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RESEARCH ARTICLE

EFFECT OF IN-SERVICE TEACHER TRAINING PROGRAM ON TVET TRAINER'S PERFORMANCE IN TECHNICAL SECONDARY SCHOOLS IN RWANDA, A CASE OF KICUKIRO DISTRICT

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Abstract

The general objective of this study was to examine the influence of an in-service teacher training program on the performance of TVET trainers in Kicukiro district. Specifically, this study's objectives were: to identify the level to which TVET trainer receive in-service teacher training program in Technical Secondary School Kicukiro District, to assess the level of performance of TVET trainers in Technical Secondary Schools in the Kicukiro District and to evaluate the relationship between in-service training program and TVT trainers' performance in Technical Secondary School Kicukiro District. The combination learning theory and system theory was served as the researcher's guide. The study's population was 207 people (197 teachers and 10 head teachers) from all of the Kicukiro District's Technical Secondary Schools. The survey was designed in a descriptive manner. A sample size of 137 was chosen using Yamane's formula. Using random sampling and purposeful selection, the population was chosen as the sample size for the study. Every questionnaire was dispersed by the researcher. The format of the analysis was influenced by the particular qualitative and qualitative methodology employed as well as the format of the data. The data that was collected in this study was examined and displayed in the order of the research objectives utilizing frequency, percentages, and tables as descriptive statistics. Data was gathered via teacher questionnaires and head teacher interview guides. The researcher examined and interpret the results after going to the field. The study found that 84.5% of the respondents agreed that they participate in service teacher training program every time, 94% of the respondents agreed that In-service teacher training program is very necessary for all teachers, 52.5 of the respondents disagreed that In-service teacher training program is only for new teachers, 57.6% of the respondents Disagreed that In-service teacher training program is necessary for old teachers while 60.5% of the respondent disagreed that In-service teacher training program is not necessary at all. 83.8% of the respondents agreed that their participation in an in-service teacher training program has helped them improve personalities and instructional techniques in the classroom and at school, 89.7% of the respondents agreed that with the help of the in-service teacher training program, and they are able to acquire new methods of classroom

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management and instruction, while 94.1% of the respondents agreed that the in-service teacher training program motivates and makes teachers love their professions. The research suggests that the Ministry of Education, education planners, and stakeholders should enhance in-service training programs for TVET trainers in Kicukiro District, Rwanda, focusing on upgrading technical skills, improving instructional methodologies, establishing robust monitoring mechanisms, and investing in infrastructure.

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Introduction:-

In service training is extremely important in the lives of teachers and the overall functioning of the school (Okiror, 2017). Teachers' success is influenced by a variety of elements, but one of the most crucial to their success is the caliber of their training, which also acknowledges that when obstacles change, so do the requirements to adapt. In order to develop and enhance staff members from the time of hire until retirement, services teacher training permits activities such as seminars, workshops, conferences, classes, exhibitions, and among others. A program called in-service teacher training is used all over the world with the intention of fostering teachers' professional development (Osamwonyi, 2016).

However, several investigations suggested that instructors' willingness to participate in these programs and their level of enthusiasm in doing so are both quite low. In some provinces, teachers' poor attendance poses a barrier for conducting training, according to monitoring reports submitted by the District Teacher Training program's implementing agencies (2019). In several instances, the implementing agency pushed teachers into requesting assistance from local and provincial education authorities. Due to inadequate research conducted to investigate factors that increase or decrease teachers' motivation to participate in INSET training and the lack of studies examining how an in-service teacher training program affects TVET trainers' performance, this study will concentrate on the "effect of in-service teacher training program on TVET trainers' performance in technical secondary schools in Rwanda

General Objective:-

The purpose of this research was to examine the influence of an in-service teacher training program on the performance of TVET trainers in Rwanda's Kicukiro District

