teaching strategies, use of technology, school leadership, and the working environment. Key components of teacher productivity include, for example, instructional effectiveness. This is the ability to deliver lessons in a manner that facilitates student understanding and engagement. Secondly, classroom management which means effectively managing student behavior and maintaining a positive learning environment. In student achievement, productive teachers foster academic growth, measured through student performance and learning outcomes. The rise of technology in education and the increasing demand for personalized learning have placed greater emphasis on teacher productivity, pushing educators to adapt to new tools, strategies, and methods that allow them to improve outcomes without overextending their resources (Wiseman, 2022).

Teel (2018) suggests that teachers with high efficiency and competence—defined by their occupational knowledge, skills, attitudes, and values—tend to have higher

productivity, which positively impacts student achievement. In essence, teacher productivity refers to the work outcomes achieved by staff. Hofman and Hofman (2020) in the Netherlands assert that a skilled teacher, with a strong sense of competence, is more likely to teach a subject effectively and drive student success. In Brazil, Omari (2018) conducted a study on factors affecting productivity within the education sector, concluding that productivity is tied to the cumulative performance of individual staff members. Omari (2018) also noted that teachers' efforts to fulfill their responsibilities often align with the benefits they receive, as their livelihood is closely connected to their community's well-being. These findings highlight that teacher productivity involves multiple dimensions, including increased effort to achieve high output, innovation in discovering better ways to accomplish tasks, and a positive attitude toward treating students with respect. Moreover, it reflects the overall performance of schools in terms of syllabus coverage, academic outcomes, and involvement in co-curricular activities.

In Africa, Adan (2021) points out that teacher productivity is measured by syllabus coverage and the number of students who succeed in internal and national exams. In countries like Kenya, Adera (2018) emphasizes that teacher productivity is a crucial factor in strengthening the secondary school system, noting that when teacher performance is low, the school's overall functioning tends to decline, and the reverse is also true. Kenya, including Machakos County, uses teacher productivity as a key metric for assessing the extent to which educational goals are being achieved. Thus, in this study, teacher productivity is defined by improved syllabus coverage, participation in co-curricular activities, enhanced subject teaching scores, better performance evaluation ratings, and increased job satisfaction among teachers.

2.1.3 Principals' Provision of Motivation Strategies on Teacher Productivity

Motivation is a key factor that drives an individual's efforts toward performing a task. It encompasses two key aspects of behavior: the underlying reasons for the behavior and the energy directed toward achieving a goal. In India, Bedassi (2019) observed that institutional leaders, including school heads, have adopted various methods to motivate teachers for better outcomes. The study noted that motivational strategies used by school heads include teacher evaluations, merit-based pay, teacher orientation, work environment incentives, and opportunities for sabbatical leave for professional development. Similarly, in Italy, principals emphasize reward systems and improved working conditions as essential tools for enhancing teacher productivity. A study by Hardré and Sullivan (2022) conducted in Kuala Lumpur highlighted that principals' motivational strategies may include structuring the environment, direct interventions, and interpersonal or instructional approaches. The success of these strategies is evident in teachers' self-regulation and motivation, which are influenced by both immediate and long-term goals. This aligns with Millette's (2019) view that teacher productivity relies heavily on effective management and motivation. In schools that have significantly improved or are highly successful, principals motivate teachers by setting a clear direction and helping them reach their full potential. This underlines the importance of principals' motivational strategies in enhancing student outcomes.

In many Sub-Saharan African countries, principals' motivational strategies are crucial for fostering teacher productivity in secondary schools. For instance, Akinwumi (2020) found in Nigerian high schools that merit-based pay rewards high-performing teachers with increased financial compensation, while career ladder programs such as master teacher roles and staffing reforms aim to enhance teachers' roles and responsibilities.

The study indicated that principals' motivational strategies include effective management of school activities, instructional supervision, and improving teacher productivity.

Lethoko (2022), in a study conducted in the Pretoria region of South Africa, confirmed these findings. The research suggested that principals must maintain a hands-on approach by being aware of what is happening in the classrooms. Effective instructional leaders learn by engaging with the curriculum, pedagogy, and the dynamics of both student and adult learning. Teachers are motivated by the support principals provide in teaching and learning processes. However, despite these insights, teacher motivation in developing countries often remains low or declines, with specific challenges varying by country. Some countries face unique challenges, while others may have fewer issues.

A study by Michaelowa (2019), conducted in Burkina Faso, Cameroon, Cote d'Ivoire, Madagascar, and Senegal, revealed that over 50 % of fifth-grade teachers preferred teaching to other professions, and more than 40 % expressed satisfaction with their schools, indicating that teacher motivation in these nations may not be a significant problem. However, in Ethiopia and Nigeria, teachers exhibited several symptoms of low motivation.

In Kenya, teacher motivation continues to be a concern for education stakeholders, even though it is widely recognized that motivated teachers are more likely to perform better, as shown by timely syllabus coverage, content mastery, and improved student performance. A study by Onyambu (2022) in Masaba found that factors such as increased workloads, large class sizes, additional lessons, and frequently changing curricula were significant sources of frustration for teachers. The study also noted that

expectations placed on teachers often exceed the rewards, workloads, and working and living conditions they experience. Additionally, teachers in many schools are required to take on extra roles, such as providing HIV/AIDS education, counseling, and participating in community development initiatives. Nyakundi (2020) conducted a study in Thika West Sub-County and found that 79.3 % of motivated teachers are more likely to inspire students, ensure educational reforms are implemented, and experience satisfaction and fulfillment. While motivation is critical to the teaching-learning process, many secondary school teachers remain poorly motivated. The challenge for principals lies in developing highly motivated teachers who are engaged, open to innovation, and committed to students and educational change throughout their careers.

In Machakos County, principals play a vital role in motivating teachers, which has a direct impact on teacher productivity. A study by Huma (2023) highlighted that teacher motivation is crucial to the success of both teachers and students in public secondary schools. However, more research is needed, as this study and others have not fully explored how individual principals' motivational strategies affect teacher productivity in areas such as syllabus coverage, participation in co-curricular activities (CCAs), subject teaching performance, contract outcomes, and job satisfaction.

This study aimed to evaluate these factors by examining whether social rewards were used to motivate teachers to enhance productivity. It also explored the role of material rewards in boosting teacher performance and assessed the need for fostering extrinsic motivation among teachers. If financial rewards from bodies like the PTA or BoM were made available, teacher productivity in Machakos County could potentially improve significantly.

2.1.4 Principals' Provision of Professional Development Strategies on Teacher Productivity

Professional development refers to the growth of an individual in their professional duties. In the context of education, Villegas-Reimers (2020) asserts that professional growth encompasses activities that enhance a teacher's skills, knowledge, expertise, and other traits. A study in the Netherlands by Boyle et al. (2020) identified significant agreement on the importance of professional growth for teacher development. According to the study, the continuous deepening of skills and knowledge is crucial for advancing in any professional field, implying that teacher development is essential for improving the quality of teaching and learning.

To support this notion, Mundane and Nonchalant (2021) conducted a study in Germany that revealed professional development as a lifelong process focused on educators' knowledge, skills, and attitudes, enabling them to educate students effectively. The study emphasized that professional development is a targeted activity for teachers, occurring over a set period to achieve growth. Cool and Apathetic (2022) argue that effective professional development for teachers supports their motivation and commitment to the educational process. This indicates that professional development helps teachers refine what they learned in tertiary education to meet the demands of curricula, and schools that provide such opportunities observe improved teacher productivity in terms of syllabus coverage and students' academic outcomes.

In many African countries, Du Plooy (2023) believes that secondary schools view teacher development as crucial to their productivity. For instance, a study in Nigeria by Egu et al. (2019) found that secondary schools ensure teachers participate in professional development activities to become better educators. The study suggests that

teachers are drawn to professional development because they believe it enhances their knowledge and skills, contributes to their growth, and increases their effectiveness with students.

In Somalian schools, Jandaya (2021) contends that secondary schools recognize the importance of providing teachers with opportunities for professional development, which is critical for improving teaching and boosting school performance. The study revealed that schools offering continuous in-service training to their staff saw a 5.9 % improvement in student performance in national exams annually. This implies that professional development is essential for teachers, allowing them to learn new instructional methods and strategies for addressing students' academic needs, interests, and preferences, which are key to their productivity. In essence, professional development aims to improve teachers' instructional techniques, adaptability to students' needs, and management skills, and fosters a professional culture based on shared beliefs in the importance of teaching and learning, highlighting teacher collegiality.

In Kenya, there is recognition that teachers need opportunities for professional growth and career progression. A study in Thika West District by Kemunto (2022) emphasizes that teachers must continually update their knowledge, skills, values, standards, and methods relevant to their field. The study highlighted that professional development is critical in nearly all modern proposals for improving education, noting that teachers must be equipped to meet certain standards and enhance student productivity.

In Machakos County, teachers need to undergo in-service training and other specialized development courses to refine their teaching methods. A study by Galgallo (2022) found that teachers should be retrained and participate in further professional

development programs to effectively implement the secondary school curriculum. According to the study, professional development improves teachers' knowledge, aligns them with subject advancements, enhances teaching skills, and fosters the creation of new knowledge. However, more work is needed, as this research and others have not fully explored how offering professional development opportunities impacts teacher productivity in areas such as syllabus coverage, participation in co-curricular activities (CCAs), subject scores, performance contract results, and job satisfaction in secondary schools. The study also examined motivation issues in public secondary schools in Machakos County, suggesting that if motivation had been effectively applied, better teacher productivity would have been achieved. Unfortunately, this did not occur as expected.

This objective was assessed through specific indicators. One indicator was the presence of a staff development program calendar. If implemented properly, it could have resulted in higher teacher performance in Machakos County. Opportunities for in-service courses, conferences, and workshops were also important indicators of teacher productivity, provided they were effectively organized. Sabbatical leaves, or time off for professional development, were deemed necessary for enhancing teacher productivity, but their implementation was lacking. Additionally, funds for staff development were not readily available in many schools. These indicators required higher levels of support to enable teachers to perform better in terms of productivity and outcomes.

2.1.5 Principals' Provision of Welfare Strategies on Teacher Productivity in Public Secondary Schools

School conditions significantly impact teachers' motivation to perform their duties diligently. Jonny (2022) highlights that when employees evaluate aspects such as supervision, pay, promotion opportunities, and coworkers, the nature of the work itself consistently ranks as the most important factor. In secondary schools, factors like working conditions, effective supervision, and well-designed compensation programs are crucial for teacher productivity, particularly in areas like syllabus coverage, participation in co-curricular activities (CCAs), teaching scores, performance contracts, and job satisfaction. A study in the Netherlands by Harris and Muijs (2020) emphasized that the work environment directly influences employee performance and productivity. Teachers' work environments encompass policies, rules, culture, resources, relationships, location, and external factors, all of which shape their performance. These findings underscore that staff welfare strategies play a vital role in enhancing teachers' job satisfaction and performance, suggesting that improved teacher quality of life could lead to measurable productivity gains.

A study by Ingersoll and Smit (2021) in Colombia indicated that workplace conditions, such as health and physical environment factors like air quality and lighting, are critical in motivating teachers. It suggested that school principals should foster a working environment where students, support staff, and teachers feel valued and motivated. Similarly, in Turkey, Kızılaslan (2019) identified external motivators, such as financial incentives and educational circumstances, alongside internal factors like job satisfaction, security, and social status, as influences on teacher performance. According to Kızılaslan (2019), individual factors affecting the teaching profession can

be assessed beyond the school setting but depend heavily on professional elements within education. In low-resource environments, such as Afghanistan, the situation is worse, as UNESCO (2019) reported that education systems in rural or conflict-affected areas struggle with insufficient resources, poor security, inadequate infrastructure, low wages, inefficient funding, and corruption. These challenges lead to high teacher turnover and declining education quality, highlighting how poor working conditions are closely tied to diminished teacher productivity.

In many sub-Saharan African countries, Guro and Weber (2019) argue that working conditions determine teacher performance. Mhando (2019), in a study in Tanzania, found that social influences, security issues, and health concerns indirectly impact teachers' effectiveness. For instance, changes in birth rates affect school enrollment, which in turn affects teacher demand and performance. The study noted that schools with higher-performing teachers often saw better academic outcomes, while those with less effective teachers showed lower grades.

In Kenya, working conditions also play a key role in teacher performance, as concerns over safety, financial status, social issues, and health directly affect their work (MoE, 2019). Teachers may feel uneasy in new schools due to disrupted social environments, but meeting new colleagues can eventually lead to improved academic performance. The Ministry of Education notes that factors like social mobility also drive teachers to move to wealthier areas where they feel more secure and work more effectively alongside peers.

In Machakos County, teacher welfare indirectly impacts teacher performance. Musyoka et al. (2021) note that teacher satisfaction plays a crucial role in enhancing productivity. However, the study fell short of explaining how different teacher welfare strategies

directly affect productivity. This points to the need for a deeper exploration of how various employee welfare systems influence teacher efficiency in the region.

The indicators for this objective were not satisfactorily achieved. The availability of accommodation/houses could not be seen significantly. There were no meaningful BoM/PTA allowances given to teachers. staff welfare activities were achieved relatively. Support for staff promotions and salary was not achieved. Welfare for teachers could have enhanced productivity in a significant way. However, this was not the case. This shows why teachers in Machakos could not produce significant results.

2.1.6 Principals' Provision of Communication Strategies on Teacher Productivity

Communication, according to Anderson (2020), is the means through which a message travels. It is an act in which one person shares information about another person's needs, desires, perceptions, knowledge, or affective states with another person. Communication is further defined by Okumbe (2019) as the exchange of information and the transfer of knowledge. It is the method involved with sending and getting messages focused on a typical significance. According to Prien (2020), numerous factors determine which communication strategy is best. One of these is the power of the media. Media is not set by the capacity to ship a lot of information and pass on significance. Prien (2020) also argues that a communication strategy's richness can be determined by determining how it reduces message ambiguity and provides a substantial understanding of the message. Due to its capacity for instantaneous clarification of any message ambiguity and its capacity to carry more information, oral communication is generally regarded as richer than written communication. According to Sevan and Ross (2023), principals typically choose the strategy that best fits their message content, communication needs, and perceived communication tasks. Social

influence is another factor that affects the choice of a communication strategy. This is because all importance is socially understood. Thomas (2019) asserts that communication strategy, selection, and application are subject to social influence and may be subjectively justified. As a result, communication may be designed to preserve and engender ambiguity for strategic purposes rather than to maximize efficiency. Gender has also been seen as a factor in the choice of a communication strategy, with systematic differences in the strategy chosen, norms, and expectations. Prien (2020) says that the structure of the school has one big effect on choosing a communication strategy and how to put it into practice. The formal communication strategies that an organization uses to convey students' discipline may be influenced by the structure. The structure and impact of the school can either make communication easier or harder, which can have a positive or negative effect on students' behavior. As a result, it can be seen that a school's principal's choice of a communication strategy has a significant impact on how students are disciplined because it may or may not allow students to participate in school-wide decision-making.

Communication is regarded as the key to all management functions, making it the connection and coordination tool in the school because it is used every moment in interactions, whether giving directives or feedback formally or informally; without the deliberate application of efficient communication strategies, no function can advance. School administrators who aren't good communicators face difficulties and setbacks in their work. Various techniques, such as using motivational language with subordinates to encourage them, modern communication channels like ICT, and the use of feedback can reduce these obstacles. According to a study conducted in the United States of America by Madlock (2020), motivational language can assist administrators in effectively communicating with employees to improve job satisfaction. Inspiration of

educators relies upon the strategies of correspondence utilized; When an employer's language is clear, uncertainty decreases, and motivation, job accomplishment, and satisfaction rise, according to Sullivan (2019). All that in the association works in a nonstop way based on correspondence and without correspondence, it is hard to coordinate and deal with the work really (Uka, 2020). Viable correspondence of directors can prompt work fulfillment of subordinates in each association, enormous or little, and all the more so in a schooling system where all individuals should be connected for the proficiency and by and large achievement and accomplishment of objectives in training.

Correspondence can be named viable when it is two-way, this involves having a reaction or criticism from/to the source of the message. Criticism in correspondence is one of the techniques used to empower employees' inspiration, fulfillment, and maintenance. In schools, effective decision-making is enhanced by either positive or negative feedback. Advising individuals regarding the positive turn of events and outcomes is likewise used. According to MacArthur (2019) and McFadzien (2022), when used promptly, feedback enables one to respond to six insights, enhances teaching practice, and makes the classroom more welcoming to all students. To meet the requirements of both teachers and students, educational activities benefit from feedback. When everyone is at ease and in a good environment, good interpersonal relationships thrive. This has an impact on the school climate, boosts morale, and makes people happy. Hills (2021) confirms that leaders must communicate effectively to motivate employees and increase job satisfaction; and equally crucial to the expansion of an organization is the application of efficient communication strategies and methods. Lampley, Sharma, and Good's (2022) study on communication and job satisfaction also found a positive correlation. In their study, Giri and Kumar (2021)

reported on the relationship between communication and employee job satisfaction in India. They concluded that when communication is effective, employees are satisfied with their jobs.

Hajar and Kamal (2019) conducted a study in the United Arab Emirates on the Effects of School Principal Communication on Teacher Job Satisfaction. They found that principal-teacher communication practices are closely related to teachers' job satisfaction and that teachers' job satisfaction decreases when there are communication issues between teachers and school principals. Even though face-to-face communication is possible, an example could be given where the principal uses email as the primary communication channel. The principal needs to be aware of exactly which method of communication is best for each situation. According to Murugi's (2019) research on the factors that influence nutritionists' levels of job satisfaction in Nairobi County, Kenya, poor communication between managers and employees as well as between managers and employees themselves is to blame for the lack of job satisfaction. If not taken seriously, the decline in interest in the teaching profession and teacher dissatisfaction may hurt the education of the younger generation (Abdullah & Hui, 2019). Many educators are unaware of the difficulties posed by a lack of effective communication skills, even though this has negatively impacted their job satisfaction.

Enhanced verbal communication was one of the indicators of this objective. It was not achieved as such, and the availability of written reports could not be done significantly. The written memos for communication lacked significance. There were regular staff meetings for communication among the schools in Machakos though much of this was needed.

2.2 Theoretical Literature Review

This study is grounded in two key theories: the Human Relations Theory and the Theory of Educational Productivity. The Human Relations Theory underpins the independent variable, while the Theory of Educational Productivity supports the dependent variable of teacher productivity.

2.2.1 The Human Relations Theory

The study draws upon the Human Relations Theory, postulated by Mulder (2017), which emphasizes the importance of worker satisfaction, informal workplace structures, and the role these factors play in enhancing employee productivity. This theory posits that organizations consist of both formal and informal elements. The formal element refers to the organization's structure, while the informal element involves the interactions and relationships among individuals within the organization. It views an organization as a type of social system, and effective management of this system focuses on fostering job satisfaction, motivation, and social interactions to achieve better employee performance.

According to Mulder (2017), individual behavior and productivity in organizations are significantly shaped by interpersonal dynamics, highlighting the necessity of managing human relations to create job satisfaction and motivation. The theory suggests that a key factor in improving staff productivity is addressing the needs of employees, such as motivation, welfare management, and the provision of personal attention and recognition. It emphasizes that successful organizations should focus not only on formal structures but also on the informal social interactions that contribute to group behavior and performance.

In the context of this study, the Human Relations Theory is particularly relevant as it highlights how principals employ various human relations strategies—such as motivating teachers, addressing welfare concerns, facilitating professional development, and ensuring effective communication—to enhance teacher productivity. This theory aligns with Mulder's (2017) argument that organizational productivity is closely tied to how well the needs of employees are managed. In schools, principals must engage in strategies like teacher motivation, welfare management, and professional development to ensure that teachers can effectively cover the syllabus, participate in co-curricular activities (CCAs), improve teaching performance, and achieve job satisfaction.

The Human Relations Theory emerged in the early 20th century as a response to the shortcomings of classical management theories, which were largely focused on efficiency and rigid organizational structures. Instead, the Human Relations approach emphasizes the interpersonal and social aspects of work, suggesting that employee satisfaction and positive social interactions can significantly boost productivity.

The origins of this theory can be traced back to the Hawthorne Studies conducted by Elton Mayo and his colleagues in the 1920s and 1930s at the Western Electric Hawthorne Works. The initial purpose of these studies was to assess how physical working conditions impacted employee productivity. However, the results showed that social and psychological factors, such as a sense of belonging and recognition, had a much greater influence on employee performance and satisfaction than physical conditions alone. These findings became the foundation of the Human Relations movement, which advocated for a better understanding of employee relationships and their impact on workplace dynamics.

In the context of this research, the Human Relations Theory provides a framework for understanding how principals' human relations strategies—such as motivating teachers, ensuring their welfare, and promoting professional growth—can enhance teacher productivity and ultimately improve educational outcomes.

Key Proponents of Human Relations Theory include Elton Mayo. Mayo is widely regarded as the father of Human Relations Theory due to his pivotal role in the Hawthorne Studies. His research demonstrated that employees are motivated by social factors and the relationships they develop within the workplace. One of the key findings from the studies was the "Hawthorne Effect," which suggested that individuals modify their behavior in response to the attention they receive from researchers or managers. This indicated that employee productivity could be enhanced not just by changing physical working conditions but also by improving social interactions and morale (Mayo, 1933). Mayo emphasized the importance of managerial attention to employee needs and the influence of group dynamics on individual performance. His work highlighted the necessity for managers to foster positive workplace relationships and create an environment that supports employee engagement.

Mary Parker Follett was a pioneering thinker in management theory who focused on the importance of human cooperation and integration within organizations. She advocated for the idea of “power with” rather than “power over,” emphasizing collaboration, teamwork, and shared decision-making. Follett argued that organizations should function as communities where employees participate in problem-solving and decision-making processes (Follett, 1924). Follett’s ideas contributed significantly to the Human Relations movement by promoting the idea that effective management involves understanding employees’ needs and fostering a cooperative work

environment. Her emphasis on the social aspects of work relationships aligns closely with the principles of Human Relations Theory.

Douglas McGregor introduced the Theory X and Theory Y framework, which categorizes management styles based on assumptions about employee motivation. Theory X assumes that employees are inherently lazy and require strict supervision, while Theory Y posits that employees are self-motivated and thrive in a supportive environment (McGregor, 1960). McGregor argued that adopting a Theory Y approach can lead to increased motivation, productivity, and job satisfaction. McGregor's work reinforced the importance of understanding employee behavior and motivation within the Human Relations framework. By advocating for a management style that nurtures employee autonomy and collaboration, McGregor contributed to the shift towards more human-centered management practices.

Abraham Maslow is best known for his Hierarchy of Needs, his work significantly influenced Human Relations Theory. Maslow proposed that individuals have a series of needs, ranging from basic physiological needs to higher-level psychological needs, culminating in self-actualization (Maslow, 1943). His model suggests that when employees' needs are met, they become more productive and engaged. Maslow's emphasis on the importance of fulfilling employees' psychological and social needs aligns with the core tenets of Human Relations Theory. His ideas have led organizations to recognize the significance of employee well-being and motivation in the workplace.

2.2.2 Theory of Educational Productivity

This study was guided by the educational productivity theory, proposed by Walberg (2017). A key principle of this theory is that teacher productivity is influenced by a set

of activities carried out by school administrators and human capital. According to this theory, human capital serves as an input in education, to bring about changes in behavior, knowledge, and skills as outcomes. The core concept is that education represents an investment that yields long-term benefits, such as social and economic development. Increases in human capital are often driven by technological advancements, as skilled workers become more in demand due to their ability to understand and contribute to the production process.

The Theory of Educational Productivity examines the relationship between educational inputs, processes, and outcomes, aiming to enhance student performance and optimize educational practices. This theory seeks to identify how resources (such as time, money, and human capital) are utilized in the education system to achieve the best possible results for students. Educational productivity focuses on maximizing learning outcomes while ensuring that educational resources are used efficiently and effectively. The concept has evolved over the years, integrating various perspectives from economics, psychology, and educational theory.

John Dewey was a prominent educational reformer whose ideas laid the groundwork for understanding educational productivity. Dewey emphasized the importance of experiential learning and the role of the environment in education. He believed that education should be a process of living and not merely preparation for future living, advocating for the integration of practical experiences in the learning process (Dewey, 1938). Dewey's focus on the interaction between students and their environment has implications for educational productivity, suggesting that effective educational practices must engage students actively and meaningfully in their learning. James Coleman is known for his influential work, particularly the Coleman Report (1966), which examined educational inequality in the United States. His research highlighted

the significant impact of family background and social capital on student achievement. Coleman argued that schools alone could not compensate for social disadvantages, emphasizing the importance of community and family involvement in enhancing educational productivity (Coleman, 1966). Coleman's work underscored the need for a holistic approach to educational productivity, considering external factors that influence student performance. This perspective has led to policies aimed at increasing parental involvement and community engagement in schools.

Edward Deming a statistician and quality management expert, introduced quality management principles to education. His philosophy emphasized continuous improvement and the importance of systematic processes in achieving educational outcomes. Deming's Plan-Do-Study-Act (PDSA) cycle provides a framework for educational institutions to assess their practices and enhance productivity (Deming, 1986). Deming's approach encourages educators to view teaching and learning as a continuous improvement process, integrating feedback and data-driven decision-making to enhance educational productivity.

Robert Marzano has contributed extensively to educational research, particularly in the area of instructional strategies that enhance student achievement. His work emphasizes the importance of effective teaching practices, assessment, and feedback in driving educational productivity (Marzano, 2007). Marzano has developed a framework that outlines key elements of effective instruction, including setting goals, providing feedback, and fostering a positive classroom environment. Marzano's research provides educators with actionable strategies to enhance productivity in the classroom, illustrating the direct link between teaching practices and student outcomes.

2.3 Theoretical Framework

This study was based on two primary theories: the Human Relations Theory and the Theory of Educational Productivity. These theories provided a foundation for understanding the independent and dependent variables. The independent variable in this research was the principals' human relations strategies, while the dependent variable was teacher productivity.

2.3.1 The Human Relations Theory

The Human Relations Theory is central to understanding the independent variable, which focuses on principals' human relations strategies, as outlined in the conceptual framework. According to Walberg (2017), the theory emphasizes an interpersonal approach to managing individuals to enhance both their productivity and job satisfaction. This is reflected in the conceptual framework, where the principals' human relations strategies encompass various aspects such as motivation strategies, professional development, staff welfare, and communication approaches used by principals to influence teacher performance.

Applying Human Relations Theory in the context of principals' human relations strategies involves focusing on interpersonal relationships, employee morale, and the social environment within schools. This theory underscores the importance of understanding and managing human behavior in educational settings to enhance productivity and foster a positive school climate. Below are several strategies principals can implement, accompanied by recent references that support these practices.

In promoting open communication, the strategy is to establish transparent and open channels of communication among staff, students, and parents. Regularly hold staff

meetings, feedback sessions, and community forums. Utilize digital tools such as newsletters, social media, and school websites to share important information and updates. Open communication fosters trust and collaboration, aligning with Mayo's (1933) findings that communication plays a crucial role in employee satisfaction and productivity.

In fostering a supportive work environment, the strategy is to create a culture of support where staff members feel valued and appreciated. The principals should implement mentorship programs, recognize staff achievements through awards and public acknowledgments, and conduct regular check-ins to gauge staff well-being. A supportive environment increases job satisfaction and reduces turnover, reflecting the importance of employee morale highlighted in Human Relations Theory (Kahn, 1990). School heads should invest in ongoing professional development for teachers and staff to enhance their skills and confidence. Offer workshops, online courses, and opportunities for collaborative learning among teachers. Encourage staff to pursue further education and provide funding or time for professional development. Professional growth contributes to job satisfaction and empowers teachers, leading to improved educational outcomes (Kirkpatrick, 2016).

In emphasizing teamwork and collaboration, the strategy is to foster a collaborative culture within the school community. Encourage interdisciplinary projects and establish committees that involve teachers in decision-making processes related to school policies and curriculum development. Collaborative efforts increase engagement and a sense of belonging among staff, enhancing the overall school climate (Goleman, 2016).

In providing recognition and rewards Acknowledge and reward staff contributions and successes. Develop a recognition program that highlights individual and team achievements. Celebrate milestones and successes during staff meetings and events.

Recognizing contributions boosts morale and motivation, reinforcing the value of each staff member's efforts (Edmonds, 1979).

Build positive relationships with students by focusing on creating positive, supportive relationships between staff and students. Encourage teachers to engage with students personally, understand their needs, and foster a caring environment. Implement mentoring programs that connect students with trusted adults in the school. Positive relationships enhance student engagement and academic performance, aligning with the tenets of Human Relations Theory (Reimers & Schleicher, 2020).

Applying Human Relations Theory in principals' strategies emphasizes the importance of interpersonal relationships and social dynamics within educational settings. By fostering open communication, supportive environments, collaboration, recognition, and community involvement, principals can create a positive school culture that enhances productivity and satisfaction for both staff and students. These human relations strategies not only lead to better educational outcomes but also contribute to a thriving, engaged school community.

2.3.2 Theory of Educational Productivity

In this study, the Theory of Educational Productivity connects various factors that influence teacher productivity with the human relations strategies implemented by principals. These strategies include teacher motivation, welfare management, professional development, and communication approaches—all of which are expected to positively impact teachers' performance in areas such as syllabus coverage, participation in co-curricular activities (CCAs), teaching subject scores, performance contract scores, and job satisfaction. Educational productivity is linked to the dependent variable, teacher productivity. As outlined by Walberg (2017), educational productivity is influenced by numerous factors within the school environment, which enhance

teacher productivity through improved syllabus coverage, higher teaching subject scores, better performance contract outcomes, and greater job satisfaction.

The Theory of Educational Productivity emphasizes the relationship between educational inputs, processes, and outcomes. It focuses on how resources can be utilized effectively to maximize student achievement and overall educational success. Principals can apply this theory to develop human relations strategies that enhance the productivity and well-being of both staff and students. Ensure that resources—both human and material—are allocated efficiently to support teaching and learning. Principals can conduct needs assessments to identify areas requiring additional support or resources, such as professional development for teachers or technological tools for students. They should prioritize funding and resources toward programs that have demonstrated effectiveness in improving student outcomes. Effective resource allocation can lead to improved teaching practices and enhanced student learning, consistent with findings that highlight the importance of resource distribution in educational productivity (Hanushek, 2018).

Encourage collaboration among staff to share best practices and improve instructional strategies. Establish Professional Learning Communities (PLCs) where teachers can regularly meet to discuss challenges, share successful strategies, and work collaboratively on curriculum development. Provide time within the school schedule for teachers to engage in these activities. Collaboration leads to the sharing of knowledge and resources, which can improve instructional quality and ultimately enhance student achievement (DuFour & Eaker, 2018).

Provide targeted professional development that meets the specific needs of teachers and staff. Conduct surveys to determine the professional development interests and needs of staff. Offer workshops, coaching, and peer mentoring that align with these identified

needs and focus on evidence-based instructional practices. Tailored professional development can increase teacher efficacy and confidence, leading to improved instructional practices and better student outcomes (Guskey, 2020).

Implement systems for recognizing and rewarding the achievements of both staff and students. Develop formal recognition programs that celebrate teacher accomplishments and student achievements, such as monthly awards, newsletters, or school assemblies. Recognition and rewards boost morale, motivate individuals, and create a culture of excellence within the school (Hattie & Timperley, 2020).

Applying the Theory of Educational Productivity in principals' human relations strategies involves focusing on effective resource allocation, collaboration, data-driven decision-making, and fostering positive relationships within the school community. By implementing these strategies, principals can enhance educational outcomes and create a productive and supportive school environment. This approach not only benefits staff and students but also contributes to the overall success of the educational institution.

