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RESEARCH ARTICLE

INFLUENCE OF SCHOOLS' GEOGRAPHICAL LOCATION ON THE RETENTION OF QUALIFIED TEACHERS IN RURAL PUBLIC SECONDARY SCHOOLS OF RWANDA A CASE OF RUHANGODISTRICT

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Abstract

The study concentrated on the investigation of the influence of geographical location of schools on the retention of qualified teachers in Rwanda's rural public secondary schools, with a particular emphasis on the Ruhango district. The study had specific four objectives, including evaluating the influence of working conditions on qualified teacher retention in Rwanda's rural public secondary schools, establishing the influence of the school environment on qualified teacher retention, assessing the degree to which economic factors influence qualified teacher retention in Rwanda's rural public secondary schools, to determine the influence of socio-cultural isolation on qualified teacher retention in Rwanda's rural public secondary schools. The study employed a correlational research design with a study population of four hundred and four (404) in order to achieve its goals. The sample of 201 respondents, which was made up of teachers, deputy head teachers, and head teachers, was chosen using Slovin's formula. The sampling techniques adopted included stratified, purposive and simple random sampling techniques. The research tools namely questionnaires and interview guide were tested for reliability and validity to ascertain their appropriateness for data collection where it was ascertained that Cronbach Alpha is within the required range and all comments from experts were incorporated. Respondents were provided questionnaires and structured interviews as research tools for data collection. The Statistical Product and Service Solutions (IBMSPPSS) version22, a computer program, was used to enter the acquired raw data. The researcher accessed the influence of each school location indicator on the using inferential statistics, such as the Karl Pearson coefficient of correlation (r) and regression coefficients were utilized to assess how school location influences the retention of qualified teachers in Rwanda's rural public secondary schools. Findings were displayed in tables and figures, and relevant suggestions and recommendations were given in light of the findings. Descriptive statistical findings revealed poor geographical locational factors in rural public schools with 60% of respondents disagreeing that they have favourable working conditions, school environment, economic

conditions and sociocultural factors. Additionally, the responses did reveal that there is strong positive correlation between working conditions, school environment, economic conditions and sociocultural isolation and qualified teacher retention with Pearson coefficient of 0.736, 0.748, 0.742 and 0.754 respectively. there regression findings also did indicate a positive influence of geographical location factors of a school on qualified teacher retention with beta coefficients of working conditions, working environment, economic conditions and sociocultural isolation reported as 0.110, 0.183, 0.145 and 0.285 respectively. the study concluded that there is positive significant influence of working conditions, school environment, economic conditions and sociocultural factors on qualified teacher retention in rural public secondary schools. The study recommends that the Ministry of Education and Policymakers to develop and implement comprehensive policies that enhance the living and working conditions of teachers in rural areas, improve school environmental factors, improve infrastructure within and outside school. Additionally, local education authorities and stakeholders should collaborate to foster a supportive community for teachers, Teachers should be proactive in seeking professional development opportunities and building a supportive network among their peers.

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Introduction:-

Background of the Study

Teachers and other professionals have historically found it challenging to be attracted and keep jobs in rural areas (Miller, 2012). Due to the ongoing issue of recruiting and keeping qualified teachers, teaching in rural schools is getting worse (Heeralal, 2014; Owusu-Acheampong&William, 2015) in the sense that teachers face a myriad of challenges relating to culture differences, distance from school to home, poor transport network among others.

The location of rural schools and their socioeconomic circumstances are the main obstacles to drawing in, keeping, and assisting exceptional teachers (Azano& Stewart, 2016). Scholars have pointed that: teachers 'turnover will cause some serious consequences for teaching quality (Hanushek,2016). Numerous scholarly investigations have demonstrated that teacher turnover has an adverse impact on students' academic performance (Ronfeldt et al., 2013; Sorensen and Ladd, 2020) and also affects students' motivation (Guin, 2020). This is because of lack of consistency in adapting to the teacher by the student and this kills students' morale since a school can have a competent teacher and after a short while the teacher quits or transferred to another school yet the students were already used to the teacher and this kills morale of students affecting their academic performance. this also further causes strike among students in some schools due to the fear of losing competent teachers.

