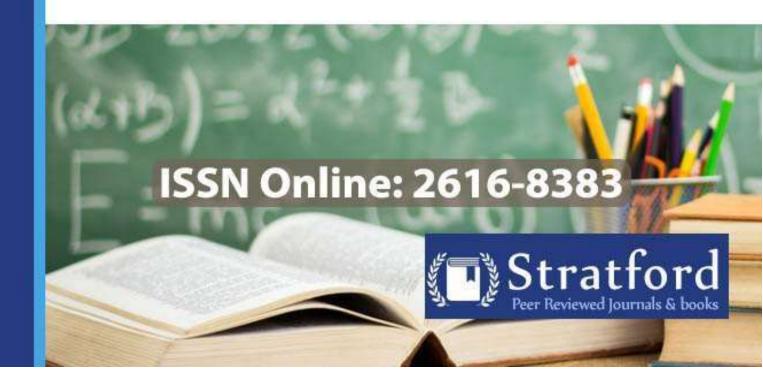
Journal of Education



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Ishimwe Honore, Mr. Mugo Letanzio & Dr. Marie Claire Mukamazimpaka

ISSN: 2616-8383



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*¹Ishimwe Honore, ²Mr. Mugo Letanzio & ³Dr. Marie Claire Mukamazimpaka

¹Masters Student, Educational Planning, Management and Administration, Mount Kenya
University

²Lecturer, Educational Planning, Management and Administration, Mount Kenya University

³Lecturer, Educational Planning, Management and Administration, Mount Kenya University

*Email Address of the Corresponding Author: ishimweh50@gmail.com

How to cite this article: Honore, I., Letanzio, M. & Mukamazimpaka, M. C. (2022). In-Service Training Activities and Teachers' Performance in Public Secondary Schools a Case of Gatsibo District: Journal of Education, 5(4), 46-65. https://doi.org/10.53819/81018102t3054

Abstract

In-service teacher training activities are regarded as the backbone of teacher performance throughout the educational process and the quality of education with learner academic attainment, but planning and implementation remain major issues in public secondary schools. The purpose of this study was to evaluate the effects of in-service teacher training activities on teacher performance in Gatsibo district public secondary schools, with the following specific objectives; This study first assessed the extent to which teachers receive in-service training activities in Gatsibo District's public secondary schools; second, it assessed the level of teacher performance in Gatsibo District; and finally, it investigated the impact of in-service teacher training activities on teacher performance in Gatsibo District's public secondary schools. The data was gathered from 14 Gatsibo District head teachers and 149 teachers. Purposive sampling was used to obtain the number of schools and head teachers as respondents, as well as a proportion stratified sampling technique to obtain the number of teachers who participated in each school as respondents in this study. An interview guide was used to obtain key information from head teachers in the Gatsibo the district for qualitative data. On the other hand, the questionnaire was used to publicize secondary school schools from each sector in the Gatsibo district. Stata was used as an assisting statistical software to generate means, frequencies, and standard deviations for the analysis of the collected data. According to the findings of the study, 87% of teachers agreed that they need training on how to prepare pedagogical documents in public schools. Although the findings revealed that there is a high demand for regular in-service training among teachers in public secondary schools in Gatsibo district, in-service training has an insignificant association with teacher performance. Recommendation to the government: Assess the outcomes of in-service trainings through monitoring and evaluation. The government should establish a process for gathering feedback from trainees by requesting a monthly report from school leaders on in-service trainings held at the school level.

Keywords: In-Service, Training Activities, Teachers' Performance, Public Secondary Schools, Gatsibo District.



1.0 Background to the study

In-service training is an activity that improves teachers' capacity to deal with the difficulties that have occurred in the education sector and the needs that exist today. In Turkish, Moeini (2008) stated that there are numerous difficulties in the teaching profession, some of which include rapid changes in advanced technology and science, as well as society's continuous high expectations of educational quality. Because of the dynamic education system and society's and parents' high expectations, these factors put pressure on schools and teachers. To adapt to that dynamic education system and meet the expectations of society and parents, the issue of improving teachers' capacity and education through in-service training activities is required. According to Abdul-Kadir et al. (2008) in his study which is entitled" the relationship between in-service training and teaching skills with student achievement in Malaysia", training is process of skills development, empowering ability, behavior transformation, upgrading knowledge, attitudes to perform certain assignment more efficiently and effectively. By concerning in education sector, in service training activities among the teachers are considered as a strong weapon to make teaching and learning more effective and efficient. The only option of upgrading the pedagogical skills and knowledge of teachers should attend in-service training activities from time to time. Professional training activities are needed to empower the skills and knowledge in particular areas which brings changes both teaching and learning methodology or content for the empowering of the academic achievement. By concluding, has shown that the desire to always upgrading one's skills and knowledge is one of the characteristics of an effective teacher.