2.4 Conceptual Framework

The conceptual framework was built on principals' human relations strategies reflected through motivation, professional development, staff welfare, and principals' communication Strategies which constituted the independent variables whereas teacher productivity in secondary schools constituted the dependent variable. The intervening variables were government policies as shown in Figure 1:

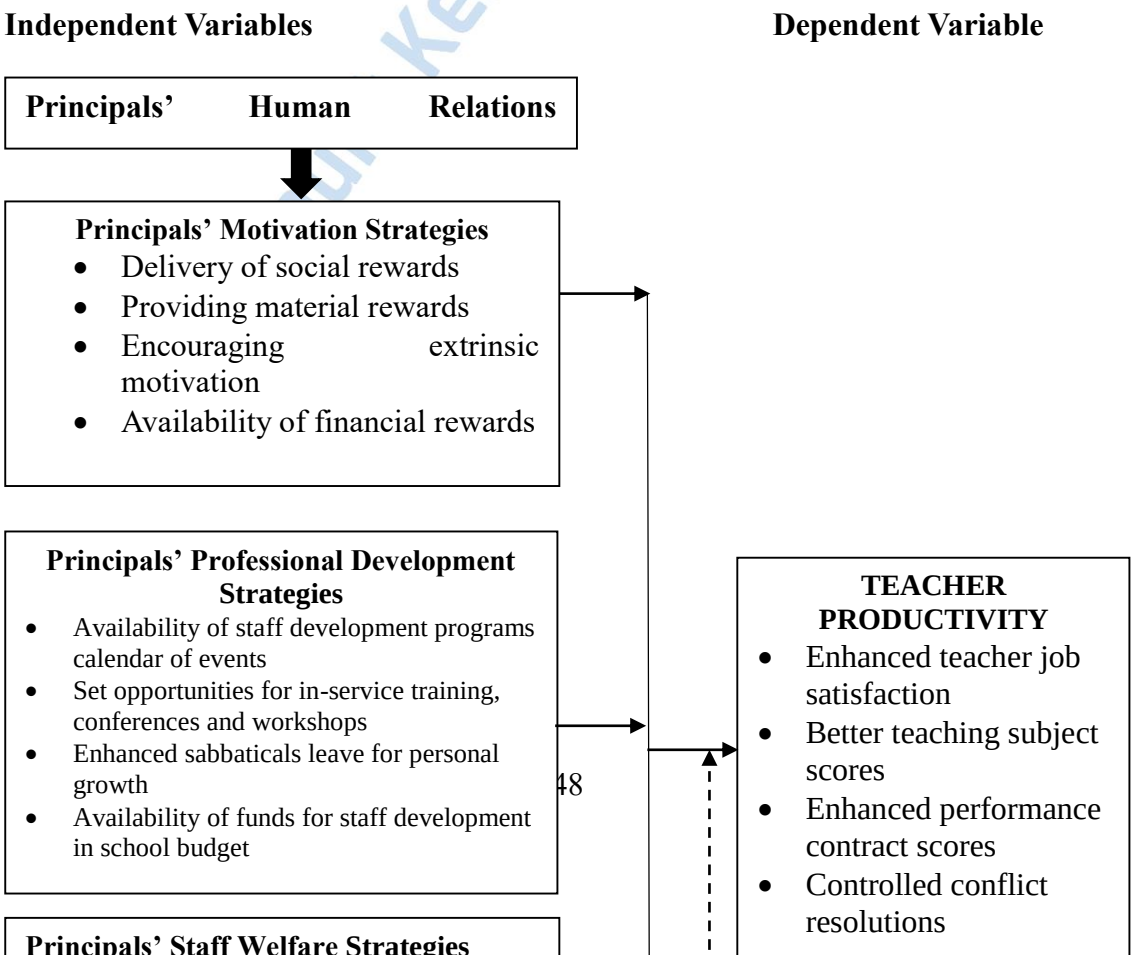
Independent Variables
Dependent Variable
Principals' Human Relations
Principals' Motivation Strategies
Delivery of social rewards
Providing material rewards
Encouraging extrinsic motivation
Availability of financial rewards
Principals' Professional Development Strategies
Availability of staff development programs calendar of events
Set opportunities for in-service training, conferences and workshops
Enhanced sabbaticals leave for personal growth
Availability of funds for staff development in school budget
TEACHER PRODUCTIVITY
Enhanced teacher job satisfaction
Better teaching subject scores
Enhanced performance contract scores
Controlled conflict resolutions

Figure 1: Conceptual Framework

Source: Researcher (2024)

2.5 Research Gaps

A review of various motivational strategies, including recognition of teachers' efforts and rewards, is essential in enhancing teacher performance. Additionally, providing in-service training for teachers is a crucial motivational tool. Encouraging teacher participation in community activities can foster a sense of belonging and commitment. Effective measures of motivation should be established to retain teachers who often leave for more promising job opportunities. The strategies that principals employ to motivate teachers are critical in educational institutions (Okwatsa & Mange, 2021). In response to this gap, this study examined how professional development influences teachers' job satisfaction in public secondary schools in Machakos County.

The study conducted by Mwihaki et al. (2019) raised significant concerns regarding the role of principals in promoting teachers' professional development in the two counties. The Pearson product correlation analysis indicated a weak, positive, and insignificant correlation between principals' efforts in supporting teachers' professional development and students' performance. These findings suggested that the principals' efforts had no substantial relationship with students' academic success in the Kenya Certificate of Secondary Education (KCSE) in the two counties. Therefore, it is likely that the knowledge and skills acquired by teachers during seminars and in-service courses did not translate into meaningful improvements in students' academic performance. This may imply that the information gained during professional development sessions was not effectively implemented in classroom settings. The study concluded that although principals supported teachers' professional growth, the skills and knowledge acquired by teachers did not lead to higher student academic performance. This research focused

on evaluating principals' professional development strategies in public secondary schools in Machakos County.

The ability to satisfy teachers is crucial for effective management (MoE, 2019). Principals must provide continuous emotional and personal support to teachers, enhance their self-esteem, and respect their contributions to foster job satisfaction and improve school performance. Furthermore, the Kenyan government is enhancing the provision of teaching and learning resources through tuition fees and the recruitment of teachers. However, there remains a shortage of over 5,000 teachers (KNUT Report, 2020). The government has also established centers of excellence in each constituency as part of the economic stimulus project (2011-2018). Despite the increased enrollment in schools, little has been done to ensure equitable working conditions for teachers in both urban and rural areas, particularly regarding the teacher-student ratio and teacher workload. Therefore, this study aimed to identify the factors influencing principals' staff welfare strategies in Machakos County's public secondary schools.

Principals face numerous challenges in executing effective instructional leadership in schools, with inadequate resources being a significant issue. This problem is prevalent in many developing countries. Support staff often express dissatisfaction with their roles, contracts, and working environments, leading to low morale. Bush and Oduro (2019) also noted that some challenges faced by principals stem from working in poorly equipped facilities with inadequately qualified staff, a common issue in many schools within the Bondo District. Public school principals encounter difficulties in managing students, teachers, non-teaching staff, finances, and parental involvement in school activities. While existing literature highlights the importance of training and motivation, it often overlooks the challenges principals face in managing support staff

in public secondary schools. Consequently, this research sought to investigate the communication strategies employed by principals in public secondary schools in Machakos County.

Unfortunately, communication issues have been identified as a significant source of conflict within schools in Kenya (Muli, 2018). Warimu (2018) also pointed out that poor communication between teachers and administration can lead to conflicts, staff undermining management initiatives, or managers taking unnecessary punitive actions. Ineffective communication negatively impacts not only the education sector but also other fields. A study in Malaysia by Gamil and Rahman (2018) revealed that poor communication led to various problems in the construction industry, including cost overruns, delays, disputes, and project failures. Previous research has examined the link between principals' communication and its effect on teachers' job satisfaction. These studies found that effective communication is vital for achieving goals, fostering improvement, and ensuring job satisfaction (Totseva, 2019; Uka, 2020). Conversely, a lack of communication can lead to job dissatisfaction and increased turnover (Halawah, 2018; Muchemi, 2019). Additionally, other studies indicate that ineffective communication from management adversely affects job satisfaction (Hajar and Kamal, 2019; Njenga, 2019). Although these studies focused on communication and job satisfaction, they did not address the effective communication techniques employed by principals and their impact on teachers' job satisfaction. This knowledge gap was explored in this research study, which investigated the effective communication techniques of principals and their effect on teachers' job satisfaction in public secondary schools in Machakos County.

2.6 Summary of Literature Review

This chapter began with the introductory part. Empirical literature was examined from global to regional and then local perspectives. The literature on the independent variable principals' human relations was covered. The dependent variable teacher productivity was also covered. Then, each of the objectives had a review. These objectives were: motivational strategies, professional development strategies, welfare strategies, and communication strategies. There was a theoretical review and theoretical framework. The conceptual framework was similarly reviewed in the final section of this chapter.

CHAPTER THREE

RESEARCH METHODOLOGY AND DESIGN

3.0 Introduction

This chapter explores the methodology, study design, study location, target population, sample size, sampling techniques, instruments, piloting, data collection, data analysis methods, and ethical considerations.

3.1 Research Methodology

To provide a thorough understanding of the study problem, the research utilized a mixed methodology that addressed both quantitative and qualitative data. This tactic fitted the investigation since it included data collection and analysis for both quantitative and qualitative concurrently. The researcher utilized the strengths of combining numerical and non-numerical tactics to strengthen each other. Citing Creswell (2014) in the numerical technique, exact questions are asked in gathering numerical facts from a huge quantity of contributors.

3.2 Research Design

Descriptive correlational research design is used to identify relationships between two or more variables (Creswell & Creswell, 2018). It does not manipulate variables, thus making it effective for observing natural relationships without inferring causality. This design aims to describe the degree to which variables are related, which is essential for studies exploring associations without assigning cause and effect (Cohen et al., 2018). It utilizes statistical methods to understand the strength and direction of associations (Polit & Beck, 2021). Often involves large samples to enhance generalizability and employs instruments such as surveys and observational checklists to collect data (Gray et al., 2020).

Concurrent Triangulation is a mixed-methods approach where both qualitative and quantitative data are collected simultaneously but analyzed separately. The goal is to cross-validate the findings to provide a more comprehensive understanding of the research problem (Creswell, Plano & Clark, 2017). This strategy is often used to offset the weaknesses of one method with the strengths of the other, enhancing the credibility of the findings (Guetterman et al., 2019). By integrating concurrent triangulation, researchers can achieve both statistical relationships through quantitative data and deeper contextual understanding through qualitative insights (Clark, 2019). The use of concurrent triangulation adds robustness to the findings by corroborating data from different sources (Guetterman et al., 2019). It allows researchers to explore the "what" (quantitative) and the "why" or "how" (qualitative) of the observed correlations, leading to a more thorough understanding (Clark, 2019).

Using a descriptive correlational design paired with concurrent triangulation enhances the validity and depth of research findings. The combination of quantitative correlation analysis and qualitative context provides a richer, more nuanced understanding of complex research problems (Creswell & Plano, & Clark, 2017; Guetterman et al., 2019). However, careful planning is needed to address the challenges associated with data integration and interpretation.

3.3 Location of Study

Kenya has 47 counties of which Machakos is one of them. The has a population of 1,421,932 as of the 2019 census report. The country's neighbours are Kiambu, Embu, Kitui, Makueni, Kajiado, Murang'a, and Kirinyaga. The study was conducted in public secondary schools. Statistics of exams in the county showed that the performance of KCSE in many schools was not adequately competitive between 2018 and 2022

(Machakos County Education Office, 2022). This has attracted public concern as expressed in public meetings and the county education days. The necessity to evaluate the reasons for the teachers' unfortunate results and their consequences on general school efficiency is consequently, a must. The county is positioned 100 kilometers northeast of Nairobi, with an area of 6,208 Km2. The location of the study was chosen due to the presence of the problem. Machakos is also known for numerous public secondary schools hence providing rich data for collection and analysis.

3.4 Target Population

Machakos has 291 public secondary schools, and consequently, the target population was 4921 participants, which included 291 principals in charge of principals' human resource strategies, 291 BoM chairpersons working with the principals to promote human resource strategies, 4,312 teachers to provide information on teachers' productivity, 18 MoE/TSC officers, 9 TSC HROs in charge human resource strategies.

Table 2: Target Population Matrix

No.	Sub County	Principals	BOM chairs	Teachers	Sub County	TSC HROs	Target Population

					Directors (MoE &TSC)		
	County				02	01	03
1	Matungulu	27	27	389	02	01	446
2	Athi River	09	09	135	02	01	156
3	Machakos	59	59	885	02	01	1006
4	Mwala	60	60	889	02	01	1012
5	Kangundo	23	23	345	02	01	394
6	Kathiani	27	27	389	02	01	446
7	Masinga	44	44	650	02	01	741
8	Yatta	42	42	630	02	01	717
	TOTAL	**291**	**291**	**4312**	**18**	**09**	**4,921**

Source: Researcher (2024)

The target population was captured in the table below.

Table 3: Target Population of the Study

Respondent Categories	**Target Population**
Principals	291
Teachers	4312
BOM Members	291
TSC HRO's	09
Sub-County Directors (TSC%MOE)	18
Total	**4,921**

Source: Machakos County Office (2023)

3.5 Sampling Procedures and Sample Size

This sample constituted 518 participants comprised of 29 principals, 29 BoM chairs, 433 teachers, 18 sub-county directors, and 9 TSC HROs who were selected through random sampling of 10 % for the 29 principals, 29 BoM chairpersons, 433 teachers, and purposive sampling for 18 sub-county directors and 9 TSC HROs. This sample was additionally stratified into 8 sub-counties (Thomas, 2022). There were two sampling procedures employed. The stratified chance type was used to enable the scholar to

attain a size that represented the total population examined, ensuring that every one of the subgroups of interest was captured. This type of sampling correctly echoes the population in the investigation since scholars are stratifying the whole population before randomizing. In a nutshell, it is guaranteed that subgroups in the population are fully represented in the final sample. The second tactic was purposive. This identified participants who were rich in the evidence and were ready to share with the investigator. Using this method, the investigator can pick persons that are relevant to the study making the sample as small as possible. The sample size of the study was captured. The stratification was a result of sampling from all the eight sub-counties in Machakos County. Each sub-county was treated as a stratum.

Table 4: Sampling Matrix

No.	Sub County	Schools (10%)	Principals (10%)	BOM chairs (10%)	Teachers (10%)	Sub County Directors (MOE &TSC Purposive	TSC HROs Purposive	Sample Size
	County					2	1	3
1	Matungulu	3	3	3	39	2	1	48
2	Athi River	1	1	1	14	2	1	19
3	Machakos	6	6	6	89	2	1	104
4	Mwala	6	6	6	89	2	1	104
5	Kangundo	2	2	2	35	2	1	42
6	Kathiani	3	3	3	39	2	1	48
7	Masinga	4	4	4	65	2	1	76
8	Yatta	4	4	4	63	2	1	74
	TOTAL	**29**	**29**	**29**	**433**	**18**	**9**	**518**

Source: Researcher (2024)

Table 5: Sample Size of the Study

Categories	Target	Sample Size	Sampling techniques

Principals	291	29	Stratified Random
BoM chairs	291	29	Stratified Random
Teachers	4,312	433	Stratified Random
Sub-County Directors	18	18	Purposive
(TSC/MoE)	09	09	Purposive
TSC HROs			
Total	**4,921**	**518**	

Source: Researcher (2024).

3.6 Research Instruments

The tools used were questionnaires and interview schedules. These were instruments employed to collect data on the particular objectives of the study. These were questionnaires for teachers, principals, and BoM chairpersons. There were interview schedules for principals and sub-county directors.

3.6.1 Questionnaire for Teachers, Principals, and the BoM Chair Persons

There was a questionnaire for secondary school teachers, principals, and the BoM chairpersons. The questionnaires were preferred as they had questions and other stimuli for the drive of gathering information from participants and were frequently intended for statistical scrutiny of the responses (Morse, 2010). The tool consisted of five segments calculated to obtain data on the different variables. Segment A addressed the demographic info on gender, age, work experience, and education level. Parts B, C, D, and E had matters drawn from the objectives. The test items containing the 5-point Likert type of questions based on the research objectives were relevant since according to Creswell (2014), the Likert scale illustrates a scale with theoretically equal intervals among responses.

3.6.2 Interview Guide for Sub County Directors of Education and the TSC Officers

Interviews can be structured, unstructured, directional, or non-directional. In this study, the researcher used structured interview guides with open-ended test items to gather qualitative information from TSC Hiring officers and sub-county directors. Structured interviews were important for this study since they enabled the researcher to ask probing and supplementary questions.

3.7 Piloting Tools

The pilot was conducted using 52 participants. This included 44 teachers, 4 principals, and 4 BoM chairpersons from the neighbouring Makueni County since according to Kothari (2018) pilot sample should constitute at least 10 % of the study sample (10.0 % of 518). The reason for the choice of Makueni County schools is the similarity in issues facing the study county and for objectivity. Those who participated in piloting could not be included in the final sample since they belonged to another county. The pilot aimed to establish appropriateness and the simplicity of the questions on the tools, how relevant the information was, and the correctness of the language. It also anticipates the issues or tasks the respondents find like clarification while filling out the surveys and time management for the facts collected. Additionally, the discussion schedules were given experimental runs to guarantee that questions were undoubtedly phrased and draw a suitable variety of answers which helped the investigator to identify parts for amendment.

3.7.1 Testing of Validity of the Research Instruments

The validity of the questionnaires was established by allowing experts to thoroughly examine the tools. The experts were from the educational management and curriculum studies department who evaluated the relevance of each item. The researcher ensured

that the items covered all the areas of each variable as outlined in all the objectives of the study.

3.7.2 Testing Reliability of the Research Instruments

The test-retest technique was used to establish the reliability of the questionnaire items. There was a break of two weeks before retesting the participant with the same items. Cronbach Alpha method was used to establish the reliability index. The closer the Cronbach Alpha Coefficient was to 1, the higher the internal consistency of the test items in the scale. In this study, Cronbach Alpha Coefficient of $r \geq 0.75$ was obtained, then it indicated high internal reliability and was acceptable. This is because according to Kothari (2018), any Cronbach Alpha value between 0 and 1 implies high internal consistency.

3.7.3 Establishing Credibility of Instruments

Credibility was determined by the triangulation of data through numerous analyses since the participants were the only ones who could sensibly determine the credibility of the outcomes. Credibility is entangled in ensuring that the outcomes of the investigation are convincing by trusting more on the worth of work and not the amount (Kothari, 2018). Credibility is about making sure that the findings are believable by relying more on the affluence of the data collected, rather than the quantity of facts assembled (Creswell, 2014).

3.7.4 Establishing Dependability of Instruments

To assure the dependability of the qualitative instruments, each qualitative data-gathering procedure was described in detail to empower the investigator to repeat the investigation and attain alike outcomes (Kothari, 2018). Dependability guarantees that the findings of the study are unswerving and may be repetitive. Detailed interviews created dependability of the interview schedules. This is assessed by the standards of

which the investigation is directed, scrutinized, and offered. Every procedure was reported in detail to allow the repeating of the investigation and attain similar outcomes.

3.8 Data Collection Procedures

Ethical clearance was sought and an introduction letter from Mount Kenya University and a permission letter and certification from NACOSTI. The researcher also sought an authorization letter from the various sub-county directors' offices as well as the county director of education, Machakos County. After obtaining research permits and letters of authorization, the researcher wrote a self-introductory letter to the various schools visited and then booked appointments with the respondents to administer questionnaires and conduct interviews to collect data for the study. The participants were explained about the study and they signed the informed consent. After adjustments and improvement of the research instruments from piloting research findings, the researcher proceeded to collect data for the main study as per the data collection matrix shown in Table 5. The duly filled questionnaires were collected there and then to ensure a hundred percent return rate and were safely stored for data analysis. At the same time, the interviews were conducted to collect qualitative data from the participants as indicated in the Table below.

Table 6: Data Collection Matrix

Research Questions	Questionnaire Questions	Interview Guides
What is the influence of principals' motivation strategies on teacher productivity in public secondary schools?	Principals, Teachers and BoM chairs Q1 & 1	TSC Officers & sub-county directors Section C: Q1 & 1
How do principals' professional development strategies influence teacher productivity in public secondary schools?	Principals, Teachers and BoM chairs Section D: Q2 & 2	TSC Officers & sub-county directors Section D: Q2 & 2
To what extent do principals' welfare strategies influence teacher productivity in public secondary schools?	Principals, Teachers and BoM chairs Section E: Q.3 & 3	TSC Officers & sub-county directors Section E: Q3 & 3
How do principals' communication strategies influence teacher productivity in public secondary schools?	Principals, Teachers and BoM chairs Section F: Q4 & 4	TSC Officers & sub-county directors Section F: Q4 & 4

Source: Researcher (2024).

3.9 Data Analysis Procedures

The data analysis process commenced by categorizing similar themes derived from participants' descriptions of their experiences, as collected through the interview schedules. Relevant information was distilled into phrases that captured a single, clear idea. The qualitative data were then analyzed thematically, aligned with the study objectives, and presented in narrative form along with verbatim quotes.

Responses to the closed-ended items in the questionnaires were coded and labeled accordingly. Frequency counts were conducted to provide insights into the participants' responses. Quantitative data were analyzed descriptively using measures such as

frequencies, percentages, means, and standard deviations, while inferential statistics were utilized through linear regression analysis. This regression technique was employed to ascertain the existence and nature of the relationship between the independent and dependent variables in the study. Specifically, it enables the analysis of the relationship between one dependent variable and multiple independent variables, allowing for predictions based on known values of the independent variables.

Following the analysis, the results were triangulated to ensure a comprehensive interpretation of the mixed-methods findings and their implications. The Statistical Package for Social Sciences (SPSS Version 24) was utilized for the quantitative data analysis, with the results presented using tables and charts for clarity.

Table 7: Data Analysis Matrix

Research Questions	Independent Variable	Dependent Variable	Quantitative Data Analysis	Qualitative Analysis
What is the influence of principals' motivation strategies on teacher productivity in public secondary schools?	• Principals' motivation strategies	• Teacher productivity in public secondary schools	• Descriptive statistics (frequencies, percentages) • Linear regression Analysis	• Thematic Analysis
How do principals' professional development strategies influence teacher productivity in public secondary schools?	• Principals' professional development strategies	• Teacher productivity in public secondary schools	• Descriptive statistics (frequencies, percentages) • Linear regression Analysis	• Thematic Analysis
To what extent does principals' welfare strategies influence teacher productivity in public secondary schools?	• Principals' welfare strategies	• Teacher productivity in public secondary schools	• Descriptive statistics (frequencies, percentages) • Linear regression Analysis	• Thematic Analysis
How do principals' communication strategies influence teacher productivity in public secondary schools?	• Principals' communication strategies	• Teacher productivity in public secondary schools	• Descriptive statistics (frequencies, percentages) • Linear regression Analysis	• Thematic Analysis

Source: Researcher (2024)

3.10 Ethical Considerations

Ethical considerations in research encompass several critical elements, including a clear depiction of the study's substance, the requests made of participants, the process of obtaining informed consent, and the assurance of confidentiality.

3.10.1 Intellectual Ownership and Plagiarism

To maintain originality and avoid plagiarism, the researcher utilized the TURNITIN software for ongoing plagiarism checks. The acceptable similarity index was set at no more than 20 %, including references. If the percentage exceeded this threshold, the document was revised and re-evaluated for plagiarism. The final plagiarism report for this thesis is included at the end of the document.

3.10.2 Confidentiality and Private Life

The researcher ensured that any personal or sensitive information provided by respondents would be kept confidential. Participants were assured that their data would not be disclosed in any written or verbal communication. Moreover, respondents were informed that the information collected would solely be used for the stated purpose of the study.

3.10.3 Participant's Right to Privacy

To address confidentiality concerns, the researcher made it clear in all surveys and interview guides that participants were not required to provide their names. To further protect anonymity, respondents were informed that the data collected would be used exclusively for academic purposes (Sanjari et al., 2014).

3.10.4 Anonymity

To address confidentiality concerns, the researcher made it clear in all surveys and interview guides that participants were not required to provide their names. To further protect anonymity, respondents were informed that the data collected would be used exclusively for academic purposes (Sanjari et al., 2014).

3.10.5 Informed Consent

The researcher clarified the nature and purpose of the study to the respondents. Participants were informed about the process involved in data collection, enabling them to provide voluntary consent. Informed consent forms were signed by the respondents, ensuring they understood their participation was entirely voluntary.

3.10.6 Mien and Decorum

The investigator had a lovely appearance and suitable behaviour before and after intermingling with the contributors in places where the investigation took place and even during the research progression. The researcher upheld the highest dignity, and behaviours according to the traditions of the community where the study was conducted. There was a suitable code of conduct as anticipated in the place of investigation (Kothari, 2018).

3.10.7 Freedom from Coercion

Participation was completely voluntary, and no respondent was compelled to provide information against their will. Participants were informed that they could withdraw from the study at any time. The researcher avoided any deceptive persuasion tactics, such as posing as an official or making false promises, ensuring that participants felt free to make their own decisions (Montalvo & Larson, 2014).

3.10.8 Storing Collected Data

Raw data collected during the research was documented for easy reference. After data analysis, physical copies were securely stored, while electronic files were saved on devices such as CDs and flash drives.

3.10.9 Stored Data Security

To protect both raw and processed data, the researcher implemented computer passwords to restrict unauthorized access. Furthermore, it was ensured that all data were stored securely under lock and key at all times.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.0 Introduction

Chapter four gives the research findings in an analysis of the principals' human relations strategies on teacher productivity in public secondary schools in Machakos County, Kenya. The section starts with the questionnaire return rate followed by the demographic information of the participants. Information on the objectives is analyzed and presented here too. The scrutiny used descriptive and inferential (linear regression) statistics as well as thematic analysis. The chapter concludes with a discussion of the findings.

4.1 Questionnaire Return Rate

The researcher sampled 518 participants who were drawn from public secondary schools in Machakos County. The sample involved a combination of 433 teachers, 29 principals, and 29 BoM chairpersons. In qualitative data, the researcher sampled 18 SCDEs and 9 TCS HROs. Out of the sampled participants, 310 teachers responded, all 29 principals and all the 29 BoM chairpersons responded too. The total response to the study was 368 out of the 491 questionnaires given out. This represented 74.95 % of participants who responded to the questionnaires. Table 8 has the summary.

Table 8: Questionnaire Response Rate

SAMPLED	RETURNED		FAILED	RATE %
Teachers	433	310	123	71.59
Principals	29	29	00	100.00
BoM Chairs	29	29	00	100.00
TOTALS	**491**	**368**	**123 25.05 %**	**74.95**

Source: Field Data (2024)

According to the table, the total response rate was 368 (74.95 %) which recorded approximately 75 %. This rate was judged as good enough for the analysis of the data collected. The 123 (25.05 %) who failed to return could not affect the study since the questionnaire response rate decision was based on the research done by Babbie (2007) who suggested that a fifty percent return rate was adequate for analysis. However, 70 % and above was termed as a very good response. Therefore, the researcher decided that this was an excellent return rate good enough to continue with the scrutiny of the collected information regarding the analysis of principals' human relations strategies on teacher productivity in public secondary schools in Machakos County. The pleasing high questionnaire return rate was because the data collection instruments were given out and ensured prompt collection there and then after being filled.

4.2 Demographic Information

Demographic information was categorized into three major areas namely: the teachers, principals, and the BoM chairpersons from schools where the data was collected in Machakos County. There was information analysis on the gender and age of the participants, education level, and work experience accordingly. Demographic

information informed this research in that, the participants were identified as key informers who had reliable data on the study objectives. They had significant maturity in age. Both genders were involved in the study. They had a significant level of education and good work experience. These qualities gave the researcher significant thrust to carry on with the study with these qualified participants.

4.2.1 Information on Gender of Teachers, Principals and BoM Chairpersons

Providing demographic information about participants, including gender, is essential in research for several reasons, and these justifications are supported by recent guidance from the American Psychological Association (APA). Gender data can have significant implications for understanding research outcomes and ensuring the generalizability of findings. In understanding variability in responses, gender differences can influence a wide array of psychological, behavioral, and physiological outcomes. For example, men and women may respond differently to certain psychological treatments, express different emotional patterns, or show differences in cognitive processing. Without reporting the gender of participants, it would be difficult for researchers to understand whether such differences exist in the data or if the results can be applied to different gender groups (APA, 2020). In research, it is important to ensure inclusivity and representativeness. Reporting gender information helps to ensure that the sample represents the population of interest and that the findings apply to diverse groups. The APA emphasizes the importance of inclusion and diversity in research to avoid bias and ensure that findings are not over-generalized from non-representative samples (APA, 2023). By including gender demographics, researchers can assess whether their sample includes a broad enough range of participants to make their findings generalizable. Gender is often intertwined with other aspects of identity such as race, ethnicity, and socioeconomic status. By reporting gender data, researchers acknowledge the

intersectionality of identity and can analyze how gender may interact with these other factors. This aligns with APA's commitment to intersectionality and understanding how multiple dimensions of identity impact psychological outcomes (APA, 2020). Transparent reporting of demographic characteristics, including gender, adheres to ethical standards in research, as outlined by the APA. Such transparency allows for the replication of studies and ensures that future researchers can understand the context in which the data were collected (APA, 2020). The information about the teachers, principals, and BoM chairpersons regarding their gender was captured and analyzed as seen in the table below in Table 9.

Table 9: Information on Gender of Teachers, Principals and BoM Chairpersons

SAMPLED PARTICIPANTS		RESPONSE BY GENDER		PERCENTAGES	
		M	**F**	**M**	**F**
Teachers	310	220	90	70.97 %	29.03 %
Principals	29	20	09	68.97 %	31.03 %
BoM Chairpersons	29	19	10	65.52	34.48 %
TOTALS	**368**	**259**	**109**	**70.38 %**	**29.62 %**

Source: Field Data (2024)

From the table, 259 (70.38 %) males and 109 (29.62 %) females actively participated in the investigation. This reflected 220 (70.97 %) male teachers and 90 (29.03 %) female teachers from public secondary schools in Machakos County. There were 20 (68.97 %) male principals and 9 (31.03 %) female principals. The table shows a fair distribution of gender such that both genders participated actively in the study. This report on the participants' demographic data agreed with Machakos County reports on principals' and teachers' personal data and distribution of secondary schools in the entire county.

Similarly, the males dominated BoM chairpersons as seen on the table (Machakos Education Office Reports, 2021).

4.2.2 Information on the Age of Teachers, Principals and BoM Chairpersons

Providing demographic information about participants' ages is crucial for several key reasons, which are supported by recent guidance from the American Psychological Association (APA). Reporting the age distribution of participants helps ensure the validity, generalizability, and ethical transparency of research findings. There is age-related variability in psychological and behavioral outcomes. Psychological and behavioral responses often vary significantly across the lifespan. Cognitive abilities, emotional regulation, memory, and risk-taking behaviors, for example, can differ greatly between children, adolescents, adults, and older adults (APA, 2020). Without specifying the age of participants, researchers risk obscuring critical age-related differences that might influence the results. Age data allows for a more nuanced understanding of how psychological phenomena may vary by life stage. Reporting age information ensures that the research findings can be appropriately generalized to the target population. If the age of participants is not specified, it becomes difficult to determine whether the findings apply only to a particular age group or across different age ranges (APA, 2020). Including age demographics allows readers and future researchers to assess whether the sample is representative of the population they intend to study or whether further research is needed in different age groups. Age is an important dimension of identity that intersects with other demographic factors such as gender, race, and socioeconomic status. By reporting age, researchers can explore how age interacts with other variables, enriching their analyses and understanding of psychological phenomena across different contexts (APA, 2020). This aligns with APA's emphasis on intersectionality and the need to consider multiple demographic

factors in psychological research. Ethical transparency in research requires detailed reporting of participant demographics, including age. The APA's Publication Manual outlines the importance of accurately describing participants so that readers can assess the appropriateness of the sample, understand the limitations of generalization, and replicate studies effectively (APA, 2020). Age reporting contributes to ethical research practices by making demographic information explicit and transparent. The age of teachers, principals and the BoM chairpersons was captured from the questionnaires and tabulated as seen in Table 10.

Table 10: Information on the Age of Teachers, Principals and BoM Chairpersons

CATEGORY	TEACHERS	PRINCIPALS	BOMs	TOTALS	%
Under 30 yrs	62	00	00	62	16.85 %
31-40 yrs	124	06	03	133	36.14 %
41-50 yrs	62	20	06	88	23.91 %
Over 50 yrs	62	03	20	85	23.10 %
TOTALS	**310**	**29**	**29**	**368**	**100.00**

Source: Field Data (2024)

The above table shows that information was gathered from mature persons who could make judgments on the issues raised on their questionnaires. The teachers, principals, and the BoM chairpersons were all mature and so, could offer authentic information about teacher productivity in the schools. For example, only 62 (16.85 %) of the participants were under 30 years of age. There were 133 (36.14 %) who were between 31 and 40 years of age. A good number of 88 (23.91 %) were between 41 and 50 years of age. Another 85 (23.10 %) were over 50 years of age. Thus, due to the age of the participants, the study information and conclusions were reliable and trustworthy.

