

Communication Mechanisms and Job Productivity Among Public Secondary School Teachers in Machakos County, Kenya

Muthengi Kimanzi Bernard^{1*}, Dr. Daniel Otieno², Prof. Felicita Njuguna³

^{1, 2, 3}Department of Education Management, Policy and Curriculum Studies; Kenyatta University

*Corresponding Author Email: muthengibk@gmail.com

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Abstract

Purpose: The fundamental part of any school is staff communication and staff performance in teaching. When principals practice effective communication with their staff and recognize what each teacher contributes, productivity can be realized. This study aimed to determine the role of communication mechanisms in job productivity among secondary school teachers in Machakos County.

Methodology: The research used a correlation research design. The target population was the 5869 teachers and 396 principals in the 396 public secondary schools in Machakos County. The researcher used a simple

random sampling method to identify 97 teachers who formed the study sample. Data was collected using questionnaires. Quantitative data was analysed using descriptive statistics and Pearson Correlation Coefficient, while qualitative data was analysed through narrative analysis.

Results: The study findings indicated that communication mechanisms influenced job productivity. Further, correlation analysis indicated there was a significant positive relationship between communication mechanisms and job productivity ($\rho = 0.606$, $p\text{-value} < 0.05$), among public secondary school teachers in Machakos County.

Implication: Training in communication process has ensured job productivity. Effective communication ensured job productivity in their schools. Lateral communication has improved the teachers' job productivity. The study recommends that principals should shift towards a more inclusive and participatory communication model that empowers teachers to voice their opinions, share feedback, and contribute to decision-making processes.

Keywords: *Communication Mechanisms, Job Productivity, Public Secondary School*

1. Introduction

The term productivity is more common in business circles when dealing with companies that produce goods, it is however also applicable in the education sector where there is a need to evaluate teachers' efforts (Diamantidis & Chatzoglou, 2019). According to Rodriguez and Walters (2017), the key methods of evaluating employee accomplishments are those which focus on employee strengths, which uphold important characteristics or values of the firm, and mannerisms, which are key to the evaluation of employee behaviour necessary for the effective accomplishment of jobs and lastly, the actual employee activities, which establish whether and the extent to which objectives were attained.

Teachers' output is determined by the input, which also provides space for accurate evaluation. Nyamubi (2017) asserts that the various measures of teachers' efficiency such as actual instruction, preparation of lesson notes, effective use of the scheme of work, supervising students' work, and ability to maintain learners' discipline, are qualities that teachers should always maintain effectually in the school system. Hogan (2018) asserts that productivity among teachers is greatly influenced by the extent to which they participate in the daily running of the school, consistency in school, class attendance, and appropriate use of learning resources to enable learning.

Communication mechanisms affect teacher productivity. Communication is the conveyance of ideas, feelings, and messages from one person to another through the judicious use of limited resources such as material, money, time, and energy to achieve set goals within an organization (Rains, 2019). It's a two-way process (Anya & Ezekiel, 2019). School activities are interconnected, and communication is the foremost priority, helping people to achieve common goals by developing thoughtful ideas, exchanging information, and achieving mutual understanding (Krishna & Garg, 2022). It serves as an important tool in the process of linking topics communicated between top management (principals, vice-principals) and (teachers) to teach students the knowledge, skills, and values that will help them achieve their educational goals (Anya, 2019).

Globally, teacher productivity has been an ongoing conversation. According to Bruton (2016), over the past five years, the United States has made significant progress in improving teacher productivity. With encouragement from the US Department of Education, beginning with the Race to the Top competition in 2009 and following the ESEA liability waivers in 2011, states have moved to a system that includes multiple levels of performance ratings, which require frequent evaluations of all teachers and incorporate multiple assessment methods, including student achievement.

In Indonesia, evidence of poor teacher productivity could be seen as measured by learner performance, indicating that teachers were not performing their duties to the best of their ability (Hartinah, Suharso, Umam, et al, 2020). The 2018 Program for International Student Assessment (PISA) results showed that Indonesian students' scores remained below the average score set by the Organization for Economic Co-operation and Development (OECD) (Fenanlampir, Batlolona & Imelda, 2019). Further, in another study, the Indonesian government's policies of sponsoring teachers for certification programs failed to significantly predict teacher productivity (Pema & Yusrina, 2018).