In-service teacher training activities have evolved and grown on a global scale over the last three decades. According to Chang *et al.* (2010) in their assessment titled "in-service English Teacher Training Program Evaluation," activity that improves skills and knowledge plays a critical role in many countries as a key strategy for empowering quality education and its provision. South Korea contended that in-service teacher training and other professional courses for teachers allow them to gain advanced knowledge and become more qualified through a better understanding of effective instructional methods and strategies. However, in-service training activities can be just as beneficial and important as pre-service teacher training. It is the responsibility of the government and other stakeholders to provide teacher education based on their needs through inservice training (Osamwonyi, 2016). The primary goal of the in-service teacher training activity is to enable and empower people working in the education sector to be successful (Omar, 2014). To foster a culture of capacity building and knowledge in deep-rooted learning and teaching in order to empower performance that society requires. The issue of improving workers' skills and knowledge for routine duties and responsibilities has sparked debate among lawmakers and government officials (Malhotra *et al.*, 2007).

The growing global competition and a dynamic global marketplace have pushed public organizations and institutions to become more adaptable and effective in their training. According to Rodrigues (2005), public organizations should invest more in training service delivery workers to increase employees' competency for both the organization and the institution, as well as to benefit others. The initial training is the most important aspect of effective and efficient work performance in a career system. Especially new employees who are incompetent in their responsibilities (Fraser *et al*, 2007). Nonetheless, initial training provides general preparation for public service delivery. Information and communication technology (ICT) and school management are two fields that require extensive training to upgrade teachers' skills in these areas.



One of the suggestions made by seventy teachers from six secondary schools is an analysis of the need to inform the government and stakeholders in education in the planning of in-service teacher training (Michael, 2017) in his assessment titled "assessment of the effect of in-service training on teachers' performance in secondary schools in Kisumu District" (Tanzania).

Between 2008 and 2012, in-service teacher training activities in Nyarugenge district public secondary schools were ineffective. In the assessment titled "in-service education program for secondary school teachers and students academic performance in Nyarugenge district" (Jean-Paul, 2017), it was discovered that in-service teacher training in secondary schools is irregular. He also discovered that poor student and teacher performance is not a result of qualification because school teachers are qualified, but there are a large number of unqualified teachers in the subjects they teach. In-service can be a factor in poor performance, but most secondary schools lack technology, laboratories, and other modern tools. In-service training activities provide direct or specific preparation for new educational methodologies as well as modern education, which is mandated by advanced technology and science. Based on the various insights from different studies about In-service teacher training activities in public schools presented above, the purpose of this assessment is to evaluate the impact of upgrading the skills and knowledge of teachers in secondary public schools in the Gatsibo district in accordance with societal expectations and needs.

1.1 Problem Statement

Amadi (2013) indicated that, the teaching profession necessitates specific competencies that can be improved through initial education. Amadi (2013) also observed that in order to achieve highquality education, teachers' knowledge and skills must be upgraded through training and other professional courses. Teachers' training and other professional courses are important components of the quality education and outcomes that society expects from them (MINEDUC, 2016). Because of the dynamic nature of Rwanda's education system, there should be an increase in teacher capacity and education through in-service teacher training activities and other professional courses that are very useful in adapting to the dynamic nature of the education system and society's expectations. According to the 2019 statistical year book, the number of qualified teachers in secondary schools was 67.90%, up from 68% between 2017 and 2018. This demonstrates that there is a gap that should be filled by in-service teacher training activities. Iwasaki et al. (2015) argue that, their assessment found that school-based in-service training should be implemented using a capitation grant. In 2013, 15% of capitation grants were used to strengthen teacher capacity. According to de la Garza (2016), the government has established a program that encourages teachers to upgrade their knowledge, competencies, skills, and qualifications through structured activities of continuous professional development and distance learning where the professional will reach.

According to de la Garza (2016), despite the fact that the government has aligned various frameworks to empower service teacher training activity, it has been observed that there is a gap between unqualified teachers, a lack of competency, and a lack of capacity building among the teachers that these frameworks have aligned for. Many secondary school teachers were not qualified or equipped, which resulted in a decrease in student academic performance in national examinations between 2008 and 2012 due to irregular in-service training, unqualified teachers, and a lack of school facilities that should have allowed teachers to access distance learning (Paul et al., 2013). The purpose of this study was to assess the impact of activities that improve skills and knowledge on educators' performance in secondary public schools, as well as the availability of



programs that improve skills and knowledge in secondary public schools and their impact on teachers' performance in the Gatsibo district between 2015 and 2020.

