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Technology & Productivity Among Educational Institutions:
Information Communication and Technology in Public Secondary Schools in Makueni County, Kenya

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Abstract
The primary objective of this research article is to identify the key impacts of integrating technology into public secondary schools in Makueni County. To achieve this, a descriptive research strategy has been employed, that brought in 140 teachers and 25 principals. Data collection was conducted via interview schedules and questionnaires that were aimed at administrators and teachers. The gathered data underwent quantitative and qualitative analysis. Descriptive statistics and mean calculations, a measure of central tendency, were utilized for data analysis. The research hypothesizes that Information and Communication Technology (ICT) plays a crucial role in enhancing educational quality. ICT enables more personalized instruction and immediate feedback, thereby improving literacy both inside and outside the classroom. The research article also examines how ICT can be used to foster creativity and higher-order thinking skills. In terms of administration, ICT is pivotal in streamlining tasks such as data collection, document processing, record-keeping, and financial document recovery, making retrieval more straightforward and administration more efficient. Furthermore, ICT aids in the efficient scheduling of school activities, including parents and teachers association (PTA) and Board of Management meetings, and managing school calendar events, classes, and exams. In a nutshell, the research article highlights the importance of ICT in disseminating information and fostering effective communication among stakeholders.

Keywords: *Communication, Information, Makueni, Secondary schools, Technology*

Introduction

Ghavifekr and Rosdy (2015) define Information and Communication Technology (ICT) as encompassing a broad array of applications and components, including networks, satellite connections, computers, software, and other related systems. This technology facilitates access to, sharing, and presentation of records and information in various formats. Onn and Sorooshian (2013) highlight that businesses use ICT to transmit information, data, and knowledge to individuals and for strategic purposes. In the contemporary era, governments and politicians are increasingly advocating for educational opportunities that utilize technology and information communication to teach high-demand skills. The United Nations Educational, Scientific, and Cultural

Organization (UNESCO) in 2013 noted that nations worldwide are striving to provide their citizens with the highest quality education. In Malaysia, there's a growing recognition of the impact of technology on future educational trends. Evidence from across the country indicates that ICT benefits both students and teachers. Effective technology-driven learning outcomes require teachers to be adept in using various ICT forms in the classroom.

The Ministry of Education, in its strategic vision for 2013–2025, recognizes the potential of such innovations and underscores the importance of integrating technology-driven approaches into the national school curriculum. Furthermore, the 2019 Global Innovation Index (GII) by the World Intellectual Property Organization identifies several sub-Saharan African countries with robust innovation agendas. Notably, countries like Mauritius, South Africa, and Kenya are highlighted for their significant advancements in this area. These developments point to a growing emphasis on the role of technology and innovation in educational and broader societal contexts. The research by Abubakar, Madigu, and Idris in 2020 underscores the significant and positive correlation between the use of Information and Communication Technology (ICT) and the enhancement of educational quality.

Statement of the problem

To assess the impact of information communication and technology on productivity of public secondary schools in Makueni county, Kenya.

Research article Objectives

The research article is geared towards reaching the following subsequent goals: -

i. To establish the influences of ICT integration on educational control in public secondary faculties in Makueni County.
ii. To observe the use of facts communique technology integration technology integration in teaching and mastering and their influences on productiveness of public secondary faculties in Makueni county.
iii. To research the impacts of school control structures on school productivity.
iv. To research article the use of ICT for effective communication and dissemination of statistics in public secondary colleges in Makueni County.

The importance of the research article

This search article will play a fundamental function in equipping high school students with twenty first century abilities which include summary questioning, innovative problem solving and collaboration. This may therefore help to supply students who will in shape in an incorporated society ruled with the aid of data verbal exchange technology. This leads to modernized and digitalized administrative, monetary and educational management in public secondary faculties improving their effectiveness, efficiency and productivity. This research article will make communique and dissemination of information both vertically and horizontally extra powerful. Through this research article, instructors are capable of using modernized strategies to put together timetables, lesson plans, schemes of work and generate students' reports. This could play an integral function in enhancing methodological processes and pedagogy enhancement. This research article may even result in stepped forward report preserving and facts storage in public secondary schools therefore clean retrieval of data. That notwithstanding, it will furbish the ministry of schooling and relevant government companies on viable methods to mitigate limitations to ICT use in mastering institutions.