In South Africa, Thaba-Nkadimene (2020) assessed the influence of education provision on teacher productivity. The study established that inadequacies in school provisioning influenced teacher productivity and student performance, resulting in psychological stress and diminished morale among teachers due to inadequate working conditions. In Uganda, Nabwire (2022)

investigated the professional development of teachers and how it influenced productivity in primary schools in Tororo Municipality, Uganda. The study concluded that on-the-job professional development, off-the-job training, and career advancement do not have a significant impact on improving teachers' performance.

In Kenya, teacher performance is evaluated against learner results in the summative examination (KCSE). Results indicate that many teachers have performance issues. The Teachers Service Commission has tried to address the problem through the introduction of the Teacher Professional Development and Appraisal tool; however, research indicates that many learners have yet to benefit much from the instructional activities with their teachers (Nasimiyu, 2019). In Machakos County, teacher productivity has continued to be poor, as seen in the dismal performance in KCSE, even with the introduction of the TPAD by the TSC as shown on Table 1.

Table 1: Machakos County average KCSE Mean Score (2019-2023)

Year	Mean score	National Average
2019	3.31	4.02
2020	3.27	3.72
2021	3.13	4.01
2022	3.04	4.30
2023	3.39	4.16

Source: Mutunga (2023)

Table 1 illustrates fluctuations in performance of KCSE exams in Machakos county across the years. Moreso, the County's mean score has consistently been below the national average for the past 5 years. Teachers have been observed to work alone in trying to address workplace problems. They neither cooperate nor with colleagues from other schools to improve their productivity. In the Director of Education's report (Machakos County, 2023), teachers were challenged to work together in their schools, while at the same time networking with colleagues from other schools to improve their job productivity.

1.1 Problem Statement

Job productivity is always a function of several variables used in a relationship to provide optimum output. In the teaching profession, teachers provide an important contribution as they largely determine input into the system and by extension the output. When teachers' job productivity is low, the schools run the risk of producing learners who have not yet completed their secondary school courses. The existing educational framework in Kenya emphasizes individual teacher performance, and the organizational structures in most schools are hierarchical. This traditional structure hinders opportunities for collaboration, which are crucial in a dynamic and complex working environment like education. The Teachers Service Commission has introduced the TPAD tool to monitor and improve teacher productivity yet this is yet to yield the desired results in Machakos County.

Communication is the foremost priority, helping people to achieve common goals by developing thoughtful ideas, exchanging information, and achieving mutual understanding. It

serves as an important tool in the process of linking management and employees to achieve desired outcomes. While research has shown the benefits of communication mechanisms in other professional settings, there is limited empirical data on the extent to which communication mechanism is employed among teachers in the public secondary schools in Kenya, to improve job productivity. In Machakos County, there have been concerns regarding teachers' job productivity. Teachers have been accused of low productivity, as measured by the large number of learners who fail to attain the desired results in KCSE. This study aimed to assess the influence of communication mechanisms on job productivity among secondary school teachers in Machakos County.

1.2 Research Objective

To assess the influence of communication mechanisms on job productivity among secondary school teachers in Machakos County.

2. Literature Review

This section presents a theoretical review, empirical review, and conceptual framework relating to communication mechanisms and job productivity.

2.1 Theoretical Review

This study was premised on the Path Goal Theory propounded by House (1974). The theory prescribes a leader's behaviour that is best suited to the employee and work atmosphere to accomplish institutional goals. It provides direction, defines goals, clarifies paths, removes obstacles, and provides support for success and satisfaction. A leader makes clear the goals and agrees with the stakeholders, then properly communicates for the objectives to bear fruits. The leader assigns duties to his juniors guided by their abilities, know-how, and skill. School heads are usually at the centre of all the happenings in the school, as they perform their instructional roles; clarifying the path for instructors, eradicating possible hiccups which may distract them from getting there, and increasing rewards as they work for productivity to be realized.

The theory has major strengths, which include the following; it reminds leaders that the central role of management is to provide direction and coaching subjects as they work towards the achievement of goals. It further, demands that leaders make clear the route to the goal achievement, and remove or assist subjects to negotiate their way around the hindrances to the goals. Lastly, it provides a beneficial hypothetical model for comprehending how the various management behaviour affects teachers' satisfaction and productivity.

Some of the identifiable weaknesses according to Dixon & Hart (2010) are that the model is so wide and covers several dissimilar suppositions and that it is also problematic to adopt it wholly to fully improve the management process in a given organizational context.