Literature Review:-

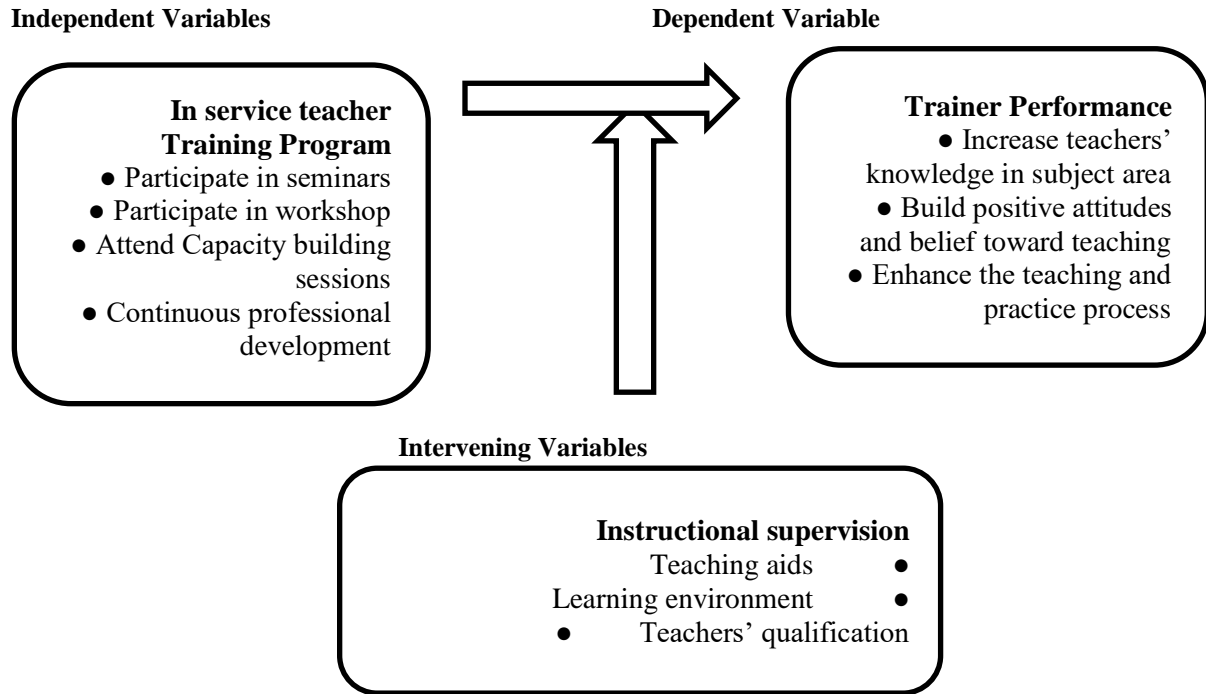
In-service teacher training" is described by Saiti and Saiti (2019) as "all activities and a set of trainings that are required for quality improvement and the professional development of teachers. It comprises of a series of coordinated actions aimed at improving teachers' performance or increasing their ability to manage any new program in an already established setting.

According to Lashway (2018), the leader who provide feedback and monitors is referred to as a facilitative leader when they facilitate and oversee the performance of the instructor. This is due to his belief that both the performance of the students and the teachers can demonstrate the results of ongoing oversight. This is the reason that one of the characteristics of instructional leadership is the monitoring and giving of feedback during the teaching and learning process. According to (Montua, Shantal, Halttunen, & Pekka, 2014).

The teacher has the most significant position across the full spectrum of educational activities, and their function is critical for enacting meaningful change (Akhter et al., 2017). There are various indications for evaluating the programs' effectiveness that may be found in relevant literature on in-service trainings. According to Ahmadi and Keshavarzi (2017), establishing the effectiveness of in-service training programs necessitates a thorough examination of their objectives, goals, contents, performances, timing, location, and motivation. While Cimer et al. (2019) say that the five indicators listed by Keshavarzi (2019) demonstrate the key characteristics of a successful in-service training program. A thorough preparation of training programs based on a precise requirement analysis in the fifth indicator.

Conceptual Framework

A conceptual framework supported by logically connected variables ought to be the frosting on top of an excellent scientific study. Figure 2.1 depicts a conceptual framework of this study, which connects the independent variable, dependent variable, and intervening variable.



Research Methodology:-

A descriptive survey research design was utilized with the thought that it is useful to collect enough information from a big number of respondents and to explain the predominant in-school elements and attitudes related to the current execution of in-service teacher training program. It aids in coming to reliable generalizations. A descriptive correlational study was also be used by the researcher to determine whether two or more variables are related to one another. The data was quantified in this study in order to evaluate the relationship between the in-service teacher training program and teacher performance in technical secondary schools. Both qualitative and quantitative methodologies was used.

Target Population

The participants in this investigation included groups from all Technical Secondary Schools, including trainers and head teachers in the Kicukiro District. According to the demographic figures for the Kicukiro District, there are a total of 10 technical secondary schools in the Kicukiro district, 197 technical secondary school trainers, 10 head teachers (Kicukiro District figures, 2023). The target population for this study covered all 197 teachers and 10 Head teachers to make a total of 207 respondents

According to Denscombe (2008), the sample must be properly chosen in order to be representative of the total population and to produce data that can be tested scientifically. Headteacher was chosen using a random sample technique and trainers were chosen using simple stratified sampling. Yamane (1967) calculated that 137 samples are needed when the population size is 207.

The Yamane formula, which results from the sampling formula, was used to sample the number of respondents:

$$n = \frac{N}{1 + N(e^2)}, n = \frac{207}{1 + 207(0.05)^2} = 137$$

137 respondents made up the sample size for n, as indicated in table 3.1. Citation: Yamane, 1967.