The Scope of the research article

Within the realm of scientific inquiry, the all-encompassing criterion is referred to as the breadth of an investigation. There are a number of factors that can interfere with the effectiveness of a school. When it comes to the effects of information and communication technology (ICT) on school productivity in terms of administrative, financial, and instructional management, this research article will exclusively concentrate on the public secondary schools located in Makueni County, Kenya. This is going to be the only focus of the investigation.

Limits of this Research article

The research article is vulnerable to incorrect or false information from the respondents, though this limitation has been addressed adequately. To an extent, the target population may not be able to fully give the exact information. Lack of modern ICT tools in the targeted schools might be a draw back to the research article. The lack of updated software and effective hardware is a major drawback in this research. As noted, such consciousness has also worked in favour of the entire project as most of these fears have been addressed.

Delimitations

The research article addresses a single aspect that has an effect on the productivity of secondary school students. Despite this, there are other factors, rather than information and communication technology (ICT), that influences academic performance among students. Additionally, the research samples only one public secondary school in Makueni County.

Assumptions

There is a high value of assumption that the target population provides sincere and correct responses. This research article has additionally built on the assumption that secondary schools faculties in Makueni County are well equipped with ICT equipment. The research article also has an assumption that the school group of workers and administrators have the prerequisite talents to address ICT gear including computers.

Literature review

According to Jere-Folotiya et al. (2014), the utilization of technology in conjunction with specific instructional interventions has the potential to dramatically enhance the reading and writing abilities of pupils. According to his findings, proper exposure to information and communication technology has a positive and significant impact on the quality of education (Abubakar, Madigu, and Idris, 2020). In addition, according to Kushwash, Panda, Krishna, Alam, and Srivastava (2021), educational institutions that have adopted e-learning are in a position to deliver an education of superior quality.

The Kenyan government (2016) states that one of the goals of education is to promote open and distance learning, as well as the incorporation of information and communication technology (ICT) into the delivery of curricula at all educational levels. This is one of the goals of education. According to the TSC annual report for the 2015/2016 fiscal year (TSC, 2016 Macharia, 2017 April 24), Teacher Performance Appraisal Development (TPAD) program of the Teachers Service Commission (TSC), which tracks and monitors the performance of teachers at their workstations. The assessment system for teachers is gaining more and more attention all around the world as a result of the widespread need for education of a high standard. A part of the larger public-sector reforms that aim to increase competence and effectiveness, establish a culture that is performance oriented, and promote accountability in public learning institutions is the implementation. According to Simin et al. (2013), schools are able to employ applications of information and communication technology (ICT) to retrieve financial information such as pay stubs, audit reports, balance sheets, non-salary grants, stock records, and assessments of students in general for the purpose of future reference (Kazi, 2012).

Theoretical framework

The primary focus of this research is on Technological Pedagogical Content Knowledge (TPACK). According to Mishra and Koehler (2006), in order for teachers to successfully incorporate information and communication technology (ICT) into their classrooms, they need to possess subject matter expertise, technological understanding, and pedagogical knowledge. Mishra and Koehler (2006), believe that in order to be a competent educator in the modern era, one must not only be proficient in the use of word processors, spreadsheets, and email, but also have a fundamental understanding of computer hardware and operating systems. However, the implementation of new forms of electronic communication is not the only way to improve school management, instruction, and student accomplishment. The most important element is not required to have the requisite technological infrastructure; rather, it is to know how to use it effectively and incorporate it into the classroom. Sangrà and

GonzálezSanmamed (2010) discovered that schools that regard information and communication technology (ICT) as a creative component reap greater advantages than schools that do not.