According to Sorensen and Ladd (2020), teacher turnover will continuously cause burnout and invisible turnover among teachers. The issue of teacher turnover is spreading throughout the world, as the rate of teacher turnover keeps rising. Research indicates that even in Finland, where teaching is highly valued, between 40% and 50% of teachers had extremely persistent intentions to leave the profession (Pyhältö et al, 2015; Räsänen et al, 2020) due to challenges faced in the profession. Australia and England experienced teacher turnover as well (Allen et al, 2017). Early in their careers, beginner teachers are likely to leave the teaching profession, according to some studies (Redding and Henry, 2019). A previous study in Norwegian municipalities found that approximately 33% of beginner teachers leave the profession within five years of becoming fully qualified teachers (Tiplic et al., 2015). Aside from novice educators, some teachers between the ages of 67 and 70 may decide to retire before reaching the maximum age (Tiplic et al., 2015).

Previous research in Chinese rural areas indicates that 71.56% of Chinese rural teachers have a weaker intention to stay in their current position, they desire to transfer from rural to urban schools (Lin et al., 2019). As a result, there is a general imbalance in teacher turnover between Chinese rural and urban areas (Wang and Wu, 2019). This is due to the imbalance in teaching conditions in rural and urban areas and resource base differences. Urban schools are

perceived to be well resources than rural schools and access to social amenities is also easier in urban areas than rural areas hence making teachers to be attracted to urban schools more than rural schools.

It is helpful to give a brief overview of the general context of teachers and teaching in rural areas of Africa. These areas are severely under-resourced with regard to qualified and experienced teachers. The shortage of qualified teachers and poor conditions of teaching are the major factors affecting the quality of teaching in many rural schools of Africa (Azano& Stewart, 2016). The majority of parents in rural areas lack formal education, making it difficult for them to support their children's education. As a result, they feel embarrassed to talk to their kids about schoolwork because they don't know what to do (Legotlo, 2014). Teachers in these rural communities also face a challenge in instructing students whose home environments hinder their ability to learn. Additionally, in most rural schools in African countries, infrastructural challenges are quiet eminent such as poor roads, poor internet and school resources are also inadequate. Community involvement is also a challenge leaving the school staff in a dilemma situation since school problems are diverse and requires efforts of the local community too to find solutions. Overloaded teachers, poor salaries, feeling of isolation by teachers due to inaccessibility of financial, health and recreational services in rural areas are also additional challenges facing rural schools in African countries (Shikalepo, 2020).

By 2030, Sub-Saharan Africa will require roughly 6.1 million teachers, of which 2.2 million will be new positions created, according to the UNESCO Institute of Statistics (UIS). A 2015 report from the UIS revealed that in the United Republic of Tanzania, almost 2,000 out of 9,000 newly qualified teachers refused to be posted to their assigned schools in 2003.

In Rwanda, according to a Zeitlin (2020) study, 20% of teachers will resign from their positions, with 11% coming from the public education sector. Teachers in rural areas of Rwanda face different challenges. For example, lack of community involvement in school activities is problem in rural schools as parents and other local leaders are not adequately involved in school activities and they are only left to teachers and management staff. This affects the retention of teachers to some extent since it lowers the morale of teachers since community support is key to retention of teachers hence they often opt for transfer. Secondly teachers also face serious infrastructural problems in rural schools such as poor transport network where some roads heading to schools are not well maintained and school learning infrastructure cannot be equated to those of urban schools which also lowers teacher morale and retention. Additionally, internet problems in some areas where schools are located is also a challenge since it affects teachers research and preparation hence lowers teacher retention in the rural schools. Teachers also face a challenge of accessing health centers where the health centers are located far away from the school and this puts their health at risk and demoralizes teachers hence their retention is compromised among other challenges (Zeitlin, 2020).

Problem statement

Over the years, there has been increasing recognition that having a situated knowledge of the environments in which teachers teach and students learn is vital to understanding teaching quality and its measurement (Mitchell,2019).