1.3 Research Objective

- i. To assess the extent to which teachers receive in-service training activities in public secondary schools in Gatsibo District.
- ii. To assess the level of teacher performance in Gatsibo District.
- iii. To investigate the influence of in-service training activities on teacher performance in public secondary schools in Gatsibo District.

1.4 Research Questions

- i. To what do extent teachers in Gatsibo district receive in -service training activities in public secondary schools?
- ii. What is the level of teacher performance in public secondary schools that is due to inservice training in Gatsibo district?
- iii. How do in-service teacher training activities influence the teacher performance in public secondary schools Gatsibo District?

2.1 Theoretical literature

The section presents literature on variables namely; in-service training, teacher performance, factors influencing teacher performance, in-service teacher training and teacher performance, and related government policies on in-service training programs.

2.1.1 In-service Training

Training in any field is a process that teaches new techniques and builds capacity with behavior in people to fulfill their tasks in accordance with the job standard and make the job more efficient in productivity (Omar, 2014). The activities of education knowledge and skill upgrading are defined as consistent learning that was created to retrain teachers, make them fit for dynamic technology, and increase their proficient capacity. Consistent re-education activities are regarded as an important part of the educational process because they can aid in the acquisition of new methodologies and the upgrading of content levels acquired from educational institutions. This activity is extremely important in solving problems in society, whether they are economic, social, or cultural in nature (Phin, 2014). According to Michael (2017), the activity of upgrading knowledge and skills is assistance provided to teachers and education administrators in order to improve their capacity and upgrade their skills and knowledge in their functions.

The pedagogical day is the most common approach to teaching. It is concerned with learning practice and theory, as well as how this process has been influenced by the learners' cultural, economic, social, and political determinants (Kapur *et al.*, 2008). In this study, it was discovered that the pedagogical day approach is a key determinant of achieving academic goals and promoting student learning in the general education system. Field trips provide numerous opportunities for connecting and motivating teachers to understand and appreciate classroom concepts, which improves the foundation of teachers' knowledge, higher levels of thinking strategies, and promotes further learning. The assistance of field trips increases the understanding that comes with a teacher's self-esteem in the teaching profession (Behrendt, Richter & Trier, 2014). According to https://doi.org/10.53819/81018102t3054



Musa and James (2022), it is difficult for teachers to understand well classroom theories; therefore, during field trips, teachers are required to locate the content of the subjects they are teaching and rise to understand.

The fourth indicator, according to Keshavarzi (2012), is feedback and follow-up activities. It has been observed that teacher development among teachers always seeks to bring about change in terms of teacher performance, so trainers and professional development providers should consider the change process or phenomenology to ensure that new skills and knowledge are implemented. As a result, follow-up facilitates phenomenology development through in-service training activities in the teaching profession. Dembélé et al. (2017), while upgrading teachers' skills and knowledge is critical for professional development, a common hindrance to professional development in different countries is a lack of follow-up and feedback. As a result, in many countries, in-service teacher training activities are not productive in the education system because there is no regular follow-up of in-service teacher training activities, which is very helpful in filling gaps and improving learners' skills and knowledge. The absence of in-service teacher training activities will impede professional growth in the education system through teacher performance as well as the gap between demands and achievement levels. In addition to filling the gap between demand and achievement, in-service teacher training in education allows seminars, conferences, and exhibitions designed to improve and develop teachers in the education system from the initial system stage to retirement of their carrier (Eduwen & Osagie-Obazee, 2016).

2.1.2 Teachers performance

Evaluating a teacher's performance is a method of determining a person's level of success in a function or task, as well as the factors that influence her/his success (Ertürk, 2021). In the education system and many other occupational groups, teacher performance evaluation and function are assessed based on production results and customer density satisfaction, which can give an idea about performance. In-service training activities for teachers play a critical role in the education system because evidence shows that teacher training and education are extremely important. Its roles have been highlighted to international organizations and governments through research and various assessments and reports. The in-service teacher training activity is eminence provided to the education system, it has been the benefits analyst guiding himself a selection of activities of enhancing knowledge and skill of educator owned field of learning. (Medard, 2020).

Guerriero and Brodsky (2012) stated that teachers' pedagogical knowledge, as manifested in the preparation of pedagogical documents, determines teacher quality. She also observed that pedagogical skills and knowledge refer to the typical skills and knowledge of educators for providing effective learning and teaching environments for all learners. Punctuality is the efficient use of time for the completion and productivity of a specific task. Punctuality examines the management of assignment schedules with organizing, planning, and implementation to achieve the goals and objectives of specific institutions. Teacher punctuality has a significant impact on their performance as well as the performance of their students (Sahito *et al.*, 2016). In-service training improves teachers' analytical abilities, which is critical for student focus (Coffey, 2014). However, the main impediment to making the necessary progress and achieving the desired results in adopting the student-centered approach is a lack of in-service teacher training activities (Ahmed & Qazi, 2011). He concluded that the main concern in preparing for in-service teacher training activities to upgrade students' skills and knowledge should be their academic achievement.