It is not enough for schools to just possess the appropriate equipment in order for them to fully employ information and communication technology (ICT). In addition, schools need to reinvent their teaching techniques and adopt new educational paradigms. A similar finding was made by Tondeur et al. (2015) in their research article of schools in Kenya. They discovered that the true incorporation of information and communication technology (ICT) goes beyond the curriculum; what is important is its actual use and use. According to Shaheen, Naqvi, and Khan (2013), businesses that make investments in the creativity, competence, and skill of their employees typically reap the advantages in the form of higher production and profitability. Additionally, according to Khandekar and Sharma (2013), businesses that have great competencies in the area of human resources are able to obtain a competitive advantage and ensure their success over the long term. In spite of these benefits, the development and education of human resources is frequently overlooked in favor of technological developments in the context of projects involving the integration of information and communication technologies. This misalignment is a big concern because it causes those who are involved in the implementation of information and communication technology to commonly lack the skills and knowledge necessary to make effective use of these tools. Research conducted by Lumumba in 2007 on the NEPAD e-learning program in Kenyan schools provided additional evidence in favour of this assertion.

According to the findings of the research, the primary obstacles that are hindering the use of information and communication technology (ICT) in secondary schools in Kenya include poor infrastructure, a generally unfavourable attitude toward ICT, and a limited level of ICT competency among instructors. The implementation of these schools' information and communication technology initiatives was made extremely challenging by all three of these factors. A cross-sectional survey was distributed to secondary schools in the Kitui District by Mboroki, Mulwa, Kaylo, and Bowa (2012). The purpose of the survey was to investigate the connection between human resource capability and the use of computer-based learning. They discovered that there is a connection between the capacity of human resources, the characteristics of the institution, and the readiness of the institution for online learning. This relationship, on the other hand, was shown to be weak when the implementation of e-learning was taken into consideration. Despite the fact that they recognized the potential advantages that online education could bring to their curriculum, several educational establishments were hesitant to implement it. It was believed that the schools' opposition was due to the fact that they had been using traditional methods of instruction and evaluation for a very long time.

In a research article that was conducted in 2010, Kiptalam and Rodriguez attempted to shed light on the digital landscape of secondary schools in Kenya. They discovered that schools that had made significant expenditures in information and communication technology were the only ones that were able to achieve high rates of internet access. This discovery brings to light the significance of contributing to the development of technological infrastructure in order to broaden access to the internet. Two researchers named Wambiri and Ndani (2017) conducted an investigation to determine the level of by a number of factors, including teachers' opinions, attitudes, computer skills, and self-confidence. According to their argument, teachers cannot be certain that computers and other forms of information and communication technology (ICT) will be incorporated into their courses simply because they have access to these resources. They emphasized the importance of providing educators with specialized training in order to familiarize them with a variety of information and communication technology (ICT) strategies. In order to make the most of information and communication technology (ICT) in educational settings, it is essential to provide training that involves both students and teachers in the use of digital technology.

Arinze and Okonkwo's (2012) research explored the function that information and communication technology (ICT) plays in secondary schools using an innovative methodology. A descriptive survey was used to evaluate the students' understanding, the availability of information and communication technology (ICT) resources, and the impact that ICT integration had on their grades in social science. In the research article, the introduction of information and communication technology had a favourable impact on the academic outcomes of students as well as their enthusiasm for research articleing. This shows the benefits of bringing information and communication technology (ICT) into classrooms in order to improve student performance.

A research that was conducted by Kidombo, Gakuo, and Kindachu (2011) investigated the effectiveness with which teachers of secondary school students in Kenya utilized technology to instruct a variety of subjects. According to their findings, there are a number of elements that are necessary for schools to effectively use information and communication technology (ICT). These aspects include having school administrators who are competent, obtaining specialized training for teachers, having school managers and the organization of ICT training sessions. They emphasized that one of the most important responsibilities of school leaders is to initiate and improve technologies that integrate information and communication. The findings of this research article underline the significance of taking a holistic approach that encompasses policy, leadership, talent development, and infrastructure in order to successfully integrate information and communication technology (ICT) in educational institutions. The e-capacity of primary schools was evaluated by Vanderlinde and van Braak, researchers, in a research article that was conducted in 2010. The need of doing empirical research to establish the ways in which factors at the school level are related to the practical application of information and communication technology in the classroom was acknowledged by them. It is necessary to have both a theoretical understanding and evidence gathered from the real world in order to have a complete comprehension of the practical applications of information and communication technology.