The theory is relevant to this study since it provides an argument that principals should set up clear, formal communication channels for disseminating information. For example, the principal may implement a structured communication mechanism such as weekly bulletins, regular staff meetings, and online platforms like school management systems, ensuring that everyone receives consistent and transparent updates on policies, curriculum changes, or school events.

2.2 Empirical Review

Effective communication only occurs when the receiver can determine the message or idea in the way the sender wants (Askari, Asghri, Gordji, Asgari, Filipe, and Azar, 2020). When communication fails in an organization it creates problems in many cases. Communication

techniques must be learned as they are the only method used in training, collaboration, negotiation, evaluation and supervision. It can be seen as a chain of understanding that brings together organizational structures top-down, bottom-up and side-by-side. Dehghan (2022) argues that when teachers have the opportunity to provide feedback and share their ideas, they feel more engaged and have a sense of ownership over their work environment. Bottom-up communication allows for the inclusion of teachers' insights and frontline experiences in decision-making processes. Still, decisions made with input from teachers are likely to be more practical and effective, leading to better implementation and improved productivity. In any case, teachers are often the first to encounter challenges in the classroom; encouraging them to communicate these issues can lead to quicker identification and resolution thereby encouraging faster and more effective problem-solving and improving the overall teaching environment and productivity. Singh and Gupta (2021) define communication with others as a process consisting of three main steps: Thinking: The message is always present in the mind of the sender. It could be an idea, an idea, a message, or an emotion. Encoding: The message sent to the recipient in words or symbols. Determination: The receiver converts words/symbols into understandable content.

According to Ratheeswari (2018), when sending a message, there is conveyance of two elements: content and context. The content of the actual words or symbols of the language is called language; this includes spoken and written words that have linguistic and semantic meanings. Even if we take similar words and/or the same symbols, we decipher the connotations differently, meaning that even the most basic words can be misconstrued.

Context often causes words to be misinterpreted because we tend to believe what we see rather than what we hear; Paralanguage works more like a communicator, helping us understand each other. Most of us believes that non-verbal behaviour is more accurate than verbal behavior. The process is incomplete until the message is understood (decoded) by the recipient. Feedback is the only way to make sure the message is understood; similarly, the only way to ensure team cohesion is via feedback.

Feedback presumes that the recipient understands the message, how important it is, and what it is intended for. Therefore, communication is not just giving; it is an exchange because everyone in the process must cooperate to ensure the exchange is complete, to improve effectiveness and productivity. According to Helmreich and Schaefer (2018), there is no teamwork without team communication. The scholars argue that better performance is achieved when teams share effective communication which enables partners to work together. So basically, effective communication is essential to ensure the cooperation of employees since collaboration is impossible where people cannot communicate.

Rajhans (2018) examined the relationship between communication and motivation among university teachers in Pretoria, South Africa, and its overall impact on employee performance. In this study, purposeful sampling was used to identify the 26 schools that participated in the study. A research relationship design was used. Different learning styles include advocacy, collaboration, formal and informal, and communication. Data were collected through surveys given to staff, and interviews were conducted with school principals and school leaders. The study found that communication and feedback had the greatest impact on motivation; however, this study investigated the relationship between communication and motivation; the current study attempted to confirm the findings by focusing on collaboration rather than motivation.

Türkoğlu et al. (2017) investigated the role of communication in teacher education at Norwegian universities. This study focused on 30 public secondary schools. 150 teachers and

30 principals were selected through random sampling. Research variables included a top-down communication approach. While the principal was interviewed, teachers answered questions. The results showed that the communication method had a significant impact on teachers' productivity in that it ensured that organizational goals, strategies, and expectations were communicated to all employees. Further, this clarity helped employees understand their roles and responsibilities, aligning their efforts with the organization's objectives, leading to increased productivity. The research concluded that communication was the key to productivity. However, research has not shown how communication affects productivity, which was the purpose of this study.

In another study entitled *The Effect of Training, work motivation, and interpersonal communication on employee performance and Organizational Commitment* as variables intervening. Luthfi, Norawati, Zulher, and Basem (2022) employed a quantitative research design using surveys to collect data from employees across various industries. Participants were asked to rate their perceptions of communication effectiveness, job satisfaction, and job performance using a structured questionnaire. The analysis revealed that training on communication effectiveness was positively correlated with job satisfaction, which in turn positively impacted job performance. Training on effective communication was found to enhance employees' understanding of their roles and expectations, leading to higher satisfaction and improved performance. The study did not however correlate the impact of each independent variable on job productivity, which the current study attempted.