Referring to the UNESCO report (2018), the chronic lack of qualified teachers is one of the biggest obstacles to education worldwide. With an estimated 263 million children and youth not attending school, the world will need to hire millions of qualified teachers to meet the 2030 education goal of providing primary and secondary education to all children.

The high rate of teachers quitting their jobs in their current schools and leaving the profession altogether, the decline in the number of applicants for teaching positions who can fill these openings, and the challenges of keeping teachers with the necessary professional credentials are some of the factors contributing to staffing shortages (García& Weiss, 2020).A wide range of scholarly works on teacher attrition and shortage provide a deficit construction of teachers' work by highlighting the human and financial capital deficiencies of specific schools and teachers. In a similar vein, the difficulty of attracting and keeping educators to live and work in rural areas corresponds with media attention to the issues and shortcomings of rural communities (Biddle & Hall, 2017; Ticken& Williams, 2021).

Developing countries, like Sub-Saharan Africa, suffer higher shortage levels, and this problem is forecasted to pose a serious barrier for the achievement of the Sustainable Developmental Goals (SDGs) of 2030 (UNESCO-UNIS,2013). Sub-Saharan Africa has the most pressing need to close the teacher shortage, where there is a need of

an estimated 17 million teachers in primary education and 90% in secondary education. Particularly vulnerable groups are affected more severely by this teacher shortage, such as girls, kids with disabilities, kids from migrant and refugee families, and low-income kids living in rural areas. (UNESCO,2013).

According to Zeitlin (2020), teacher' turnover rate in Rwanda is high: 20% of teachers quit their jobs each year, with 11% of them leaving the public education field. In addition to this high rate of teachers' turnover there is a challenge of not replacing quickly teachers after their exit; the following year, 23% of departing teachers are not replaced.

For the above reasons, this study is interested in identifying the influence of geographical location of the school on the retention of qualified teachers in rural areas and to provide suggestions and recommendation regarding on how to fill that gap which is in education in rural areas of Rwanda.

Objectives of the Study:-

1. To evaluate the influence of working conditions on the retention of qualified teachers in rural public secondary schools of Rwanda.
2. To establish the influence of schools' environmental factors on the retention of qualified teachers in rural public secondary schools of Rwanda.
3. To assess the extent to which the retention of qualified teachers in rural public secondary schools of Rwanda is influenced by economic factors.
4. To determine the influence of school socio-cultural isolation and the retention of qualified teachers in rural public secondary school of Rwanda.

Research Questions

1. How does working conditions influence the retention of qualified teachers in rural public secondary schools of Rwanda?
2. What is the influence of schools' environmental factors on the retention of qualified teachers in rural public secondary schools of Rwanda?
3. To what extent is retention of qualified teachers in rural public secondary schools of Rwanda influenced by economic factors?
4. How does schools' socio-cultural isolation influence retention of qualified teachers in rural public secondary schools of Rwanda?

Review Of Related Literature:-

Schools' geographical location and qualified teacher retention

School geographical location

Geographical location of a school means the site where the school is situated.

Orji (2013) states that the term "school location" apply to both urban and rural schools. Orji went on to define rural schools as those that are situated in villages or semi-urban areas, and urban schools as those that are located in municipalities or towns.

In addition, Frederick (2011) views school location as one of the major factors that influence students 'academic achievement in some subject areas. Frederick added that many parents look at factor such as the location of schools before enrolling their children. Some of qualified teachers also consider the school location before taking decision to go to work there, even those who are working in the school they may working there while searching other places considering where the school is located, thus some of qualified teacher choose to retain or to leave according to the location of schools.

Teacher retention

Teacher retention relates to the goal of keeping staff in the work place and reducing teacher turnover. Teacher retention has been defined as "need to prevent qualified teachers from leaving the job for the wrong reasons (Kelchtermans, 2017). Teacher retention also refers to the proportion of teachers in one year who are still teaching in the same school the following year. Teacher attrition and retention are inseparable phenomena (Kelchtermans, 2017), and teacher attrition is defined as leaving the teaching profession for reasons other than retirement (Tompkins, 2023). Teachers may leave the profession prior to retirement at any time for different reasons.