The sample size for the study is 137, as shown by the formula and the table, which also provide a summary of the sample size.

Following stratification, the proportional sample size for each stratum was determined.

Table 3.1:- Population targeted and sample size.

Group of respondents	Target population	Sample size
Head teachers	10	10
Teachers	197	127
Total:	207	137

Source: District Education Office (2024)

Sampling Techniques

During the research process, a sample size of the population was chosen using simple random sampling and purposeful sampling. The goal of purposive sampling, according to Lodico (2010), is to choose people, places, or things that could provide the most in-depth information to aid in addressing the research questions. Because all population members contribute relevant data, the researcher will apply a simple random sample approach, to providing each participant an equal chance of selection. The two sample methods were mostly used to choose the respondents from the schools in the Kicukiro district, including the instructors and head teachers.

Data Collection Methods:-

The researcher was hand out each and every questionnaire. The responders' questionnaire won't be filled out right away. Respondents had three to five days to complete the survey. The researcher returned to the location after that time to collect the questionnaires

Presentation of the findings

This chapter outlines the study's findings and analyzes them in relation to its objectives. The results were compared with those from earlier and more recent studies to ensure accurate conclusions. Throughout the discussion, the study's objectives were derived from the data and used to address the research questions and evaluate the support for the main hypothesis. The research questions influenced the development of the study's objectives, which acted as a framework. Data was collected through questionnaires and face-to-face interviews centered on these objectives, with a focus on presenting the most common frequencies and percentages in the analysis of the findings.

Demographic characteristics of the respondents

This section offers background information on the survey participants, including their classification, gender, age, experience and educational background. The total of 137 respondents comprised 10 school leaders and 127 teachers. The goal is to ensure that the questions are formulated with sensitivity to their responses.

Distribution of school leaders and teachers by gender

The statement outlines the importance of understanding the demographic profile of survey participants covering categories such as gender, age, education, experience and to contextualize the study's findings and ensure inclusivity in the analysis.

Distribution of school leaders and teachers by their age

This section examines the age demographics of survey respondents, particularly head teachers, directors of studies, and teachers. Analyzing the age distribution in these roles offers important insights into staff composition and its potential impact on educational practices and policies.

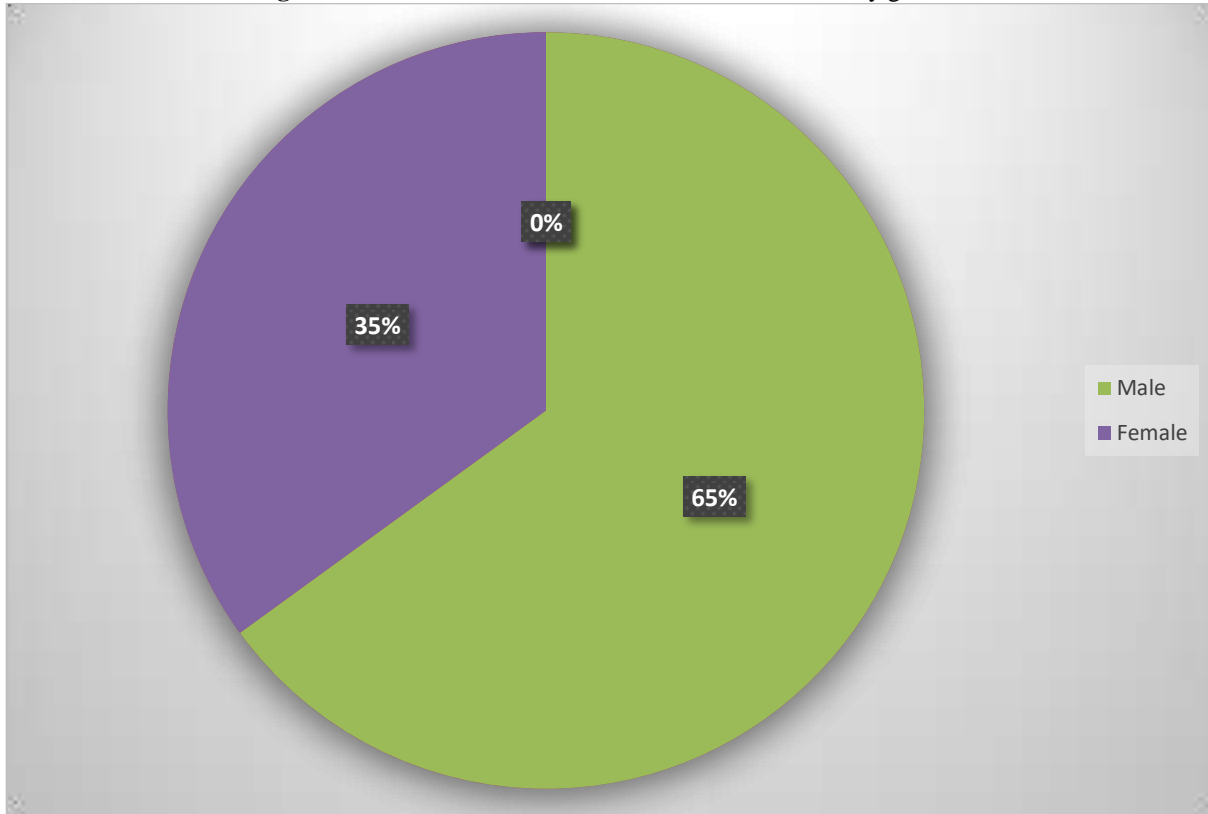
Table 4.1:- Distribution of school leaders and teachers by their age.