2.1.3 Factors that influence teacher performance

Pedagogical leadership is a type of school leadership and management that focuses on pedagogical aspects, teacher professional development, distributed leadership, and participation in school development. Leadership in the education system is an important factor that influences today's educational demands and is a fundamental feature of a successful school through teacher performance (Contreras *et al.*, 2016). Altunova and Artun (2020) discovered that administrative factors influence teacher performance more than pedagogical factors. The behaviors of leaders are strongly related to teacher well-being and performance, student achievement, and school organizational health (Liebowitza, 2019).

Performance is something that is sought after and obtained; it is the potential of tasks carried out with proper results that is revealed (Susanto & Suhartono, 2022). Performance is the outcome of work done by someone in any field to achieve goals based on size or standard and time to the type of work and by established norms and ethics. According to (Mulita, 2019), there is a positive relationship between achievement motivation and teacher performance. She observed that teacher achievement motivation will improve teachers' performance in their daily assigned tasks in the teaching profession. In addition, there is no difference between academic performance and teacher motivation, and teacher motivation in secondary school affects teacher performance in both urban and rural schools in the same way (Kennedy & Russell, 2021).

2.1.4 In service teacher training and teacher performance

The in-service training activity not only improves teacher performance in secondary schools from the standpoint of teaching profession expertise, but it also improves knowledge and upgrades the spring of information for education learners (Norwani *et al.*, 2017). In-service training helps them maintain better classroom discipline while also improving teacher confidence in their profession through methodology and interaction with students. According to Junejo, Sarwar, and Ahmed (2018), in-service teacher training activities are viewed as a long-term investment in improving teachers' professionalism and skills. To create an effective education system, activities to improve educators' knowledge and skills with an emerging approach to the educational process should be established. In-service teacher training activities assist educators in acquiring current skills and techniques that make education more efficient and effective.

2.1.5 Related government policies on in-service training programs

Kasulu (2017) observed in his assessment titled "the effect of in-service training on teacher's performance in secondary schools" that there is a need for teacher training planning in Tanzania's education system because the findings revealed that teachers are eager to be trained on school management, information technology, and their curriculum. In 2016, Rwanda's Ministry of Education authorized teacher training activities in a variety of schools with the goal of improving teachers' knowledge and skills in information and computer technology, with the teacher training focusing on E-learning, distance education, and blended learning. According to the findings of this report, in-service teacher training activities play an important role in enabling pedagogical and technological development for staff members and stakeholders in order for them to stay current (MINEDUC, 2016). The in-service teacher training activities aim to provide teachers with a broader range of high-quality tools and resources to create innovative, challenging, and engaging learning opportunities, as well as to analyze and act on a broader range of student performance data.



2.2 Empirical literature review

The section discusses literature review base on a global perspective, regional perspective and a local perspective.

2.2.1 Worldwide Context

The success of the education system in Indonesia through educators should not be separated from the role of encouragement, proficiency and strictness tools of influencing educator productivity. According to Miako (2008) in Malaysia, which has the aim of performance strengthening through facility motivation, improvement, culture and job competence toward the empowerment of human resource quality, observed in-service teacher training. In Indonesia, to understand teacher competence consider the government institution which is in charge of Education and academic qualification and competence. It is defined that the teacher competence standard is developed completely from 4 main competencies follows: firstly, professionalism, the second one is personality, the third is social and the last is pedagogical competence (Maklasa & Ceobanu, 2022).

2.2.2 African context

The in-service teacher training program is critical in getting staff members to collaborate in study groups, conferences, and workshops on topics of mutual interest in order to improve their competence and professional growth. According to Oyebade *et al.* (2011), in their assessment of Nigeria, many schools and institutions are registered for professionalization, with the hope of steadily increasing pre-service teacher training, given the increasing enrolment in teacher training programs in tertiary institutions, including the programs of the National Teachers Institute in Nigeria. In Benin, Osamwonyi (2016) observed that the continuity of upgrading skills and knowledge plays a critical role in changing the approach to teaching and learning with the curriculum. In-service teacher training will be a good place for teachers to experiment with new teaching methods. In fact, in-service teacher training constantly improves educators' skills and knowledge, and it is critical in filling gaps in library services education, guidance and counselling, and evaluation techniques.