Following up on this, Tondeur, Van Keer, Valcke, and van Braak (2009) investigated the ways in which teachers perceived the impact of school regulations on their use of information and communication technology (ICT) with pupils. Their investigation revealed that there is a significant connection between the policies of the school and the quantity of technology that is utilized in the classroom. The findings of this research article clearly demonstrate the significance of strategic planning and policymaking at the school level. It is the first step for educational institutions to take in order to realize the potential of information and communication technology (ICT) to establish transparent rules and processes that encourage the adoption and usage of ICT. Teknikdelegationen (2010) says that teachers are the primary players who drive the adoption of information and communication technology (ICT) in the classroom. This is in reference to the change of education that ICT brings about. As a result, educators play a critical role in ensuring that educational information and communication technology (ICT) in educational contexts is significantly influenced by the distinctive characteristics, adaptability, and openness to novel concepts that students demonstrate.

During the year 2015, researchers Ayot, Ogembo, and Ondigi wanted to find out whether or not primary school teachers in Kwale County, Kenya were willing to include information and communication technology (ICT) into their lessons. To evaluate whether or not there is a connection between the propensity of teachers to use information and communication technology (ICT) and demographic factors such as gender, age, years of experience in the profession, area of specialization, and degree of education, the goal of the research article was to investigate this question. Unexpectedly, the findings of the research article revealed that the unwillingness of teachers to make use of information and communication technology was negatively connected to their age as well as the availability of a phone with internet connection.

Conceptual Framework

Researchers are utilizing three primary composite components in their studies in order to understand more about the potential of information and communication technology (ICT) in the public secondary schools located in Makueni County. The ability to make use of various forms of information and communication technologies constitutes one level. The objective of this variable is to determine the elements that influence the performance of the school in connection to the knowledge, attitude, experience, and capabilities of the teaching staff in respect to information and communication technology (ICT). This includes the faculty members' prior experience with information and communication technology (ICT), the tools that they have access to, the amount of competence they have with these tools, any training that is pertinent to the topic that they may have received, and their overall perspective on the role that ICT plays in education.

In the second place, the information and communications technology (ICT) infrastructure of the school can determine the financial benefits by assessing the returns on investment for both the school administration and publicly financed ICT. Not only does this variable take into account the availability of these components, but it also takes into account the educational software applications that have been installed, the devices and technologies that are available, the dependability and speed of internet connectivity, and so on.

The final component of the composite is the information and communications technology environment that exists within the organization. This measure evaluates the extent to which the general environment of the school allows for the integration and utilization of information and communication technology (ICT) resources. Aspects such as the level of collaboration between teachers, administrators, and IT staff, the decision-making processes regarding investments in information and communication technology (ICT), the management and oversight of these ICT ventures, the established guidelines or policies that govern the use of ICT, and the role that school leadership plays in becoming a champion for these initiatives are all included in this category. In order to conduct a comprehensive investigation of these issues, it is recommended that qualitative and quantitative research methods be utilized. Examples of potential hurdles that need to be acknowledged include a reluctance to embrace technological advancement or a lack of equal access to resources. In the end, the findings can prove to be extremely helpful in formulating strategies to increase the utilization of information and communication technology (ICT) in educational.

Research methodology

Both qualitative and quantitative research approaches were be utilized. Through the rigorous inspection and interpretation of data, this is a strategy for documenting and understanding social events and research article items in their natural habitats when they are in their native environments.