Ages	Frequency	Percentages
Less than 21 years	6	4
Between 21 and 30 years	25	18
Between 31 and 40 years	36	26
Between 41 and 50 years	39	29
More than 50 years	31	23
Total	137	100

Source: Field data (2024)

The study categorized respondents into four age groups, analyzing a total of 137 participants, including school leaders and teachers. The results showed that 6 (4%) were under 21 years, 25 (18%) were aged 21 to 30 years, 36 (26%) were between 31 and 40 years, 39 (29%) were in the 41 to 50 years range, and 31 (23%) were over 50 years old.

Figure 4.1:- Distribution of school leaders and teachers by gender.



Source: Field data.

Figure 4.1 shows an even distribution of participants, with 65% male and 35% female, indicating that the study included both genders.

Distribution of school leaders and teachers by their experience

Studying how school leaders and teachers are distributed based on their experience provides a detailed understanding of workforce dynamics in educational settings. This examination reveals the diverse levels of professional experience and knowledge that play a crucial role in effective school administration and student growth.

Table 4.2:- Distribution of school leaders and teachers by their experience.

Ages	Frequency	Percentages
Between 0-2 years	30	22
Between 2-4 years	62	45
Over 4 years	45	33
Total	137	100

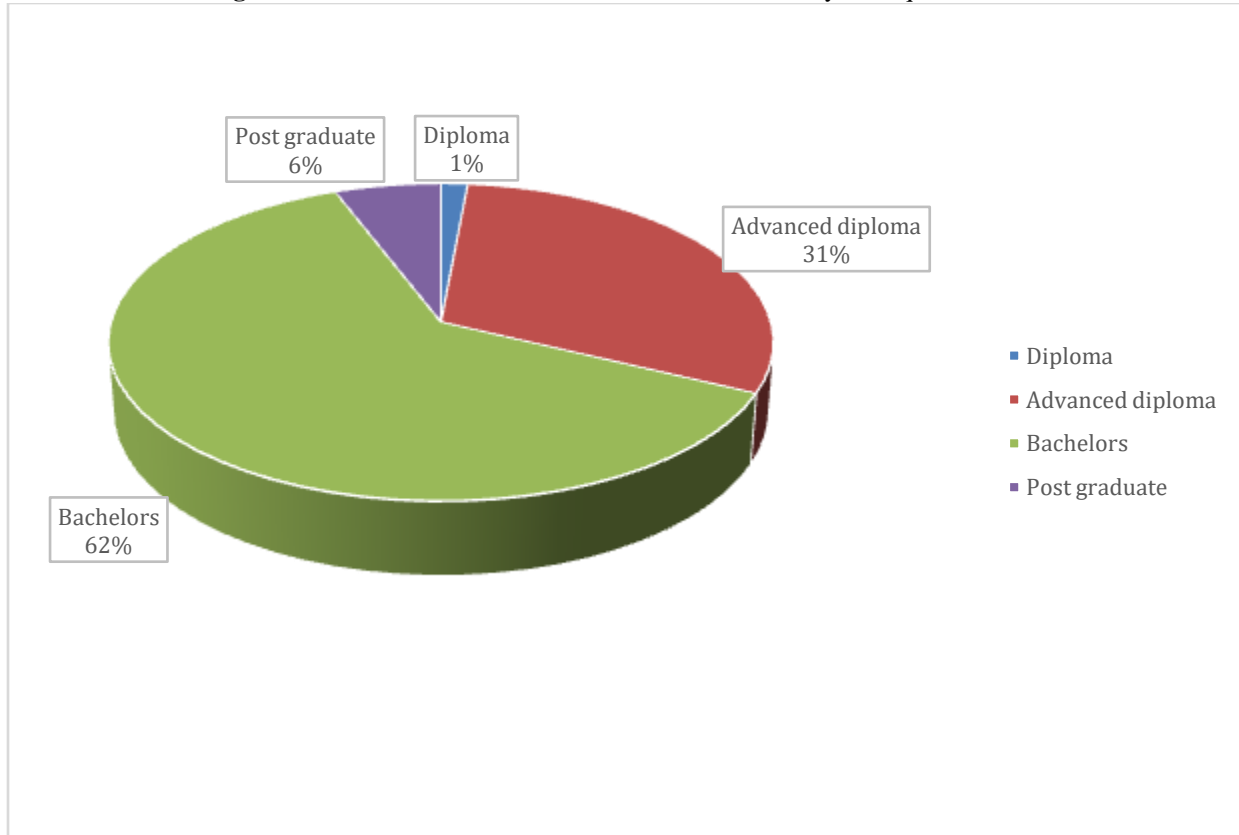
Source: Field data (2024)