In yet another study, Kalogiannidis (2020) evaluated the effect of multiple communication channels on job productivity. The study employed the correlational research design and sampled 156 educators in senior schools in Greece. Questionnaires and interviews were the main data collection instruments. The study findings indicated that having a multiplicity of communication channels was beneficial to the organisation as it ensured that important information was disseminated quickly and efficiently. Further, timely and accurate information flow supported better decision-making processes, reducing delays and misunderstandings, which boosted productivity. Again, diverse communication methods allowed staff to choose the most suitable and convenient channel for different situations which in turn provided opportunities for continuous learning and professional development. The study was however conducted in Greece which is a country with a long history of education training and therefore has advanced work practices. The current study locale is Kenya which is still in the developing stage of collaborative work practices.

2.3 Conceptual Framework

Figure 1 illustrates the conceptual framework with communication mechanisms as an independent variable and job productivity as dependent variable.

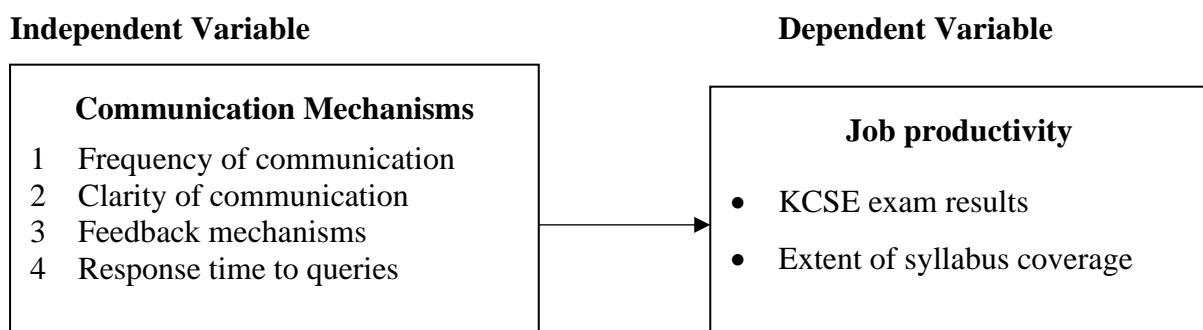


Figure 1: Conceptual Framework

3. Methodology

The study utilized a correlational research design. The study was carried out in Machakos County. The target population was the teachers and principals in the 396 public secondary schools in Machakos County. According to the TSC County Director’s Official records (2023), the County had 5869 teachers and 396 principals, which was a large workforce that should produce results. Teachers are the curriculum implementers while the principals are the teacher supervisors in their schools. The researcher used stratified random sampling to organize the schools into four strata that are National, Extra- County, County, and Sub-County groups. The researcher then used the simple random sampling method to identify 97 teachers who formed the study sample. Proportionate random sampling was then used to ensure a balanced representation of the sample. Questionnaires were issued to both the teachers and the principals. An interview schedule was utilized as a guide for interviewing the principals, featuring open-ended questions.

Quantitative data from the questionnaires was analysed using descriptive statistics in form of measures of central tendencies (mean, median, and standard deviations). Qualitative data was analysed using content analysis and verbatim quotes, then integrated into the quantitative data. SPSS version 28 aided this process. Pearson Correlation Coefficient was used to test the relationship between the dependent variable (job productivity) and independent variable (communication mechanisms) of the study at 95% confidence level or 5% level of significance.

4. Results and Discussion

4.1 Descriptive Statistics

The study sought to establish the influence of communication mechanisms on job productivity. Teachers were consequently asked to show their degree of concurrence with declarations on communication mechanisms. Their reactions were graded on a 5-point Likert scale where: 5 - Strongly Agree, 4 - Agree, 3 - Neutral, 2 – Disagree, and 1 - Strongly Disagree. A mean range of 1-2.5 meant Disagree, 2.5 – 3.5 meant Neutral and 3.5 - 5 meant Agree. A standard deviation of 0.0000 meant unanimous agreement on a certain statement while figures above 0.0000 showed varying degrees of agreement with the same statement. The mean and standard deviation were generated from SPSS as illustrated in Table 1.