Research design

In order to investigate the ways in which public secondary schools in Makueni County are utilizing information and communication technology (ICT) to improve student achievement, this research article will adopt a descriptive research technique.

Target population

A research article's population is comprised of all of the individuals who will be the subject of research for that particular research article and who share some observable characteristic with one another. Two groups in Makueni County are the 761 teachers working in public secondary schools and the 277 principals of schools

Research findings and discussions

Influences of ICT integration on educational control in public secondary faculties

The research article's first objective wanted to examine how ICT integration on educational control in public secondary faculties Influence their performance. The research article did a descriptive analysis and found out that with a mean of 3.7055 and a standard deviation of 1.68387 most of the respondent indicated that they have knowledge on word processing software. While with a mean of 2.5216 and a standard deviation of 1.69451 the respondents indicated most of them had little knowledge on data processing software. On the other hand, with a mean of 2.2446 and a standard deviation of 1.53111 the respondents rated the knowledge on power point presentation software. With a mean of 2.4245 and standard deviation of 1.56440 the respondent rated Knowledge on spreadsheet. On the other hand, with a mean of 3.2482 and a standard deviation of 1.66713 the respondents rated Knowledge on internet use. The research article analysis continued and found out that with a mean of 3.1475 and a standard deviation of 1.67908 the participants stated their knowledge on internet use. Table 5 of the research article explain more the findings of the research article.

Table 5: Influences of ICT integration on educational control in public secondary faculties

	N	Minimum	Maximum	Mean	Std. Deviation
Knowledge on word processing software	278	1.00	5.00	3.0755	1.68387

Knowledge on data processing software	278	1.00	5.00	2.5216	1.69451
Knowledge on power point presentation software	278	1.00	5.00	2.2446	1.53111
Knowledge on spreadsheet	278	1.00	5.00	2.4245	1.56440
Knowledge on internet use	278	1.00	5.00	3.2482	1.66713
Knowledge on internet use	278	1.00	5.00	3.1475	1.67908
Valid N (listwise)	278				

Influences of Communique technology integration technology integration in teaching and mastering and their productiveness of public secondary faculties

The 2nd objectives wanted to examine how Communique technology integration technology integration in teaching and mastering and their productiveness of public secondary faculties. The research article did a descriptive analysis and found out that with a mean of 3.4353 and a standard deviation of 1.62820 most of the respondent indicated that there were poor power backup systems. With a mean of 3.3345 and a standard deviation of 1.65192 the respondents indicated most of them had little knowledge on ICT infrastructure. Also, with a mean of 3.4928 and a standard deviation of 1.60717 the respondents indicated the schools lacked ICT man power. With a mean of 3.5683 and standard deviation of 1.58991 indicated that most have inadequate educational software. The research article analysis continued and found out that with a mean of 3.5540 and a standard deviation of 1.59500 most of the schools lacked computer labs. Table 6 of the research article explain more the findings of the research article.

Table 6: Influences of Communique technology integration technology integration in teaching and mastering and their productiveness of public secondary faculties.

	N	Minimum	Maximum	Mean	Std. Deviation
Poor power backup systems	278	1.00	5.00	3.4353	1.62820
Inadequate computers	278	1.00	5.00	3.3345	1.65192
Little know how on ICT infrastructure	278	1.00	5.00	3.4928	1.61165
Lack of ICT man power in the schools	278	1.00	5.00	3.5072	1.60717
Lack of adequate educational software	278	1.00	5.00	3.5683	1.58991
Lack of computer labs in schools	278	1.00	5.00	3.5540	1.59500
Valid N (listwise)	278				