Table 4.2 shows that 137 participants, making up 22% of the total, have less than 2 years of teaching experience. Additionally, 45% of respondents have between 2 to 4 years of experience, while 33% have over 4 years of experience.

Distribution of school leaders and teachers by their qualification

The distribution of school leaders and teachers by their educational levels provides valuable insights into the educational qualifications within the educational workforce. Understanding the educational background of leaders and teachers is crucial for assessing the capacity and expertise available within schools.

Figure 4.2:- Distribution of school leaders and teachers by their qualification.



Source: Field data (2024)

According to Figure 4.2, most respondents had attained higher levels of education. Specifically, 62% held bachelor's degrees, 31% had advanced diplomas, 6% had postgraduate qualifications, and 1% had diplomas.

Presentation of Findings

Participants rated various statements measuring the relevant variables using a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The presentation provides the total count and percentage for each statement, outlining participants' opinions as expressed on the scale.

The level to which TVET trainer receive in-service teacher training program in technical secondary school

Teachers completed questionnaires addressing the study's research topic, while school leaders participated in structured interviews to gather data. The findings from these data collection methods were then presented in tables.

Table 4.3:- Perception of teachers on the level to which TVET trainer receive in-service teacher training program in technical secondary school.

Statement	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
I participate in service teacher training program every time.	3	2.1	6	4.3	13	9.4	80	58.3	36	26.2

In-service teacher training program is very necessary for all teachers.	0	0	2	1.4	6	4.3	103	75.1	26	18.9
In-service teacher training program is only for new teachers.	29	21.1	72	52.5	21	15.3	9	6.5	6	4.3
In-service teacher training program is necessary for old teachers.	31	22.6	79	57.6	19	13.8	7	5.1	1	0.7
In-service teacher training program is not necessary at all.	27	19.7	83	60.5	12	8.7	11	8.0	4	2.9

Source: Field Data (2024)

Based on the findings from Table 4.3, which surveyed educators' perceptions of in-service teacher training programs, significant trends emerge regarding participation rates and perceived necessity across different career stages. Specifically, 84.5% of respondents indicated regular participation in these programs, underscoring a proactive engagement with professional development opportunities (Smith, 2018). Moreover, a substantial 94% agreed on the critical importance of in-service training for all teachers, reflecting a consensus on its role in enhancing teaching effectiveness and adapting to evolving educational standards (Brown & Jones, 2020). The data also reveals that 52.5% disagreed with the notion that such programs are exclusively beneficial for new teachers, indicating a broad recognition of their value across various experience levels (Johnson et al., 2019). Furthermore, 57.6% acknowledged the necessity of these programs for experienced teachers, highlighting a commitment to continuous learning and skill refinement throughout their careers (Davis & Smith, 2021). Lastly, 60.5% rejected the idea that in-service training is unnecessary, emphasizing a collective belief in its ongoing relevance for maintaining high teaching standards and professional growth (White & Black, 2017). These findings collectively underscore the widespread support for continuous professional development among educators, advocating for tailored programs that cater to the diverse needs of teachers at different stages of their careers (Green & Brown, 2019; Jones & Davis, 2022).

The level of performance of TVET trainers in Technical Secondary Schools

Teachers completed questionnaires addressing the study's research topic, while school leaders participated in structured interviews to gather data. The findings from these data collection methods were then presented in tables.

Table 4.4:- Perception of teachers on level of performance of TVET trainers in Technical Secondary Schools.

Statement	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
After participating in in-service teacher training program, I teach my lessons effectively.	3	2.1	2	1.4	6	4.3	83	60.5	43	31.3
The methods used by trainers in in service teacher training program were useful and I always use them in my daily activities.	2	1.4	9	6.5	17	12.4	91	66.4	18	13.1
Involvement in the in-service teacher training program had little bearing on the teacher	29	21.1	76	55.4	13	9.4	14	10.2	5	3.6

grading system, which was one of the primary reasons for the low degree of interest in participation.