4.2.2 Information on the Education Level of Teachers, Principals and BoM Chairpersons

The education level of teachers, principals, and the BoM chairpersons was captured from the questionnaires and tabulated as seen in Table 11.

Table 11: Information on the Education of Teachers, Principals and BoM Chairpersons

EDUCATION	TEACHERS	PRINCIPALS	BOMs	TOTALS	%
Diploma	30	00	02	32	8.70 %
Degree	246	23	20	289	78.53 %
Masters	25	04	05	34	9.24 %
PhD	09	02	02	13	3.53 %
Others	00	00	00	00	0.00 %
TOTALS	**310**	**29**	**29**	**368**	**100 %**

Source: Field Data (2024)

From the table above, the information gathered came from a well-educated group hence reliable. There were categories such as diploma, degree, master's, PhD, and others. Nobody was categorized under any other, meaning they all had a good education. For example, only a mere 32 (8.70 %) of the participants were in diploma level of education. The majority of the participants 289 (78.53 %) were in degree level of education. Interestingly, 47 (12.77 %) of the teachers, principals, and BoM chairpersons were on masters and PhD level. To translate all these levels of education, which meant that the informants were at a high level of education. This factor enabled the researcher to have confidence that the data used in this research was dependable since it was obtained from well-educated individuals who played a major role as key participants in the study.

4.2.3 Work experience of the Teachers, Principals and BoM Chairpersons in Years

The participants in this study all had quite reasonable treasure of experience in their work. This is demonstrated in the Table 12.

Table 12: Working Experience of Teachers, Principals and BoM Chairpersons

EXPERIENCE	TEACHERS	PRINCIPALS	BOMs	TOTALS	%
0-5 Years	31	00	00	31	8.42 %
6-10 Years	62	03	02	67	18.21 %
11-15 Years	93	20	03	116	31.52 %
16-20 Years	93	06	04	103	27.99 %
Above 20 Years	31	00	20	51	13.86 %
TOTALS	**310**	**29**	**29**	**368**	**100 %**

Source: Field Data (2024)

From the table, the participants were well experienced and consequently, gave reliable information to the researcher. Only 31 (8.42 %) had experience of up to 5 years. Six to ten years were 67 (18.21 %) while 116 (31.52 %) were in the category of years between eleven and fifteen. Years sixteen to twenty were 103 (27.99 %) and above twenty years were 51 (13.86 %). This experience indicated the validity of data gathered from the participants.

4.3 Principals' Provision of Motivation Strategies on Teacher Productivity in Secondary Schools

This objective serves as the primary focus of the study. It employs three levels of analysis: descriptive statistics, inferential statistics (specifically linear regression), and thematic analysis. The collected data was mixed and interpreted across these levels to enhance comprehension of the research problem.

4.3.1 Descriptive Statistics Analysis on Principals' Provision of Motivation Strategies on Teacher Productivity in Secondary Schools

In the descriptive analysis, the researcher scrutinized the gathered data and showcased the findings through frequencies, tables, and percentages. This data was analyzed and presented according to the first study objective, which revolved around the provision of motivational strategies, detailed as follows. The analysis highlighted indicators from the independent variable, including the provision of social rewards, material rewards, extrinsic motivation, and financial incentives. Additionally, the dependent variable, reflected by heightened teacher job satisfaction, was evident. This relationship between the independent and dependent variables was clear in the questionnaires, which included well-balanced items targeting both aspects. Frequencies and percentages were calculated based on responses measured by a five-point Likert scale, which assessed this study objective.

Teachers' Responses on Principals' Provision of Motivation Strategies on Teacher Productivity

For this section, the researcher instructed teachers to complete Part B of the questionnaire. This data encapsulated the indicators pertaining to both independent and dependent variables. The outcomes were calculated and displayed in Table 13, as illustrated below.

Table 13: Teachers' Responses on Principals' Provision of Motivational Strategies on Teacher Productivity

	A (1)	SA (2)	U (3)	D (4)	SD (5)
There has been provision of social rewards in your institution that influenced increased teacher job satisfaction	62 20.00 %	00 0.00 %	00 0.00 %	124 40.00 %	124 40.00 %
You agree that you have witnessed provision of social rewards in your institution that have increased teacher job satisfaction	31 10.00 %	46 14.84 %	10 3.23 %	200 64.52 %	23 7.42 %
There has been provision of material rewards in your institution that influenced increased teacher job satisfaction	60 19.35 %	20 6.45 %	15 4.84 %	100 32.26 %	115 37.10 %
You have witnessed the provision of material rewards in your institution that influenced increased teacher job satisfaction	20 6.45 %	25 8.06 %	20 6.45 %	120 38.71 %	125 40.32 %
Your institution has been providing extrinsic motivation which has increased teacher job satisfaction	10 3.23 %	10 3.23 %	10 3.23 %	150 48.38 %	130 41.93 %
You have witnessed the provision of extrinsic motivation in your school which has increased teacher job satisfaction	20 6.45 %	12 3.87 %	20 6.45 %	140 45.16 %	118 38.06 %
Your school has been providing financial rewards that have increased teacher job satisfaction	05 1.61 %	05 1.61 %	10 3.23 %	160 51.61 %	130 41.94 %
You have witnessed the provision of financial rewards which have increased teacher job satisfaction	10 3.23 %	15 4.84 %	15 4.84 %	150 48.39 %	120 38.71 %

Source: Field Data (2024)

From the table, the provision of social rewards was supported by 62 (20.00 %) of respondents who agreed. Disagreement was shown by 124 (40.00 %), while another 124 (40.00 %) strongly disagreed, indicating a total agreement of 62 (20.00 %) and a total disagreement of 248 (80.00%). Thus, the provision of social rewards was not significantly noted among the teachers. Regarding social rewards, 31 (10.00 %) agreed, 46 (14.84 %) strongly agreed, 10 (3.23 %) were undecided, 200 (64.52 %) disagreed, and 23 (7.42 %) strongly disagreed. The total agreement was 77 (24.84 %), with 10 (3.23 %) undecided and 223 (71.94 %) in disagreement. Despite the high disagreement, the 28.06 % of undecided and agreeing respondents were still notable. The provision of social rewards was not widely recognized by the teachers, as reflected by 223 (71.94 %) in disagreement. A higher percentage of disagreement would have made the results more significant, but the indicator was ultimately missing among the schools investigated.

On the provision of material rewards, 60 (19.35 %) agreed, and 20 (6.45 %) strongly agreed, with 15 (4.84 %) neutral. Disagreement was expressed by 100 (32.26%), and strong disagreement by 115 (37.10 %), resulting in a total agreement of 80 (25.81 %) and a disagreement of 215 (69.35 %). The total of those agreeing and undecided was 95 (30.65 %), indicating a significant figure. Despite this, the total disagreement of 215 (69.35 %) suggests that this indicator was missing according to most teachers.

Some teachers witnessed the provision of material rewards, with 20 (6.45%) agreeing and 25 (8.06 %) strongly agreeing, while 20 (6.45 %) were neutral. However, a combination of 245 (79.03 %) disagreed or strongly disagreed. The total agreement was 45 (14.52 %), and the significant disagreement, scoring nearly 80 %, showed that this

indicator was not observed among the principals in Machakos County schools, as per the teachers.

Regarding extrinsic motivation, 10 (3.23 %) agreed, 10 (3.23 %) strongly agreed, and 10 (3.23 %) were undecided. In contrast, 150 (48.38 %) disagreed, and 130 (41.93 %) strongly disagreed, bringing the total agreement to 20 (6.45%) and the disagreement to 280 (90.32 %), a highly significant figure. Therefore, this indicator was not found in the schools. Of those who agreed with the provision of extrinsic motivation, 20 (6.45%) agreed, and 12 (3.87 %) strongly agreed, while 20 (6.45 %) were neutral. A combined 140 (45.16 %) disagreed, and 118 (38.06 %) strongly disagreed, leading to a total disagreement of 258 (83.22 %). According to the teachers, this indicator was significantly absent in Machakos County secondary schools.

Financial rewards were scarcely provided, as only 5 (1.61 %) agreed and another 5 (1.61%) strongly agreed. Those undecided were 10 (3.23 %), while 160 (51.61 %) disagreed, and 130 (41.94 %) strongly disagreed. The total agreement was 10 (3.23%), and the total disagreement was 290 (93.55 %), indicating that financial rewards were significantly lacking in the schools. Among those who witnessed financial rewards, 10 (3.23 %) agreed, 15 (4.84 %) strongly agreed, and 15 (4.84 %) were neutral. However, 150 (48.39%) disagreed, and 120 (38.71 %) strongly disagreed, resulting in a total agreement of 25 (8.06 %) and a significant disagreement of 270 (87.10 %).

In conclusion, the indicators for this objective were largely absent from the schools, according to the teachers' responses. It can be concluded that the provision of motivation strategies by school principals was not adequately and significantly implemented. This shortfall negatively impacted teacher productivity and significantly hindered increased job satisfaction. Teachers require motivation strategies to perform

effectively, which helps explain why Machakos County lagged in national exam performance. Poor teacher motivation contributed to poor management and productivity in terms of exam results.

These findings align with research from around the world. For example, in India, principals and school leaders implemented various policies to inspire teachers to improve exam results. The study confirmed that motivation strategies used by secondary school heads included teacher assessment, merit pay, work environment bonuses, study leaves, and opportunities for professional development (Bedassi, 2019).

Principals' Responses on Principals' Provision of Motivation Strategies on Teacher Productivity

The principals were requested to fill out part B of their questionnaire. The outcomes are presented in Table 14 below.

Table 14: Principals' Responses on Principals' Provision of Motivation Strategies on Teacher Productivity

Statements	A (1)	SA (2)	U (3)	D (4)	SD (5)
As the school principal, you agree that there could be provision of social rewards in your school that may influence increased teacher job satisfaction	10 34.48 %	10 34.48 %	02 6.90 %	05 17.24 %	02 6.90 %
It may be true that you have provided social rewards in your school which might have improved teacher job satisfaction	10 34.48 %	10 34.48 %	5 17.24 %	02 6.90 %	02 6.90 %
Being the school head, you agree that there is the provision of material rewards in your school that might have influenced increased teacher job satisfaction	05 17.24 %	05 17.24 %	10 34.48 %	05 17.24 %	04 13.80 %
You have been providing material rewards in your school which might have influenced increased teacher job satisfaction	05 17.24 %	05 17.24 %	10 34.48 %	05 17.24 %	04 13.80 %
There is the provision of extrinsic motivation in your school which might have increased teacher job satisfaction	06 20.69 %	04 13.80 %	05 17.24 %	10 34.48 %	04 13.80 %
As a principal, you have provided extrinsic motivation in your institution which has may have increased teacher job satisfaction	04 13.80 %	06 20.69 %	05 17.24 %	14 48.28 %	00 0.00 %
There is provision of financial rewards which may have increased teacher job satisfaction	05 17.24 %	05 17.24 %	05 17.24 %	10 34.48 %	04 13.80 %
You have provided financial rewards which has improved teacher job satisfaction	10 34.48 %	02 6.90 %	05 17.24 %	10 34.48 %	02 6.90 %

Source: Field Data (2024)

From the table, 10 participants (34.48%) agreed that social rewards were provided in schools, while another 10 (34.48%) strongly agreed. Two participants (6.90%) were undecided, 5 (17.24%) disagreed, and 2 (6.90%) strongly disagreed. The total agreement side accounted for 20 (68.97%), while the total disagreement side, including undecided responses, was 9 (31.03%). This suggests that the acceptance of social rewards was weakened by the undecided and disagreement group. However, since these responses came from the principals, who were responsible for implementing these rewards, some bias may have been present. The fact that some principals were negative toward this indicator suggests a problem with its implementation, which was also reflected in the teachers' responses.

Some principals may have provided social rewards personally, with 10 (34.48%) agreeing and 10 (34.48%) strongly agreeing. Five (17.24%) were undecided, while 2 (6.90%) disagreed and another 2 (6.90%) strongly disagreed. The total agreement side was 20 (68.97%), while the disagreement side, including undecided responses, totaled 9 (31.03%). This outcome indicates poor acceptance, suggesting that social rewards were inadequately provided, hampering teacher productivity. The differing perspectives between teachers and principals suggest a potential defense by the principals regarding this indicator.

Regarding the provision of material rewards, 5 (17.24%) participants agreed, and another 5 (17.24%) strongly agreed, while 10 (34.48%) remained undecided. Five (17.24%) disagreed, and 4 (13.79%) strongly disagreed. The total agreement side was 10 (34.48%), while the undecided and disagreement side totaled 19 (65.52%), reflecting a poor provision of material rewards. Whether principals personally provided

these rewards remains unclear. Only 5 (17.24%) agreed and another 5 (17.24%) strongly agreed, with 10 (34.48%) undecideds. The disagreement side included 5 (17.24%) who disagreed and 4 (13.79%) who strongly disagreed. The combined agreement side totaled 10 (34.48%), while the undecided and disagreement side stood at 19 (65.52%), indicating that individual principals failed to provide material rewards, negatively affecting teacher productivity and motivation in Machakos County.

On the provision of extrinsic motivation, 6 (20.69%) participants agreed, and 4 (13.79%) strongly agreed. Five (17.24%) were undecided, while 10 (34.48%) disagreed, and 4 (13.79%) strongly disagreed. The agreement side accounted for 10 (34.48%), while the undecided and disagreement side totaled 19 (65.52%), clearly indicating a lack of extrinsic motivation in schools. Unmotivated teachers cannot be expected to produce good results, and extrinsic motivation, unlike intrinsic motivation, must come from external sources, such as the school administration.

Whether principals themselves provided extrinsic motivation remains doubtful. Only 4 (13.79%) agreed, and 6 (20.69%) strongly agreed, while 5 (17.24%) were undecided, and 14 (48.28%) disagreed. The total agreement side was 10 (34.48%), while the undecided and disagreement side totaled 19 (65.52%). This indicates that even individual principals were unable to provide extrinsic motivation, explaining the low teacher productivity in Machakos County. Improving motivation could have improved productivity.

Financial rewards are important for boosting teacher productivity, but their provision was accepted by only 5 (17.24%), with another 5 (17.24%) strongly agreeing. Five participants (17.24%) were undecided, while 10 (34.48%) disagreed, and 4 (13.79%) strongly disagreed. The total agreement side was 10 (34.48%), while the undecided and

disagreement side combined for 19 (65.52%). This indicates that financial rewards were not provided by the principals. Financial constraints in schools are common, and no school has adequate funding.

The number of principals who provided financial rewards was also doubtful. Ten participants (34.48%) accepted the provision of rewards, and 2 (6.90%) strongly agreed. Five (17.24%) were undecided, while 10 (34.48%) disagreed, and 2 (6.90%) strongly disagreed. The total agreement side was 12 (41.38%), while the undecided and disagreement side totaled 17 (58.62%). These figures indicate that principals had limited financial rewards to offer, which is another factor contributing to low teacher productivity in Machakos County. Financial rewards are crucial in motivating teachers, and a lack of such rewards hampers productivity. Schools likely faced significant financial challenges.

The findings from the principals align with other studies conducted globally. In Italy, for example, high school heads found that reward strategies and improvements to the working environment were critical in enhancing teacher productivity. Similarly, a study in Kuala Lumpur by Hardré and Sullivan (2017) found that heads' efforts to motivate teachers involved designing a positive work environment, direct intervention, and clear instructional and relational plans. The effectiveness of these strategies was reflected in teachers' self-regulation and outcomes, influenced by their immediate environment and experiences.

BoM Chairpersons' Responses on Principals' Provision of Motivation Strategies on Teacher Productivity

The last group to give their opinions on this objective were the BoM chairpersons. They filled part B of the questionnaire and the outcomes were indicated in Table 15 below.

Table 15: BoM Chairpersons' Responses on Principals' Provision of Motivation Strategies on Teacher Productivity

There could have been provision of social rewards in your institution that influenced increased teacher job satisfaction	05 17.24 %	02 6.90 %	02 6.90 %	15 51.72 %	05 17.24 %
You agree that you have witnessed provision of social	02 6.90 %	02 6.90 %	02 6.90 %	20 68.97 %	03 10.34 %
There could have been provision of material rewards in your institution that influenced increased teacher job satisfaction	03 10.34 %	02 6.90 %	03 10.34 %	18 62.07 %	03 10.34 %
You have witnessed the provision of material rewards in your institution that influenced increased teacher job satisfaction	00 0.00 %	00 0.00 %	09 31.03 %	15 51.72 %	05 17.24 %
Your institution has been providing extrinsic motivation which has increased teacher job satisfaction	03 10.34 %	03 10.34 %	05 17.24 %	10 34.48 %	08 27.59 %
You have witnessed the provision of extrinsic motivation in your school which has increased teacher job satisfaction	00 0.00 %	00 0.00 %	10 34.48 %	10 34.48 %	09 31.03 %
Your school has been providing financial rewards that have increased teacher job satisfaction	05 17.24 %	02 6.90 %	05 17.24 %	10 34.48 %	07 24.14 %

Source: Field Data (2024)

From the table and according to the BoM chairpersons, the provision of social rewards in the schools in Machakos County was quite doubtful. Only 5 (17.24 %) agreed to this with only 2 (6.90 %) strongly agreeing. There were 2 (6.90 %) who were undecided. The disagrees were 15 (51.72 %) and the strongly disagrees were 5 (17.24 %).

Looking at the agreement side, 7 (24.14 %) were found. On the disagreement side, a total of 20 (68.97 %) were seen. Thus, the total undecideds and the disagreement side totaled to 22 (75.86 %). The implication here is that the social rewards were not found in the schools that were investigated.

The fact that the provision of social rewards was witnessed among the schools was still a misery and doubtful. Those BoM chairpersons who agreed that they had witnessed this indicator were only 2 (6.90 %) and the strongly agreeing were similarly, 2 (6.90 %). The neutrals were another 2 (6.90 %). The disagreeing was 20 (68.97 %) and those who strongly disagreed were 3 (10.34 %).

The total agreeing side was only 4 (13.79 %). The neutrals and the disagrees added to 25 (86.21 %). This outcome had negative indications since the BoM chairpersons did not witness the implementation of this indicator. This was the same in the case of the teachers and the principals who had significant knowledge in school activities.

The provision of material rewards in the schools was another indicator. Those who agreed to the provision were only 3 (10.34 %) and the strongly agreeing were 2 (6.90 %). Ther neutrals scored 3 (10.34 %). The chairpersons who disagreed were 18 (62.07 %) with 3 (10.34 %) strongly disagreeing. Examining the agreement side of this indicator, the total was only 5 (17.24 %). The disagreement side had a majority of 21

(72.41 %). The total neutrals and disagrees significantly scored 24 (82.76 %) showing that the indicator was not found.

There was no member of the boards of management who could witness any provision of any material rewards in the institutions. Indeed, among them, 9 (31.03 %) decided not to take any side. There were 15 (51.72 %) who disagreed and 5 (17.24 %) strongly disagreed. The total disagreement side was 20 (68.97 %) being significantly the majority. The combination of the undecided and the disagreement side was 29 (100.00 %). The board members sampled in this study could not establish that there was this type of motivation among the teachers in terms of providing rewards in the form of materials. This, no doubt, hampered the increased teacher job satisfaction and hence the teacher productivity in schools in Machakos County.

The schools should provide extrinsic motivation to their teachers. This fact was accepted by 3 (10.34 %) and strongly accepted by another 3 (10.34 %). The neutrals were 5 (17.24 %). The disagrees were 10 (34.48 %) and the strongly disagrees were 8 (27.59 %).

The total number on the agreement side was 6 (20.69 %). The undecideds were 5 (17.24 %). The total disagreement was 18 (62.07 %). If the neutrals and the disagreements are combined, the total is 23 (79.31 %). This is a clear indication from the board chairpersons that the school principals did not encourage extrinsic motivation.

On the other hand, the board members who witnessed extrinsic motivation were recording a zero. None of them claimed to have witnessed this type of motivation. a significant figure of 10 (34.48 %) remained neutral. A similar number of 10 (34.48 %) disagreed. Another 9 (31.03 %) strongly disagreed.

The total disagreement recorded was 19 (65.52 %). The total neutrals and disagreements were 29 (100.00 %). This outcome was a clear sign that the schools in Machakos County failed to give this type of motivation to their teachers. The principals could not encourage teachers to perform well.

Financial rewards are necessary for increased teacher job satisfaction. The BoM chairpersons agreeing were only 5 (17.24 %) and the strongly agreed were only 2 (6.90 %). The undecides were 5 (17.24 %). On the disagreement side, 10 (34.48 %) disagreed with 7 (24.14 %) strongly disagree.

The combination of the agreement side above was 7 (24.14 %). The neutrals were 5 (17.24%). The combination of the disagreement side was 17 (58.62 %). Combining neutrals with disagreements totaled to 22 (75.86 %). This means that the board members in the schools could not find the provision of financial rewards and definitely, they might have not approved any such rewards.

The other side of the indicator was on the witnessing provision of financial rewards. Only 2 (6.90 %) agreed with another 3 (10.34 %) strongly agreeing. The neutrals recorded only 2 (6.90 %). The disagreeing was 20 (68.97 %) and the strongly disagreeing was only 2 (6.90 %).

The total agreement side could only attract 5 (17.24 %). The total disagreement significantly had attracted 22 (75.86 %). When the neutrals and the disagreements were combined, a total of 24 (82.76 %) could be seen. Then, the verdict is that the principals could not offer financial rewards to the teachers. This could affect the job satisfaction among the teachers.

The outcomes seen by the BoM chairpersons were echoed in studies done all over the world by various investigators and scholars. The declarations corroborate with the viewpoints held that to realize operative teacher productivity, and of significant

reputation, it was the suitable administration and inspiration to the teaching staff that counted. The study suggested that, in extremely active schools and schools that have reversed a tendency of unfortunate performing and deteriorating attainment, it is the head who sets the pace by leading and inspiring teachers to perform to their highest potential. This indicated that to make a difference in students' achievement, principals' motivational strategies had to come and be accessible (Millette, 2019).

4.3.2 Inferential Statistics on Principals' Provision of Motivation Strategies on Teacher Productivity

The research employed linear regression analysis to assess whether the motivational strategies implemented by principals could significantly predict teacher productivity. The findings from the linear regression model were significant, $F(1,729) = 480.80$, $p < .001$, $R^2 = .40$, indicating that approximately 39.74% of the variance in teacher productivity can be linked to the motivational strategies provided by principals. Additionally, the strategies offered by principals were found to be a significant predictor of teacher motivation, $B = 0.62$, $t(729) = 21.93$, $p < .001$. This suggests that, on average, a one-unit increase in the motivational strategies provided by principals corresponds to a 0.62-unit increase in teacher productivity. Consequently, the null hypothesis presented in Chapter One was rejected. The results of the regression analysis are encapsulated in Table 16, and the model can be expressed as follows:

Table 16: Results for Linear Regression with Principals' Provision of Motivation Strategies Predicting Teacher Productivity

Variable	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	0.59	0.06	[0.48, 0.71]	0.00	10.19	< .001
Provision of motivation strategies	0.62	0.03	[0.56, 0.67]	0.63	21.93	< .001

Note. Results: $F(1,729) = 480.80$, $p < .001$, $R^2 = .40$

Source: Field Data (2024)

Motivation is recognized as a crucial factor in enhancing teachers' productivity in schools. Without proper motivation, the likelihood of improved performance is slim. The inferential outcomes in this context indicate that principals must prioritize addressing motivation in their schools. The results from inferential statistics mirrored findings from numerous other studies conducted globally. In Sub-Saharan African nations, it has been observed that the motivational strategies employed by school heads are foundational to teacher productivity in secondary schools.

For instance, a study by Akinwumi (2014) conducted in Nigerian secondary schools revealed that merit pay plans aimed to reward outstanding teacher performance through increased financial incentives. Additionally, career development initiatives such as promotions to principal roles, master teacher programs, and differentiated staffing reforms were designed to enrich teachers' work and expand their responsibilities. It was established that principals' motivational tactics involved a combination of strategies that enabled secondary school leaders to succeed in managing school activities, offer effective supervision, and ultimately boost teacher productivity.

4.3.3 Thematic Analysis on Principals' Provision of Motivation Strategies on Teacher Productivity

In exploring the influence of principals' motivation strategies on teacher productivity, the researcher systematically prepared and organized the data collected from field interviews. Interviews were conducted with TCS county directors and Sub County Directors of Education. The data was organized and reviewed multiple times, and initial codes were developed. These codes were subsequently reviewed and merged into broader themes, which are presented cohesively in the following narratives.

To evaluate how principals' provision of motivation strategies impacts teacher productivity, school leaders needed to offer social rewards to teachers and other school community members. However, the qualitative data did not support this outcome strongly. One education officer commented,

"*The issue of social rewards is significant in public secondary schools in Machakos County. A contributing factor may be the ignorance of some school heads. Nonetheless, those heads who wish to provide rewards often lament the lack of sufficient funds for such initiatives. This has inevitably led to low job satisfaction and, consequently, poor productivity among teachers in this county. Social rewards can be non-monetary, such as verbal acknowledgment*" (**EO1**).

Similarly, TSC officers shared the same perspective. One officer remarked,

"*Today's environment is very different from when some of us were in school. There's no doubt that social rewards can greatly motivate teachers and lead to improved student outcomes. Conversely, the absence of social rewards can result in issues like diminished job satisfaction. When teachers lack motivation, their productivity declines*" (**TSC1**).

Another critical aspect was the provision of material rewards for teachers, which appeared to be ineffective in the schools examined. The education officers expressed dissatisfaction with how this indicator was being implemented. One noted,

"*Material rewards are tangible benefits that teachers should receive from their principals. When teachers achieve excellent results in national exams, like the Kenya Certificate of Secondary Education, they deserve recognition through material rewards, which could enhance job satisfaction and, as a result, improve teacher productivity*" (**EO2**).

TSC officers echoed these sentiments, indicating that material rewards were scarce in the studied region. One officer explained,

"*Prize-giving ceremonies do take place, but not as frequently as they did in the past when we were starting our careers. Only a few schools acknowledge the hard work of their teachers. Schools should recognize their staff with material rewards; the lack of*

this practice demotivates teachers, leading to low job satisfaction. To achieve good performance, we must incentivize teachers" (**TSC2**).

Extrinsic motivation, which should stem from external sources rather than from within the teachers themselves (unlike intrinsic motivation), was another area of focus. Education officers believed that the primary form of extrinsic motivation available was the monthly salary. One officer stated,

"*When discussing extrinsic motivation, I can only point to the salary provided by the government through the TSC. I have not seen many schools actively appreciating their teachers except for a few that consistently perform well in exams*" (**EO3**).

TSC officers also reported a lack of external motivation for teachers, suggesting that teachers might be relying more on intrinsic motivation due to its controllable nature. One officer commented,

"*When we refer to extrinsic motivation, I haven't observed this in my experience. I believe teachers often rely on intrinsic motivation to compensate for the lack of extrinsic incentives*" (**TSC3**).

Regarding financial rewards, there was little evidence of their presence in schools. One education officer remarked,

"*It seems unrealistic to offer teachers financial rewards. It has always been challenging to allocate funds specifically for teacher rewards. In my experience, it hasn't happened; however, some schools do recognize their teachers verbally, which isn't as impactful as providing tangible rewards*" (**EO4**).

TSC officers also noted the scarcity of financial rewards. Only a handful of leading schools in the county managed to provide monetary incentives to their teachers, as one officer described,

"*I have seen very few schools offering financial rewards to their teachers. These are typically the schools that excel in the KCSE exams. For instance, if a teacher achieves five in their subject, the reward might be one thousand Kenyan shillings, which seems quite low. That's about all I've witnessed since my assignment here in this sub-county*" (**TSC4**).

Thus, it appears that principals' motivational strategies were not effectively implemented in the public secondary schools of Machakos County, where this study was conducted. It is recommended that various motivational strategies be employed to enhance job satisfaction and, consequently, improve teacher productivity. Principals must understand that without adequate motivation, teachers may not perform at their best.

These findings align with research on the same topic. One such study by Lethoko (2022) conducted in the Pretoria Region of South Africa revealed that principals need to effectively motivate their teachers to boost productivity. For example, principals can encourage engagement by monitoring classroom activities. The study indicated that hands-on principals positively inspired teachers through their involvement. It was observed that teacher motivation in developing nations reflected a concerning decline in motivation levels among public secondary school educators, although this situation varied across countries. Specific challenges in teacher motivation may affect some nations while others may not encounter the same issues.

4.3.4 Mixing and Interpreting Data in Principals' Provision of Motivation Strategies on Teacher Productivity

The researcher mixed and interpreted information from the descriptive, inferential, and thematic analysis. From the teachers, the provision of social rewards was accepted by 62 (20.00 %) and disagreed by 248 (80.00 %). Consequently, this indicator could not be witnessed among the participants. Additionally, the provision of social rewards

was not witnessed by 223 (71.94 %) though a higher percentage could have been more significant. The provision of materials rewards disagreed with 215 (69.35 %) and agreement and undecides stood at 95 (30.65 %). Those who were not witnessing material rewards in their institutions scored nearly eighty percent. Consequently, the indicator was not witnessed by the teachers. Extrinsic motivation had the total agreement of 20 (6.45 %) and a total disagreement of 280 (90.32 %) which was significant. The indicator was meaningfully not seen among the schools. The provision of financial rewards was significantly missing in the schools. It was concluded that the provision of motivation strategies by the school principals was not adequately and significantly provided.

From the principals regarding social rewards, the total agreement side recorded 20 (68.97 %). The total disagreement was 7 (24.14 %). The total disagreement side and the undecided were 9 (31.03 %). The implication here is that the acceptance side was far weakened by the 9 (31.03 %). This outcome indicated a poor acceptance side meaning that the provision of social rewards among the schools was not done adequately hence hampering the teacher productivity. Material rewards were poorly provided. The individual principals could not provide material rewards which might have affected the teacher productivity. Extrinsic motivation among the teachers in schools was not found. Financial rewards were not provided by the principals.

The number of principals that provided financial rewards was doubtful. The ones accepting were 10 (34.48 %). Strongly agreeing were 2 (6.90 %). The undecides were 5 (17.24 %). The ones disagreeing were 10 (34.48 %) and the strongly disagreeing were 2 (6.90 %).

From the BoM chairpersons on the social rewards, the agreement side had 7 (24.14 %), and the disagreement side recorded 20 (68.97 %) Thus, social rewards were not found

in the institutions that were studied. The BoM chairpersons failed to witness the enactment of the indicator. The provision of material rewards in the schools was not found in the institutions. No member who witnessed the provision of any material rewards. Schools should provide extrinsic motivation to their teachers but the school principals did not encourage this. On financial rewards, the board members in the schools could not find the provision of financial rewards. The principals could not offer financial rewards to the teachers which could affect the job satisfaction among the teachers.

From the inferential statistics principals' provision of motivation strategies significantly predicted teacher motivation, $B = 0.62$, $t(729) = 21.93$, $p < .001$. The qualitative data from the education and TSC officers had similar findings. They did not support the implementation of the objective. Indeed, there was a need for the principals to make sure that the teachers were well motivated through social rewards, financial rewards material rewards, and monetary rewards. This mixture of data and interpretation was echoed in many other findings across the globe. In Senegal, Madagascar, Cote d'Ivoire, Cameroon, and Burkina Faso, it was established that more than 50 % of 5th-grade instructors preferred teaching to other professions. More than forty percent liked their schools and did not want any change. This indicated that teacher inspiration was not all that bad. However, in Ethiopia and Nigeria, they exhibited low teacher motivation in almost in all the cases studied. Kenyan condition is similar. Motivation of teachers is a worry to many people who are concerned with education including the teachers themselves (Michaelowa, 2014).

4.4 Influence of Principals' Provision of Professional Development Strategies on Teacher Productivity

Concerning the second objective, there were still three levels of analyses that were utilized namely: descriptive, inferential (linear regression) statistics, and thematic analysis. Then, there was the mixing and clarification of the statistics gathered and investigated from the levels for a better understanding of the issue under examination.