Impacts of school control structures on school productivity

The 3rd objectives wanted to examine Impacts of school control structures on school productivity. The integration of Information and Communication Technology (ICT) in education has been a subject of extensive discussion and research in recent years. In this chapter, we delve into the perceptions surrounding the use of ICT in educational settings, focusing on its impact

on teaching and learning processes. One of the key findings of our research article indicates a generally positive perception regarding the use of ICT to enhance remedial teaching. From the data collected from 278 participants, it is evident that the mean score for this statement is 4.0396, indicating a favourable inclination towards ICT integration in addressing remedial needs. This suggests that educators recognize the potential of ICT tools in providing personalized learning experiences tailored to the individual needs of students requiring additional support. Contrary to concerns that new ICT approaches might negatively impact examination performance; our data presents a nuanced perspective. With a mean score of 3.9820, participants expressed a moderate level of agreement with this statement. While some apprehension exists, it is essential to explore further how specific ICT interventions may affect assessment outcomes and devise strategies to mitigate any adverse effects. The data underscores the perceived importance of ICT knowledge for both educators and learners. With a mean score of 3.9245, participants recognize ICT competency as a vital skill set in today's digital age. This emphasizes the need for continuous professional development initiatives to ensure that teachers are equipped with the necessary ICT skills to facilitate effective teaching and learning experiences. A notable finding is the divergence in opinions regarding the impact of ICT on learner interest. While some participants acknowledge ICT's potential to enhance engagement, others express skepticism, as reflected in the mean score of 2.2410. This highlights the importance of exploring innovative pedagogical approaches that leverage ICT to foster intrinsic motivation and active participation among students. Table 6 of the research article explain more the findings of the research article.

Table 7: Impact of school control structures on school productivity.

	N	Minimum	Maximum	Mean	Std. Deviation
Using ICT enhances remedial teaching	278	1.00	5.00	4.0396	1.32535
New ICT approaches are perceived to have a negative impact towards examinations performance	278	1.00	5.00	3.9820	1.36869
ICT knowledge is necessary for teachers and students	278	1.00	5.00	3.9245	1.40835
Use of ICT in schools does not help in learning because it does not improve learner interest	278	1.00	5.00	2.2410	1.50433
ICT use reduces personal contact between teachers and Learners	278	1.00	5.00	2.0252	1.37385
ICT is a tool that can aid in work preparation like schemes, records of word, and exams.	278	1.00	5.00	3.8813	1.43585
ICT puts more work to the teachers	278	1.00	5.00	2.2482	1.50315
Valid N (listwise)	278				

Use of ICT for effective communication and dissemination of statistics in public secondary colleges

The 4th objectives wanted to examine use of ICT for effective communication and dissemination of statistics in public secondary colleges. The mean score for the statement "School technology leadership is a strong predictor of teachers' ICT use" is 3.9101, with a standard deviation of 1.41772. This suggests a moderate level of agreement regarding the pivotal role of school leadership in driving ICT utilization among educators. Moreover, participants strongly endorsed the notion that effective leadership entails not only implementing ICT plans but also fostering a shared vision among teachers and learners. With a mean score of 4.1115 and a standard deviation of 1.26540, this underscores the significance of collaborative leadership approaches in promoting ICT integration. Furthermore, participants emphasized the critical importance of strong leadership in ensuring the effective utilization of ICT in schools. The mean score for this statement is 4.0540, with a standard deviation of 1.31389, indicating a consensus on the indispensable role of leadership in optimizing ICT resources for educational outcomes. Moreover, the promotion of collaboration, experimentation, and a dedication to learner-centered learning emerged as essential factors influencing effective ICT use. This statement garnered a mean score of 4.1115, with a standard deviation of 1.26540, underscoring the value of fostering an environment conducive to innovation and student-cantered approaches. Lastly, transformational leadership was identified as a key driver for ICT integration in teaching and learning contexts. Participants recognized its potential to catalyze change and innovation, as reflected in the mean score of 4.0827 and a standard deviation of 1.29020. This highlights the significance of leadership styles that prioritize adaptability and forward-thinking strategies in navigating the complexities of ICT integration in educational settings. Collectively, these findings underscore the multifaceted role of leadership in shaping the successful integration of ICT in teaching and learning practices.

Table 8: Use of ICT for effective communication and dissemination of statistics in public secondary colleges.