2.2.3 East Africa Context

In-service teacher training activities enable teachers to teach their subjects with confidence and practice in a safe environment, increasing the professionalism of the education system (Aglazor, 2017). Ntawiha *et al.* (2011) found that the resolution to poor performance of teachers in subjects of mathematics and physics should be the provision of meetings and other manipulative skills that will help to achieve the main goal of education in their report about the activities of upgrading the skills and knowledge of educators. In-service teacher training is the main pillar of ensuring teacher effectiveness and efficiency in order for them to carry out their roles and responsibilities effectively. According to Katitia (2015), in order to accommodate diverse learners and larger classes in the twenty-first century, Kenyan teachers must be adequately prepared through clinical schools and the use of technology. This will enable them to incorporate technology into their teaching classrooms. The in-service teacher training activities will prepare teachers to conduct research as a suitable solution to problems in their classrooms.

Muvunyi (2016) indicated that in-service teacher training in Rwanda provides teachers with continuous professional development in their assessment titled "Teacher training in Rwanda and the shift to English-medium education." In-service teacher training activities, for example, have



focused on English language for all secondary and primary school teachers, science and mathematics for secondary school teachers, and school management training for principals over the last seven years. 45,000 teachers received English training, while 4,500 received only science and mathematics training. In-service teacher education must teach teachers how to practice the essential skills of teaching and learning in order to produce good students who will become good teachers in the Rwandan education system in the future (Ndagijimana, 2013).

2.3 Theoretical Framework

The section present theories that inform the variables of the study which include; motivation theory and performance theory.

2.3.1 Motivation theory (Abraham Maslow hierarchy of needs in 1943)

Motivation theory is regarded as one of the twentieth century's most influential psychologists (Maslow, 1954). The theory is based on a simple premise: humans have hierarchically ranked needs. There are some basic needs that all humans have, and without them, nothing else matters. As we meet these basic needs, we begin to look for higher-order needs. In other words, once a lower-level need is met, it ceases to be a motivator. Maslow's Hierarchy of Needs: Psychological, safety, social, esteem, and self-actualization needs. The connection between this theory and the provision of in-service training among secondary school teachers is that when in-service training activities are provided to teachers, the need for self-actualization is met because the need for selfactualization refers to "becoming all you are capable of becoming." This need manifests as a desire to learn new skills, face new challenges, and act in ways that will lead to the achievement of one's life goals. This means that after receiving in-service training, teachers will gain new skills that will help them address new challenges in their profession. One criticism concerns the order in which the needs are prioritized. Individuals who go hungry and are afraid for their lives may form strong bonds with others, implying a different hierarchy of needs. Researchers failed to provide evidence to support the claims that once a need is met, it no longer serves as a motivator and that only one need is dominant at any given time.

2.3.2 Performance theory

Turner and Schechner (1985) proposed the Performance theory. It is a "journey, not a destination," according to performance theory. The stage of the journey is referred to as the "level of performance." Each level represents a performance's effectiveness or quality. Performance development is a journey, and your performance level describes where you are on that journey. Six factors influence current performance: context, level of knowledge, level of skills, level of identity, personal factors, and fixed factors. Three axioms are proposed for effective performance enhancement. These include the performer's mindset, immersion in an enriching environment, and reflective practice. So, if performance is a journey, regular in-service trainings for teachers should be provided, with their levels of performance evaluated along the way. This will help determine which in-service training activities should be provided to improve their level of performance.

2.4 Conceptual Framework

The conceptual framework depicts the independent variable, in-service training, as well as the mediating variable, government policies and the dependent variable, teacher academic

performance. Figure 1 illustrates the variables.



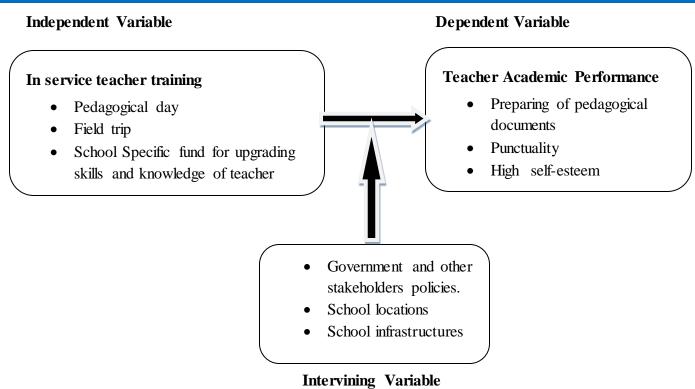


Figure 1: Conceptual Framework

3.0 Research Methodology

The study used a descriptive research design. Descriptive research is very helpful on the first and second objectives, which clarify the extent to which teachers in public schools receive in-service training activities in the Gatsibo district level of teacher performance in the Gatsibo district, while correlation research design was critical. The third goal of this study was to determine the impact of educator skill and knowledge upgrading activities on educator productivity. The target population consisted of 91 public secondary schools and 1302 teachers. The target population consists of 237 teachers from 14 different sectors. A proportional stratified sampling technique was used to select teachers from each sector in the Gatsibo district. The interview was conducted with the selected public secondary school principals in the Gatsibo district. The respondents for this study were chosen because they were thought to be the population with the necessary key information to achieve the research's goals and objectives.