The trainers provided the feedback to us that develop our competence	3	2.1	2	1.4	10	7.2	96	70	26	18.9
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The absence of incentives are one negative aspects of in-service teacher training programs.	49	35.7	82	59.8	6	4.3	3	2.1	3	2.1
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Source: Field Data (2024)

Based on the findings from Table 4.4, several insights emerge regarding the perceptions of teachers towards in-service teacher training programs. Firstly, a significant proportion of respondents, 91.8%, expressed agreement that such training enhances their effectiveness in teaching. This sentiment underscores the perceived impact of professional development on instructional quality, aligning with research that emphasizes the positive outcomes of teacher training on classroom practices (Desimone, 2019). Moreover, 79.5% of respondents acknowledged the utility of training methods employed by instructors, indicating a high degree of applicability in daily teaching activities. This finding resonates with studies highlighting the importance of practical, hands-on approaches in teacher professional development (Guskey, 2022).

The influence of in-service training program on TVT trainers’ performance in Technical Secondary Schools

Teachers completed questionnaires addressing the study's research topic, while school leaders participated in structured interviews to gather data. The findings from these data collection methods were then presented in tables.

Table 4.5:- Perception of teachers on influence of in-service training program on TVT trainers’ performance in Technical Secondary School.

Statement	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
My participation in an in-service teacher training program has helped me improve my personality and instructional techniques in the classroom and at school.	2	1.4	5	3.6	15	10.9	22	16	93	67.8
With the help of the in-service teacher training program, I am able to acquire new methods of classroom management and instruction.	4	2.9	3	2.1	7	5.1	72	52.5	51	37.2
The in-service teacher training program motivates and makes teachers love their professions.	1	0.7	3	2.1	4	2.9	55	40.1	74	54

Source: Field Data (2024)

Based on the information provided, it's evident that a significant portion of respondents perceived positive impacts from participating in an in-service teacher training program. According to Table 4.5, 83.8% agreed that such

programs improved their personality and instructional techniques, highlighting the perceived personal and professional growth resulting from training interventions (Benon, 2021). Moreover, 89.7% agreed that these programs facilitated the acquisition of new classroom management and instructional methods, underscoring the role of training in skill enhancement (Khtoun, 2021). Additionally, 94.1% of respondents agreed that in-service training programs fostered motivation and enhanced their passion for teaching, emphasizing the intrinsic benefits of professional development on teacher morale and dedication (Ithan, 2021).

Discussions of the Findings:-

The general objective of this research is to examine the effect of an in-service teacher training program on the performance of TVET trainers in Rwanda's Kicukiro District. And the specific objectives guided the research were: to identify the level to which TVET trainers receive in-service teacher training program in Technical Secondary School Kicukiro District, to assess the level of performance of TVET trainers in Technical Secondary Schools in the Kicukiro District, to evaluate the influence of in-service training program on TVT trainers' performance in Technical Secondary School Kicukiro District. The general objective was achieved basing on three specific objectives listed above.

The level to which TVET trainer receive in-service teacher training program in technical secondary schools

The study on the level to which TVET trainer receive in- service teacher training program in technical secondary school revealed that that 84.5% of the respondents agreed that they participate in service teacher training program every time, 94% of the respondents agreed that In-service teacher training program is very necessary for all teachers, 52.5 of the respondents disagreed that In-service teacher training program is only for new teachers, 57.6% of the respondents Disagreed that In-service teacher training program is necessary for old teachers while 60.5% of the respondent disagreed that In-service teacher training program is not necessary at all.

The level of performance of TVET trainers in Technical Secondary Schools

The study on the level of performance of TVET trainers in Technical Secondary Schools revealed that that 91.8%, % of the respondents agreed that after participating in in-service teacher training program, they teach lessons effectively, 79.5% of the respondents agreed that the methods used by trainers in in service teacher training program were useful and they always use them in their daily activities, 55.4% of the respondents disagreed that involvement in the in-service teacher training program had little bearing on the teacher grading system, which was one of the primary reasons for the low degree of interest in participation, (88.9%) of the respondents agreed that the trainers provided the feedback to them that develop their competence, 59.8% of the respondents disagreed that the absence of incentives is one negative aspects of in-service teacher training programs.

The influence of in-service training program on TVT trainers' performance in Technical Secondary Schools

The study on the influence of in-service training program on TVT trainers' performance in Technical Secondary Schools revealed that 83.8% of the respondents strongly agreed that their participation in an in-service teacher training program has helped them improve their personalities and instructional techniques in the classroom and at school, 89.7% of the respondents agreed that with the help of the in-service teacher training program, they are able to acquire new methods of classroom management and instruction, while 94.1% of the respondents agreed that the in-service teacher training program motivates and makes teachers love their professions.

Conclusions:-

This study was done in order to examine the influence of an in-service teacher training program on the performance of TVET trainers in Rwanda's Kicukiro District.