4.4.1 Descriptive Statistics on Principals' Provision of Professional Development Strategies on Teacher Productivity

In this case, the researcher analyzed data collected in descriptive statistics and presented it in frequencies, tables, and percentages. The data was analyzed and presented according to the second study objective as seen underneath regarding professional development strategies. The data captured the indicators from the independent variables being: provision of staff development programmes calendar of events, provision of opportunities for in-service training, conferences, and workshops, provision of sabbatical leave (this had a special meaning of an off duty) for personal growth, and provision of funds for staff development in school budgets. The data in this objective similarly captured the dependent variable indicator which was improved teaching subject scores. This was seen in the instruments whose questions balanced both independent and dependent variables accordingly. Frequencies and percentages were established from variables based on a five-point Likert scale seeking to examine the second objective of the study.

4.4.2 Teachers' Responses on Principals' Provision of Professional Development Strategies on Teacher Productivity

The researcher asked the teachers to fill out part C of their questionnaire. The data captured the indicators for both independent and dependent variables. The results were computed and presented in Table 17.

Table 17: Teachers' Responses on Principals' Provision of Professional Development Strategies on Teacher Productivity

Statements	A (1)	SA (2)	U (3)	D (4)	SD (5)
In your school, you have provision of staff development programmes calendar of events which has catapulted improved teaching subject scores	20 6.45 %	10 3.23 %	10 3.23 %	140 45.16 %	130 41.94 %
You have witnessed provision of staff development programmes calendar of events which have enhanced improved teaching	05 1.61 %	05 1.61 %	30 9.68 %	170 54.84 %	100 32.26 %

subject scores					
In your institution, there is provision of opportunities for in-service training, conferences and workshops which have improved teaching subject scores	20 6.45 %	20 6.45 %	20 6.45 %	150 48.39 %	100 32.26 %
In your institution, you have witnessed provision of opportunities for in-service training, conferences and workshops which have improved teaching subject scores	10 3.23 %	10 3.23 %	30 9.68 %	140 45.16 %	120 38.71 %
Your school has provision of sabbatical leave for personal growth which has improved teaching subject scores	00 0.00 %	00 0.00 %	00 0.00 %	200 64.52 %	110 35.48 %
You have witnessed provision of sabbatical leave for personal growth in your school which has improved teaching subject scores	00 0.00 %	00 0.00 %	00 0.00 %	200 64.52 %	110 35.48 %
There could be provision of funds for staff development in your school budget which has improved teaching subject scores	20 6.45 %	20 6.45 %	20 6.45 %	155 50.00 %	95 30.65 %

Source: Field Data (2024)

From the data presented in the table, teachers responded to the indicator related to the availability of staff development programs. The number of teachers who agreed was 20 (6.45%), while those who strongly agreed accounted for only 10 (3.23%). There were 10 (3.23%) undecided responses, while disagreement was noted by 140 (45.16%), and 130 (41.94%) strongly disagreed.

When examining the total number of agreements, it amounted to just 30 (9.68%), while the combined disagreement totaled 270 (87.10%). This discrepancy, when combined

with the undecided responses, reached 280 (90.32%). The lack of this indicator suggests that the implementation of programs necessary for improved teaching subject scores was absent. The responses to whether teachers recognized this indicator yielded similar results, with only 5 (1.61%) agreeing. The undecided count was 30 (9.68%), while disagreement stood at 170 (54.84%) and strong disagreement at 100 (32.26%).

The data indicates that the majority expressed disagreement, totaling 270 (84.10%), with 30 (9.68%) remaining undecided. This underscores the absence of a structured staff development programs calendar. Consequently, the necessary improvements in teaching subject scores could not be realized effectively.

Another indicator evaluated was the provision of opportunities for in-service training. The number of teachers who agreed was 20 (6.45%), with a similar count for those who strongly agreed. The undecided group also included 20 (6.45%). Disagreement was noted by 150 (48.39%), and strong disagreement was indicated by 100 (32.26%).

The overall agreement in this case was negligible, amounting to only 40 (12.90%), while total disagreement reached 250 (80.65%). Combining the total disagreements with the undecided responses, a total of 270 (87.10%) indicated that in-service training, conferences, and workshops were not provided to teachers in public secondary schools within Machakos County. Thus, improvements in teaching subject scores were unattainable.

Most teachers reported not witnessing opportunities for in-service training, conferences, and workshops, with only 10 (3.23%) agreeing, and another 10 (3.23%) strongly agreeing. Those who remained undecided numbered 30 (9.68%), while

disagreement was expressed by 140 (45.16%) and strong disagreement by 120 (38.71%).

The total agreement was limited to 20 (6.45%), while total disagreement was significant at 260 (83.87%). These responses clearly indicate the absence of this indicator among the participants, leading to the conclusion that the dependent variable could not be achieved.

Another indicator assessed was the availability of sabbatical leave for personal growth aimed at improving teaching subject scores. According to the participants, no provisions for such leave existed, as no participant agreed to its availability. In fact, 200 (64.52%) expressed disagreement, while 110 (35.48%) strongly disagreed.

Every participant, totaling 310 (100.00%), fell into the disagreement category. This serves as a clear indication that sabbatical leaves were not provided, contributing to poor teaching subject scores. It is evident that rest is essential for optimal performance.

Similar findings emerged regarding other indicators that the teachers in this study could not recognize. A total of 200 (64.52%) disagreed, while 110 (35.48%) strongly disagreed. Therefore, none of the participating teachers could attest to receiving sabbatical leaves. This absence of personal growth opportunities for teachers was notable in Machakos County's public secondary schools, resulting in poor academic performance. Sabbatical leaves need not be lengthy; principals could grant teachers at least a week’s leave to rejuvenate and improve their performance. The saying "all work and no play makes Jack a dull boy" applies here, as rest is vital for effective teaching.

The final indicator examined was the allocation of funds for staff development in public secondary schools within Machakos County. Those who agreed accounted for

20 (6.45%), with a similar number of those strongly agreeing. The undecided responses were also at 20 (6.45%). Disagreement was significant, with 155 (50.00%) stating they disagreed, while 95 (30.65%) strongly disagreed.

From these results, only 40 (12.90%) were in favor of agreement, indicating that only a few public secondary schools in Machakos had staff development budgets. Conversely, the disagreement side was significantly larger, comprising 250 (80.65%). Adding the total disagreements and undecided responses resulted in 270 (87.10%), suggesting that such budgets were largely unavailable.

Again, witnessing this indicator was insignificant, as only 10 (3.23%) agreed and another 10 (3.23%) strongly agreed. There were 30 (9.68%) who could not decide, while disagreement stood at 200 (64.52%) and strong disagreement at 60 (19.35%). The total agreement was thus 20 (6.45%), while disagreement reached 260 (83.87%), indicating the absence of allocated funds for staff development among the schools. This lack could hinder improvements in teaching subject scores, resulting in poor overall performance.

The insights provided by teachers align with similar findings in existing literature. Professional development encompasses the growth of individuals in their professional roles. In the context of education, Villegas-Reimers (2015) asserted that professional development consists of a series of activities aimed at enhancing an individual's skills, knowledge, and expertise as an educator. A study conducted in the Netherlands by Boyle et al. (2015) found strong consensus on the significance of professional development in increasing the number of qualified teachers. Continuous improvement of skills and knowledge is essential for the development of any professional, indicating

that teacher development is crucial for enhancing both teaching quality and student learning outcomes.

The findings had similar sentiments from other researchers. Another example is that of Mundane and Nonchalant (2015) concentrated in a study in the Republic of Germany. The research established that expert growth is an inherent progression programme that spotlighted educators' data, capabilities, and demeanor to enable them to educate learners. It was noticed that there was a need to employ strategies to develop teachers in the profession.

Principals' Responses on Principals' Provision of Professional Development Strategies on Teacher Productivity

In the same manner, the principals responded to this objective in their questionnaires. Table 18 has the details.

Table 18: Principals' Responses on Principals' Provision of Professional Development Strategies on Teacher Productivity

Statements	A (1)	SA (2)	U (3)	D (4)	SD (5)
Staff development programmes calendar of events in your school are seen which have improved teaching subject scores	06 20.69 %	06 20.69 %	05 17.24 %	10 34.48 %	02 6.89 %
You provide staff development programmes calendar of events	10 34.48	02 6.89 %	05 17.24 %	08 27.59 %	04 13.79 %

%					
which might have catapulted teaching subject scores	12	02	02	10	03
There is provision of opportunities for in-service training, conferences and	41.38 %	6.90 %	6.90 %	34.48 %	10.34 %
There is of sabbatical leave for personal growth which may improve teaching subject scores	00 0.00 %	00 0.00 %	19 65.52 %	05 17.24 %	05 17.24 %
You provide leave sabbatical for personal growth your in school which mayhave improved teaching subject scores	00 0.00 %	00 0.00 %	19 65.52 %	06 20.69 %	04 13.79 %
There are funds for staff development in your school budget which might improve teaching subject scores	05 17.24 %	05 17.24 %	05 17.24 %	10 34.48 %	04 13.79 %
You provide funds for staff development in your school budget which may improve teaching subject scores	10 34.48 %	00 0.00 %	05 17.24 %	08 27.59 %	06 20.69 %

Source: Field Data (2024)

From the data in the table, principals shared their views on the indicators related to the study's second objective. Concerning the visibility of the staff development programs calendar of events, 6 participants (20.69%) agreed, while another 6 (20.69%) strongly agreed. The neutral responses totaled 5 (17.24%). In contrast, 10 respondents (34.48%) disagreed, and 2 (6.89%) strongly disagreed.

Analyzing these results, the total agreement amounted to 12 (41.38%), which was equal to the total disagreement also at 12 (41.38%). When combined with the neutral responses, the total reached 17 (58.62%). These figures suggest a lack of strong support from the principals. The positive responses were noteworthy since the participants were the implementers of this indicator and thus could not deny its existence.

The next indicator focused on whether the principals provided a calendar of events for staff development programs. Those who affirmed this were 10 (34.48%), while 2 (6.89%) strongly agreed. Disagreement came from 8 (27.59%), and 4 (13.79%) strongly disagreed.

From these results, the total agreement was again 12 (41.38%), matching the total disagreement, which was also 12 (41.38%). Combining the disagreements with neutral responses yielded 17 (58.62%). This suggests that the indicator did not show substantial acceptance from the principals.

Regarding the second indicator about opportunities for in-service training, conferences, and workshops within schools, the agreement came from 12 (41.38%), with 2 (6.90%) strongly agreeing and another 2 (6.90%) undecideds. Disagreement was expressed by 3 (10.34%) and 3 (10.34%) strongly disagreed.

The total for the agreement side was 14 (48.28%), while the disagreement side amounted to 13 (44.83%). When combining total disagreements and neutrals, the total reached 15 (51.72%). Thus, it is evident that this indicator lacked significant acceptance among the principals, who were expected to implement these opportunities.

For the next indicator, which examined whether individual principals offered opportunities for in-service training, conferences, and workshops, the responses showed 10 (34.48%) agreeing and 4 (13.79%) strongly agreeing. The neutral responses numbered 3 (10.34%), with 10 (34.48%) disagreeing and 2 (6.90%) strongly disagreeing.

From this data, the acceptance side totaled 14 (48.28%), while the disagreement side reached 12 (41.38%). The combined neutrals and disagreements accounted for 15

(51.72%). Considering that the respondents were the principals responsible for providing these opportunities, this indicates weak acceptance, suggesting that the improvements in teaching subject scores could have been significantly hindered.

The third indicator addressed the provision of sabbatical leaves for teachers in Machakos County. No participants agreed or strongly agreed that such provisions were available. In fact, the majority, 19 (65.52%), opted for neutrality. Those who disagreed totaled 5 (17.24%), with an equal number, 5 (17.24%), strongly disagreeing.

Thus, the total agreement side registered zero responses, while the disagreement side consisted of 10 (34.48%). The total of neutrals and disagreements indicated that all 29 (100.00%) participants acknowledged that sabbatical leaves were not offered to public secondary school teachers in Machakos County.

In examining whether individual principals were granted sabbatical leaves, no responses were recorded for agreement or strong agreement. The majority of 19 (65.52%) remained neutral. Disagreement came from 6 (20.69%) and strong disagreement from 4 (13.79%).

The agreement side recorded zero responses. The disagreement group comprised 10 (34.48%), while the neutrals again represented the majority at 19 (65.52%). Therefore, the combined neutrals and disagreements totaled 29 (100.00%) participants, reinforcing the conclusion that the concept of sabbatical leaves was not practiced among the teachers in the study area, further hindering improved teaching subject scores.

The final indicator for the second objective assessed whether funds for staff development were included in school budgets. The number of participants who agreed was 5 (17.24%), with a similar count for those who strongly agreed, also 5 (17.24%).

The undecided participants were another 5 (17.24%). Disagreement was indicated by 10 (34.48%), and strong disagreement was expressed by 4 (13.79%).

The total for the agreement side was 10 (34.48%), while the disagreement side totaled 14 (48.28%). When combining the neutrals with the disagreements, the total reached 19 (65.52%). This clearly indicates that funds allocated for staff development were not significantly available among the schools, as a more positive response would likely have been recorded.

To further evaluate this indicator, participants, who were the school principals, were asked if they provided funds for staff development in their institutions. The results revealed that 10 (34.48%) agreed, 5 (17.24%) were undecided, 8 (27.59%) disagreed, and 6 (20.69%) strongly disagreed.

These findings demonstrate that the total agreement side totaled 10 (34.48%), while the total disagreement reached 14 (48.28%). The combination of undecided and disagreeing responses totaled 19 (65.52%). These outcomes indicate that staff development funds were not adequately provided by the principals within their schools, posing a barrier to improving teaching subject scores.

The responses from the principals echoed findings from the study by Cool and Apathetic (2015), which highlighted that effective professional development for teachers relies on motivation and accountability concerning instructional skills. This underscores the necessity of staff development programs to enhance teacher productivity.

BoM Chairpersons Responses on Principals' Provision of Professional Development Strategies on Teacher Productivity

The last group in this objective were the BoM chairpersons who filled out part C of their questionnaire. The responses are shown in Table 19.

Table 19: BoM Chairpersons Responses on Principals' Provision of Professional Development Strategies on Teacher Productivity

Statements	A (1)	SA (2)	U (3)	D (4)	SD (5)
In your school, you have provision of staff development programmes calendar of events which has catapulted improved teaching subject scores	00 0.00 %	00 0.00 %	10 34.48 %	10 34.48 %	09 31.03 %
You have witnessed provision of staff development programmes calendar of events which have enhanced improved teaching subject scores	00 0.00 %	00 0.00 %	09 31.03 %	15 51.72 %	05 17.24 %
In your institution, there is provision of opportunities for in-service training, conferences and workshops which have improved teaching subject scores	00 0.00 %	00 0.00 %	10 34.48 %	10 34.48 %	09 31.03 %
In your institution, you have witnessed provision of opportunities for in-service training, conferences and workshops which have improved teaching subject scores	00 0.00 %	00 0.00 %	15 51.72 %	10 34.48 %	04 13.79 %
Your school has provision of sabbatical leave for personal growth which has improved teaching subject scores	00 0.00 %	00 0.00 %	10 34.48 %	15 51.72 %	04 13.79 %
You have witnessed provision of sabbatical leave for personal growth in your school which has improved teaching subject scores	00 0.00 %	00 0.00 %	20 68.97 %	07 24.14 %	02 6.90 %
There could be provision of funds for staff development in your school budget which has improved teaching subject scores	03 10.34 %	02 6.90 %	05 17.24 %	18 62.07 %	01 3.45 %
In your institution, you have witnessed provision of funds for staff development in your school budget which has improved teaching subject scores	05 17.24 %	03 10.34 %	05 17.24 %	10 34.48 %	06 20.69 %

Source: Field Data (2024)

The BoM chairpersons had responses to this second objective. On the indicator of the provision of staff development programmes calendar of events, there was zero response to the agreement side. Indeed, 10 (34.48 %) of the chairpersons could not decide on this indicator. Another similar number 10 (34.48 %) disagreed while 9 (31.03 %) strongly

disagreed. The scenario above shows that there was nobody who could support the indicator having been present among the schools. A total of 19 (65.52 %) were on the disagreement side. The total disagreements and undecideds were all 29 (100.00 %) participants. The programmes for staff development could not be witnessed among the teachers in the study schools. If the BoM chairpersons witnessed the provision of staff development programmes, it remains a puzzle. No participant was on the agreement side. There were 9 (31.03 %) who decided to be neutral. The disagreeing recorded 15 (51.72 %). The strongly disagreeing were 5 (17.24 %). Making inferences from the above results, the total agreement was zero. The total disagreement side was 20 (68.97 %). The total undecides combined with the disagreement side was all the 29 (100.00 %) participants who gave their opinions on the indicator. Thus, this indicator was missing and it hampered the improved teaching subject scores.

The second indicator in this objective was the provision of in-service training, conferences, and workshops. If it was there, nobody could support this since the outcome was zero on the acceptance side. The number that could not make a decision was 10 (34.48 %). Disagreeing was another 10 (34.48 %). The strongly disagreeing were 9 (31.03 %).

Examining the above outcomes, the acceptance side could only score a zero. The total disagreement side was 14 (48.28 %). The combination of the neutrals and the disagreements was all 29 (100.00 %) of the participants. This was an indication that the indicator could not be seen hence weakening the improvement in teaching subject scores.

If the BoM chairpersons witnessed the provision of in-service opportunities and training was still a mystery. No participant could be found on the acceptance side.

Indeed, some 15 (51.72 %) could not make any decision. The disagreement attracted 10 (34.48 %) and the strong disagreement had 4 (13.79 %).

The above figures showed that the indicator was missing. This is so since nobody was on the agreeing side or even strongly agreeing. The total disagreement was 14 (48.28 %). The combination of neutrals and disagreements was all the 29 (100.00 %) of the participants. This was an indicator that there was no such provision amongst the schools in Machakos County according to the BoM chairpersons.

The third indicator in this objective was on the provision of sabbatical leave for personal growth. The BoM chairpersons could not agree to this since none of them neither agreed nor strongly agreed. The neutrals were 10 (34.48 %). The disagrees were 15 (51.72 %) and strongly disagree attracted 4 (13.79 %).

The outcome above is skewed towards the disagreement side. The disagreement total was 19 (65.52 %). The combination of undecides and disagreements was the all 29 (100.00 %) of the BoM chairpersons. This showed poor acceptance of the indicator hence hampering improvement in teaching subject scores.

There was the other side of the indicator. The BoM chairpersons were asked if they had witnessed any provision of sabbatical leaves for personal growth. Incidentally, 20 (68.97 %) decided to keep quiet as they remained undecided on the matter. The disagreement was 7 (24.14 %) and strongly disagreement was 2 (6.90 %).

The above results could be interpreted that the agreeing side was zero. The disagreement side was 9 (31.03 %). The combined total of undecideds and disagreement was the total of all the 29 (100.00 %) of the participants. This means that the BoM chairpersons did not see any sabbatical leaves among the schools. These participants were part and parcel of the school management though they were not running the institutions on a day-to-day basis. It is the principals who ran schools daily.

The final indicator in this objective was the provision of funds for staff development in the school budgets. The BoM members normally approve school budgets. However, only 3 (10.34 %) could agree to this. The strongly agreed were 2 (6.90 %) with 5 (17.24 %) making no decision. The disagreement was 18 (62.07 %) and strongly disagreed recorded 1 (3.45 %).

The combination of agreement sides is seen as 5 (17.24 %). The disagreement side had 19 (65.52 %). The combination of undecided and the disagreement was 24 (82.76 %). The verdict can be arrived at as there was no significant acceptance of the indicator. Indeed, it was a total rejection of the same.

Finally, the other side of the indicator wanted to test if the BoM chairpersons might have witnessed funds for staff development being provided among their schools in this study.

There was agreement in 5 (17.24 %) with 3 (10.34 %) strongly agreeing. The disagreement had 10 (34.48 %) with 6 (20.69 %) strongly disagreeing.

To summarize the above outcomes, the total acceptance side was 8 (27.59 %). The combined total disagreement was 16 (55.17 %). The combination of undecides and disagreement was 21 (72.41 %). Still, it could be seen that there was insignificant agreement in this indicator. The verdict determined is that there was no witnessing of this indicator significantly. Therefore, there could have not been an improvement in the teaching subjects scores as the dependent variable of the study.

The findings from the BoM chairpersons concurred with other findings. One such study was done in Sub-Saharan Africa by Du Plooy (2014). It was established that funds for staff development were necessary for better productivity. Another example was in Nigeria where Egu, et. al. (2014) uncovered that optional schools guarantee that teachers took part in proficient improvement exercises to turn out to be better teachers.

4.4.3 Inferential Statistics Analysis on Principals' Provision of Motivation Strategies on Teacher Productivity

There was a linear regression analysis that was done to test if the principals' provision of professional development strategies significantly predicted teacher productivity. The results of the linear regression model were significant, $F(1,729) = 559.55$, $p < .001$, $R2 = .43$, indicating that approximately 43.42% of the variance in teacher productivity was explainable by principals provision of professional development strategies. Principals' provision of professional development strategies significantly predicted teacher productivity, $B = 0.65$, $t(729) = 23.65$, $p < .001$. This indicated that on average, a one-unit increase of principals' provision of professional development strategies increased the value of teacher productivity by 0.65 units. The null hypothesis in Chapter One was, thus, rejected. Table 20 summarizes the results of the regression model. The regression model becomes Teacher Productivity = 0.55 + 0.65*Principals' provision of professional development strategies.

Table 20: Results for Linear Regression with Principals' Provision of Professional Development Strategies Predicting Teacher Productivity

Variable	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	0.55	0.06	[0.44, 0.66]	0.00	9.83	< .001
Professional development strategies	0.65	0.03	[0.60, 0.70]	0.66	23.65	< .001

Source: Field Data (2024)

These findings concurred with other findings in the literature review. In Somalia for instance, Jandaya (2014) stated that optional schools perceived that offering teachers valuable open doors for proficient advancement was a noteworthy part of developing teacher training and was basic to the job of the school personnel since it prompted their competence and effectiveness. It exposed those institutions that involved persistence in

administration preparation for their school personnel had improved by 5.9 %. This proposed that proficient advancement was essential to teachers since it permitted them to learn innovative ways to deal with instruction methods. Proficient improvement looked to further develop teachers' instructive procedures and their capacity to adjust guidance to address the problems of the learners.

4.4.4 Thematic Analysis on Principals' Provision of Professional Development Strategies on Teacher Productivity

The education officers were interviewed to find out how the principals provided professional development strategies. The first indicator was the provision of a staff development programme calendar of events. This indicator was not fully implemented as one officer said,

> "*Some schools have established calendar of events for staff development for instance, you find some principals organize internal training to refresh their teachers. However, I can say that this is not the case in most schools. I agree that this can enhance teaching subject scores if implemented properly*" (**EO1**).

On the side of the TSC officers, the calendar of events did not seem to be a concern to the principals. One officer noted,

> "*The principals seem to have too many more important activities at the expense of staff development. There is no much concern on the professional development strategies. Yes, I agree that this ca cause poor teacher productivity and for sure, teachers may never improve their teaching subject scores*" (**TSC1**).

Thus, judging from the interview, this indicator could not be found among the public secondary schools in Machakos County. The education officers as well as the TSC officers in the sub counties could not agree on calendar of events. However, all the participants agreed that the calendar of events could improve the teaching subject scores if properly organized.

The education officers were interviewed on the provision for opportunities for in-service training, conferences and workshops. It seemed that this was part of their duty but thus had to be initiated by the principals as one officer said,

> "*The in-service training and refresher courses are part of our duties to oversee. However, the principals should identify the key areas for training since they know where their staff weaknesses are. They should prepare to meet the cost. Nevertheless, there has been issues on funding whenever it comes to these trainings and courses. We can identify good facilitators but the issue is on the payment*" (**EO2**).

The TSC officers did not seem to encourage the principals to initiate courses. There was the constraint of funds. They could majorly deal with the primary school teachers. The secondary schools had to find their ways and means to train their teachers. One officer lamented,

> "*We do not have enough money to involve all the teachers in the sub-county. The school heads can arrange for training as we look for appropriate facilitators. I believe that such courses can help teachers improve their subject scores. Yes, there is a need to keep training teachers as we are getting into the new system of education*" (**TSC2**).

The second indicator of this objective was not achieved to a greater extent. Once teachers leave the training colleges and universities, they need to be refreshed from time to time. Many changes are coming up with the new system of education in Kenya.

The third indicator on the provision of sabbatical leaves for personal growth could not be seen. This was gone from the memory of the education officers. Nobody could dream of this as one officer said,

> "*Nowadays sabbatical leaves are next to impossible. People may not have replacements if they take leaves. Teachers take leave during the school holidays automatically. However, these annual leaves are not meant for motivation or for the improvement of teaching scores. It the teachers' right to go on leave annually. Again, this can be a very expensive thing to do especially now that a new system of education is picking*" (**EO3**).

The TSC officers did not even support any leave outside the normal school holidays. The did not find it necessary. It was a waste of time and the human resources. However, the leaves could have helped teachers grow professionally and improve their performance. One officer noted,

> "*It is a good idea to have sabbatical leaves. The teachers can grow professionally and produce better results. Nevertheless. There is an issue of replacements during the leaves. Even the study leaves with pay have been rare if not impossible. We cannot afford to let teachers take leaves any how*" (**TSC3**).

The final indicator in this objective was on the funds for staff development being reflected in the school budgets. Schools seemed to have problems with funds. Often times than not, the capitation funds delay. The budgets may include money for staff development but never to be done as one officer observed,

> "*The issue of funds in the schools is escalating. The capitation funds may be delayed. The budgets may reflect money for staff development but at the end of the fiscal year, you find that the staff development has not been due to lack of funds. You know, schools have their priorities and the funds are very much scarce and limited. This development, though necessary for the improvement of teaching subject scores, may not be considered a priority among the schools*" (**EO4**)'

The TSC officers had similar sentiments. Funding the schools is not an easy task for the government. The capitation funds are not enough to cater for staff development. In the case where the parents had to chip in, it was always an issue as one officer observed,

> "*The staff development can be funded by the parents. However, whenever money is asked from them, it has been often difficult. This is even worse in the case of free day secondary schools where parents think that they should not pay any levies. It becomes a war to get funds from such parents. Teachers can perform better if they are being developed professionally*" (**TSC4**).

These findings had similar outcomes in Kenya. There was acknowledgment that teachers required open doors for proficient turn of events and professional development. An investigation in Thika West stated that teachers must have been

dependable in the material and thus, there must be funds to help them grow professionally. It was demonstrated that great professional progression for the staff was basic. It was realized that teachers must be prepared to achieve specific procedures and develop in their jobs (Kemunto, 2015).

4.4.5 Mixing and Interpreting Data on Principals' Provision of Professional Development Strategies on Teacher Productivity

From the teachers on the provision of staff development programmes, the agreement side was 30 (9.68 %) and the disagreeing had 270 (87.10 %). This indicator was not there and hence failure to achieve improved teaching subject scores among the schools. The staff development programmes calendar of events was not witnessed significantly.

The provision of opportunities for in-service training had a total agreement of 40 (12.90 %) and the disagreement side achieved 250 (80.65 %). Consequently, the improved teaching subject scores could not be achieved. Most teachers could not witness the provision of such opportunities.

Provision of sabbatical leaves for personal growth to improve the teaching subject score was disagreed by every participant meaning all 310 (100.00 %) were disagreeing. So, sabbatical leaves were not approved causing poor teaching subject scores. The leaves could not be witnessed either by the participants.

The provision of funds for staff development could only be agreed by 40 (12.90 %) and the disagreement side had meaningly 250 (80.65 %). Consequently, it could be concluded that such budgets could not be available. The majority of the participants could not witness this indicator in their schools. There were no funds provided for staff development among the schools.

Of the principals who gave their opinions regarding funds the agreement side had 12 (41.38 %). The disagreement side equally had 12 (41.38 %). This indicated weak

acceptance. Essentially, this indicator does not seem to reflect significant acceptance from the principals.

The participants responded to the second indicator on providing opportunities for in-service training, conferences and workshops. The agreement side had a total of 14 (48.28 %). The disagreement side had 13 (44.83 %). The indicator had no significant acceptance among the participants who were even the persons supposed to implement it. The principals failed to give in-service courses. The sabbatical leaves were not offered as no participant agreed or strongly agreed. Indeed, the majority of 19 (65.52 %) did not want to take sides. Those who disagreed were 5 (17.24 %) and a similar number, 5 (17.24 %) strongly disagreed. The total agreement side had zero response.

Funds for staff development in the school budgets could not be found. It was clear evidence that funds for staff development were not significantly available among the schools otherwise, a more significant response could have been seen. This is a drawback to the productivity of teachers.

From the BoM chairpersons on the provision of staff development programmes calendar of events, there was zero response to the agreement side. Indeed, 10 (34.48 %) of the chairpersons could not decide on this indicator. Another similar number 10 (34.48 %) disagreed while 9 (31.03 %) strongly disagreed. The scenario above shows that there was nobody who could support the indicator having been present among the schools. Nobody even witnessed this.

On the provision of in-service training, conferences, and workshops, if it was there, nobody could support this since the outcome was zero on the acceptance side, the indicator could not be seen hence weakening the improved teaching subject scores.

Sabbatical leaves for personal growth were not seen. The disagreement total was 19 (65.52%). The combination of undecides and disagreements was the all 29 (100.00 %)

of the BoM chairpersons. This showed poor acceptance of the indicator hence hampering improvement in teaching subject scores.

Provision of funds for staff development in the school budgets had an issue. There was no noteworthy acceptance of the indicator except a total rejection. From the inferential statistics analysis approximately 43.42% of the variance in teacher productivity was explainable by principals' provision of professional development strategies. Principals' provision of professional development strategies significantly predicted teacher productivity, $B = 0.65$, $t(729) = 23.65$, $p < .001$. The thematic analysis had similar results that professional development was not achieved. The indicators for this objective were not achieved and so teacher productivity would remain an issue in the schools.

These findings were similar to others done elsewhere. In Machakos County. There was a requirement for teachers to be given in-service courses in the county of Machakos and also professional development courses. This sharpened their instruction tactics. This was an outcome of research done by Galgallo (2014) in the county. It was found that teachers had to be retooled and advanced professionally through programmes. Professional development enhanced the teachers' knowledge and improved teaching skills. Nevertheless, more needed to be done.

4.4 Influence of Principals' Provision of Welfare Strategies on Teacher Productivity

Concerning the third objective, there were, too, three levels data analyses that were engaged. These included descriptive, inferential (linear regression) statistics and thematic analysis. Then, there was the mixing and explanation of the data analyzed for better clarification of the results.

4.4.1 Descriptive Statistics on Principals' Provision of Welfare Strategies on Teacher Productivity

The researcher examined collected data in descriptive statistics and presented it in occurrences, tables, and percentages. The data was analyzed and presented according to the third objective of the study. The data captured the indicators from the independent and dependent variables.

Teachers' Responses on Principals' Provision of Welfare Strategies on Teacher Productivity

To get the necessary information regarding the provision of staff welfare strategies, the teachers filled part D of their questionnaire. The responses were shown in Table 21 below.

Table 21: Teachers Responses on Principals' Provision of Welfare Strategies on Teacher Productivity

Statements	A (1)	SA (2)	U (3)	D (4)	SD (5)
There is provision for accommodation/houses in your school which can improve performance contract scores among the staff	30 9.68 %	20 6.45 %	30 9.68 %	145 46.77 %	85 27.42 %
You have witnessed provision for accommodation/houses in your school which has improve performance contract scores among the staff	10 3.23 %	10 3.23 %	50 16.13 %	200 64.52 %	40 12.90 %
There could be provision of BoM and PTA allowances in your institution which has improved performance contract scores amongst the staff	30 9.68 %	30 9.68 %	20 6.45 %	150 48.39 %	80 25.81 %
You have witnessed provision of BoM and PTA allowances in your institution which has improved performance contract scores among the staff	50 16.13 %	10 3.23 %	30 9.68 %	155 50.00 %	65 20.97 %
It may be said that you have provision of staff welfare activities in your school which can improve performance contract scores among the staff	100 32.26 %	100 32.26 %	50 16.13 %	40 12.90 %	20 6.45 %
It is acceptable that you have witnessed provision of staff welfare activities in your school which can improve performance contract scores among the staff	180 58.06 %	25 8.06 %	40 12.90 %	50 16.13 %	15 4.84 %
There could be advocating for staff promotion and salary in your institution which may improve performance contract scores among the staff	20 6.45 %	10 3.23 %	30 9.68 %	175 56.45 %	75 24.19 %
You have witnessed advocating for staff promotion and salary in your institution which could improve	15 4.84 %	20 6.45 %	40 12.90 %	200 64.52 %	35 11.29 %

Source: Field Data (2024)

From the above table, the teachers responded on the presence of the provision for staff houses for their accommodation. On the agreement side, 30 (9.68 %) agreed. There were 20 (6.45 %) strongly agreeing. The teachers who could not make decisions were 30 (9.68 %). The disagreeing had 145 (46.77 %). The strongly disagree attracted 85 (27.42 %).