The sample size was 149 teachers, including 14 principals. An interview guide and a questionna ire were used to collect the necessary information from the research's selected respondents. The interview guide was distributed to the Gatsibo district's head teachers in selected sectors. The questionnaire was distributed to public secondary school teachers from each sector in the Gatsibo district. For quantitative data analysis, descriptive statistics were used. Thematic analysis was used to analyze the qualitative data by indexing and categorizing the responses into common themes; after-regression analysis was used to determine how the independent variables affect the dependent variable. Stata was used as an assisting statistical software to generate means, frequencies, and standard deviation, which were then used to describe the findings.



4.0 Findings and Discussion

The study revealed that 9% of teachers had experience of less than 1 year, 12% of them were in 1-3 years of working experience and a large number of them, which represents 11% of the total percentage have worked 3-5 years and 68% represents the teachers who have above of five years of working experience. The majority of the teachers fell in the experience of above of five years which has been very positive to the research.

Table 1: Rate of in-service training that provided among public schools

Rate of in-service training	Frequency	Percentage
Never	5	3.36
Rarely	35	23.49
Sometimes	82	55.03
Often	27	18.12
Total	149	100.00

Table 1 shows that 55.03% of teachers have received in-service training in their teaching career, while 3.36% have not received in-service training in their teaching career, 23% have rarely received in-service training, and 18.12% have frequently received in service. This demonstrates that in the Gatsibo district, teachers of selected public secondary schools receive in-service training, owing to the high number of teachers who have received in-service training at some point in their teaching careers.

Table 2: Attendance of in-service training

Attendance of in-service training	Frequency	Percentage
Never	2	1.39
Rarely	36	25.00
Sometimes	79	54.86
Often	27	18.75
Total	144	100.00

Table 2 shows that 1% of teachers did not attend in-service training and that only 25% of teachers did attend in-service training. 55% of teachers occasionally attended in-service training while serving, and 9% of teachers frequently attended in-service training. This means that the majority



of teachers from Gatsibo district's selected public secondary schools will attend in-service training while they are currently serving. This has a negative impact on the efficacy of in-service training because if half of the selected public secondary schools in the Gatsibo district do not have regular training activities and their attendance is low, it shows that in-service training has little influence on education in public secondary schools in Gatsibo.

Table 3: Received in service by experience

	Received in service by experience %	Frequency	Percent
Less than one year	Never	2	14.29
•	Rarely	4	28.57
	Sometimes	7	50.00
	Often	1	7.14
Total		14	100.00
Between 1-2 years	Never	2	11.11
·	Rarely	7	38.89
	Sometimes	7	38.89
	Often	2	11.11
Total		18	100.00
Between 3-5 years	Sometimes	10	62.50
·	Often	6	37.50
Total		16	100.00
Above 5 years	Never	2	1.96
•	Rarely	24	23.53
	Sometimes	58	56.86
	Often	18	17.65
Total		102	100.00

Table 3 shows the data for in-service training received based on experience. Of the teachers with less than a year of experience, 50% said they received in-service training occasionally, 29% said it was rare, 14% said they never received in-service training, and 7% said they received in-service training frequently in their career. For teachers with one to three years of experience, 11% said they had never received in-service training, and 39% said it was uncommon. On the other hand, 39% said they received training on occasion, and 11% said they used to. In terms of other categories, the majority of teachers interviewed said they had received in-service training on occasion, indicating that in-service training is inconsistent across public schools. This has a negative impact on teachers' competence, job satisfaction, and student and teacher achievement.



Table 4: In service training received organized by:

In service training received	Frequency	Percent
Your school	72	50.00
Ministry of education(MINEDUC)	24	16.67
Any stakeholder of MINEDUC like NGOs	48	33.33
Total	144	100.00

Table 4 shows that the school organized in-service training for 50% of the teachers. 16.67% of teachers attended in-service training organized by the Ministry of Education (MINEDUC), while 33.33% of teachers received in-service training organized by any MINEDUC stakeholder, such as NGOs. The school is far more likely than the ministry of education and other stakeholders such as NGOs to organize in-service training for their teachers. This implies that schools should first organize teacher training based on the required skills and knowledge to help them achieve school goals.