Nevertheless, this could not always harm education significantly as teachers might leave due to their inability to master the profession, and poor performance (Fontaine & Kane, 2012). Teacher retention, conversely, refers to the ability of educational institutions to attract and retain experienced teachers. Educators and policymakers debated continuously on the subject but could not strike common standards and benchmarks to evaluate teachers' quality.

Qualified teacher

A qualified teacher is defined by UNESCO (2018) as one who possesses the minimal academic credentials required to teach students at a particular level of education in a particular nation. Usually, this is related to the subjects they teach.

Nevertheless, the idea of "trained teachers," which refers to educators who have completed the bare minimum of formal pedagogical training necessary to instruct at the appropriate level, is not covered by this definition. There are several reasons why qualified teachers are very important for students' academic success, these include the knowledge and proficiency to teach their students in the most effective way. Qualified teachers are able to get their students interested in learning and make sure they comprehend the lessons being taught. Another benefit of having qualified teachers is that they can address each student's unique needs by determining their strengths as well as their weaknesses and then adapting their teaching strategies accordingly. Create a positive learning environment is another importance of qualified teachers, they take care to create a welcoming, safe environment in their classroom where all students can feel at ease. In addition to having high expectations for their students', qualified teachers have a crucial role in developing a positive relationship with them. They also possess exceptional communication skills.

Empirical Review

Working conditions and Teacher retention

According to their American study, working conditions for teachers have an impact on both their professional satisfaction and the academic achievement of their students, teachers tend to stay in positions where there is support and assistance from the management. Susan et al. (2012)

The conditions of work play an important role in schools' ability to provide excellent instruction. Working conditions, as defined by Ali et al. (2013), include the physical workspace as well as all other aspects of the workplace that have an impact on employees, such as workload, facilities, legal rights and responsibilities, organizational climate, and working hours. When teachers work environment and circumstances make it difficult for them to teach effectively, those circumstances are considered to be poor working conditions. Unsatisfactory working conditions are a topic of discussion among academics worldwide (Ali et al., 2013). Teachers' ambition and willingness to provide high-quality instruction were hindered when they felt that their working conditions were unsatisfactory. Employees' working environments differed based on the type of workplace they were in, even though they all worked as teachers. As a result, there were differences in the working conditions that teachers experienced: some had great working conditions, while others had inadequate ones. It has been discovered that poor working conditions are less common in developed countries than in developing ones, primarily because developed countries have the resources necessary to provide good working conditions. However, in developing nations, insufficient infrastructure and funding made teaching ineffective (Pitsoe, 2013).

Teaching in sub-Saharan Africa's developing Nations was characterized by the challenge of overcoming a lack of basic teaching supplies, an excessive workload of administrative and instructional responsibilities, inadequate funding for educational institutions, and low teacher pay (Gatsinzi, et al 2014). The inability of schools to enhance the working conditions of teachers was exacerbated by these challenging working conditions.

In Rwanda, a study conducted by Faustin, et al (2023) concerning motivation factors and teacher retention in private secondary schools of Rwanda, their findings showed that the work environment was the main reason why most of the respondents had stayed in their schools. Indeed, among the respondents, 47% said that they had no other employment and that they continued to search for a more environmentally friendly position as the reason for staying in the field. These results were consistent with Sims's (2017) study, which found a relationship between good working conditions and employee retention.

School environment and teacher retention

According to Marwan et al 2012, the majority of teachers chose working in urban schools due to the favorable experiences that come with being in an urban setting. This led to an increase in the differences between working conditions and service provision between urban and rural schools.

Regarding the material and financial resources that were the means of production, there was a significant socioeconomic difference between urban and rural environment (Adedeji&Olaniyan, 2011). Attracting qualified teachers to provide high-quality instruction in rural areas is hindered by the absence of basic services in these areas, including inadequate funding for schools. Attracting qualified teachers to provide high-quality instruction in rural environment is hindered by the absence of basic services in these areas, including insufficient resources for schools. Due to their challenging working environments, teachers frequently avoid teaching in rural schools, which leads to a shortage of qualified teachers, good quality instruction, and ultimately high student achievement.