	N	Minimum	Maximum	Mean	Std. Deviation
School technology leadership is a strong predictor of teachers ICT use	278	1.00	5.00	3.9101	1.41772
A leader who implements ICT plans and also shares a vision with the teachers and learners to encourage them to embrace ICT in teaching and learning	278	1.00	5.00	4.1115	1.26540
Strong leadership is vital to ensure effective utilization of ICT in schools	278	1.00	5.00	4.0540	1.31389
Promotion of collaboration and experimentation as well as teacher dedication to learner centered leaning influences effective use of ICT	278	1.00	5.00	4.1115	1.26540

Transformation leadership improves ICT integration in teaching and learning.	278	1.00	5.00	4.0827	1.29020
Valid N (listwise)	278				

Recommendations

Based on the findings of the research article, the following recommendations are proposed to enhance the integration of Information and Communication Technology (ICT) in public secondary schools and improve productivity:

1. ICT Infrastructure Enhancement - Authorities should prioritize the enhancement of ICT infrastructure in public secondary schools. This includes ensuring reliable power backup systems, sufficient ICT manpower, and the provision of well-equipped computer labs. Investments in infrastructure are essential to support effective ICT utilization and productivity improvement.
2. Professional Development Programs - Implement comprehensive professional development programs for educators to enhance their ICT literacy and proficiency with various tools. Training sessions should address specific areas of need identified in the research article, such as data processing software and PowerPoint presentations. Continuous training will empower educators to leverage ICT effectively for educational control and productivity enhancement.
3. Leadership Training - Provide leadership training programs for school administrators to develop collaborative and transformational leadership skills. Effective leadership is crucial for driving ICT integration efforts and fostering a culture of innovation and collaboration within schools.
4. Curriculum Revision - Revise the curriculum to incorporate ICT skills development at all levels of education. Integration of ICT tools and resources into teaching and learning practices will enhance student engagement, facilitate personalized learning experiences, and prepare students for the digital age.
5. Partnerships and Collaboration - Foster partnerships and collaboration with relevant stakeholders, including government agencies, private sector organizations, and community partners. Collaborative efforts can support initiatives to improve ICT infrastructure, provide access to resources, and promote innovation in educational practices.
6. Monitoring and Evaluation Mechanisms - Establish monitoring and evaluation mechanisms to assess the effectiveness of ICT integration initiatives. Regular feedback from educators, students, and other stakeholders will help identify areas for improvement and refine ICT strategies to better meet the needs of public secondary schools.

Conclusions

Objective 1 focused on examining how ICT integration influences educational control in public secondary schools. The research article's findings revealed varying levels of proficiency among educators with different ICT tools, highlighting strengths in word processing software but indicating gaps in knowledge regarding data processing software and PowerPoint presentations. Despite respondents' familiarity with internet use, areas such as ICT infrastructure and computer labs were identified as lacking. These insights underscore the need for targeted interventions to enhance ICT literacy among educators and improve infrastructure to optimize educational control effectively. Objective 2 sought to investigate the integration of communication technology in teaching and learning processes and its impact on school productivity. The research article's descriptive analysis unveiled challenges in ICT infrastructure, including poor power backup systems and inadequate ICT manpower and educational software. Additionally, the absence of computer labs in most schools was identified as a significant barrier. These findings underscore the importance of addressing infrastructure deficiencies to facilitate effective communication and enhance productivity within public secondary schools. Objective 3 aimed to explore the impacts of school control structures on school productivity, particularly focusing on the integration of ICT in education. The research article revealed the critical role of school leadership in driving ICT utilization among educators, emphasizing the importance of collaborative leadership approaches and transformational leadership styles. By fostering a shared vision and promoting collaboration, experimentation, and learner-centered learning, school leaders can effectively integrate ICT into teaching and learning practices, ultimately enhancing school productivity.

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The researchers wish to confirm that they followed full ethical considerations and acknowledged their sources appropriately without plagiarizing or duplicating other people's works unprofessionally.

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The researchers concedes that they are the sole authors of this research article that creatively contributes to the world of academia.

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