Table 1: Teachers’ opinions on communication mechanisms in their schools

Statement	\bar{x}	SD
Top-down communication has improved job productivity among teachers	3.12	.82
Side-to-side communication has improved the teachers’ job productivity	3.48	.29
The presence of feedback channels has ensured job productivity	2.99	.82
Bottom-up communication has ensured job productivity	2.20	.61
Effective communication has ensured job productivity	4.21	.54
Training teachers on the communication process has ensured job productivity	4.36	.28
The presence of dynamic communication channels has ensured job productivity	3.02	.91

Source: Author (2024)

From Table 1, the teachers strongly agreed that training on the communication process had ensured job productivity ($m = 4.36$). This implied that communication training had equipped teachers with the skills to convey information more clearly and effectively, leading to better productivity. This finding concurred with those of Luthfi et al. (2022) who argue that training on communication effectiveness was positively correlated with job satisfaction, which in turn positively impacted job performance. Further, training on effective communication was found to enhance employees' understanding of their roles and expectations, leading to higher satisfaction and improved performance.

The teachers also strongly agreed that effective communication had ensured job productivity ($m= 4.21$). This implied that the teachers valued the existing communication strategies in their school and attributed them to their current job productivity. The findings were in harmony with those of Kalogiannidis (2020) whose study indicated that having a multiplicity of communication channels was beneficial to the organisation as it ensured that important information was disseminated quickly and efficiently. Further, timely and accurate information flow supported better decision-making processes, reducing delays and misunderstandings, which boosted productivity. Again, diverse communication methods allowed staff to choose the most suitable and convenient channel for different situations which in turn provided opportunities for continuous learning and professional development.

The teachers further agreed that side-to-side communication had improved the teachers' job productivity ($m = 3.48$). This implied that the teachers agreed that when they effectively communicated with their peers, it fostered a collaborative environment. The findings agree with those of Askari et al. (2020) who posit that communication techniques must be learned as they are the only method used in training, collaboration, negotiation, evaluation, and supervision; it can be seen as a chain of understanding that brings together organizational structures top-down, bottom-up and side-by-side.

The teachers were nevertheless neutral on the assertion that the presence of dynamic communication channels had ensured job productivity ($m= 3.02$). This implied that the teachers were unsure of whether to associate the availability of the various communication channels in the school with their job productivity. This finding differs from that of Helmreich and Schaefer (2018) who posit that there is no teamwork without team communication. The scholars argue that better performance is achieved when teams share effective communication which enables partners to work together. So basically, effective communication is essential to ensure the cooperation of employees since collaboration is impossible where people cannot communicate.

The teachers were also neutral on the assertion that top-down communication had improved job productivity among teachers ($m= 3.12$). This implied that once again, the teachers were not sure that they could associate their job productivity with top-down communication. The findings contradict those of Türkoğlu et al. (2017) who posit that top-down communication method has a significant impact on teachers' productivity in that it ensures that organizational goals, strategies, and expectations are communicated to all employees. Further, this clarity helped employees understand their roles and responsibilities, aligning their efforts with the organization's objectives, leading to increased productivity.

The teacher however disagreed that the presence of feedback channels had ensured job productivity ($m=2.99$). This implied that the teachers did not see any relationship between the available feedback channels and their job productivity. The findings however conflict with those of Ratheeswari (2018) who argues that feedback presumes that the recipient understands the message, how important it is, and what it is intended for. Therefore, communication is not

just giving; it is an exchange because everyone in the process must cooperate to ensure the exchange is complete, to improve effectiveness and productivity.

The teachers also disagreed that bottom-up communication had ensured job productivity ($m=2.20$). This implied that the teachers were non-committal as to whether bottom-up communication which involved feedback and information flowing from employees to management had influenced their job productivity. The findings differ from those of Dehghan (2022) who argues that when teachers have the opportunity to provide feedback and share their ideas, they feel more engaged and have a sense of ownership over their work environment. Further, higher engagement and ownership can lead to increased motivation and commitment, which in turn enhances job productivity. Again, bottom-up communication allows for the inclusion of teachers' insights and frontline experiences in decision-making processes. Still, decisions made with input from teachers are likely to be more practical and effective, leading to better implementation and improved productivity. In any case, teachers are often the first to encounter challenges in the classroom; encouraging them to communicate these issues can lead to quicker identification and resolution thereby encouraging faster and more effective problem-solving and improving the overall teaching environment and productivity.