Judging from the above figures, the agreement side had 50 (16.13 %). The disagreement side had 230 (74.19 %) while 30 (9.68 %) could not make any decision. The total combination of undecides and disagreements came to 260 (83.87 %). This is a clear picture that the accommodation of teachers was not significant in schools. Thus, the improvement of performance contract scores could not be possible as such.

If the participants witnessed the schools giving houses and accommodating them, it was still a mystery. The agreeing was 10 (3.23 %) and strongly agreeing had a similar number, 10 (3.23%). The undecides were 50 (16.13 %). The disagrees were 200 (64.52 %) and the strongly disagrees were 40 (12.90 %).

The above outcome indicates that only 20 (6.45 %) could be on the agreement side. The majority of 240 (77.42 %) were on the disagreement side. The total undecided and the disagreement recorded was 290 (93.55). Therefore, the conclusion could be made here. It is seen that housing the teachers was a big issue in the schools in the study county of Machakos and it must have affected the performance negatively.

The second indicator was on the BoM and the PTA allowances to see if they were provided in the schools. The agrees had 30 (9.68 %). A similar response of 30 (9.68 %) strongly agreed. The neutrals scored 20 (6.45 %). The disagreement was 150 (48.39 %). The strongly disagree was 80 (25.81 %).

The combination of the agreement side was 60 (19.35 %). Ther combination of the disagreement side was 230 (74.19 %). The total combination of undecideds and the

disagreements totaled to 250 (80.65 %). The interpretation seen here is that the allowances from the BoM and the PTA could not be seen significantly.

Regarding the witnessing of allowances from the BoM and the PTA, 50 (16.13 %) agreed. There were 10 (3.23 %) who strongly agreed. The disagrees were 155 (50.00 %). Strongly disagrees were 65 (20.97 %).

The above outcomes indicate a total acceptance side of 60 (19.35 %). The combination of disagreement on the other hand had 220 (70.97 %). The total combination of undecides and the disagreement side was 250 (80.65 %). This shows that teachers did not receive allowances from either the BoM or the PTA significantly. This could hamper improved performance contract scores and consequently, poor teacher productivity. Monetary motivation is always a powerful motivation tool and necessary for better performance.

The third indicator was the provision of staff welfare activities among the institutions in Machakos County. The agreeing to this was 100 (32.26 %). The strongly agreed were similarly, 100 (32.26 %). The neutrals were 50 (16.13 %). The disagrees were 40 (12.90 %) and the strongly disagrees were 20 (6.43 %).

The total agreement side had 200 (64.52 %). The total disagreement was 60 (19.35 %). The total undecideds and disagrees had 110 (35.48 %). This outcome indicated that at least there was fairly significant provision of staff welfare activities. However, the combination of disagreement and undecides weakened the significance of the indicator having been accepted by the majority. A higher percentage could have been more convincing.

The researcher examined the other side of the indicator. If the teachers witnessed the provision of staff welfare activities, it was met with a positive 180 (58.06 %) in agreement. Another 25 (8.06 %) strongly agreed. Those that remained neutral were 40

(12.90 %). The disagreeing was 50 (16.13 %) and the strongly disagreeing recorded 15 (4.84 %).

Making inferences from the above outcomes, the total agreement side was significant with 205 (66.13 %). The total disagreement was 65 (20.97 %). The combination of undecided and disagreeing was 105 (33.87 %). Although the majority were on the agreement side, others were over 33 percent not in agreement. This means that the acceptance side in this indicator was a weak one though having the majority.

Advocating staff promotions and salaries was the final indicator in this section. The teachers responded in that 20 (6.45 %) agreed and 10 (3.23 %) strongly agreed. The neutrals were 30 (9.68 %). The disagrees were 175 (56.45 %) and strongly disagree being 75 (24.19 %).

The combined accepting side had a total of 30 (9.68 %). The disagreement side had a total of 250 (80.65 %). The total number of undecides and disagreements combined was 280 (90.32 %).

Consequently, promotions and salary advocacy were negative in the institutions studied. Thus, better scores in the contract performance could not have been seen.

The other side of the indicator was the witnessing of advocacy in staff promotions and salaries. The agreeing was 15 (4.84 %) with 20 (6.45 %) strongly agreeing. The undecides were 40 (12.90 %). The disagrees were 200 (64.52 %). The strongly disagree recorded 35(11.29 %).

From the above outcomes, the acceptance side had a total of 35 (11.29 %). The disagreement side had a total of 235 (75.81 %). The combined undecides and disagreements had 275 (88.71%). The negative side seems significant hence the verdict that there was no significant advocacy for the teachers to get promotions and better salaries. This must have interfered with the teacher productivity among the schools.

The outcomes from the teachers concerning staff welfare had similarities in other findings done elsewhere on the same matter. Situations in institutions have an important role in motivating teachers so as to meticulously perform their work. Jonny (2022) noted that when workers were requested to assess various facets of their work for example supervision, pay, promotion opportunities, coworkers, and the like, the nature of the work itself largely arose to be the most important job facet. Working environments in schools, well-designed compensation programmes and effective supervision were not important factors of teacher productivity and teacher job satisfaction.

Principals' Responses on Principals' Provision of Welfare Strategies on Teacher Productivity

To get the views of the principals, they were requested to fill out part D of their survey. The results are presented in Table 22.

Table 22: Principals' Responses on Principals' Provision of Welfare Strategies on Teacher Productivity

Statements	A (1)	SA (2)	U (3)	D (4)	SD (5)
Your school has accommodation/houses which may improve performance contract scores among the staff	04 13.79 %	06 20.69 %	05 17.24 %	10 34.48 %	04 13.79 %
You provide accommodation/housesin your school which may Improve performance contract scores among the staff	06 20.69 %	04 13.79 %	05 17.24 %	12 41.38 %	02 6.90 %
BoM and PTA allowances are available in your institution which may Improve performance contract scores amongst the staff	10 34.48 %	04 13.79 %	05 17.24 %	06 20.69 %	04 13.79 %
You provide BoM and PTA allowances in your institution Which may improve	10 34.48 %	04 13.79 %	05 17.24 %	06 20.69 %	04 13.79 %
activities in your school which may improve performance contract scores among the staff	62.07 %	17.24 %	6.90 %	6.90 %	6.90 %
You provide staff welfare activities in your school which may improve performance contract scores among the staff	20 68.97 %	03 10.34 %	04 13.79 %	02 6.90 %	00 0.00 %
There is staff promotion advocacy and salary in your institution which might have improved performance	05 17.24 %	02 6.90 %	10 34.48 %	08 27.59 %	04 13.79 %

Source: Field Data (2024)

From this table, the principals had responses on the availability of accommodation or the housing of teachers in their schools. There were 4 (13.79 %) who agreed. Another 6 (20.69

%) strongly agreed. Those who could not make decisions were 5 (17.24 %). The disagrees were 10 (34.48 %). The strongly disagree were 4 (13.79 %).

From these results above, the total agreement side had 10 (34.48 %). The total disagreement was 14 (48.28 %). The total neutrals and disagreements can be seen here to be 19 (65.52 %). This indicates that still there was a problem in housing teachers though some attempt was made.

The other side of the indicator asked if the principals had provided accommodation to their staff. The ones agreeing were 6 (20.69 %) and strongly agreeing were 4 (13.79 %). The neutrals were 5 (17.24 %). The disagrees were 12 (41.38 %) and those strongly disagreeing were 2 (6.90 %).

If the above outcomes are closely analyzed, the total agreement side is seen to be 10 (34.48%). On the other hand, the total disagreement side is seen as 14 (48.28 %). The combined total disagreements and the undecides are seen as 19 (65.52 %). The interpretation is that, though there were some attempts to offer teachers accommodation, it was not significant. The majority of the participants were definitely on the negative side. Housing or accommodating teachers on school compounds can improve performance contract scores amongst the teachers.

The principals responded to the second indicator. It was about the provision of BoM and PTA allowances to the teaching staff for the improvement of performance contract scores among the teachers. the principals who accepted were 10 (34.48 %) and those who strongly accepted were 4 (13.79 %). The undecideds recorded 5 (17.24 %). The disagrees were 6 (20.69 %) and strongly disagrees were 4 (13.79 %).

The above picture shows that the total agreement side had 14 (48.28 %). The total disagreement side had 10 (34.48 %). The combined undecideds and disagreements had 15 (51.72 %). The verdict here is that there was an attempt to provide teachers with allowances but this was not significantly done. Somehow, the negative side of the indicator was scoring over 51 percent.

The other side of the indicator was asking if the principals could provide or were providing the BoM and the PTA allowances to the teachers. The agreeing was 10 (34.48) and the strongly agreed were 4 (13.79 %). The undecides were 5 (17.24 %) and strongly disagree were 4 (13.79 %). The above outcomes can be summarized in that the agreement side had 14 (48.28 %). The combined disagreements and neutrals were 15 (51.72 %). This, again, shows a weak attempt to provide allowances to teachers from the BoMs and the PTAs. These bodies in school management did not seem to do a good job here hence weakening the performance contract scores.

The third indicator was on the provision of staff welfare activities among the teachers in the schools in Machakos County. The agrees were 18 (62.07 %) and the strongly agrees were 5 (17.24 %). Those who could not make a decision were 2 (6.90 %). The disagreeing was similar, 2 (6.90 %) and an equal number of 2 (6.90 %) were strongly agreeing.

The combination on the agreement side was 23 (79.31 %). On the other hand, the total disagreement side had 4 (13.79 %). The total neutrals and the disagrees were 6 (20.69 %). This shows that there was a presence of staff welfare activities significantly among the teachers. This could have improved the performance contract scores significantly among the teaching staff. The principals were asked if they provided staff welfare activities in their schools to enhance performance contracting scores. The agreement

was 20 (68.97 %). The strongly agreeing were 3 (10.34 %). The neutrals were 4 (13.79 %). The disagreeing had 2 (6.90 %). The strongly disagree had zero participants.

To summarize the above outcomes, it is seen that the agreement side had 23 (79.31 %). The total disagreement side had 2 (6.90 %). The total neutrals and the disagreement side had 6 (20.69 %). This was an indicator that the school principals had encouraged and had provided staff welfare activities among their teachers. This indicator could have improved performance contract scores had been supported by such other indicators.

The final indicator for the principals to respond to was the presence of staff promotion advocacy as well as advocacy for teachers' salaries. The agreement was 5 (17.24 %) and the strongly agreed were 2 (6.90 %). The undecides were 10 (34.48 %). The disagreement had 8 (27.59 %) as strongly agreed were 4 (13.79 %).

On the agreement side, 7 (24.14 %) were seen. On the disagreement side, there were 12 (41.38 %). The combination of the undecideds and the disagrees had 22 (75.86 %) of the participants. The advocacy for promotions and staff salaries seemed to be absent since the number accepted was not significant. Thus, the indicator failed to be seen.

The second side of this indicator asked if the principals advocated for promotions and salaries of the teachers. the agrees were 10 (34.48 %). The strongly agreed were 2 (6.90 %) and the neutrals being 5 (17.24 %). The disagrees were 10 (34.48 %) and the strongly disagree recorded 2 (6.90 %).

Looking at how the principals agreed, a total of 12 (41.38 %) could be seen on the agreement side of the indicator. A similar number, 12 (41.38 %) was on the disagreement side. The combination of disagrees and undecideds had 17 (58.62 %). This shows that, though there was an effort done to advocate promotions and salaries of the teachers, it turned out to be a weak effort. Therefore, the indicator could not be

significantly seen. Thus, its absence must have affected performance contract scores and consequently, poor teacher productivity.

The results from the principals concurred with other findings done in the similar area in the world of research. There was an investigation in the Netherlands by Harris and Muijs (2020) which found that the work atmosphere had a noteworthy effect on worker performance and efficiency. The teachers' work atmosphere may likewise comprise of policies, rules, culture, resources, work relationships and location and internal and exterior environmental influences. Each of these impacts how teachers accomplish their duties. These findings were indicative of the fact that staff wellbeing approaches touch teachers' performance and gratification with their work.

BoM Chairpersons' Responses on Principals' Provision of Welfare Strategies on Teacher Productivity

The final group in this section was the BoM chairpersons. They were asked to fill out part D of their survey and the results are shown in Table 23 below.

Table 23: BoM Chairpersons Responses on Principals' Provision of Welfare Strategies on Teachers Productivity

Statements	A (1)	SA (2)	U (3	D (4)	SD (5)
There is provision for accommodation/housesin your school which can improve performance contract scores among the staff	05 17.24 %	05 17.24 %	05 17.24 %	11 37.93 %	03 10.34 %
You have witnessed provision For accommodation /houses in your school which has improve performance contract scores among the staff	02 6.90 %	03 10.34 %	07 24.14 %	15 51.72 %	02 6.90 %
There could be provision of BoM and PTA allowances in your institution which has improved performance contract scores amongst the staff	08 27.59 %	02 6.90 %	05 17.24 %	11 37.93 %	03 10.34 %
You have witnessed provision of BoM and PTA allowances in your institution which has improved performance contract scores among the staff	02 6.90 %	03 10.34 %	10 34.48 %	13 44.83 %	01 3.45 %
It may be said that you have provision of staff welfare activities in your school which can improve performance contract scores among the staff	15 51.72 %	05 17.24 %	02 6.90 %	05 17.24 %	02 6.90 %
It is acceptable that you have	14	06	03	05	01

witnessed provision of staff welfare activities in your school which can improve performance contract scores among the staff	48.28 %	20.69 %	10.34 %	17.24 %	3.44 %
There could be advocating for staff promotion and salary in your institution which may improve performance contract scores among the staff	03 10.34 %	02 6.90 %	06 20.69 %	10 34.48 %	08 27.59 %
You have witnessed advocating for staff promotion and salary in your institution which could improve	02 6.90 %	02 6.90 %	05 17.24 %	15 51.72 %	05 17.24 %

Source: Field Data (2024)

The BoM chairpersons gave their responses on the indicator about the provision of accommodation or housing in the schools. The number that agreed was 5 (17.24 %). There was a similar number that strongly agreed. The number that did not make any decision was still the same 5 (17.24 %). The disagreeing was 11 (37.93 %). The strongly disagree had 3 (10.34 %) of the participants.

To understand and interpret the above results, the researcher combined the agreement side which had a total of 10 (34.48 %). The combined disagreement side was 14 (48.28 %). The total of undecideds and disagrees was 19 (65.52 %). Though there was a sense of acceptance, it was a weak one and could not have been significant. Thus, the indicator could not be significantly found.

The indicator asked the BoM chairpersons if they had personally witnessed the provision of accommodation or houses in the schools they managed. The agreeing was 2 (6.90 %) and strongly agreed had 3 (10.34 %) with 7 (24.14 %) undecideds. Disagreeing was 15 (51.72 %). The strongly disagree was 2 (6.90 %).

From the above responses, a total of 5 (17.24 %) were on the agreement side. On the disagreement side, there were 17 (58.62 %). The combination of the undecides and disagreement was 24 (82.76 %). This indicates that very little effort was seen since the majority did not agree. Therefore, there was a need to catapult accommodation in schools for better teacher productivity.

The second indicator for the BoM chairpersons was about the provision of BoM and PTA allowances to the teachers. The agreement was 8 (27.59 %) as 2 (6.90 %) strongly agreed. The neutrals were 5 (17.24 %). The disagrees were 11 (37.93 %) as the strongly disagree scored 3 (10.34 %).

The combination of the total agreement side had 10 (34.48 %). On the other hand, the disagreement side had 14 (48.28 %). The undecideds combined with the disagreements totaled to 19 (65.52 %) participants. This is an indicator that there is a weak acceptance side.

The responses for the acceptance side proved to be insignificant. Therefore, it was not possible to improve performance contract scores amongst the teaching staff.

The participants were also asked if they had witnessed the provision of allowances from the BoMs and the PTAs. There were 2 (6.90 %) of the chairpersons who agreed and 3 (10.34 %) strongly agreed. The neutrals were 10 (34.48 %). Those that disagreed were 13 (44.83 %) with only 1 (3.45 %) participant strongly disagreeing.

The above responses mean that the total agreement side had 5 (17.24 %) participants. The disagreement side had 14 (48.28 %) participants. The combined neutrals and the disagreement had a total of 24 (82.76 %). The agreement side, though positive, looks extremely weak. There was consequently, a big number that could not have made any decision. This summarized the outcome that the allowances from the BoM and PTA

were not seen as they should have been seen. The significance was far too low to attract any significance.

The BoM chairpersons responded to the third indicator. It was on the provision of staff welfare activities in the schools. The participants who agreed were 15 (51.72 %) and the strongly agreed were 5 (17.24 %). The neutrals were 2 (6.90 %). The disagreeing was 5

(17.24 %) and strongly disagreeing recorded 2 (6.90 %).

The above results show that the agreeing side had 20 (68.97 %). The disagreement side had 7 (24.14 %). The combination of undecided and the disagreeing was 9 (31.03 %). There is evidence that this indicator is significantly acceptable. If the other indicators could have been as acceptable as this one, then the performance contract scores could have improved among the public secondary schools in Machakos County.

The other side of the indicator asked if the participants had personally witnessed staff welfare activities being provided in their schools. The agrees were 14 (48.28 %) and strongly disagreeing were 6 (20.69 %). There were 3 (10.34 %) who were neutrals in their response. The disagrees were 5 (17.24 %) and the strongly disagree had only 1 (3.44 %).

The analysis here indicates that 20 (68.97 %) were on the agreement side. The disagreement side had 6 (20.69 %). The total disagreements and the neutrals were 9 (31.03 %) which indeed, weakened the acceptance side significantly. It is fairly acceptable that the staff welfare activities in the schools were not badly off. There was a good trial though weakened by the neutrals and the participants who were disagreeing.

The final indicator here was about promotions and salaries being advocated for. If this happened, only 3 (10.34 %) could agree with another 2 (6.90 %) strongly agreeing.

There were 6 (20.69 %) who could not make any decision. Those BoM chairpersons who disagreed were 10 (34.48 %) with 8 (27.59 %) strongly disagreeing.

The total agreement side above had 5 (17.24 %) of the participants. On the other hand, 18 (62.07 %) of the BoM chairpersons were on the disagreement side. The neutrals plus the disagreement totaled to 24 (82.76 %). There was no significance on the acceptance side. The disagrees showed that this indicator was not available among the schools in the study county. Thus, the improvement of the performance contract scores among the teachers could only remain a dream.

The indicator, on the other side, asked if the participants had witnessed advocacy for promotions and salaries. The agreeing was 2 (6.90 %). A similar number, 2 (6.90 %) strongly agreed. The undecideds were 5 (17.24 %). The disagree recorded 15 (51.72 %) of the participants as 5 (17.24 %) strongly disagreed.

The total agreement side above is seen to be 4 (13.79 %). The total disagrees were 20 (68.97%). The combination of the neutrals and the disagreement was 25 (86.21 %). This analysis shows that there was no significant presence of the indicator. Indeed, the indicator was missing from the results. Therefore, better teacher productivity was hampered and hence poor productivity was promoted.

The outcomes above have been echoed by other such findings in the world of research in similar fields. There was an investigation done in Colombia that exposed that workplace situations such as well-being and features of the physical atmosphere at work like indoor air quality and lighting likewise played key roles in motivating teachers to perform better. It was suggested that it was important for the heads of the schools to create a working atmosphere where learners, support, and the staff were highly motivated and felt appreciated (Ingersoll & Smit, 2021).

4.4.2 Inferential Statistics on Principals' Provision of Welfare Strategies on Teacher Productivity

The linear regression analysis conducted was to test if principals' provision of welfare strategies predicted teacher productivity. The results of the linear regression model were quite significant, F(1,729) = 361.52, p < .001, R2 = .33, indicating that approximately 33.15% of the variance in teacher productivity was explainable by principals' provision of welfare strategies. Provision of welfare strategies significantly predicted teacher productivity, B = 0.51, t(729) = 19.01, p < .001. This indicated that on average, a one-unit increase in the provision of welfare strategies increased the value of teacher productivity by 0.51 units. The null hypothesis in Chapter One was, consequently, rejected. Table 24 summarizes the results of the regression model. The regression model becomes Teacher Productivity = 0.56 + 0.51*Principals' provision of welfare strategies.

Table 24: Results for Linear Regression with Principals' Provision of Welfare Strategies Predicting Teacher Productivity

Variable	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	0.56	0.07	[0.43, 0.69]	0.00	8.22	< .001
Provision of welfare strategies	0.51	0.03	[0.46, 0.57]	0.58	19.01	< .001

Source: Field Data (2024)

These findings agreed with Kızılaslan (2017) who investigated in the Republic of Turkey. It was predictable that individual variables like outward factors, money-related motivators as well as teaching atmosphere, and characteristic factors like fulfillment, employer stability, obligation, and economic well-being. Individual variables can be adequately surveyed beyond the school setting, yet they rely upon the expert components of educating.

4.4.3 Thematic Analysis of Principals' Provision of Welfare Strategies on Teacher Productivity

The first indicator in this objective is the provision of accommodation or housing for the teachers. Some old schools had constructed staff houses. There were many free-day secondary schools whose staff were not accommodated in the school compound as one officer said,

> "*These staff houses have stopped being priorities in the schools due to the influx of so many free day secondary schools. Only the principals' houses are mandatory as they have to reside in the school compounds. However, most young schools may not afford staff houses since this is not a priority. I am aware that housing teachers can improve their performance contract scores but we have to bear with the situation as it is now*" (**EO1**).

The TSC officers wished that as many teachers as possible should be housed in the school compounds. This is important, especially in the case of the public boarding schools.

Nevertheless, housing teachers in the school compound was a big challenge as one officer had to say,

> "*I wish as much as possible; that a huge number of teachers can reside in school compounds but nowadays most teachers rent houses in the shopping centers near their schools. Gone are days when schools used to accommodate staff. Most schools think of other things like classrooms and laboratories. Staff houses are not prioritized due to lack of funds*" (**TSC1**).

The above information is an indication that staff houses are no longer a priority. Schools have other projects to address which are more important than houses according to them. Thus, improved performance contract scores may not be a reality among the public secondary schools in Machakos County.

The second indicator was on the provision of BoM and PTA allowances to improve teacher productivity through improved performance contract scores. The education officers were aware that extra levies to the parents were cautioned and discouraged by

the government. Most schools in Machakos County have low-income parents as one officer agreed,

> "*Most of our parents are peasant farmers with very meagre income. Such allowances from the BoM and PTA who also rely on the parents for funding would not be practically possible. I believe with such incentives the teachers can improve performance contract scores*" (**EO2**).

On the TSC side, the officers thought that it was illegal to charge levies from the parents just to give incentives to the teachers. The salaries from the TSC were adequate incentives to make teachers work harder as one office said,

> "*Our teachers are paid by the TSC. Any extra money or levy from the parents is regarded illegal. However, in the case where the BoMs have agreed with the PTAs to charge extra levies, then it is allowed. I have not witnessed schools do this but it helps better teacher productivity. I am not against extra money for teachers so long as it is collected in a transparent manner. Monetary incentives are vital and should be encouraged in all schools for better performance*" (**TSC2**).

The third indicator was the provision of staff welfare activities. The education officers agreed that very many schools, almost all the schools in Machakos County had staff welfare activities. Whenever calamities such as the deaths of teachers or their relatives occurred, there were always contributions as one officer observed,

> "*I have seen many cases when deaths or any other calamities strike, teachers come together and support one another. Even the birthdays of teachers' children were considered. I have seen several parties held by the teachers. I have seen when a teacher falls sick and is hospitalized, all other teachers come together to console one another even though they are treated through their insurance cover under AON insurance company*" (**EO3**).

The TSC officers similarly had witnessed a lot of staff welfare activities. Teachers had social welfare groups which were used if a teacher had some celebrations or bad news. There were established committees in most schools as one officer said,

"*There are welfare committees among the teachers in almost in every school. There are staff welfares in most schools. I can say that this is a good spirit which can improve results in the schools*" (**TSC3**).

The above data shows that there was acceptance of the indicator. Teachers had staff welfare activities going on in their schools. Nevertheless, most contributions were made by the teachers themselves. The schools should support by funding these welfares. This can improve the performance contract scores.

The final indicator in this objective was on staff promotion and salaries advocacy. It was observed that the government was having a bigger say in promoting and remunerating teachers. one officer said,

"*We can advocate for promotions and salaries but at the end of the day, it is the government that gives the funds. Yes, the principals can recommend teachers for promotions to improve their performance contract scores hence better productivity. The teachers' trade unions such as KNUT and KUPPET are responsible for fighting for teachers' salaries and promotions*" (**EO4**).

The TSC officers agreed that the promotions and salaries were important for teacher productivity. However, promotions needed money to move teachers to a higher grade. Funds were necessary to increase salaries for the higher posts. The principals could not have been the best persons to fight for the teachers as one officer said,

"*The principals may not have much say in the promotion of teachers except to recommend them. On the issue of salaries, the trade unions can do this much better. Do not forget that the principals are also teachers and they need promotions and hence better salaries. It is the TSC and the treasury who determine the number of teachers to be promoted*" (**TSC4**).

These findings were similar to other findings in other studies conducted in other places in the world. UNESCO (2018) found that education systems faced challenges in staff welfare. There was a high turnover of teachers and it caused dissatisfaction with the nature of education. Working conditions were linked with teacher productivity. For

instance, the promotion of teachers and salaries caused poor productivity among the teachers.

4.4.4 Mixing and Interpreting Data on Principals' Provision of Welfare Strategies on Teacher Productivity

From the teachers on the provision for staff houses for their accommodation, the agreement side had 50 (16.13 %) as the disagreement scored 230 (74.19 %) while 30 (9.68 %) could not make any decision. The accommodation of teachers was not significant in schools hence hampering the improvement of performance contract scores. The conclusion was that housing the teachers was a great problem. The BoM and the PTA allowances agreed were 60 (19.35 %) and the disagrees were 230 (74.19 %). The explanation is that the allowances could not be seen meaningfully. Teachers did not receive allowances from either the BoM or the PTA significantly which could hamper improved performance contract scores. This means that the acceptance side of this indicator was a weak one.

Advocating staff promotions and salaries was the final indicator in this section. The combined accepting side had a total of 30 (9.68 %). The disagreement side had a total of 250 (80.65 %). Thus, better scores in the contract performance could not have been seen. The negative side seems significant hence the verdict that there was no significant advocacy for the teachers to get promotions and better salaries. This must have interfered with the teacher productivity in the schools.

The principals had responses on the availability of accommodation or the housing of teachers in their schools. The total agreement side had 10 (34.48 %). The total disagreement was 14 (48.28 %). The total neutrals and disagreements can be seen here to be 19 (65.52 %). This indicated that there was a problem in housing teachers though

some attempt was seen. The interpretation is that, though there were some attempts to offer teachers accommodation, it was not significant.

The other side of the indicator was asking if the principals could provide or were providing the BoM and the PTA allowances to the teachers. This, again, shows a weak attempt to provide allowances to teachers from the BoMs and the PTAs. These bodies in school management did not seem to do a good job here hence weakening the performance contract scores.

The third indicator was the provision of staff welfare activities. There was a presence of staff welfare activities among the teachers to improve the performance contract scores significantly among the teaching staff. Principals had encouraged and provided staff welfare activities among their teachers. This indicator could have improved performance contract scores had been supported by such other indicators.

The final for the principals to respond to was the presence of staff promotion advocacy as well as advocacy for teachers' salaries. On the agreement side, 7 (24.14 %) were seen. On the disagreement side, there were 12 (41.38 %). The combination of the undecideds and the disagrees had 22 (75.86 %) of the participants. The advocacy for promotions and staff salaries seemed to be absent since the number accepted was not significant. Thus, the indicator failed to be seen. Therefore, the indicator could not be significantly seen. Thus, its absence must have affected performance contract scores and consequently, poor teacher productivity.

From the BoM, chairpersons gave their responses on the indicator about the provision of accommodation or housing in the schools. The agreement side which had a total of 10 (34.48%). The combined disagreement side was 14 (48.28 %). Therefore, there was a need to catapult accommodation in schools for better teacher productivity.

The second indicator for the BoM chairpersons was about the provision of BoM and PTA allowances to the teachers. The agreement side had 10 (34.48 %). On the other hand, the disagreement side had 14 (48.28 %). This summarized the outcome that the allowances from the BoM and PTA were not seen as they should have been seen. The significance was far much too low.

The BoM chairpersons responded to the third indicator. It was on the provision of staff welfare activities in the schools. The participants who agreed were 15 (51.72 %) and the strongly agreeing were 5 (17.24 %). The neutrals were 2 (6.90 %). The disagreeing was 5 (17.24 %) and strongly disagreeing recorded 2 (6.90 %). It is fairly acceptable that the staff welfare activities in the schools were not badly off. There was a good trial though weakened by the neutrals and the participants who were disagreeing.

The final indicator here was about promotions and salaries being advocated for. The total agreement side above had 5 (17.24 %) of the participants. On the other hand, 18 (62.07%) of the BoM chairpersons were on the disagreement side. Thus, the improvement of the performance contract scores among the teachers could only remain a dream.

The inferential statistics analysis in linear regression analysis conducted indicated that approximately 33.15% of the variance in teacher productivity was explainable by principals' provision of welfare strategies. Provision of welfare strategies significantly predicted teacher productivity, $B = 0.51$, $t(729) = 19.01$, $p < .001$. Thematic analysis from sub-county education directors and TSC officers indicated that staff welfare was a bit taken care of. Nevertheless, there was a need to improve on this indicator to achieve better teacher productivity.

These findings from this mixture have similarities elsewhere in the world of research. In a number of Sub-Saharan African countries, it was found that the teachers' working

conditions had an impact on their performance (Guro & Weber, 2018). In the Republic of Tanzania, it was established that communal influences, safety anxieties, social elements and health issues influence the performance of the teacher. For instance, the welfare of teachers in Tanzania impacted the outcomes in the schools (Mhando, 2019).

4.5 Influence of Principals' Provision of Communication Strategies on Teacher Productivity

The fourth objective had, similarly, three levels of data analysis that were involved. The levels encompassed descriptive, inferential (linear regression) statistics, and thematic scrutiny. At the end of the analyses, there was a mixing and elucidation of the analyzed data for better understanding of the problem as seen in this objective.

4.5.1 Descriptive Statistics on Principals' Provision of Communication Strategies on Teacher Productivity

The researcher scrutinized data gathered in descriptive statistics and presented it in frequencies, tables, and percentages. The data was analyzed and presented according to the fourth objective of the study. Indicators from both the independent and dependent variables were captured.

Teachers' Responses on Principals' Provision of Communication Strategies on Teacher Productivity

To get data on communication strategies used by the principals in schools, the teachers filled part E of the survey and the analysis shown in Table 25 below.