Economic factors and teacher retention

According to a study by Legotlo et al. (2014), most people who lived in urban areas were usually employed, had good working conditions, and were well educated. Schools were also well-established since essential goods and services could be easily found in cities. On the other hand, the people that lived in rural areas were typically poor, less educated, and without employment. The quality of teaching was significantly impacted by the socioeconomic status difference between urban and rural areas.

Socio-cultural isolation and teacher retention

According to the study done by Redding & Walberg, (2012), Teachers felt isolated in remote rural schools because they couldn't easily access economic infrastructures. Teachers at rural schools felt isolated when it came to their professional development. Teachers in rural areas were less likely to be able to take part in professional development activities because their schools were located far from larger towns that offer opportunities for professional development. Because there are few opportunities for career advancement and it can be challenging to make arrangements for further education, teachers in rural areas frequently feel isolated in their work (Shadreck, 2012). Teachers prefer to be assigned to urban areas because they have easy access to higher education (Aziz et al 2011). Rural communities are also far from health facilities. When accepting offers to teach in these schools, teachers have raised health concerns because the majority of rural health service centers are hard to get to.

In rural areas, a doctor's appointment that could take a day could require three or four days away (Mulkeen, 2006). The long period of time that teachers missed from work due to the remote location of schools from vital health services had a detrimental effect on the standard of instruction at rural schools. In terms of socializing and leisure, many teachers from urban backgrounds found it difficult to adapt to rural life due to the area's high rates of poverty, growing elderly population, unemployment, and general poor standard of living. This additional load is contributing to their job discontent (Monk, 2007).

Critical Review and Research Gap Identification

A study conducted by Ali, et al (2013) in America showed that working conditions affect the teaching quality. According to the study, teachers' aspirations and willingness to provide high-quality instruction were hindered when they were unhappy with their working conditions.

Gatsinzi, et al (2014) carried a study which findings showed that due to unfavorable working conditions and environments, teaching in Sub-Saharan African developing nations was often difficult. The challenge of working conditions made it more difficult for schools to provide better working conditions for their teachers.

Research done by Legotlo, et al (2014), found out that the differences in socio- economic status between urban and rural areas affects the standard of teaching significantly, the availability of essential goods and services in urban areas helps urban schools to be well- established.

Another study conducted in Rwanda by Faustin, et al (2023) was concerning motivation factors and teacher retention in private secondary schools of Rwanda. The study found out that among the factors the work environment matters for the retention of teachers.

The time the researcher looks at the findings of these different scholars which were done on factors that influence teachers' retention, it has been realized that the school's geographical location factors such as working environment, working conditions, economic factors and socio-cultural isolation were taken into consideration in the sense of teaching quality only but there is a gap in these researches where the retention of qualified teachers in a given school may play a crucial role for the teaching quality, so these schools' geographical location factors were not taken into consideration for the retention of qualified teachers in rural schools. For this reason, the researcher focused on identifying the influence of schools' geographical location on the retention of qualified teachers especially in rural public secondary schools of Rwanda, as qualified teachers play a big role in teaching quality of Rwanda.

Theory of Job Embeddedness

The theory of job embeddedness emerged from the fields of applied psychology and economics to be a more accurate predictor of voluntary employee turnover than theories invoking job satisfaction and job alternatives (Kiazad et al, 2015).

According to job Embeddedness theory, when an employee is more embedded within their organization, they are less likely to quit. Job embeddedness looks at three aspects of the employee-organization relationship namely links, fit and sacrifice.

Links are the connections that the worker has with other members of the company and the broad network that the company has. Additional links include the employee's spouse's workplace, family, friends, hobbies, and sports, as well as the friendships his kids have at school and in the community. In essence, an individual's likelihood of becoming settled and involved in their community increases with the number of connections they have with other members and institutions. Moving to new organization or relocating would be harder because these links will be severed. In this study, this means that when teachers have a large connection in and out of their schools, they will not have the intention to quit their job.