The principals also reflected on the issue of how communication mechanisms enhanced the productivity of the teachers in their schools. A principal [P015] had this to say:

We have put in place a number of channels in the school to maximize communication. The most basic is the face-to-face communication. Other than that, we have the side-to-side, bottom-down, bottom-up, etc just to ensure that we minimize communication breakdown in the school. We believe that when people are talking to each other, things cannot go wrong. The channels made available are meant to ensure productivity, as they ensure that issues can be handled as they arise, without allowing them to escalate to crisis levels. We mostly encourage teachers to communicate any issues to their heads of departments before reporting to me. When we have information, we also do the same that is inform the HoDs who eventually inform the teachers under them. We believe that way, there should be no communication breakdown. For the class teachers, we encourage them to work with the form principals, who are usually their colleagues in charge of the various forms. The form masters can report issues directly to the principal. These channels are meant to ensure that information flows all the time so that everyone works optimally and we can realize better results.

This implied that the school heads also recognised the importance of flow of communication among the teachers and had therefore put in place mechanisms to optimise that flow. The findings agree with those of Dehghan (2022) who argues that when communication fails in an organization it creates problems in many cases. Communication techniques must be learned as they are the only method used in training, collaboration, negotiation, evaluation, and supervision. It can be seen as a chain of understanding that brings together organizational structures top-down, bottom-up, and side-by-side. Again, when teachers have the opportunity to provide feedback and share their ideas, they feel more engaged and have a sense of ownership over their work environment. Further, higher engagement and ownership can lead to increased motivation and commitment, which in turn enhances job productivity.

4.2 Correlation Analysis

Pearson Correlation Coefficient was used to test the relationship between the dependent variable (job productivity) and independent variable (communication mechanisms) of the study at 95% confidence level or 5% level of significance. The results were as shown in Table 2.

Table 2: Correlation Matrix

	Job productivity	Communication mechanisms
Job productivity (r)	1.000	
(p) Sig. (2 tailed)		
Communication mechanisms (r)	0.606*	1.000
(p) Sig. (2 tailed)	0.018	

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

Source: Author (2024)

The findings indicated a significant positive relationship between the communication mechanisms and job productivity ($r = 0.606$, $p\text{-value} < 0.05$), implying that an increase in the communication mechanisms was associated with increased job productivity among public secondary school teachers in Machakos County.

4.3 Summary of Findings

The study revealed that communication mechanisms had a notable impact on job productivity among secondary school teachers. Teachers strongly agreed that effective communication played a critical role in ensuring job productivity in their schools. Specifically, side-to-side communication—communication between peers—was highlighted as having a positive influence on improving teacher productivity.

However, the teachers were neutral on the impact of having dynamic communication channels, indicating that these channels were not necessarily perceived as key drivers of productivity. Similarly, they were neutral regarding the effectiveness of top-down communication in improving job productivity, suggesting that communication from higher levels of administration did not significantly enhance their performance.

More importantly, teachers disagreed with the idea that the presence of feedback channels contributed to job productivity. They also disagreed that bottom-up communication, where feedback flows from teachers to administration, had a positive impact on productivity.

Principals offered additional perspectives on how communication mechanisms enhanced teacher productivity. They noted that they had established various communication channels in their schools, including face-to-face communication, side-to-side, bottom-up, and top-down channels, to minimize communication breakdowns and promote effective information flow.

In summary, while effective communication—particularly side-to-side communication—was seen as crucial for improving job productivity, other forms of communication such as feedback channels and bottom-up communication were viewed as less impactful. Principals acknowledged the importance of diverse communication channels but their influence on productivity varied across different communication types.

5. Conclusion

The study findings indicated that communication mechanisms influenced job productivity. The study therefore made the following conclusions: Training in the communication process had ensured job productivity. Effective communication ensured job productivity in their schools. Side-to-side communication has improved the teachers' job productivity. The presence of dynamic communication channels had not ensured job productivity. Top-down communication has not improved job productivity among teachers. The presence of feedback channels had not ensured job productivity. Bottom-up communication had also not ensured job productivity. The principals had put in place a number of channels in the school to maximize communication with the most basic channel being face-to-face communication.

6. Recommendations

The study found that top-down communication had not improved job productivity among teachers. The study recommends that principals should shift towards a more inclusive and participatory communication model that empowers teachers to voice their opinions, share feedback, and contribute to decision-making processes. Principals should leverage technology tools like video conferencing, messaging apps, or collaboration platforms that facilitate real-time communication. These tools allow for quick problem-solving, decision-making, and collaboration, which can enhance efficiency and productivity.

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