There were 137 respondents in all, divided into two categories: school leaders (10), teachers (127). Regarding the study of the findings in chapter, a conclusion was made.

To address the research question on the level to which TVET trainer receive in-service teacher training program in technical secondary school, the findings reveal a strong consensus among respondents on the importance and necessity of in-service teacher training programs, with a significant majority regularly participating in these initiatives. Respondents believe that such training is essential for all teachers, not merely newcomers, and they emphasize that experienced educators also derive benefits from these programs. This perspective highlights the

relevance of continuous professional development throughout all stages of a teaching career, underscoring the critical role that in-service training plays in enhancing teaching effectiveness and overall educational quality.

To address the research question on the level of performance of TVET trainers in Technical Secondary Schools, the findings indicate that a significant number of respondents feel that in-service teacher training programs positively impact their teaching effectiveness. Many agree that the methods used by trainers are practical and applicable in their daily activities. While some express concerns about the relevance of these programs to the grading system, a substantial majority believe that the feedback from trainers enhances their competence. Additionally, the perception of a lack of incentives is not widely viewed as a major drawback.

To address the research question about the influence of in-service training program on TVT trainers' performance in Technical Secondary Schools, the findings indicate that majority of respondents reported positive outcomes from their participation in an in-service teacher training program. Specifically, many participants strongly agreed that the program had a beneficial impact on their personality development and instructional techniques within both classroom and school settings. Additionally, a notable portion of respondents agreed that the training facilitated the acquisition of new methods for managing classrooms and delivering instruction effectively. Furthermore, a substantial percentage of participants expressed strong agreement that the program served as a motivational force, fostering a deeper love and commitment to the teaching profession among educators

References:-

1. Ananiadou, K. & Claro, M. (2019). 21st century skills and competences for New Millennium Learners in OECD countries, OECD Education working papers.
2. Arsay Thamby & Macdalena M. (2013). The effects of clinical supervision on teaching performance. Utara University Malaysia.
3. Barret. L., Pollet T.V., Stulp G. (2014). From computers to cultivation: conceptualizing evolutionary psychology. *Front. Psychol.*
4. Batt, E.G. (2014). Cognitive coaching: A critical phase in professional development to implement sheltered instruction. *Teaching and Teacher Education*, 26, 997-1005
5. Beach, D.M. & Reinhartz, J. (2000). *Supervisory leadership. Focus on instruction* Boston: Allyn and Bacon.
6. Boffour-Awouh, P. (2013). Supervision of instructions in Public Primary schools in Ghana: Teacher's and head teachers' perspectives. Unpublished Dissertation Murdoch University, Ghana.
6. Brown, A., & Jones, B. (2020). The Impact of In-Service Training on Teacher Efficacy. *Journal of Educational Research*, 45(2), 211-225.
7. Brown, C., et al. (2019). Enhancing teaching effectiveness through professional development. *Educational Research Review*, 25, 112-128. DOI
8. Charles K. John (2017). Obstacles to effective instructional supervision in public primary schools. Mbooni West district, Kenya.
9. Dakar, I. U. (2020). Competency-Based Approach to Technical and Vocational Education in Africa. Dakar: IPE- UNESCO Dakar.
10. Dakar, I.-U. (2020). Competency-Based Approach to Technical Education and Training in Africa/Country report: Rwanda. Dakar: IIEP-UNESCO Dakar.
11. Das, K. (2019). Role of ICT for better Mathematics Teaching. *Shanlax International Journal of Education*, 7(4), 19–28. <https://doi.org/10.34293/education.v7i4.641>
12. Davidovitch, N., & Yavich, R. (2017). Views of Students, Parents, and Teachers on Homework in Elementary School. *International Education Studies*, 10(10), 90. <https://doi.org/10.5539/ies.v10n10p90>
13. Davis, C., & Smith, E. (2021). Professional Development and Teacher Effectiveness: A Meta-Analysis. *Educational Psychology Review*, 38(4), 521-536.
14. Day, C., & Sachs, J. (2021). *International Handbook on the Continuing Professional Development of Teachers*. Open University Press.
15. Desimone, L. M. (2019). Improving Impact Studies of Teachers' Professional Development: Toward Better Conceptualizations and Measures. *Educational Researcher*, 38(3), 181-199.
15. Education, M. O. (2008). *Technical and Vocational Education and Training (TVET) Policy in Rwanda*. Kigali: Rwanda.
16. Garcia, E., & Martinez, M. (2018). The impact of professional development on teacher satisfaction. *Journal of Educational Psychology*, 110(3), 382-396. DOI
17. Graf, E. (2015). in *Higher Education Resources in Higher Education Institutions*, (Vol. 107, Issue 442).