Table 25: Teachers Responses on Principals' Provision of Communication Strategies on Teacher Productivity

Statements	A (1)	SA (2)	U (3)	D (4)	SD (5)
There is possibility of principals' verbal communication which can improve conflict resolution in your school	100 32.26 %	100 32.26 %	20 6.45 %	50 16.13 %	40 12.90 %
In your institution, you have witnessed principals' verbal communication which might have improved conflict resolutions in the institution	180 58.06 %	20 6.45 %	30 9.68 %	50 16.13 %	30 9.68 %
It is assumed that there is use of written reports in your school to improve conflict resolutions	100 32.26 %	50 16.13 %	50 16.13 %	70 22.58 %	40 12.90 %
You have witnessed written reports in your school to improve conflict resolutions	50 16.13 %	100 32.26 %	40 12.90 %	80 25.81 %	40 12.90 %
There is a possibility of use of memos for communication in your school which may improve conflict resolutions	100 32.26 %	100 32.26 %	30 9.68 %	50 16.13 %	30 9.68 %
You have witnessed use of	120	80	40	50	20

memos for communication in your institution which can improve conflict resolutions	38.71 %	25.81 %	12.90 %	16.13 %	6.45 %
You might have been having staff	200	100	10	00	00
meetings for communication to improve conflict resolutions	64.52 %	32.26 %	3.23 %	0.00 %	0.00 %
You might have witnessed staff	250	50	10	00	00
Meetings for communication which could improve conflict resolutions	80.65 %	16.13 %	3.23 %	0.00 %	0.00 %

Source: Field Data (2024)

From the table above, the possibility of principals' verbal communication was agreed by 100 (32.26 %). The strongly agreed were similarly 100 (32.26 %). The undecideds recorded 20 (6.45 %). The disagrees were 50 (16.13 %) and the strongly disagrees were 40 (12.90 %). From the above outcomes, there were 200 (64.52 %) on the agreement side. The disagreement side had 90 (29.03 %). The total of undecided and disagreements were 110 (35.48 %). Though the majority agreed that there was verbal communication from the principals to the teachers, the number that disagreed and was undecided was over 35 percent. The latter weakened the acceptance side significantly.

The other side of the indicator sought if there was witnessing of the verbal communication in the schools. Those that agreed that they had witnessed this were 180 (58.06 %). The strongly agreeing were 20 (6.45 %). The ones who remained silent were 30 (9.68 %). The disagrees were 50 (16.13 %) and the strongly disagrees were 30 (9.68 %).

Judgement can be made from the above outcomes. On the agreement side, 200 (64.52 %) were seen. The disagreement side had 80 (25.81 %). The combination of the disagreement side and the undecided was 110 (35.48 %). Though it can be seen that

there was a positive response among the participants, still there was a weakness when the negative responses were considered. Thus, improved conflict resolution in the schools studied could not have been achieved significantly since this situation did not warrant this.

The second indicator was on the written reports. Those who agreed that there were reports written by the principals were 100 (32.26 %). The strongly agreeing were 50 (16.13 %). The neutrals were 50 (16.13 %). The disagreeing was 70 (22.58 %) and the strongly disagree recorded 40 (12.90 %).

From the responses above, the summary of the agreeing side was 150 (48.39 %). The total disagreement side had 110 (35.48 %) participants. The combined disagreement and undecides had 160 (51.61 %). Therefore, the written reports were significantly missing hence the failure to improve conflict resolutions.

On the other side of the indicator, there was the question of witnessing the written reports among the schools. The agrees were 50 (16.13 %). The strongly agree was 100 (32.26 %). The undecides were 40 (13.90 %). The disagreeing was 80 (25.81 %) with 40 (12.90 %) strongly disagreeing.

The total agreement side from the above figures was 150 (48.39 %). The summary of the disagreement side was 120 (38.71 %). The total number of undecideds and the disagreement were 160 (51.61 %). Thus, the acceptance side was significantly weakened by over 38 percent of the negative side. The written reports could not have been present significantly. Without these reports, the communication from the principals to the teachers was weak. Consequently, there was no way the schools could have improved the conflict resolutions amongst themselves. The total output was poor teacher productivity.

The third indicator was the possibility of the use of memos in communication between the principals to the teachers. The number that agreed was 100 (32.26 %). The strongly agreed was still another 100 (32.26 %). Those who could not make a decision were 30 (9.68 %). The group that disagreed was 50 (16.13 %) the strongly disagreed was 30 (9.68 %) and the strongly disagreed were 30 (9.68 %).

Making judgments from the above results, the total agreement side had 200 (64.52 %). The disagreement side was 80 (25.81 %). The total number of disagreements and undecideds increased to 110 (35.48 %). It seems that there is an attempt to use memos in the schools though this was weakened by the negative side with over 35 percent.

To test the other side of the indicator, the teachers were asked if they had witnessed the use of memos in their schools. The agrees were 120 (38.71 %) with 80 (25.81 %) strongly disagreeing. The teachers who could not make any decision were 40 (12.90 %). The disagreement was 50 (16.13 %) with 20 (6.45 %) strongly disagreeing.

The above results summarize that on the agreement side, there was a total of 200 (64.52 %). The disagreement side had 70 (22.58 %). The total number of neutrals and disagreements was 110 (35.48 %). This is interpreted as a fair attempt by the principals to use memos in their schools. However, with over 35 percent on the negative side, there could have been no meaningful. A higher percentage could have been seen for better significance.

The final indicator here was about having staff meetings to communicate messages. The agrees were 200 (64.52 %) with the strongly agreed being 100 (32.26 %). The neutrals were 10 (3.23 %). In this case, there are no disagrees seen or recorded.

The total disagreeing side was 300 (96.77 %). The disagreement side had zero participants. The total disagrees and undecides remained at 10 (3.23 %). There is no doubt that this indicator is seen significantly. It was healthy for the improvement of

conflict resolutions. However, one indicator is not enough to improve conflict resolution. Therefore, more indicators are needed to turn out positively to enable conflict resolution improvement.

The other question on this indicator asked for the number of teachers who witnessed staff meetings for the communication of ideas and messages. The number in agreement was 250 (80.65%). The strongly agreed were 50 (16.13 %). The neutrals were 10 (3.23 %).

The total agreement side had 300 (96.77 %) participants. The disagreement scored a zero participation. The disagreement side, then, is seen to be 10 (3.23 %). This is a clear indication that staff meetings were held continuously to communicate with the staff. The principals definitely, used this tool to pass information to the teachers. this must have controlled conflict resolutions among the staff in the schools had it not been for the fact that more indicators of this nature were necessary to improve teacher productivity and especially to ease conflicts among the institutions.

To echo these findings above, several researchers had similar findings elsewhere. One such investigator was one Anderson (2016) who said that communication was the means through which messages traveled. It was the act of sharing information on other individual's needs, requirements, acuities, knowledge, or affective states with other persons. Communication acted as the exchange of information and the transfer of knowledge. It is the method involved with sending and getting messages focused on a typical significance. According to Prien (2010), many aspects determine which communication approach is finest. Prien (2010) argued that a communication strategy's richness can be determined by determining how it reduces message vagueness and provides a substantial understanding of the message. Verbal communication is usually

viewed as richer than written communication. Meetings were seen as useful means of communication with staff in many industries including the schools.

Principals' Responses on Principals' Provision of Communication Strategies on Teacher Productivity

The principals reacted to the issue of communication in their questionnaire. The responses from the principals were analyzed accordingly. Table 26 below has the details.

Statements	A (1)	SA (2)	U (3)	D (4)	SD (5)
There is verbal communication in your	10 34.48 %	02 6.90 %	05 17.24 %	08 27.59 %	04 13.79 %
Communication in your institution which might have enhanced conflict resolutions in the institution	34.48 %	34.48 %	17.24 %	10.34 %	3.45 %
There could be use of written reports in your institution which may improve conflict resolutions	10 34.48 %	10 34.48 %	03 10.34 %	05 17.24 %	01 3.45 %
You make written reports in your institution to improve conflict resolutions	18 62.07 %	02 6.90 %	03 10.34 %	05 17.24 %	01 3.45 %
There is t h e use of memos for communication in your school which may improve conflict resolutions	10 34.48 %	10 34.48 %	05 17.24 %	03 10.34 %	01 3.45 %
You have used memos for communication in	15 51.72 %	05 17.24 %	03 10.34 %	04 13.79 %	02 6.90 %

your institution which may improve conflict resolutions					
Ther are staff meetings for communication in your school to enhance conflict resolutions	20 68.96 %	05 17.24 %	02 6.90 %	02 6.90 %	00 0.00 %
You use staff meetings for communication which can improve conflict resolutions	20 68.96 %	05 17.24 %	02 6.90 %	02 6.90 %	00 0.00 %

Source: Field Data (2024)

From the table, there were responses that the principals gave regarding verbal communication in their schools among them and their teachers. The agrees were 10 (34.48 %) and the strongly agreed were 2 (6.90 %). The ones who could not make a decision were 5 (17.24 %). The disagreeing was 8 (27.59 %) and the strongly disagreed recorded 4 (13.79 %).

Judging from the above outcomes, the agreement side had a total of 12 (41.38 %). The disagreement side had similarly, 12 (41.38 %). The total undecided and disagreed was 17 (58.62 %). Thus, according to the participants, there was no significant verbal communication between them and the teachers. This could be detrimental to the improvement of conflict resolutions among the institutions since verbal communication could ease the problem.

The other side of the indicator asked if the participants themselves made verbal communication to the teaching staff. The number of agreeing was 10 (34.48 %) and the strongly agreed was similarly, 10 (34.48 %). The neutrals were 5 (17.24 %). The disagrees were 3 (10.34 %) with only 1 (3.45 %) strongly disagreeing.

Consequently, the combination of the agreement side was 20 (68.97 %). The disagreement side totaled to 4 (13.79 %). The total disagrees and undecides comes to 9 (31.03 %). Though the majority agreed, the more than 31 percent on the negative side

was significant. Therefore, a higher number of agrees was expected to enable significant acceptance.

The second indicator was the use of written reports in the schools. The number of agreeing was 10 (34.48 %) and the number of strongly agreed was similarly, 10 (34.48 %). There were 3 (10.34 %) who failed to make any decision. The disagreeing was 5 (17.24 %) with only 1 (3.45 %) strongly disagreeing.

The above outcome indicates that the agreement side had 20 (68.97 %) as the total disagreement was 6 (20.69 %). The total disagreement and the undecides are seen to be 9 (31.03 %). Although there was a meaningful attempt to agree on this indicator, still there was significant resistance from over 31 percent of the principals.

The other side of the indicator asked the principals if they personally made written reports in their schools. The agrees were 18 (62.07 %). Total disagreement had 6 (20.69 %). The total undecided and the disagrees were 9 (31.03 %). The majority had accepted the indicator but there was a problem with the more than 31 percent on the negative side.

This means that there was a problem with the written reports among the principals in their schools. This must have hampered the improvement of conflict resolution. It is not easy to run a school without communication between the heads and the teaching staff. Consequently, there is an issue with teacher productivity in Machakos County.

The third indicator was the use of memos in the public secondary schools. The agrees were 10 (34.48 %). The strongly agrees had similarly recorded 10 (34.48 %). The neutrals were 5 (17.24 %). The disagrees were 3 (10.34 %) with only 1 (3.45 %) strongly disagreeing. This means that the total agrees was 20 (68.97 %). The total number of disagrees were 4 (13.79 %). The combined disagreement and undecides had 9 (31.03 %) of the participants. The majority were on the acceptance side but the

significance was missing. The acceptance side was weakened considerably by the percentage that was on the negative side. A higher outcome was anticipated.

The second part of this indicator asked the participants, who were the school principals if they use memos to communicate with their staff. The agreeing was 15 (51.72 %) with 5 (17.24 %) strongly agreeing. The neutrals were 3 (10.34 %). The disagrees were 4 (13.79 %) and strongly disagreed 2 (6.90 %) of the participants.

The total agreement is seen as 20 (68.97 %). The total disagreement side had 6 (20.69 %). The combination of all neutrals and the disagrees was 9 (31.03 %). This is seen and interpreted that a good number of the principals used memos in communication. However, the percentage should have been higher to attract better significance. If the percentage had been a least ninety and above, the researcher could have concluded that the memos were significantly used by the principals.

The final indicator was about the staff meetings having been used to ease the conflict resolutions among the schools. These meetings were supposed to be tools for communication among the public secondary schools. The agrees were 20 (68.96 %) with 5 (17.24 %) of the participants strongly agreeing. The neutrals were 2 (6.90 %). Disagreeing was 2 (6.90 %) and there was no strongly disagree.

From the above figures, the total agreement side is seen as 25 (86.21 %) while the total disagreement had only 2 (6.90 %). The total neutrals and disagrees were 4 (13.79 %). This means that there is significance in accepting this indicator. Thus, if all the indicators could score the same, then there could be an improvement in conflict resolution.

The second side of the indicator asked if the participants used staff meetings to communicate. The agrees were 20 (68.96 %) with 5 (17.24 %) strongly agreeing. The undecides were 2(6.90 %) and the disagreement had 2 (6.90 %).

From the above, it is seen that the total agreement side had 25 (86.21 %). The disagreement side had a total of 2 (6.90 %). The disagreements and the undecides were 4 (13.79 %). This is a clear indication that the principals used staff meetings as tools for communication between them and the teachers. The acceptance side, unlike many other indicators, showed a significance in the percentage having been more than 86 percent. The conflict resolutions could have been handled better if all other indicators could have come up with such great results. Unfortunately, this is not the case and poor teacher productivity could not be seen among the institutions in Machakos County.

The above outcomes had similar findings to support them. Sevan and Ross (2010) alleged that the principals typically chose an approach that best suited their message, communication necessity, and alleged communication tasks. Social effect is another factor that affects the choice of a communication policy. This was because every importance was socially understood. It was asserted that communication strategy, selection, and application were subject to social influence.

BoM Chairpersons' Responses on Principals' Provision of Communication Strategies on Teacher Productivity

The BoM chairpersons filled out their questionnaire in response to this objective. The researcher generated outcomes from the responses as shown in Table 27 below.

Statements	A (1)	SA (2)	U (3)	D (4)	SD (5)
There is a possibility of principals' verbal communication which can improve conflict resolution in your school	15 51.72 %	02 6.90 %	02 6.90 %	08 27.59 %	02 6.90 %
In your institution, you have witnessed principals' verbal communication which might have improved conflict resolutions in the institution	14 48.28 %	03 10.34 %	03 10.34 %	06 20.69 %	03 10.34 %
It is assumed that there is	13	04	04	05	03

a use

of written reports in your school to improve conflict resolutions	44.83 %	13.79 %	13.79 %	17.24 %	10.34 %
You have witnessed written reports in your school to improve conflict resolutions	03 10.34 %	02 6.90 %	05 17.24 %	16 55.17 %	03 10.34 %
There is a possibility of use of memos for communication in your school which may improve conflict resolutions	10 34.48 %	05 17.24 %	05 17.24 %	06 20.69 %	03 10.34 %
You have witnessed use of memos for communication in your institution which can improve conflict resolutions	02 6.90 %	03 10.34 %	10 34.48 %	10 34.48 %	04 13.79 %
There might have been staff meetings for communication to improve conflict resolutions	15 51.72 %	05 17.24 %	05 17.24 %	03 10.34 %	01 3.45 %
You might have witnessed staff meetings for communication which could improve conflict resolutions	16 55.17 %	04 13.79 %	02 6.90 %	05 17.24 %	02 6.90 %

Source: Field Data (2024)

The BoM chairpersons responded to their questionnaire on the indicator of verbal communication. They were asked if there was a possibility of the indicator in the schools. The agreeing was 15 (51.72 %) and the strongly agreeing was 2 (6.90 %). The neutrals were 2 (6.90 %). The disagrees were 8 (27.59 %) with 2 (6.90 %) strongly disagreeing. A total of 17 (58.62 %) were on the agreement side. On the disagreement side, a total of 10 (34.48 %) was achieved. The total number of disagreed and undecided was 12 (41.38 %). Though the majority agreed, there was no significance since the negative side had more than 41 percent.

The other side of the indicator asked if the participants, who were the BoM chairpersons, had witnessed the use of verbal communication among the principals.

The agreement was 14 (48.28 %) with 3 (10.34 %) strongly agreeing. The neutrals were 3 (10.34 %). The disagreeing was 6 (20.69 %) and strongly disagree was 3 (10.34 %). This means that the total agreement side had 17 (58.62 %). The disagreement side had 9 (31.03 %). The combination of disagrees and undecideds was 12 (41.38 %). This is seen and interpreted as weak acceptance by the BoM chairpersons. The more than 41 percent being on the negative side is a clear indication that there was no significance in acceptance of this indicator. The BoM chairpersons had no convincing percentage for this indicator and thus, it could not be concluded that it was accepted amongst them. This is to say that conflicts would continue to hamper better teacher productivity in the schools in the study county.

The second indicator to respond to was the use of written reports from among the principals in the learning institutions. The agrees were 13 (44.83 %) and the strongly agrees were 4 (13.79 %). The undecided BoM chairpersons were 4 (13.79 %). The ones disagreeing was 5 (17.24 %) with 3 (10.34 %) strongly disagreeing.

The researcher combined the agreement side to get a better interpretation. This side alone had 17 (58.62 %). On the other side, the total disagreement was 8 (27.59 %). The total undecided and the disagrees was 12 (41.38 %). Though the majority accepted this indicator, there was a weakening factor looking at more than 41 percent on the negative side. Therefore, it can be concluded that there was no significance on the acceptance side. A higher percentage like 80 or 90 could have been better.

To get more information, the BoM chairpersons were asked if they had witnessed written reports by the principals to the teachers. The agrees were 3 (10.34 %) and strongly agrees were 2 (6.90 %). The neutrals were 5 (17.24 %). The disagrees were 16 (55.17%) and the

strongly disagrees recorded 3 (10.34 %).

Examining the above results, the agreement side had 5 (17.24 %) of the participants. The disagreement side had 19 (65.52). The combination of the disagreement and the undecided was 24 (82.76 %). This means that this indicator was not achieved among the principals. This judgment is backed by the agreement side which was quite weak. However, the BoM chairpersons may not have seen these reports since they were not regular visitors in the schools. It is believed that they visited whenever it was necessary for instance, during the board meetings but not daily.

The use of memos in schools was the third indicator which the BoM chairpersons responded to. The agreeing was 10 (34.48 %) with 5 (17.24 %) strongly agreeing. The undecideds were 5 (17.24 %). On the disagreement side, 6 (20.69 %) disagreed and 3 (10.34 %) strongly disagreed.

Thus, the total agreement side had 15 (51.72 %) of the participants. The total disagreement side scored 9 (31.03 %) from the participants. The total combination of disagrees and the neutrals was 14 (48.28 %). This indicates that the BoM chairpersons could not significantly accept the indicator. The memos might have been there in the schools but since the participants were not consistently visiting the schools, this might have confused their judgment.

To be more practical, the researcher asked the BoM chairpersons if they had witnessed the use of memos in their schools. The agreement was 2 (6.90 %). The strongly agree was 3 (10.34 %).

Those that decided to make no decision were 10 (34.48 %). The disagreeing was 10 (34.48 %) as the strongly disagreeing was 4 (13.79 %).

To make meaning out of the above data, the researcher combined both the agreement and disagreement sides. The agreement side had 5 (17.24 %) as the disagreement side was 14 (48.28 %). The disagrees and the undecideds added up to 24 (82.76 %). Thus, it

is seen here that there was dismal acceptance. The majority of the BoM chairpersons seem to be on the disagreement side. This means that this indicator was not seen among the principals in their schools. This must have affected the teacher productivity in the institutions negatively.

The final indicator for the BoM chairpersons to respond to was about the staff meetings having been there in the schools. The agreeing was 15 (51.72 %) of the participants with 5 (17.24 %) strongly agreeing. The undecides were 5 (17.24 %). The disagreement had 3 (10.34%) and the strongly disagree had only 1 (3.45 %).

The above outcomes were examined for better understanding. The total agrees was 20 (68.97%). The total disagrees was 4 (13.79 %). The total undecides and disagrees combined had 9 (31.03 %). It looks like there was a positive response but on the other side, over 31 percent were on the negative side. The significance is not seen on the side of the BoM chairpersons accepting. Thus, a higher percentage is inevitable if the results are going to be termed as significantly acceptable.

This indicator additionally asked if the participants had personally witnessed staff meetings being held in their schools. The agrees were 16 (55.17 %) with 4 (13.79 %) strongly agreeing. The undecideds were 2 (6.90 %). The disagreement was 5 (17.24 %). The strongly disagree recorded 2 (6.90 %).

From the above data, the total agreement side is 20 (68.97 %). The total disagreement is 7 (24.14 %). The disagrees and the undecides totals to 9 (31.03 %). Although the majority agreed, there is a lack of significance in this type of agreement. So, a higher percentage is expected if there is going to be significance in this acceptance side. This is why teacher productivity is hampered in the study county of Machakos. Something needs to be done and done soon.

These findings were echoed by Prien (2010) who said that the system of the school had one big consequence on choosing a communication tactic and practicing it. The formal communication approaches that an organization uses to convey students' discipline could be influenced by the structure. As a result, it can be seen that a school's principal's choices of communication could have a noteworthy impact on discipline since it might have not allowed participation in decision-making.

4.5.2 Inferential Statistics on Principals' Provision of Communication Strategies on Teacher Productivity

In this case, the inferential statistics included conducting of linear regression analysis to assess if principals' provision of communication strategies significantly predicted teacher productivity. The results of the linear regression model were significant, $F(1,729) = 546.70$, $p < .001$, $R2 = .43$, indicating that approximately 42.85% of the variance in teacher productivity was explainable by principals' provision of communication strategies. Provision of communication strategies significantly predicted teacher productivity, $B = 0.63$, $t(729) = 23.38$, $p < .001$. This indicated that on average, a one-unit increase in communication strategies increased the value of teacher productivity by 0.63 units. The null hypothesis in Chapter One was, nevertheless, rejected. Table 28 below summarizes the results of the regression model. The regression equation becomes Teacher Productivity = 0.53 + 0.63*Principals' provision of communication strategies

Variable	*B*	*SE*	95.00% CI	β	*t*	*p*
(Intercept)	0.53	0.06	[0.42, 0.64]	0.00	9.19	< .001
Provision of communication strategies	0.63	0.03	[0.58, 0.68]	0.65	23.38	< .001

Source: Field Data (2024)

These findings correlate with other findings in the world of research on communication strategies. Communication was viewed as crucial to every management function, making it the connecting and coordinating tool in the schools since it could be used at every moment in interactions, without the deliberate application of efficient communication strategies, no function can advance. School administrators who were not good communicators faced difficulties and setbacks in their work. Different techniques, such as using motivational language with juniors to encourage them, current communication channels like ICT, and the use of feedback could reduce the hindrances. According to Madlock (2013) in the United States of America, motivational language could assist administrators in successfully communicating with workers to improve job satisfaction effectively communicating with employees to improve job satisfaction. Inspiration of educators relies upon the strategies of correspondence utilized.

4.5.3 Thematic Analysis of Principals' Provision of Communication Strategies on Teacher Productivity

The very first indicator in this objective was the use of verbal communication from the principals to the teachers to improve conflict resolution. The education officers did not spend long time in the schools as they had duties to do in their offices. They often visited the institutions in the line of duty. They could do observations. This was confirmed by one officer,

> "*We visit schools while on duty and for this reason we do not stay among the teachers or interact with them daily. We do our observations as education officers. Sometimes I am in the school during tea time. I don't see principals pass information verbally to teachers during tea break" **(EO1)**.*

The TSC side had similar sentiments. They were not field workers as such. The verbal communication had not been witnessed by the officers as one of them said,

*"Although we do not stay in the schools for long when we visit, there is not much evidence that the principals use words to pass information to teachers. if they could do this, it could improve conflict resolution among the teachers in their schools. As officers, we encourage verbal communication since one may use body language and there could be discussions among the teachers and the principals. Many a time principals are too busy in the offices such that they have no time to talk to the teachers in the staff rooms" (**TSC1**).*

The second indicator was on the use of written reports. The officers confirmed that they saw written reports whenever they visited the schools. One officer had this to say,

"The principals are perfect in written reports as a way of communication to the teachers. this can enhance the conflict resolutions in the schools. The principals have more time to write rather than to talk to the teachers" (EO2).

The TSC officers had similar thoughts. There was good communication through written reports from the school heads to the staff. The officers narrated how they witnessed several reports from the principals. This type of communication was embraced almost in every school as one officer had this to say,

"You go to the schools and you find all sorts of reports written by the principals. Reports were more preferred than spoken words since words may be forgotten easily unlike the written reports. Something written can remain in records for long time" (TSC2).

This means that the indicator was significantly achieved from this qualitative data among the staff. Records are important since they can be referred to in the future or at a later stage. This could help resolve conflicts in the schools.

The third indicator was about using memos for communication. This was witnessed even on the notice boards and from the files by the officers. It was witnessed that the principals were good in communicating in written words as one officer said,

*"It seemed easier to write memos than verbal communication. The principals were good at writing memos as a means of communication to the staff. No doubt, this could enhance conflict resolutions among the schools" (**EO3**).*

The TCS officers also witnessed the memos in the schools they visited. Such documents were seen during the school visits. They were displayed in the staff rooms. This could ease communication and improve teacher productivity through improved conflict resolutions as one officer said,

> *"The principals have no issue in communicating with the staff through memos. Indeed, memos were found everywhere in the staff rooms on the notice boards. This is a good way of resolution to conflicts might arise due to lack of communication" (**TSC3**).*

From the officers, it was clear that written memos were used. However, one indicator may not have been enough to address communication in the schools. Achieving all the indicators significantly could have been better.

The final indicator was the use of staff meetings for communication. It was seen that staff meetings were held regularly. The meetings were held at the beginning of new terms and the end of the terms as well as any other time in the middle of the term. The principals held short and impromptu meetings during break time as one officer said,

> *"Apart from the regular meetings beginning of term and end of term, the principals held impromptu meeting any time there was a reason for so doing. I have no doubt that staff meetings are held regularly and informally. This is a good practice for conflict resolutions among the teachers" (**EO4**).*

The TSC officers agreed that the principals held staff meetings regularly any time they had cause for them. Information was passed during these meetings to the teachers and if need be, discussions were made as one officer had this to say,

> *"These meetings are platforms for teachers to discuss issues though briefly. Once information is passed during the meetings, there is an opportunity to ask questions. Sometimes impromptu meetings are convened by the principals to discuss and iron out issues facing teachers" (**TSC4**).*

This indicator was definitely achieved. This was a way of resolution of conflicts in the schools among the teachers. the outcome was better teacher productivity. Nevertheless, if all indicators in this objective could be achieved, then the issue of communication among the principals and teachers could have been resolved.

These findings were echoed in other results in various investigations. Hills (2015) found that leaders had to communicate efficiently so as to inspire workers and increase job gratification. This was necessary to the expansion of an association if application of effective communication approaches were employed.

4.6.4 Mixing and Interpreting Data on Principals' Provision of Communication Strategies on Teacher Productivity

From the teachers, the possibility of principals' verbal communication had 200 (64.52 %) on the agreement side. The disagreement side had 90 (29.03 %). The total of undecides and disagreement were 110 (35.48 %). The number that disagreed and were undecided was over 35 percent. The latter weakened the acceptance side significantly. Though it can be seen that there was a positive response among the participants, still there was a weakness when the negative responses were considered. Thus, improved conflict resolution in the schools studied could not have been achieved significantly.

The second indicator was on the written reports and the agreeing side was 150 (48.39 %). The total disagreement side had 110 (35.48 %) participants. The summary of the disagreement side was 120 (38.71 %). The total number of undecideds and the disagreement were 160 (51.61 %). Thus, the acceptance side was weakened by over 38 percent of the negative side. The written reports could not have been present significantly.

The use of memos in communicating from the principals to the teachers the total agreement side had 200 (64.52 %). The disagreement side was 80 (25.81 %). The total

disagreements and undecideds were added to 110 (35.48 %). It seems that there is an attempt to use memos in the schools though this was weakened by the negative side with over 35 percent. A higher percentage could have been seen for better significance.

The final indicator here was about having staff meetings to communicate messages. The agrees were 200 (64.52 %) with the strongly agrees being 100 (32.26 %). The neutrals were 10 (3.23 %). In this case, there are no disagrees seen or recorded.

The other question on this indicator asked for the number of teachers who witnessed staff meetings for communication of ideas and messages. The total agreement side had 300 (96.77%) participants. The disagreement scored a zero participation. The disagreement side, then, is seen to be 10 (3.23 %). This is a clear indication that staff meetings were held continuously to communicate with the staff. The principals definitely, used this tool to pass information to the teachers. this must have controlled conflict resolutions among the staff in the schools had it not been for the fact that more indicators of this nature were necessary to improve teacher productivity and especially to ease conflicts among the institutions.

From the principals, regarding verbal communication in their schools, the agreement side had a total of 12 (41.38 %). The disagreement side had similarly, 12 (41.38 %). Thus, according to the participants, there was no significant verbal communication between them and the teachers. This could be detrimental to the improvement of conflict resolutions among the institutions.

The second indicator was the use of written reports in the schools. The agreement side had 20 (68.97 %) and the total disagreement was 6 (20.69 %). The majority had accepted the indicator but there was a problem with the more than 31 percent on the negative side. This means that there was a problem with the written reports among the principals in their schools.

The third indicator was about the use of memos in the public secondary schools, the agrees were 20 (68.97 %). The total number of disagrees was 4 (13.79 %). The acceptance side was weakened considerably by the percentage that was on the negative side. A higher outcome was anticipated.

The total agreement is seen as 20 (68.97 %). The total disagreement side had 6 (20.69 %). If the percentage could have been ninety and above, the researcher could have concluded that the memos were significantly used by the principals.

The final indicator was about the staff meetings having been used to ease the conflict resolutions among the schools, the total agreement side is seen as 25 (86.21 %) while the total disagreement had only 2 (6.90 %). This is a clear indication that the principals used staff meetings as tools for communication between them and the teachers.

From the BoM chairpersons on verbal communication, total of 17 (58.62 %) were on the agreement side. On the disagreement side, a total of 10 (34.48 %) was achieved. Though the majority agreed, there was no significance since the negative side had more than 41 percent.

The second indicator to respond to was the use of written reports. The agreement side to get better interpretation. This side alone had 17 (58.62 %). On the other side, the total disagreement was 8 (27.59 %). Therefore, it can be concluded that there was no significance on the acceptance side. A higher percentage like 80 or 90 could have been better. On the memos, the BoM chairpersons could not significantly accept the indicator. The memos might have been there in the schools but since the participants were not consistently visiting the schools, this might have confused their judgment.

The staff meetings having been there in the schools, agreed had 20 (68.97 %). The total disagreement was 4 (13.79 %). Thus, a higher percentage is inevitable if the results are going to be termed as significantly acceptable. There was a lack of significance in this

agreement. Thematic analysis in qualitative data expressed that the indicator had to be improved though there was evidence of staff meetings being held for communication. This indicator was achieved.

These findings concur with many others research outcomes. Communication is two-way involving reactions and or criticisms from and to the source of the message. Criticism in communication is one of the procedures utilized to empower workers motivation. In schools, effective decision-making is enhanced by either positive or negative feedback (MacArthur, 2012 & McFadzien, 2015).

4.7 Discussions of the Findings

Discussions of the results were associated with the study objectives and the indicators therein. This section highlighted how the research addressed gaps raised in the literature review in chapter two of the thesis. The discussions, furthermore, involved the application of the theories for both independent and dependent variables which were used by the investigator.

4.7.1 Influence of Principals' Provision of Motivation Strategies on Teacher Productivity

The researcher was directed by the indicators of the objective on the provision of motivational strategies. These indicators were: the provision of social rewards, provision of material rewards, provision of extrinsic motivation, and provision of financial rewards. The human relations theory was used here anchoring the independent variable. In this study, the theory was relevant since it emphasized that school heads utilized different methods to inspire teachers to produce better results. They provided welfare, professional development, and communication to improve teacher productivity. It was the duty of the principals to create a conducive working atmosphere

for the teachers to produce better results. There was the dependent variable theory. This was the theory of education production. The application was that there is effect on the side of teachers when principals utilize various practices. The way schools treat teachers matters a lot in terms of productivity. These activities bring about job satisfaction and inspire teachers. Teachers need motivation to produce better results. Education production is a result of treatment by the school administration through various methods.

In this objective, there existed a study gap. Mwihaki et. al., (2019) in their investigation concentrated on the issue of professional development. They were looking into the significance of the principals' role in promoting teachers' professional development. The issue of motivational strategies was not discussed in that study. The current study addressed this matter.

Findings from teachers showed that the provision of social rewards could not be found among the teachers. Some teachers witnessed the provision of material rewards but not significantly. Concerning the indicator of extrinsic motivation, according to the participants, who were teachers, this indicator was meaningfully not seen among the secondary schools examined in Machakos County. It appeared that there was no significant provision of financial rewards. The general conclusion here is that the indicators of the objective were comparatively missing according to the participants who were secondary school teachers.