Fit refers to how well the worker fits the job description. This includes how often they use their strengths at work, how well their values match those of their organization, how well they fit in with the corporate culture, and how much their work contributes to their career goals and how well the organization supports those goals. The theory of Job Embeddedness is related to this study in the way that if a teacher is supported by the school leaders in achieving the professional goals, that teacher will remain in that school and it enhances the retention of qualified teachers in a given school.

Sacrifice refers to how hard it would be, and how much they would lose by leaving. According to Holtom et al. (2013), the longer someone stays at a job, the more stuck they become and the more difficult it is for them to leave. This is because job embeddedness increases over time as an individual forms more connections to both the job and the place. In this study this implies that the more teachers stay in the profession in general and especially in the same school, the more they become experienced and become more fruitful for the students and the school in general and this requires a sacrifice of teachers in the form of satisfaction of their working environment.

The theory of job embeddedness is used in this study as it shows how employees' turnover as well as teacher turnover may be reduced and it contributes more to how the teacher retention must be maintained.

Methodology:-

Descriptive and correlational research designs were adopted in this study. The study population was mainly teachers, deputy head teachers and head teachers of public secondary schools in Ruhango District summing up to 404 respondents.

A sample size of 201 was calculated using Yamanes formula

$$\text{It is computed as } n = \frac{N}{(1 + Ne^2)}$$

Whereas:

n = sample size
 N = total population
 e = error margin

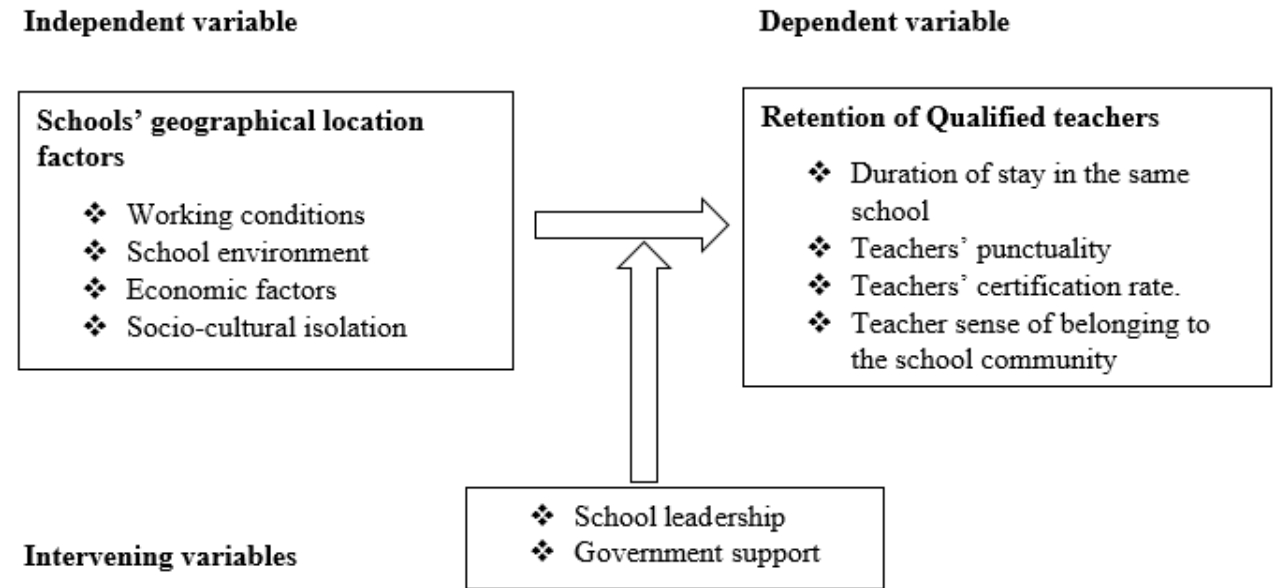
N=378

e=0.01

n=?

Therefore, $n = \frac{404}{1+404(0.05)^2} \cong 201$ respondents

Conceptual Framework



Source: Researcher, 2024

Table 1:- Target population and proportionate sample size.