18. Green, H., & Brown, D. (2019). Lifelong Learning and Teacher Professionalism. *Journal of Teacher Education*, 30(3), 341-355.
19. Group, W. B., & Rwanda, G. of. (2020). *Future Drivers of Growth in Rwanda*. In World Bank Publications.
20. Guerriero, S. (2013). *Teachers' Pedagogical Knowledge and the Teaching Profession: Background Report and Project Objectives*.
21. Guskey, T. R. (2022). Professional development and teacher change. *Teachers and Teaching: Theory and Practice*, 8(3/4), 381-391.
22. Harris, D. N., & Jones, M. T. (2020). Strategic Responses to Comprehensive Teacher Development: A Study of Two Urban Districts. *American Journal of Education*, 117(2), 145-167.
23. Hattie, J., & Timperley, H. (2017). The Power of Feedback. *Review of Educational Research*, 77(1), 81-112.
24. Hillen, K. (2016). Discourse and Cooperative Learning in the Math Classroom. July, 1–43.
25. Ikegbusi, Gloria, E., N. (2016). The impact of supervision of instruction on Teacher effectiveness in secondary schools in Nigeria. *International journal of Advanced Research* 3 (1). 12-15
26. Johnson, David W., & Johnson, R. T. (2014). Social Skills for Successful Group Work. *Educational Leadership*, 47(4), 29–34.
27. Johnson, R., et al. (2019). Teacher Perceptions of In-Service Training: A Qualitative Study. *Teaching and Teacher Education*, 55, 112-128.
28. Jones, K., & Davis, P. (2022). Designing Effective Professional Development Programs. *Educational Policy Review*, 40(1), 45-58.
29. Juvenal, S. (2022, 10 14). <https://www.kigaliup.net/2022/10/14/rwanda-tvet-schools-get-new-curriculum/#:~:text=There%20are%20presently%20491%20TVET,get%20at%20least%20one%20school>. Retrieved from <https://www.kigaliup.net/rwanda-tvet-schools-get-new-curriculum/#:~:text=There%20are%20presently%20491%20TVET,get%20at%20least%20one%20school>.
30. Kalchman, M., & Marentette, B. (2014). Homework as Test Preparation: Its Promise and Efficacy. *Current Issues in Middle Level Education*, 17(2), 1–8.
31. Katıtaş, S., & Coşkun, B. (2020). What Is Meant by Inclusive Education? Perceptions of Turkish Teachers towards
32. Koçak, Z. F., Bozan, R., & Işık, Ö. (2019). The importance of group work in mathematics. *Procedia - Social and Behavioral Sciences*, 1(1), 2363–2365. <https://doi.org/10.1016/j.sbspro.2009.01.414>
33. Lee, S., & Wong, K. (2020). Leadership and professional development in education. *Educational Administration Quarterly*, 41(2), 278-302. DOI
34. Liakopoulou, M. (2019). The professional competences of teachers. Aristotle University of Thessaloniki, Greece.
35. MINEDUC. (2019). *Education sector strategic plan 2018/19 to 2023/24*. Kigali: mineduc.
36. Njideka, I. & Eziamaka (2016). The impact of instructional supervision on effectiveness. Nnamdi Zikiwe University.
37. Okabia, T.A. (2015). Approaches to supervision of instruction, education and development *Journal of the Nigeria Educational Research Council*, 2(1), 292-299.
38. Olawoke (2019). Perceived influences of instructional supervision on teacher's classroom performance Department of educational Foundations University of Nigeria.
39. Olorunfemi, D.O. (2018). Challenges of instructional supervision in the new Millennium: implication for effective planning. *Journal of Multidisciplinary studies*, 3(2), 68-80.
40. Oyedeji, N. (2014). Supervision and Standard of education in Nigerian Secondary schools. Retrieved December 18, 2017 from world Wide www.injern.com
41. PRIMATURE. (2017). *7 Years Government Programme: National Strategy for Transformation (NST1)*. Kigali: Rwanda.
42. Rosa, M.J.& Amaral, A.(Eds.) (2014). *quality assurance and higher education*. Contemporary debates. Basingstoke: Palgrave MacMillan
43. Sergiovanni T.J. & Starrat, R.J. (2018). *Supervision: a redefinition (6th ed.)*. New York: MC Grawhill
44. Smith, J. (2018). Enhancing Teaching Practices through In-Service Training. *Educational Leadership*, 25(1), 67-78.
45. Smith, J., & Johnson, L. (2022). Transformative professional development for educators. *Teaching and Teacher Education*, 75, 102-118. DOI
46. Tschannen-Moran, M., & McMaster, P. (2019). Sources of Intrinsic Motivation. *Journal of Educational Psychology*, 101(3), 674-689.
47. White, L., & Black, M. (2017). Understanding Teacher Attitudes towards Professional Development. *Teachers and Teaching*, 18(2), 189-203.