Table 5: Types of in-service training received

Types of in-service training received %	Frequency	Percent
Your teaching subject specifically or content	31	21.53
Teaching methodologies in general	81	56.25
Change taken place in education system	32	22.22
Total	144	100.00

Table 5 results show that 56% of teachers attended training about teaching methodologies in general, 22% of teachers attended training about teaching subjects specifically or content, and 22% of teachers attended training about changes in the education system. This indicates that, in general, teaching methodologies were a significant type of training to make teachers very productive and more likely to change in the education system and teaching subject specifically or content training.



Table 6: Rate of training satisfaction

Rate of training satisfaction	Frequency	Percent
Very unsatisfied	1	0.69
Unsatisfied	19	13.19
Moderate	58	40.28
Satisfied	56	38.89
Very satisfied	10	6.94
Total	144	100.00

Table 6 shows that 1% of the teachers were very dissatisfied with the training they received, 13% were dissatisfied with the training they received, 40% were moderately dissatisfied with the training they received, and 39% were satisfied with the training, resulting in 7% of the teachers being very satisfied with the training. This satisfaction increases teachers' competence in the form of skills, knowledge, and attitudes toward better growth and teacher development, which is very similar.

Table 7: In service training about preparing pedagogical document

In service training about preparing pedagogical document	Frequency	Percent
None	41	27.52
Once	33	22.15
Twice	16	10.74
More than twice	59	39.60
Total	149	100.00

Table 7 shows the rate at which teachers received in-service training on preparing pedagogical documents. Whereas 27.52% of teachers had none, which means they had never received this type of training, 22.15% and 10.74% had received it at least once or twice, and 39.60% had received it more than twice during their teaching career. When compared to others, the number of people who trained more than twice is significantly higher, which has a significant impact on teacher performance via pedagogical principals.



Table 8: Rate of needs of pedagogical training

Rate of needs of pedagogical training	Frequency	Percent
Strong agree	46	30.87
Agree	84	56.38
Disagree	17	11.41
Total disagree	2	1.34
Total	149	100.00

Table 8 shows that the majority of teachers (strongly agreeing with 30.87% and agreeing with 56.38%) agreed that they needed training on how to prepare pedagogical documents, while nearly 11.41% disagreed. Demanding pedagogical training builds teachers' capacity in terms of skills and knowledge.

Table 9: Regress pedagogical documents skills in-service training received pedagogical day fieldtrip in-service training funds

Source	Ss	df	Ms
Model	58.898143	4	14.724536
Residual	166.59491	139	1.1985246
Total	225.49306	143	1.5768745

Number of obs = 144

F(4,139) = 12.29

Prob>F = 0.0000

R-squared = 0.2612

Adj R-squared = 0.2399

Root MSE = 1.0948

Source: Primary data (2021)

Table 9 shows the significance level with coefficient P that determines whether in-service training, pedagogical day, field trip, and in-service training funds are significant in the preparation of pedagogical documents skills that manifest teacher performance. P is 0.000, which is less than 0.05. If the effect of independent variables on the dependent variable is significant at P 0.05, then service training activities have a significant impact on teacher performance in the context of pedagogical document preparation skills. According to the study findings, the R-square is 0.2612, indicating that the independent variable contributes 26.12% to teacher performance. This means that in the context of how to prepare pedagogical documents in public secondary schools in the



Gatsibo district, there is the weakest correlation between in-service training activities and teacher performance.

Table 10: Regress self-esteemin service training received pedagogical day fieldtrip in service training funds

Source	Ss	Df	MS
Model	369337127	4	092334282
Residual	39.8528851	139	286711404
Total	40.2222222	143	281274281

Number of obs = 144

F(4,139) = 0.32

Prob> F = 0.8628

R-squared = 0.0092

Adj-Rsquared = -0.0193

Root MSE = 53545

Source: Primary Data (2021)

Table 10 shows how in-service training activities affect teacher performance. The study findings revealed that the R-square is 0.0092, implying that the overall contribution of independent variables to self-esteem is 0.92%. This study found the weakest correlation between in-service training activities and teacher performance in the mirror of self-esteem in public secondary schools in the Gatsibo district. Similarly, the P value (0.8628) is greater than 0.05, indicating an insignificant relationship between independent and dependent variables. This demonstrates that there is insignificant relationship between teachers' self-esteem and in-service training received, pedagogical day, field trips, and in-service training funds.