Findings from principals agreed that there could have been provision of social rewards in the schools but the implication here is that the acceptance side was far too weak. This outcome indicated a poor acceptance side meaning that the provision of social rewards among the schools was not done sufficiently. The provision of material rewards was very poor. Principals generally failed to provide material rewards to the teachers.

The indicator on the provision of extrinsic motivation in schools was missing. The individual principals could not give extrinsic motivation personally. Regarding the provision of financial rewards, it was apparent that the principals had no financial rewards to give to the teachers.

Findings from the BoM chairpersons on the provision of social rewards were quite uncertain. The outcome had an undesirable indication since the BoM chairpersons did not witness the execution of this indicator. On the provision of material rewards, no member of the boards of management could witness any provision of any. Regarding extrinsic motivation, the BoM chairpersons recorded a zero and claimed to have never witnessed this sort of motivation. The board members did not find the provision of financial rewards in the institutions.

4.7.2 Influence of Principals' Provision of Professional Development Strategies on Teacher Productivity

The researcher was directed by the indicators of the objective on the provision of professional development strategies. These indicators were: provision of staff development programmes calendar of events, provision of opportunities for in-service training, conferences and workshops, provision of sabbaticals leave for personal growth, and the provision of funds for staff development in school budget. To anchor the independent variable, the human relations theory was employed here. There was a relevance in this study in using this theory. In the theory, it stressed that the principals should utilize various tactics to motivate teachers to perform well in their work and produce desirable outcomes. The school's head may provide good communication between them and the teachers. They should look into the welfare of the teaching staff and advocate for staff development activities. The heads had an obligation to inspire teachers for better teacher productivity.

On the dependent variable side, there was a theory employed there. This was the theory of education production. This theory is built on the fact that teachers can be made to work better if properly inspired. The working environment for teachers is necessary if they have to produce good results. Job satisfaction can motivate teachers to work better. The administration must ensure that teachers are comfortable if they are expected to function better.

In this objective, there existed a study gap. Muli (2018) researched poor communication and found that it was a major reason for conflicts in public secondary schools in Kenya. It was noted that in school conditions, poor communiqué between teachers and the management can lead to skirmishes. This study did not address the issue of staff development as a contributing factor in the performance of teachers. This was a gap that the current study was addressing.

From the findings from the teachers, the provision of staff development programmes could not be significantly seen hence the poor improved teaching subject scores. The provision of opportunities for in-service training, conferences and the workshops could not be provided to teachers in the study county. Majority of the teachers did not observe the provision of such opportunities. This indicator was missing among the participants. The provision of sabbatical leave for the personal growth was rejected by all the teachers. Certainly, there was nobody who could support this. Lastly, was the provision of funds for staff development. It was resolved that budgets were not obtainable in a significant manner. More had to be done on this indicator to bring about significant outcomes in the schools.

From the findings from the principals, the staff development programmes calendar of events did not echo noteworthy acceptance from the participants who were the school principals. The provision of opportunities for in-service training, conferences and

workshops had no important acceptance amongst the principals. It gave a feeble acceptance. The sabbatical leaves could not be agreeable by any participant. The acceptance side recorded a zero. The sabbatical leaves were not given. The last indicator was on funds for staff development in the school budgets. These were not significantly obtainable. Conclusively staff development funds were not provided by the principals in the schools in the study county.

From the findings from the BoM chairpersons on the indicator of the provision of staff development programmes calendar of events, all the members disagreed on having seen this indicator. There was zero response to the agreement side. This indicator was not available. The provision of in-service training, conferences, and workshops likewise had no support from the BoM chairpersons. There was no such provision among the teachers from the principals. The provision of sabbatical leave for personal growth showed poor acceptance on the side of the participants. The provision of funds for staff development in the school budgets had no meaningful acceptance.

Thus, there was a lot to be done to improve staff development in Machakos County. All the indicators were not significantly accepted by the participants. It was the duty of all those concerned to put in place all the necessary indicators to achieve this objective.

4.7.3 Influence of Principals' Provision of Welfare Strategies on Teacher Productivity

The researcher was directed by the indicators of the objective on the provision of welfare strategies. These indicators were: the provision of accommodation/houses, provisions of PTA and BOM allowances, provision of staff welfare activities and advocating for staff promotion and salary.

On the theories, the human relations theory was proposed to support the independent variable being the principals' human relations. This theory has relevancy in this study

since it encourages administrators to use various approaches and tactics to ensure proper productivity and the achievement of organizational objectives and goals. It is through inspiring others to function in the right direction as supervisors that enables good results. Using this theory, the principals can create conducive working environments for teachers for better productivity. They can use the indicators of this objective to better the performance of the teachers.

The dependent variable is teachers' productivity. The theory to anchor this variable was the theory of education production. The sense in utilizing this theory is impact it has on teachers' productivity. Teachers are made to work hard by means of motivational factors employed by the administrators. Treating teachers well brings about better production which is the exam results among others. There is job satisfaction which inspires the teaching staff and other staff. Teachers must be motivated to yield improved outcomes. Education production is an outcome of handling of the teachers by the principals.

There was a gap established here. Bush and Oduro (2019) studied challenges facing principals in leadership implementation, one challenges being scarce resources. It was established that some of the challenges that faced principals are as a result of working in poorly equipped buildings with inadequately trained staff, this was is one of the characteristics similar to majority of the schools. However, the issue of welfare was not addressed. The study therefore sought to determine the principals' welfare strategies among public secondary schools in Machakos County.

The findings from teachers on the presence of the provision for staff houses were that the accommodation of teachers was not substantial in the institutions. Consequently, housing the teachers must have been a huge problem among the schools in Machakos County. On the BoM and the PTA allowances, they could not be seen to be done among

the teachers. Teachers did not receive allowances from either the BoM or the PTA significantly. On the provision of staff welfare activities, there seemed to be a significant provision of staff welfare activities but the combination of disagreement and undecides weakened the significance. Therefore, there was a need for scoring a higher outcome. The accepting side was wea

Lastly, was the advocating staff promotions and salaries which was negative among the participants. There was no significant advocacy for the teachers' promotions and salaries. From the principals on the availability of accommodation or the housing of teachers in their schools, there was a problem in housing teachers though some effort was witnessed. There were some attempts to accommodate teachers but significant. The principals about the provision of BoM and PTA allowances to the teachers, there was an attempt to provide teachers with allowances but this was not significantly done. There was a weak attempt to provide allowances.

The provision of staff welfare activities was done significantly among the teachers. The school principals encouraged and provided staff welfare activities. The presence of staff promotion advocacy, as well as advocacy for teachers' salaries, was not witnessed absent as the number accepting was not significant. There was an effort made to advocate promotions and salaries for the teachers but turned out to be weak.

From the BoM chairpersons on the provision of accommodation or housing in the schools there was a sense of acceptance but a weak one. There was a need to enhance accommodation in schools. Regarding the provision of BoM and PTA allowances to the teachers, there was a weak acceptance side. That the allowances were not seen as they should have. On the provision of staff welfare activities in the schools, there was evidence that this indicator was significantly acceptable. The staff welfare activities in

the schools were not badly off. As for the promotions and salaries being advocated for, there was no significant acceptance. The indicator was not found in the outcomes.

4.7.4 Influence of Principals' Provision of Communication Strategies on Teacher Productivity

The researcher was directed by the indicators of the objective on the provision of communication strategies. These indicators were: verbal communication, use of written reports, use of memos for communication, and staff meetings for communication. To support the independent variable, the principals' human relations strategies, the human relations theory was applied in this case. This theory was relevant in this research. One strength of this theory is that it stresses that the principals must use different approaches to inspire the teaching staff to work better and produce anticipated results. The principal may offer communiqué between the teachers and themselves. They must care for the well-being of the teachers and support staff development events. The heads have a responsibility to motivate teachers for better teacher output.

The dependent variable side was supported by another theory. This was the theory of education production. The theory was founded on the notion that instructors could be made to toil better if appropriately stimulated. The work atmosphere for teachers should be considered necessary to yield good outcomes. Work gratification can inspire instructors to function with much effort. It is the responsibility of the principals to guarantee that teachers are contented if they are anticipated to do better in their productivity.

In this objective, there existed a study gap. Okwatsa and Mange (2021) reviewed motivational strategies like rewarding among others. It was seen that teachers' in-service training was a form of inspiration. It was established that the principal must encourage staff to do better.

However, the issue of communication did not get any consideration. To respond to this gap, this study evaluated how communication strategies could influence teachers' job satisfaction in Machakos County public secondary schools

From the teachers on the principals' verbal communication, it was there but weakened by the acceptance side significantly. Though the positive response was seen, still there was weakness when the negative responses were considered. On the written reports they were significantly missing. The accepting side was weakened by the negative side. The possibility of the use of memos in communicating was attempted but weakened by the negatives. A higher percentage could have been seen for better worth. Staff meetings to communicate messages did not doubt that they were used this indicator was witnessed significantly. Principals used staff meetings for communication.

From the principals regarding verbal communication, it was not seen significantly. Though the majority agreed, the negative side was significant. On use of written reports, it was meaningful effort but still there was a significant resistance. The use of memos was weakened by the negative side. The principals used memos in communication but the percentage should have been higher to attract better significance. The staff meetings were significantly used and there was significance in accepting this indicator.

From the BoM chairpersons on verbal communication, it was a weak acceptance from the BoM chairpersons. The use of written reports from the among the principals could be concluded that there was no significance on the acceptance side. The indicator was not achieved among the principals. The use of memos could not be significantly accepted. This indicator was not seen among the principals in their schools. The staff meetings significance was not seen on the side of the BoM chairpersons accepting.

Although most of them agreed, there was a lack of significance in this type of agreement.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter provided a summary, conclusions, and recommendations on the study of principals' human relations strategies on teacher productivity in public secondary schools in Machakos County, Kenya. It too, provided the summary of key observations, conclusions, and recommendations based on the research findings.

5.1 Summary of the Findings

The researcher summarized the research findings according to the research objectives, dealing with each objective independently under a subheading. The researcher paid attention to the indicators for both independent and dependent variables as the key sources from which information was derived.

5.1.1 Influence of Principals' Provision of Motivational Strategies on Teacher Motivation

Summarizing the teachers, the provision of social rewards was disagreed by the majority of the participants 248 (80.00 %). Consequently, the indicator was not seen significantly. This is to say, a greater percentage of disagreement was anticipated to enable more significance. On the indicator of the provision of materials rewards, those who did not witness this were 245 (79.03 %). This is nearly eighty percent. So, the indicator was not found but a higher disagreement that this could have been better. Concerning the indicator of extrinsic motivation, the total disagreement was 280 (90.32 %) being a highly significant figure. There was a significant absence of the indicator. Provision of financial rewards disagreed with 290 (93.55 %) indicating a significant absence of the indicator. The final summary can be concluded that the objective indicators were comparatively missing.

From the principals on the provision of social rewards, the total agreement side recorded 20 (68.97 %) suggesting a weak outcome. Poor acceptance means that the provision of social rewards is not adequate indeed. Provision of material rewards was disagreed side 19 (65.52 %) indicating that there was a need to beef up this. The principals failed in the provision of material rewards. However, a higher percentage of disagreement was expected. Extrinsic motivation provision was wanting as the undecideds and the disagreement side had 19 (65.52 %). The principals were unable to give extrinsic motivation. Financial rewards were not there as the combination of the undecideds and the disagreements side was 19 (65.52 %). This was a sign that the indicator was not witnessed among the schools.

The objective can be summarized from the views of the principals. The indicators were not found significant. The principals could not provide motivational strategies to enable better teacher productivity. This was a drawback to the performance of teachers in the study county. From the BoM chairpersons, the disagreements on the provision of social rewards were 20 (68.97%). This implied that the indicator was not found significantly. The BoM chairpersons could not observe the implementation of the indicator. Material rewards provision disagreed with 21 (72.41 %). The members could not establish that there was this kind of inspiration. On extrinsic motivation, the total number of disagreeing members was 18 (62.07 %). Therefore, from the board chairpersons, the heads could not inspire extrinsic motivation. Financial rewards had challenges. The disagreeing was 17 (58.62 %). The members did not find the indicator. The judgment was that the schools did not give financial rewards.

The inferential statistics were summarized. Motivation strategies significantly predicted teacher productivity, $B = 0.62$, $t(729) = 21.93$, $p < .001$. The strategies increased the value of teacher productivity by 0.62 units. The null hypothesis in Chapter One was

rejected. The thematic analysis from the education and TSC officers reflected similar outcomes. The indicators were significantly not found. The discussions indicated that there was a need for the principals to provide motivational strategies such as social rewards, material rewards, extrinsic motivation, and financial rewards.

5.1.2 Influence of Principals' Provision of Professional Development Strategies on Teacher Motivation

From the teachers, the staff development programmes had an issue. The disagrees were 270 (87.10 %). There was enough evidence that the indicator was not found. Staff development programmes calendar of events was missing. The opportunities for in-service training were disagreed by 250 (80.65 %). Then, the indicator was absent. Sabbatical leave for personal growth could not be seen as every participant, that is, 310 (100.00 %) was on the disagreeing side. The sabbatical leaves could not be approved. The funds for staff development had some challenges. The teachers disagreed and neutrals were 270 (87.10 %). The budgets were not obtainable. There were no resources provided for staff development significantly.

From the principals, staff development programmes calendar of events had a total disagreement and the neutrals of 17 (58.62 %). This caused weak acceptance. There was a bit of a positive response owing to the circumstances that the principals were the ones giving the information and so, they could have been biased. There was no significant acceptance. Opportunities for in-service training, conferences, and workshops had disagreements and neutrals of 15 (51.72 %). This is to say that no significant acceptance could be seen. Sabbatical leaves had a total agreement of zero. The neutrals and the disagreeing were 29 (100.00 %) meaning a hundred percent. These leaves were not practiced. Funds for staff development in the school budgets had neutrals and disagreements as 19 (65.52 %). The indicator was not significantly

obtainable. The funds were not provided by the principals. The BoM chairpersons on staff development programmes calendar of events, no one supported the indicator. All were either on disagreements or neutrals. The total agreement was zero.

In-service training, conferences, and workshops had either neutrals or disagreements. The indicator was not found. Sabbatical leave for personal growth was not there. None of the chairpersons agreed nor strongly agreed. The undecided and disagreeing were 29 (100.00 %). This was poor acceptance. Funds for staff development in the school budgets had problems. The neutrals and disagreement had 24 (82.76 %). The meaning here is that significant acceptance was not seen. There was no witnessing of this indicator meaningfully.

Inferential statistics showed that professional development strategies significantly predicted teacher productivity. The results of the linear regression model were significant, $F(1,729) = 559.55$, $p < .001$, $R2 = .43$. Principals' provision of professional development strategies significantly predicted teacher productivity, $B = 0.65$, $t(729) = 23.65$, $p < .001$. The null hypothesis in Chapter One was, consequently, rejected.

Thematic analysis from the qualitative instruments indicated that there was an issue with the indicators of this objective. The schools did provide adequate staff development programmes, in-service training opportunities, sabbatical leaves, and funds for staff development programmes in their budgets.

5.1.3 Influence of Principals' Provision of Welfare Strategies on Teacher Motivation

From the teachers, on the indicator of provision for staff houses the undecided and the disagreeing totaled 260 (83.87 %). So, the housing of the staff was not substantial in institutions. Only 20 (6.45 %) could be on the agreement side. BoM and the PTA allowances must have been an issue among the schools. The combination of undecideds

and the disagreements came to 250 (80.65 %). This is to mean that these allowances were not significantly found. The teachers were not able to receive stipends from either the BoM or the PTA significantly. The staff welfare activities were agreed to 200 (64.52 %) being the majority. This percentage does not fully convince the researcher that all was well. A figure like ninety percent could have been more convincing. Acceptance of the indicator is seen to be weak. Advocating staff promotions and salaries was not good. The undecided and disagreeing both recorded 280 (90.32 %). There was no significant acceptance of the indicator. From principals, neutrals and disagreements were 19 (65.52 %). There was an issue with housing instructors. Some attempt was seen. Provision of BoM and PTA allowances showed combined undecideds and disagreements of 15 (51.72 %). There was an effort to give allowances but not significantly. It showed a weak effort in providing allowances. Staff welfare activities among the teachers had been practiced as agreed were 23 (79.31 %). There were staff welfare activities significantly. Staff promotion and salary advocacy were questionable as the combination of the undecideds and the disagrees reported 22 (75.86 %). There was a determination to advocate promotions and salaries but a weak one.

From the BoM chairpersons about the indicator on the provision of accommodation or housing, the total of undecideds and disagrees was 19 (65.52 %). This indicator could not be witnessed significantly. Very little effort was seen. BoM and PTA allowances provision was not significant. The undecideds combined with the disagreements totaled to 19 (65.52 %). The summary is that the allowances witnessed as they should have. Staff welfare activities were agreeable with the agrees having 20 (68.97 %). The indicator was fairly acceptable. Promotions and salaries being advocacy were negative as neutrals and disagreement amounted to 24 (82.76 %). There was no significant presence of the indicator.

From the inferential statistics, the linear regression test results were significant, $F(1,729) = 361.52$, $p < .001$, $R2 = .33$. Provision of welfare strategies significantly predicted teacher productivity, $B = 0.51$, $t(729) = 19.01$, $p < .001$. The null hypothesis in Chapter One was, consequently, rejected.

From the thematic analysis, it was clear from the TSC and education officers that the indicators were not achieved. The qualitative data agreed with the quantitative data significantly. From the interviews, there was no significant achievement of accommodation to teachers, BoM and PTA allowances, staff welfare activities, and advocacy for promotions and salaries of teachers.

5.1.4 Influence of Principals' Provision of Communication Strategies on Teacher Motivation

Of the teachers on verbal communication, some 200 (64.52 %) were agreeing. Although the majority agreed, the number that disagreed and were undecided was significant. Thus, there was weak acceptance. The written reports seemed to be missing. The disagrees and neutrals were 160 (51.61 %). The acceptance side was feeble. These written reports were not seen significantly. In the use of memos, there was an attempt but a weak one. The agrees were

200 (64.52 %). This could have been less significant. Staff meetings to communicate messages were seen significantly. Agrees were 300 (96.77 %) and disagrees were nil.

From the principals regarding verbal communication, undecides and disagrees were 17 (58.62%). There was no significant verbal communication. Though the majority agreed, the more than 31 percent on the negative side was significant. In written reports in the schools, the agrees were 20 (68.97 %) but there was a significant resistance. There was an issue with the written reports.

The use of memos attracted 20 (68.97 %) on the side of agrees. The majority accepted though significance was lacking. This percentage should have been greater. Staff meetings were acceptable with 25 (86.21 %). There was significant acceptance.

From the BoM chairpersons on verbal communication, the majority agreed but there was no significance. They did not have a convincing percentage. About the written reports 17 (58.62 %) agreed. There was weakness. The disagreement and the undecideds were 24 (82.76 %). This indicator could not have been achieved. The use of memos had agreement of 15 (51.72 %). BoM chairpersons could not significantly accept the indicator. The disagrees and the undecideds added up to 24 (82.76 %). There was insignificant acceptance. The staff meetings were seen by 20 (68.97 %) participants. The significance is not evident in the acceptance. Though the majority were in agreement, there was absence of significance.

From the inferential statistics, there was linear regression. The results were significant, $F(1,729) = 546.70$, $p < .001$, $R2 = .43$. Communication strategies significantly predicted teacher productivity, $B = 0.63$, $t(729) = 23.38$, $p < .001$. Summarizing the thematic analysis, the TSC and education officers had similar sentiments with the other participants in the quantitative data. The interview data did not show the achievement of the indicators. There was no meaningful verbal communication. Written reports were not significant. The use of memos was still lacking. However, the use of staff meetings as a way of communication was seen significantly among the qualitative data participants.

5.2 Conclusions of the Study

The researcher made conclusions that were based on the research findings. This included looking into the indicators of both independent and dependent variables. This is shown below for each objective of the study analyzed.

5.2.1 Influence of Principals' Provision of Motivational Strategies on Teacher Motivation

From the findings of this objective, some conclusions were arrived at addressing each indicator of the objective. This study concluded that the provision of social rewards was not done satisfactorily and thus, there was the need to improve on this. The indicator was not found significant. The provision of material rewards had to be enhanced for better productivity. Extrinsic motivation needed to be better. The provision of financial rewards could have been enhanced. The participants could not find these indicators. The conclusion was that the objective indicators were comparatively missing and so, the objective was not achieved. This means there is a need to adjust the situations in schools by providing motivational strategies if better teacher productivity is going to be achieved among the schools.

5.2.2 Influence of Principals' Provision of Professional Development Strategies on Teacher Motivation

Some conclusions were made based on the outcomes of this objective. It was concluded that the staff development programmes calendar of events needed to be addressed and enhanced for better outcomes. Again, in-service training was supposed to be augmented in the schools since it was lacking. The idea of a sabbatical must have been addressed among the institutions. Additional conclusions were that funds for staff development had to be improved in the schools. The indicators were not seen by the participants.

This means that professional development strategies were not provided adequately among the schools.

5.2.3 Influence of Principals' Provision of Welfare Strategies on Teacher Motivation

The study findings on this objective enabled the researcher to arrive at some conclusions on the indicators. It was concluded that provision for staff houses be beefed up to enable better teacher productivity. Since the BoM and the PTA allowances were missing, efforts could have been made to alleviate this problem. There was no advocacy for staff promotions and salaries and so, more efforts were expected. However, on staff welfare activities, there was a good response. Thus, the indicators, apart from the staff welfare, needed to be beefed up if schools were going to produce better results.

5.2.4 Influence of Principals' Provision of Communication Strategies on Teacher Motivation

The outcomes of this objective formed a basis for some conclusions to be made. To conclude the indicator on verbal communication, it was not coming up well and so, there was a need to improve on it. The written reports were likewise not found adequate and something had to be done about it. There was the need to improve on the use of memos since this indicator needed beefing up. Further conclusions had it that staff meetings were used for communication fairly and could be seen. These meetings were properly utilized by the schools.

5.3 Recommendations for Practice

Based on the findings of this study, the following recommendations were made for practice

i. The Ministry of Education should provide refresher training for secondary school principals on human relations to improve teacher productivity
ii. It is critical for education stakeholders such as the BoMs and the PTAs in the public secondary schools to provide funds to enable motivation to teachers to enable better results
iii. The principals should motivate teachers by developing them professionally, caring for their welfare and proper communication

5.4 Recommendations for Policy

i. The Ministry of Education should provide funds for teacher motivation in the secondary schools
ii. The government rewards teachers who perform well in the national examinations to enable them to perform better by providing professional development
iii. The Boards of management should budget for funds to enable the welfare of teachers in the schools
iv. The principals should use communication strategies to enable teacher productivity in the schools

5.5 Recommendations for Further Research

i. Since this study only measured the views and experiences of teachers, principals, and BoM chairpersons, another study on the views of other experienced participants such as the Ministry of Education officers could be necessary.

ii. An examination of the challenges facing schools in promoting teacher productivity in schools in Kenya

iii. An examination of the human relations strategies effect among secondary schools in Kenya

iv. An examination of the participation teachers' productivity on performance in secondary schools.

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APPENDICES

Appendix I: Letter of Introduction

Dear Sir/Madam,

RE: PERMISSION TO CARRY OUT RESEARCH

I am a student taking a course in Doctor of Philosophy in Educational Administration, Leadership, and Management at Mount Kenya University. My research topic is: ***Influence of Principals' Human Relations Strategies on Teacher Productivity in Public Secondary Schools in Machakos County, Kenya***. To achieve this, you have been selected to participate in the study. I kindly request the respondents to, fully, participate in the study. This information was used purely for academic purposes and your name cannot be mentioned in the report. The findings of the study, may, upon request, be availed to you.

Your assistance and co-operation is highly appreciated. Thank you in advance.

Yours faithfully,

MORIASI GARI

Researcher's Name: Moriasi Gari
Title of Study: *Influence of Principals' Human Relations Strategies on Teacher Productivity in Public Secondary Schools in Machakos County, Kenya.*

Appendix II: Informed Consent

Please read carefully and complete this form. If you are willing to participate in this study, mark the appropriate responses and sign and date the declaration at the end. If there is anything that is not clear and would like more information, kindly ask.

• The research has been explained to me in verbal and/or written form by the researcher. YES/NO

• I understand that I may withdraw from this study at any time without having to explain. YES/NO YES

• I understand that all information about me will be treated in strict confidence and that I will not be named in any written work arising from this study. YES/NO

YES

 I understand that any responses and confidential information

 I give will be used solely for research purposes and will be destroyed on completion of your research. YES/NO YES

I freely give my consent to participate in this research study and have been given a copy of this form for my own information.

Signature:

……Date…….…… The

Chairman

MKU Ethical Review Committee

P.O. Box 342 – 01000

Thika

Appendix III: Questionnaire for School Teachers

Section A: Demographic Information

Gender:

i. Male []

ii. Female[]

Age:

i. Under 30 []

ii. 31-40years []

iii. 41-50 years []

iv. Over 50yrs []

Education: indicate your highest academic qualification.

Certificate [] Diploma [] Degree [] Masters [] PhD [] Other [] Specify…….

Work Experience: please indicate your teaching or working experience in years

0-5 years [] 6-10 years [] 11- 15 years [] 16-20 years [] Above 20 []

Section B: principals' motivation strategies on teacher productivity in secondary schools

Rate to what extent you agree with the following statements on principals' motivation strategies on teacher productivity in secondary schools.

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
There has been provision of social rewards in your institution that influenced increased teacher job satisfaction					

You agree that you have witnessed the provision of social rewards in your institution which have increased teacher job satisfaction					
There has been provision of material rewards in your institution that influenced increased teacher job satisfaction					
You have witnessed provision of material rewards in your institution that influenced increased teacher job satisfaction					
Your institution has been providing extrinsic motivation which has increased teacher job satisfaction					
You have witnessed the provision of extrinsic motivation in your school which has increased teacher job satisfaction					
Your school has been providing financial rewards that have increased teacher job satisfaction					
You have witnessed the provision of financial rewards which has increased teacher job satisfaction					

Section C: Principals' professional development strategies on teacher productivity in secondary schools

Rate to what extent you agree with the following statements on professional development strategies on teacher productivity in secondary schools

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
In your school, you have provisions for staff development programmes					
calendar of events which has catapulted improved teaching subject scores					
You have witnessed the provision of staff development programmes calendar of events which have enhanced and improved teaching subject scores					

In your institution, there is provision of opportunities for in-service training, conferences, and workshops which have improved teaching subject scores					
In your institution, you have witnessed the provision of opportunities for in-service training, conferences , and workshops which have improved teaching subject scores					
Your school has the provision of sabbatical leave for personal growth which has improved teaching subject scores					
You have witnessed the provision of sabbatical leave for personal growth in your school which has improved teaching subject scores					
There could be provision of funds for staff development in your school budget which has improved teaching subject scores					
In your institution, you have witnessed provision of funds for staff development in your school budget which has improved teaching subject scores					

Section D: Principals' staff welfare strategies on teacher productivity in secondary schools

1. Rate to what extent you agree with the following statements on principals' staff welfare strategies on teacher productivity in secondary schools

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**

There is provision for accommodation/houses in your school which can improve performance contract scores among the staff					
You have witnessed provision for accommodation/houses in your school which has improve performance contract scores among the staff					
There could be provision of BoM and PTA allowances in your institution which has improved performance contract scores amongst the staff					
You have witnessed provision of BoM and PTA allowances in your institution which has improved performance contract scores among the staff					
It may be said that you have provision of staff welfare activities in your school which can improve performance contract scores among the staff					
It is acceptable that you have witnessed the provision of staff welfare activities in your school which can improve performance contract scores among the staff					
There could be advocating for staff promotion and salary in your institution which may improve					

Section E: Principals' communication strategies and teacher productivity in secondary schools

1. Rate to what extent you agree with the following statements on principals' communication strategies on teacher productivity in secondary schools

Statements	A (1)	SA (2)	U (3)	D (4)	SD (5)
There is a possibility of principals' verbal communication which c a n improve conflict resolutions in your school					
In your institution, you have witnessed principals' verbal communication which might have improved conflict resolutions in the institution					
It is assumed that there is use of written reports in your school to improve conflict resolutions					
You have witnessed written reports in your school to improve conflict resolutions					
There is a possibility of use of memos for communication in your school which may improve conflict resolutions					
You have witnessed use of memos for communication in your institution which can improve conflict resolutions					
You might have been having staff meetings for communication to improve conflict resolutions					
You might have witnessed staff meetings for communication which could improve conflict resolutions					

Section F: Teacher productivity checklist (Dependent Variable Tool)

Teacher productivity indicators	Very Often (3)	Rarely (2)	Never (1)
Increased teacher job satisfaction			
Improved teaching subject scores			
Improved performance contract scores			

Improved conflict resolutions			

1. Rate to what extent you agree with the following statements on the influence of teacher productivity by principals' human strategies practices on teacher productivity in secondary schools

Key: **A**-Agree **SA**- Strongly Agree **U**-Undecided **D**-Disagree **SD**-Strongly Disagree

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
Increased teacher job satisfaction may be influenced by the principals' motivation strategies					
Improved teaching subject scores may be influenced by principals' professional development strategies					
Improved performance contract scores can be influenced by principals' staff welfare strategies					
Improved conflict resolutions may influence principals' communication strategies					

Appendix IV: Questionnaire for School Principals

Section A: Demographic Information

Gender:

c) Male []

d) Female []

2. **Age:** Under 30 [] 31-40years [] 41-50 years [] Over 50yrs []

3. **Education**: indicate your highest academic qualification? Certificate [] Diploma [] Degree [] Masters[] PhD[] Other[]

Specify…….other.....

4. **Work Experience**: please indicate your teaching or working experience in years 0-5 years [] 6-10 years [] 11- 15 years [] 16-20 years [] Above 20 []

Section B: principals' motivation strategies on teacher productivity in secondary schools

1. Rate to what extent you agree with the following statements on **principals' motivation strategies on teacher productivity in secondary schools**

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
As the school principal, you agree that there could be provision of social rewards in your school that may influence increased teacher job satisfaction					
It may be true that you have provided social rewards in your					

school which might have improved teacher job satisfaction					
Being the school head, you agree that there is provision of material rewards in your school that might have influenced increased teacher job satisfaction					
You have been providing material rewards in your school which might have influenced increased teacher job satisfaction					
There is provision of extrinsic motivation in your school which might have increased teacher job satisfaction					
As a principal, you have provided extrinsic motivation in your institution which has may have increased teacher job satisfaction					
There is provision of financial rewards which may have increased teacher job satisfaction					
You have provided financial rewards which has improved teacher job satisfaction					

Section C: Principals' professional development strategies on teacher productivity in secondary schools

1. Rate to what extent you agree with the following statements on **professional development strategies on teacher productivity in secondary schools**

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
Staff development programmes calendar of events in your school are seen which have improved teaching subject scores					
You provide staff development programmes calendar of events which might have catapulted teaching subject scores					

There is provision of opportunities for in-service training, conferences and workshops in your school which might have improved teaching subject scores					
Your institution, you have provided opportunities for in- service training, conferences and workshops which might have improved teaching subject scores					
There is of sabbatical leave for personal growth which may improve teaching subject scores					
You provide sabbatical leave for personal growth in your school which may have improved teaching subject scores					
There are funds for staff development in your school budget which might improve teaching subject scores					
You provide funds for staff development in your school budget which may improve teaching subject scores					

Section D: Principals' staff welfare strategies on teacher productivity in secondary schools

1. Rate to what extent you agree with the following statements on **principals' staff welfare strategies on teacher productivity in secondary schools**

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
Your school has accommodation/houses which may improve performance contract scores among the staff					
You provide accommodation/houses in your school which may improve performance contract scores among the staff					
BoM and PTA allowances are available in your institution which may improve performance contract scores amongst the staff					
You provide BoM and PTA allowances in your institution which may improve performance contract scores among the staff					

There are staff welfare activities in your school which may improve performance contract scores among the staff					
You provide staff welfare activities in your school which may improve performance contract scores among the staff					
There is staff promotion advocacy and salary in your institution which might have improved performance contract scores among the staff					
You advocate for staff promotion and salary in your institution which may improve performance contract scores among the staff					

Section E: Principals' communication strategies and teacher productivity in secondary schools

1. Rate to what extent you agree with the following statements on **principals' communication strategies on teacher productivity in secondary schools**

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
There is verbal communication in your school which can improve conflict resolutions in your school					
You make verbal communication in your institution which might have enhanced conflict resolutions in the institution					
There could be use of written reports in your institution which may improve conflict resolutions					
You make written reports in your institution to improve conflict resolutions					
There is use of memos for communication in your school which may improve conflict resolutions					
You have used memos for communication in your institution which may improve conflict resolutions					

Ther are staff meetings for communication in your school to enhance conflict resolutions					
You use staff meetings for communication which can improve conflict resolutions					

Section F: Teacher productivity checklist (Dependent Variable Tool)

In a scale of 1-3, please rate how often your institution experience/reports the following teacher productivity in secondary schools

Teacher productivity indicators	**Very Often (3)**	**Rarely (2)**	**Never (1)**
Increased teacher job satisfaction			
Improved teaching subject scores			
Improved performance contract scores			
Improved conflict resolutions			

Rate to what extent you agree with the following statements on the influence of teacher productivity by principals' human strategies practices on teacher productivity in secondary schools

Key: A-Agree SA- Strongly Agree U-Undecided D-Disagree SD-Strongly Disagree

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
Increased teacher job satisfaction may be influenced by the principals' motivation strategies					
Improved teaching subject scores may be influenced by principals' professional development strategies					
Improved performance contract scores can be influenced by principals' staff welfare strategies					
Improved conflict resolutions may influence					

principals' communication strategies					

Appendix V: Questionnaire for BoM Chairpersons Section A: Demographic Information

Gender:

a) Male []

b) Female []

2. **Age:** Under 30 [] 31-40years [] 41-50 years [] Over 50yrs []

3. **Education**: indicate your highest academic qualification? Certificate [] Diploma [] Degree [] Masters [] PhD [] Other [] Specify……other.....