No	Participants	Target population	Sample size
1	Head teachers	27	13
2	Deputy head teachers	27	13
3	Teachers	350	175
4	Total	404	201

Source: Researcher (2024)

The researcher adopted stratified, purposive and simple random sampling techniques to select sample size. Using stratified sampling, a specific group of people is represented during the sampling procedure. Head teachers, deputy head teachers, and teachers are the categories of respondents that the researcher chose from using this technique. Purposive sampling was used in this study as it enabled the researcher to select cases that have the necessary information in relation to the study's objectives. In general, the purpose of the study or significant characteristics are taken into consideration when choosing the sample (Kothari, 2012). The head teachers, deputy head teachers and teachers were selected according to their level of school because the researcher chose only those from public secondary schools. Finally, simple random sampling was utilized to select respondents from each strata randomly without bias until sample size is achieved

This study utilized structured questionnaire and interview methods to collect data. Structured questionnaire comprised with of direct questions with multiple choices for respondents. interview method involved using an interview guide of questions which enabled the researcher to collect information during interview session with head teachers.

After data collection, data editing was done to clean the data and avoid any errors in data collection that could interfere with the true findings. After, the data was entered in the software (IBMSPPSS version 21) for analysis. This enabled generation of descriptive statistics mainly frequencies and percentages, means and standard deviation

regarding study variables that is student leaders' involvement in decision making and discipline management including demographic summary. Additionally, inferential statistics was generated mainly Pearson correlation coefficient, T- test coefficients, p values and regression coefficients in order to determine the influence of school geographical location factors on qualified teacher retention in rural schools.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

Y=qualified teacher retention

β_0 = Model Constant

β_1, \dots, β_4 = Model Coefficients for independent variable X_1-X_4

ε = Error term assumed as normally distributed, $\varepsilon \sim N(0, \sigma^2)$

X_1 = Working conditions

X_2 = School environment

X_3 = Economic factors

X_4 = Sociocultural isolation

Research Findings Interpretation and Discussions:-

This chapter provides an in-depth analysis, interpretation, and discussion of the research findings. The study examined how the geographical location of schools affects the retention of qualified teachers in rural public secondary schools in Rwanda. The researcher presented the results in line with the specific objectives, utilizing tables, figures, and graphs to summarize the data collected.

The influence of working conditions on the retention of qualified teachers in rural public secondary schools of Rwanda

The first objective of the study was to evaluate the influence of working conditions on the retention of qualified teachers in rural public secondary schools of Rwanda, especially in Ruhango district. To achieve this goal, the researcher designed questionnaire for teachers and interview for deputy head teachers and head teachers. Teachers were asked to express their perceptions by indicating their level of agreement with given statements using the scale: Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (SA). Multiple items were included in the questionnaire for respondents to evaluate their convenience, the results were presented in Table 4.5 and findings were discussed on basis of the frequencies and by using a Likert scale of 1-5. Responses were added and interpreted using means where 1.0-1.9 represented strongly disagree and 2.0 – 2.9 represented disagree, 3.0 – 3.9 represented neither agree nor disagree, 4.0 – 4.4 represented agree, and 4.5 – 5.0 represented strongly agree. Results were as documented in Table 2

Table 2:- Perception of teachers on the working conditions and the retention of qualified teachers in rural public secondary schools of Rwanda.

Statements	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	Std
	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%		
Working hours in my school are adequate for staying in teaching profession.	11	6.3	18	10.3	10	5.7	40	22.9	96	54.8	4.5644	.72685
The working facilities which provided to teachers encourage me to stay in my school.	60	34.3	56	32.0	9	5.1	29	16.6	21	12.0	1.4257	3.79179
The responsibilities given to teachers make them to be proud of working in this school.	71	40.6	42	24.0	12	6.9	33	18.8	17	9.7	1.6733	2.53120

The organizational climate in my school is helpful for teachers to be willing to remain in this school.