Table 11: The contribution of each independent variable on self-esteem

self-esteem	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
In-service training received	063565	.0705595	-0.90	0.369	2030736	.0759436
pedagogical day	0087362	.0485773	-0.18	0.858	1047822	.0873098
Fieldtrip	.0601422	.1170891	0.51	0.608	1713638	.2916482
In-service training funds	.0304012	.0693778	0.44	0.662	1067711	.1675735
_cons	1.938693	.3329219	5.82	0.000	1.280447	2.596938

Table 11 shows the contribution of each independent variable to the teacher's self-esteem, which reveals the teacher's performance. The results of the data analysis show that the field trip has the greatest contribution to increasing self-esteem when compared to other variables, while the in-



service training received has the least contribution to the teacher's self-esteem. This demonstrates that when teachers from different schools interact, it helps them boost their self-esteem. Though there is no overall association between in-service training and teacher self-esteem, the research concluded that the main cause of teacher self-esteem is not the field trip; however, no small effect should be overlooked. Field trips and funds for in-service training are beneficial. The independent variable (field trip and in-service training funds) has a positive effect on the dependent variable (teacher performance).

Table 12: The contribution of independent variables on preparation of pedagogical document

Pedagogical documents skills	Coef.	Std. Err.	t]	P>t	[95% Conf.	Interval]
In-service training received	.724097	.1442634	5.02 0	0.000	.4388626	1.009331
pedagogical day	.1137847	.0993195	1.15 0).254	0825876	.310157
Fieldtrip	.0830437	.2393963	0.35 0).729	3902854	.5563728
In-service training funds	5218808	.1418475	-3.68 0	0.000	8023385	2414232
Cons	1.711926	.6806806	2.52 0	0.013	.3661	3.057753

Table 12 shows the impact of independent variables on teachers' ability to prepare pedagogical documents, which manifests as teacher performance. The results of the data analysis show that inservice received has the greatest influence on how to prepare pedagogical documents when compared to the other variables. Training received, pedagogical day, and field trips have positive effects on how to prepare pedagogical documents, whereas training funds have negative effects. In-service training received and funds for in-service training have a significant effect on how teachers prepare pedagogical documents, whereas pedagogical days and field trips have an insignificant effect on how teachers prepare pedagogical documents that reflect their performance. When one unit of in-service training, pedagogical day, and field trip is added, the ability to prepare pedagogical documents improves by 0.724097, 0.1137847, and 0.0830437, respectively. As a result, it demonstrates that the independent variable (In-service training) has a positive effect on the dependent variable. This demonstrates that the more in-service training teachers receive, the more skills they gain in preparing pedagogical documents.

5.0 Conclusions

The study sought to determine the impact of in-service training on teacher performance in the Gatsibo district. The data was gathered using both quantitative and qualitative methods. For data analysis, the study used Stata version 14 with Frequency, percentage, standard deviation, and thematic analysis for qualitative data. Regression analysis was used to determine the effect of the independent variable on the independent variable. According to the findings, half of the teachers have received in-service training in their teaching careers. Teachers in public schools receive inservice training once a year. In-service training in the Gatsibo district may take up to two years. There is no ongoing training for teachers to improve their skills and knowledge. Despite the fact that in-service training activities in public secondary schools are irregular, the findings confirmed that some teachers do not attend in-service training. According to the findings, the schools are



responsible for organizing in-service training activities to empower their teachers in form skills and knowledge.

The findings indicate that there is a need to develop strategies for establishing a regular policy of serving service training to teachers in public secondary schools, rather than relying on schools to organize activities that improve teachers' skills and knowledge. Training that improves the skills and knowledge of teaching methodology in general is a common type of in-service training in public schools. The study found that the majority of teachers are satisfied with the training they received, which leads to high competence in their profession. In terms of academic punctuality, teachers are better able to complete planned academic activities on time with the assistance of progress evaluations by head teachers. Although the findings revealed that there is a high demand for regular in-service training among teachers in public secondary schools in the Gatsibo district, in-service training has an insignificant association with teacher performance. This suggests that the government create a clear policy governing teacher in-service training.

6.0 Recommendations

Establishing strategies for effective in-service training on teacher performance in public secondary schools is critical, and its implementation requires strong collaboration among stakeholders, teachers, school leaders, government officials in charge of education, and non-governmental organizations (NGOs). The following recommendations are made to improve the effectiveness of in-service teacher training: In-service training has a significant impact on teacher performance, particularly when teachers attend it on a regular basis. Monitoring and evaluating the learning process makes it more productive and effective. School leaders should ensure that teachers' attendance at in-service training is monitored and evaluated using an in-service training attendance book, removing any barriers that may prevent teachers from attending the training. School leaders should use the percentage of capitation grants reserved for academic (in-service teacher training) to sustain and strengthen teacher training. Because the government plays an important role in planning, organizing, and implementing in-service teacher training, this study recommends that the government develop a clear policy governing in-service teacher training. Monitoring and evaluation should be used to assess the outcomes of in-service training.

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