4. **Work Experience**: please indicate your teaching or working experience in years 0-5 years [] 6-10 years [] 11- 15 years [] 16-20 years [] Above 20 []

Section B: principals' motivation strategies on teacher productivity in secondary schools

1. Rate to what extent you agree with the following statements on **principals' motivation strategies on teacher productivity in secondary schools**

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
There could have been provision of social rewards in your institution that influenced increased teacher job satisfaction					
You agree that you have witnessed provision of social rewards in your institution which have increased teacher job satisfaction					
There could have been provision of material rewards in your institution that influenced increased teacher job satisfaction					
You have witnessed provision of material rewards in your institution that influenced increased teacher job satisfaction					
Your institution has been providing extrinsic Motivation which has increased teacher job satisfaction					

You have witnessed provision of extrinsic motivation in your school which has increased teacher job satisfaction					
Your school has been providing financial rewards which have increased teacher job satisfaction					
You have witnessed provision of financial rewards which has increased teacher job satisfaction					

Section C: Principals' professional development strategies on teacher productivity in secondary schools

1. Rate to what extent you agree with the following statements on professional development strategies on teacher productivity in secondary schools

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
In your school, you have provision of staff development programmes calendar of events which has catapulted improved teaching subject scores					
You have witnessed provision of staff development programmes calendar of events which have enhanced improved teaching subject scores					
In your institution, there is provision of opportunities for in-service training, conferences and workshops which have improved teaching subject scores					
In your institution, you have witnessed provision of opportunities for in-service training, conferences and workshops which have improved teaching subject scores					
Your school has provision of sabbatical leave for personal growth which has improved teaching subject scores					
You have witnessed provision of sabbatical leave for personal growth in your school which has improved teaching subject scores					
There could be provision of funds for staff development in your school budget which has					

improved teaching subject scores					
In your institution, you have witnessed provision of funds for staff development in your school budget which has improved teaching subject scores					

Section D: Principals' staff welfare strategies on teacher productivity in secondary schools

1. Rate to what extent you agree with the following statements on **principals' staff welfare strategies on teacher productivity in secondary schools** Key: **A**-Agree **SA**-Agree **U**-Undecided **D**-Disagree **SD**-Strongly Disagree

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
There is provision for accommodation/houses in your school which can improve performance contract scores among the staff					
You have witnessed provision for accommodation/houses in your school which has improve performance contract scores among the staff					
There could be provision of BoM and PTA allowances in your institution which has improved performance contract scores amongst the staff					
You have witnessed provision of BoM and PTA allowances in your institution which has improved performance contract scores among the staff					
It may be said that you have provision of staff					

welfare activities in your school which can improve performance contract scores among the staff					
It is acceptable that you have witnessed provision of staff welfare activities in your school which can improve performance contract scores among the staff					
There could be advocating for staff promotion and salary in your institution which may improve performance contract scores among the staff					
You have witnessed advocating for staff promotion and salary in your institution which could improve performance contract scores among the staff					

Section E: Principals' communication strategies and teacher productivity in secondary schools

1. Rate to what extent you agree with the following statements on **principals' communication strategies on teacher productivity in secondary schools**

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
There is a possibility of principals' verbal communication which can improve conflict resolutions in your school					
In your institution, you have witnessed principals' verbal communication which might have improved conflict resolutions in the institution					
It is assumed that there is use of written reports in your school to improve conflict resolutions					

You have witnessed written reports in your school to improve conflict resolutions					
There is a possibility of use of memos for communication in your school which may improve conflict resolutions					
You have witnessed use of memos for Communication in your institution which can improve conflict resolutions					
There might have been staff meetings for communication to improve conflict resolutions					
You might have witnessed staff meetings for communication which could improve conflict resolutions					

Section F: Teacher productivity checklist (Dependent Variable Tool)

In a scale of 1-3, please rate how often your institution experience/reports the following teacher productivity in secondary schools

Teacher productivity indicators	**Very Often (3)**	**Rarely (2)**	**Never (1)**
Increased teacher job satisfaction			
Improved teaching subject scores			
Improved performance contract scores			

Rate to what extent you agree with the following statements on the influence of teacher productivity by principals' human strategies practices on teacher productivity in secondary schools

Statements	**A (1)**	**SA (2)**	**U (3)**	**D (4)**	**SD (5)**
Increased teacher job satisfaction may be influenced by the principals' motivation strategies					

Improved teaching subject scores may be influenced by principals' professional development strategies					
Improved performance contract scores can be influenced by principals' staff welfare strategies					
Improved conflict resolutions may influence principals' communication strategies					

Appendix VI: Interview Schedule for Sub County Education Directors and TSC Staff

Dear Respondent,

Section A: Demographic Information

Gender					
Age	**25-35 years**	**36- 45 years**	**46- 55 years**	**55 years and above**	**25-35 years**
Level of education	**Certificate**	**Diploma**	**degree**	**Postgraduate**	**Any other**
Years of employment					
	less 5years	**5-10 years**	**10-20 years**	**20 years and above**	**Not Employed**

Section B: Influence of principals' motivation Strategies on teacher productivity in secondary schools

1. **Indicate which of the following principals' motivation Strategies influence teacher productivity in secondary schools. (Please tick)**

•Provision of social rewards

•Provision of material rewards

•Provision of extrinsic motivation rewards

•Provision of financial rewards

2.How do the above principals' motivation strategies influence teacher productivity in secondary schools?

•Provision of staff development programs calendar of events

•Provision of opportunities for in-service training, conferences & workshops

•Provision of sabbatical leave for personal growth

•Provision of funds for staff development in school budget

3.How do you think the above principals' motivation Strategies could be improved? Give reasons for your answers……

……

……

Section C: Influence of principals' professional development strategies on teacher productivity in secondary schools.

1.Indicate which of the following principals' professional development strategies influence teacher productivity in secondary schools (Please tick)

•Provision of opportunities for in-service training

•Provision of sabbaticals for personal growth

•Provision of opportunities to attend seminars and conferences

•Funds for staff development in schools budgets

2.How do the above principals' professional development influence teacher productivity in secondary schools?

•Improved syllabus coverage

•Improved teaching subject scores

•Improved performance contract scores

•Increased teacher job satisfaction

3.How do you think the above principals' professional development could be improved? Give reasons for your answers……

……

……

Section D: Influence of principals' staff welfare strategies on teacher productivity in secondary schools

1.Indicate which of the following of principals' staff welfare strategies influence teacher productivity in secondary schools? (Please tick)

•Provision for accommodation

•Advocating for staff promotion

•Advocating for improved staff salary and allowances

•Advocating social networking

•Work life and family balance

2. How do the above principals' staff welfare strategies influence teacher productivity in secondary schools Provision of accommodation/houses

•Provisions of PTA and BOM allowances

•Provision of staff welfare activities

•Advocating for staff promotion and salary

3. How do you think the above principals' staff welfare strategies could be improved?

Give reasons for your answers……

……

Section E: Influences of principals' communication strategies on teacher productivity in secondary schools?

1.Indicate which of the following principals' communication strategies influence teacher productivity in secondary schools? (Please tick)

•Verbal communication

•Use of written Reports

•Usage of Memos for communication

•Staff meetings for communication

2.How do the above principals' communication strategies influence teacher productivity in secondary schools?

•Improved syllabus coverage

•Improved teaching subject scores

•Improved performance contract scores

•Increased teacher job satisfaction

3.How do you think the above principals' communication strategies could be improved?

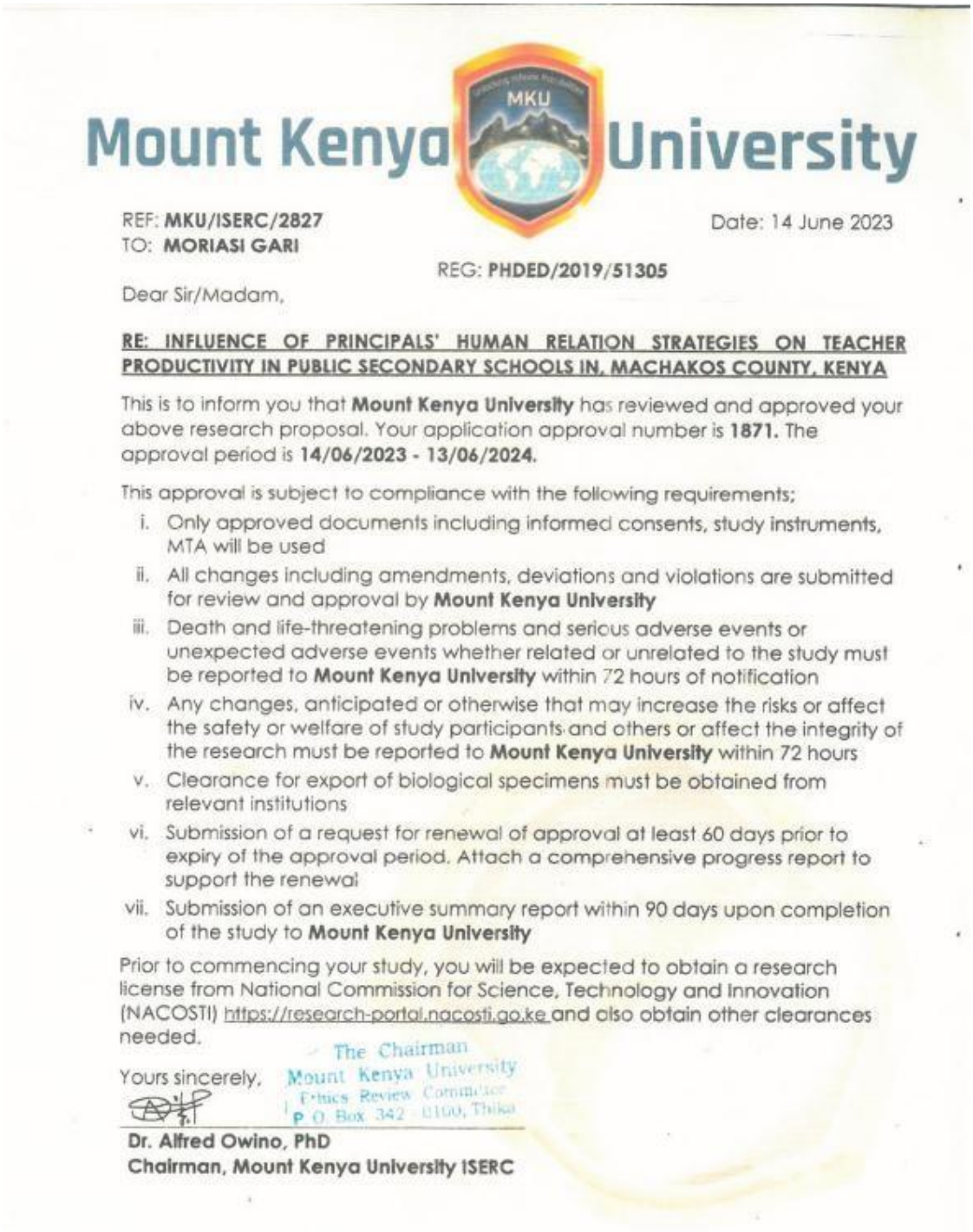
Give reasons for your answers……

……

……

……

Appendix VII: Certificate of Ethical Clearance



Mount Kenya University

REF: **MKU/ISERC/2827**
TO: **MORIASI GARI**

Date: 14 June 2023

REG: **PHDED/2019/51305**

Dear Sir/Madam,

RE: INFLUENCE OF PRINCIPALS' HUMAN RELATION STRATEGIES ON TEACHER PRODUCTIVITY IN PUBLIC SECONDARY SCHOOLS IN, MACHAKOS COUNTY, KENYA

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **1871.** The approval period is **14/06/2023 - 13/06/2024.**

This approval is subject to compliance with the following requirements;

i. Only approved documents including informed consents, study instruments, MTA will be used
ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

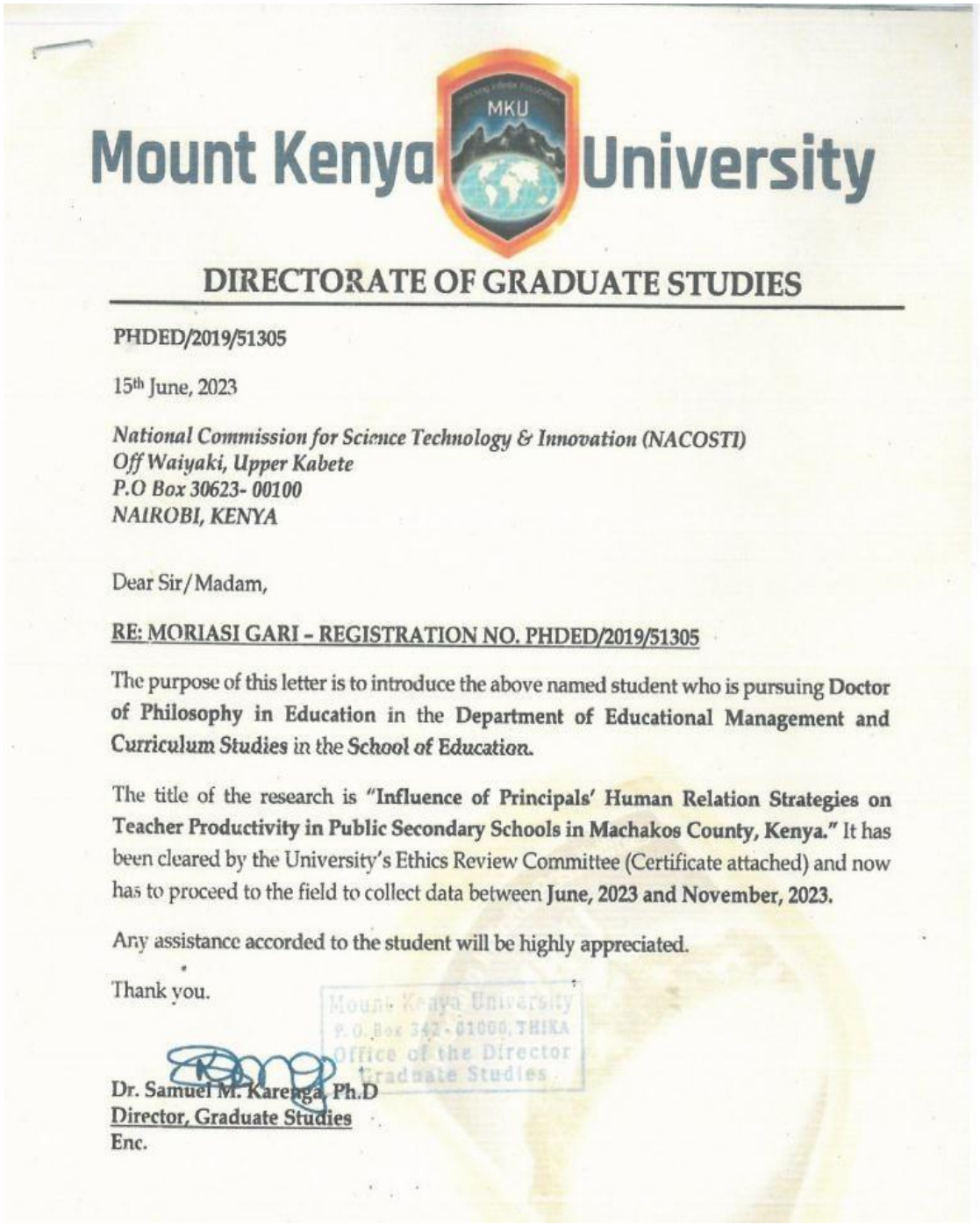
Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke and also obtain other clearances needed.

The Chairman
Mount Kenya University
Ethics Review Committee
P.O. Box 342 - 0100, Thika

Yours sincerely,

Dr. Alfred Owino, PhD
Chairman, Mount Kenya University ISERC

Appendix VIII: Introduction Letter



Mount Kenya University

DIRECTORATE OF GRADUATE STUDIES

PHDED/2019/51305

15th June, 2023

National Commission for Science Technology & Innovation (NACOSTI)
Off Waiyaki, Upper Kabete
P.O Box 30623- 00100
NAIROBI, KENYA

Dear Sir/Madam,

RE: MORIASI GARI – REGISTRATION NO. PHDED/2019/51305

The purpose of this letter is to introduce the above named student who is pursuing **Doctor of Philosophy in Education** in the **Department of Educational Management and Curriculum Studies** in the **School of Education.**

The title of the research is **"Influence of Principals' Human Relation Strategies on Teacher Productivity in Public Secondary Schools in Machakos County, Kenya."** It has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between **June, 2023 and November, 2023.**

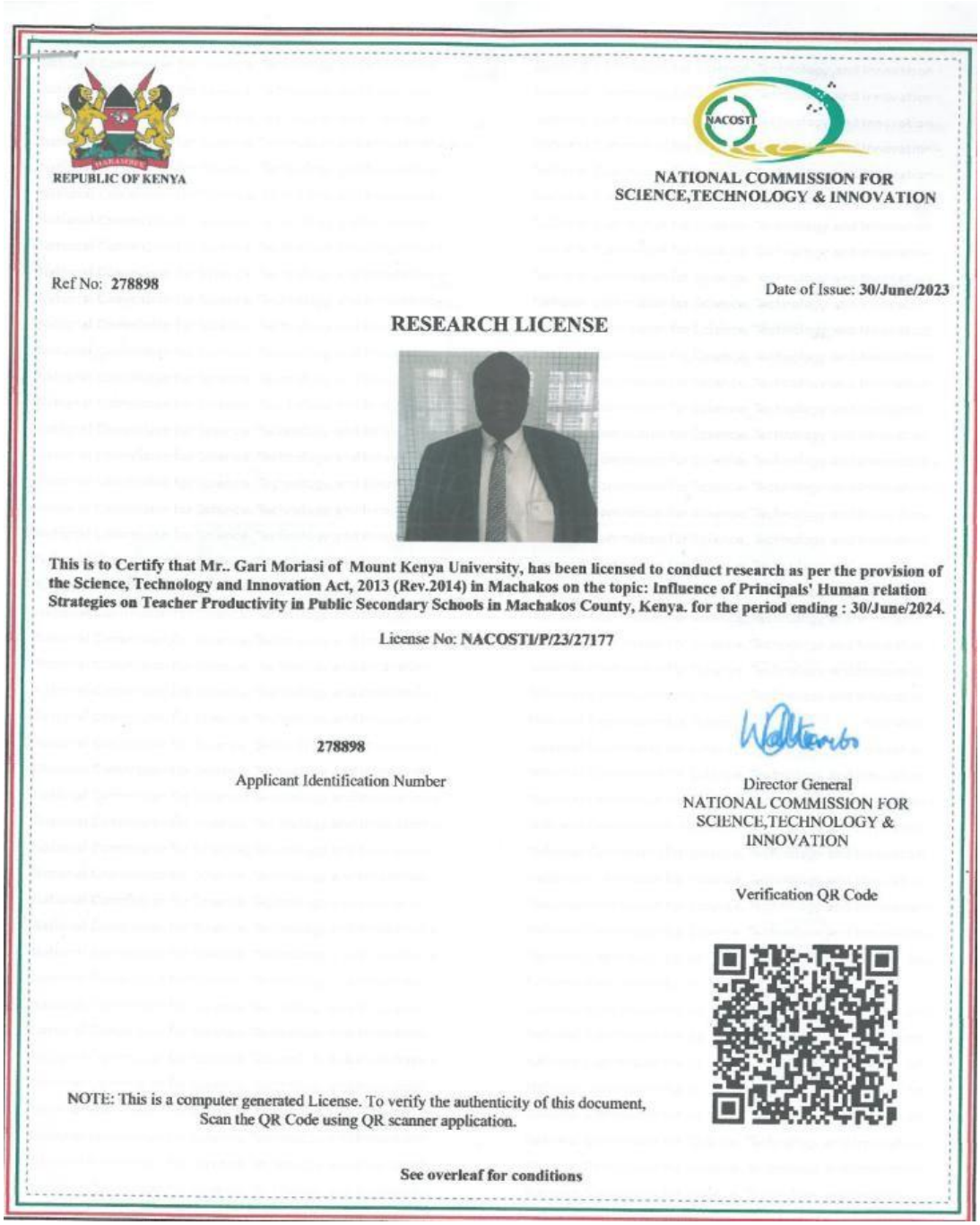
Any assistance accorded to the student will be highly appreciated.

Thank you.

Mount Kenya University
P.O. Box 342 - 01000, THIKA
Office of the Director
Graduate Studies

Dr. Samuel M. Kareriga, Ph.D
Director, Graduate Studies
Enc.

Appendix IX: NACOSTI Permit



REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **278898**

Date of Issue: **30/June/2023**

RESEARCH LICENSE

This is to Certify that Mr.. Gari Moriasi of Mount Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Machakos on the topic: Influence of Principals' Human relation Strategies on Teacher Productivity in Public Secondary Schools in Machakos County, Kenya. for the period ending : 30/June/2024.

License No: **NACOSTI/P/23/27177**

278898

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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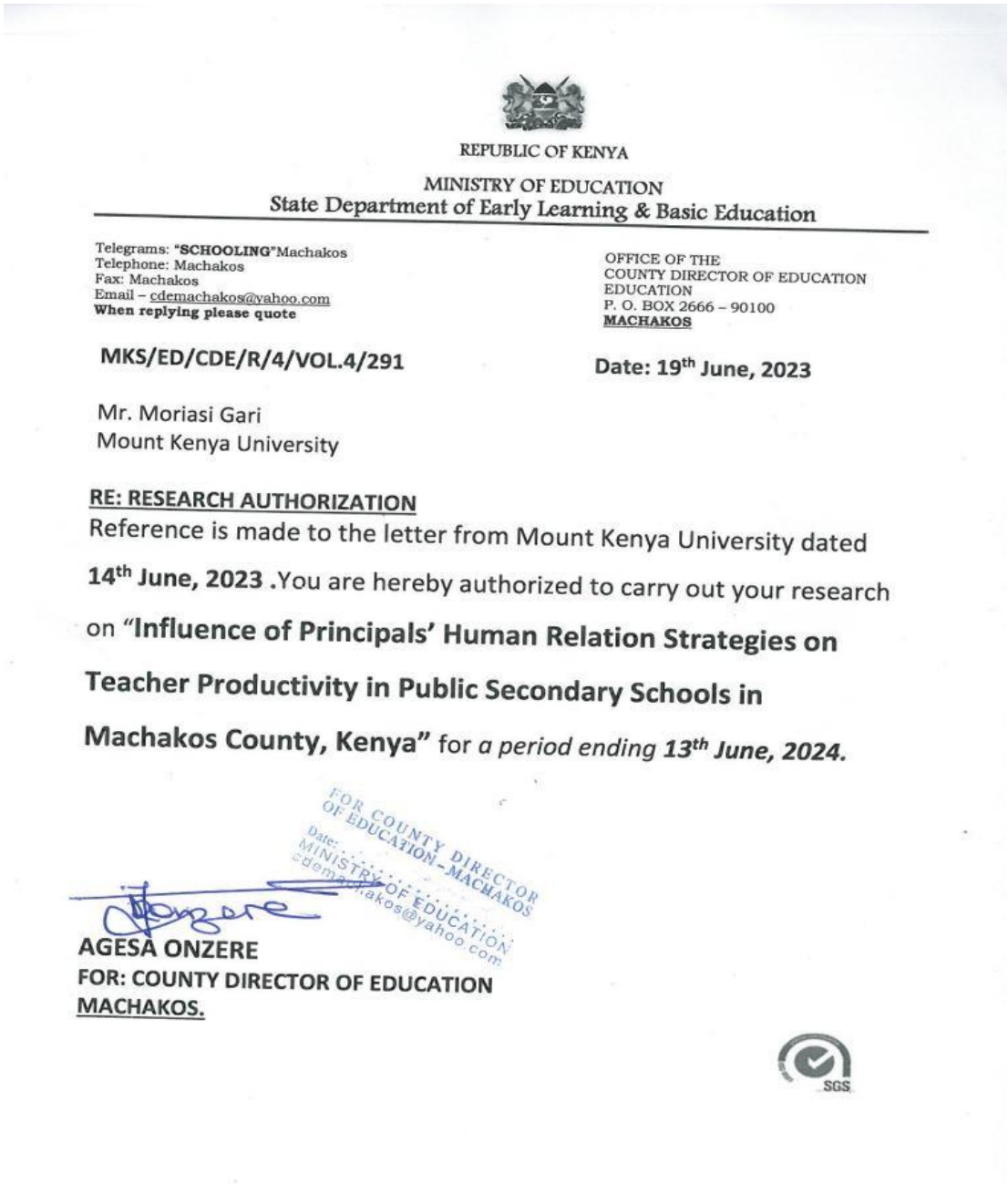


REPUBLIC OF KENYA

MINISTRY OF EDUCATION
State Department of Early Learning & Basic Education

Telegrams: "SCHOOLING"Machakos
Telephone: Machakos
Fax: Machakos
Email – cdemachakos@yahoo.com
When replying please quote

OFFICE OF THE
COUNTY DIRECTOR OF EDUCATION
EDUCATION
P. O. BOX 2666 – 90100
MACHAKOS

MKS/ED/CDE/R/4/VOL.4/291

Date: 19th June, 2023

Mr. Moriasi Gari
Mount Kenya University

RE: RESEARCH AUTHORIZATION

Reference is made to the letter from Mount Kenya University dated 14th June, 2023 .You are hereby authorized to carry out your research on "Influence of Principals' Human Relation Strategies on Teacher Productivity in Public Secondary Schools in Machakos County, Kenya" for *a period ending 13th June, 2024.*

FOR COUNTY DIRECTOR OF EDUCATION – MACHAKOS
Date:
MINISTRY OF EDUCATION
cdemachakos@yahoo.com

AGESA ONZERE
FOR: COUNTY DIRECTOR OF EDUCATION
MACHAKOS.

SGS

Appendix X: Letter from the County Director of Education Machakos County

OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND NATIONAL ADMINISTRATION
STATE DEPARTMENT FOR INTERNAL SECURITY AND NATIONAL ADMINISTRATION

Telephone: 21009 and 21983 – 90100
Email Address: cc.machakos@interior.go.ke
Fax No. 044-21999
When replying please quote:

OFFICE OF THE COUNTYCOMMISSIONER
P.O. Box 1 – 90100
MACHAKOS

REF NO: CC/ST/ADM/5/9 VOL IV/187 **DATE: 6TH** July, 2023

All Deputy County Commissioners
MACHAKOS COUNTY

RE: RESEARCH AUTHORIZATION – GARI MORIASI

The National Commission for Science, Technology and Innovation has authorized the above-named student of Mount Kenya University to carry out a research on the topic "***Influence of Principals' Human relation Strategies on Teacher Productivity in Public Secondary Schools***" in Machakos County for the period ending **30th June 2024.**

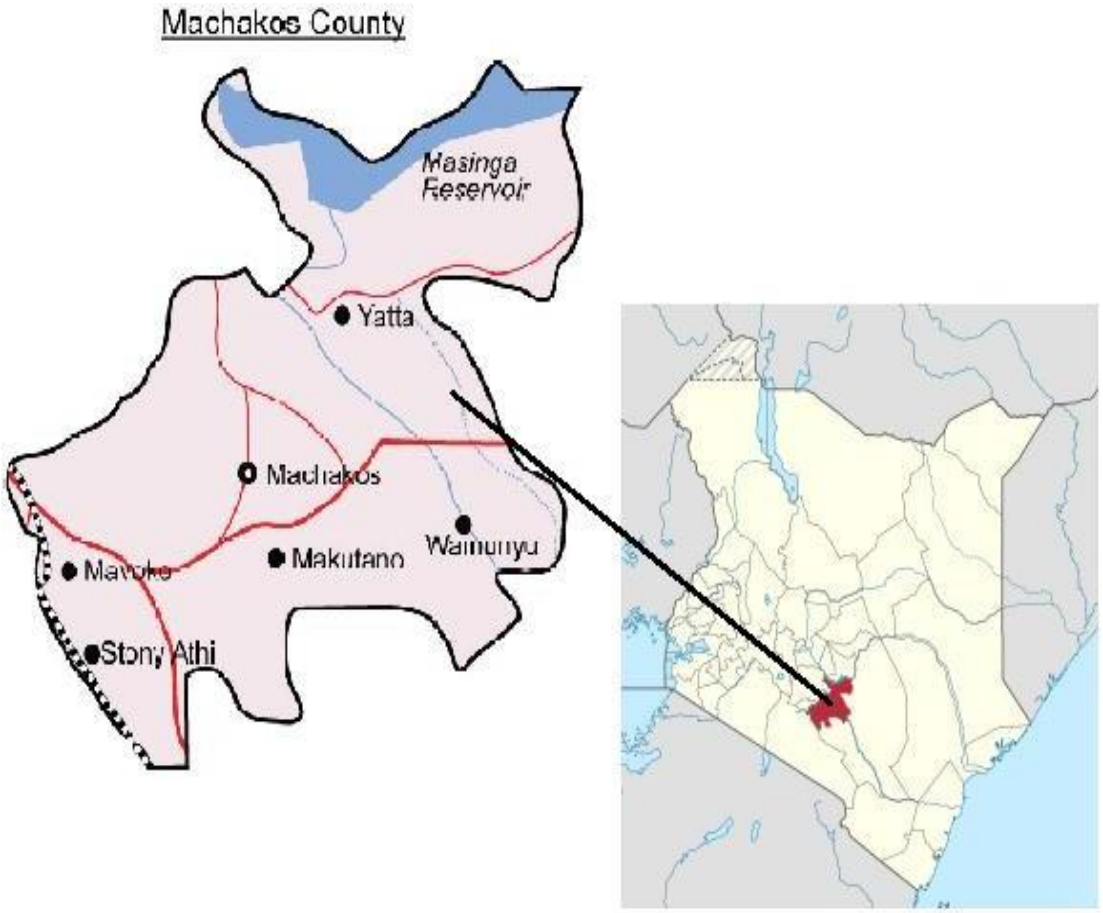
Please be notified and accord him the necessary assistance.

COUNTY COMMISSIONER
06 JUL 2023
MACHAKOS

A.N. WAFULA
For: **COUNTY COMMISSIONER**
MACHAKOS COUNTY

Appendix XI: Letter from the County Commissioner Machakos County

Appendix XII: Map of Machakos County



Appendix XIII: Turnitin Similarity Index

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