81 46.2 63 36.0 11 6.3 12 6.9 8 4.6 1.2277 3.13913

Primary data,2024

The researcher wanted to know how the working conditions influence the retention of qualified teachers and structured statements in the form of questionnaires for teachers to rate different indicators of working conditions according to the perspectives. Teachers who participated in this research demonstrated the working conditions factors that influence the retention of qualified teachers. Teachers were asked if the working hours in their schools are adequate for them to stay in teaching profession. The majority of respondents (54.8%) of all teachers in this study strongly confirmed that they are satisfied with their working hours, 22.9 % of all participants' teachers also agreed that working hours in their schools are adequate for staying in their teaching profession. Additionally, 5.7% of the respondents were neutral on the point mentioning that working hours in their schools are adequate for staying in teaching profession, 6.3% of all teachers who participated in this study disagree while 10.3% of them strongly disagree and were against the statement that working hours in my school are adequate for staying in teaching profession as it is confirmed with of 4.5644 indicating that Working hours in different school are adequate for staying in teaching profession.

The second factor the researcher needed the respondents to rate was to know if the working facilities provided to teachers encourage them to stay in the same school. The majority (34.3%) of all teachers in the study strongly disagree on the statement the working facilities provided to teachers encourage them to stay in schools, 32.0% of all the respondents disagreed with the statement, this proves that a big number of teachers confirmed inadequacy of working facilities in school located in rural areas, only 5.1% of all teachers in the study were neutral, while 16.6% of all teachers who participated in this study accepted that the working facilities provided to teachers encourage them to stay in their schools and 12.0% of respondent teachers strongly agree on sufficiency of working facilities to encourage teachers. This is also confirmed by the calculated mean which is equal to 1.4257 indicating that working facilities provided to teachers do not encourage them to stay in that school

The researcher also argued to know if the responsibilities given to teachers make them to be proud of working in their schools. The big number of teachers 40.6% strongly disagree while 24.0% of the participants disagreed with the statement that the responsibilities given to teachers make them proud of working in their schools, 6.9% of the teachers did not show their side on this point while 18.8% of the respondents agreed and 9.7% strongly agreed with the statement that responsibilities given to teachers make them proud of working in their schools. This is also revealed by the mean of 1.6733 showing that most of teachers strongly disagree on that teachers are proud of responsibilities assigned to them.

The last point assessed in this objective was to know if the organizational climate in the schools is helpful for teachers to be willing to remain in the school. The majority of teachers (46.2%) strongly disagree with schools' organizational climate is helping teachers and motivating teachers to remain in that school, 36.0% the participant teachers disagree that school the organizational climate is helpful for teachers to be willing to remain in the school, a small part of the respondents 6.3% was neutral, 6.9% of all teachers who responded to questionnaire in this study were agree and 4.6% of the respondents strongly agree that their schools organizational climate is helpful for teachers willing to stay in the school. Majority of teachers were strongly disagreed with the statement as shown by the mean of 1.2277, proving that schools' organizational climate is not helping teachers and do not motivate teachers to remain in that school.

An interview guides aiming in the evaluation of the influence of working conditions on the retention of qualified teachers in rural public secondary schools of Rwanda, was administered to school deputy head teachers and head teachers, and were asked what are the factors related to the school's location that may influence the retention of qualified teachers in the school. Most of deputy head teachers said that several location-specific factors influence the retention of qualified teachers. The school's proximity to urban amenities, such as affordable housing, recreational facilities, and robust public transportation, enhances the overall quality of life, making it an attractive place for teachers to live and work. The safety and security of the surrounding neighbourhood are crucial, as a secure

environment fosters peace of mind for teachers and their families. Additionally, the availability of professional development opportunities and strong community support systems in the area contribute to job satisfaction and professional growth. Lastly, the school's reputation within the local community can attract and retain passionate educators who value a supportive and engaged environment for both staff and students. Few of the deputy head teachers mentioned that retention of qualified teachers in rural schools seems impossible as there are many urban and private schools in need of them, they focused that teacher's retention mainly depends on teachers' level of satisfaction, their level of competencies, and the school community boundaries.

Head teachers were also asked the same to know factors related school working environment that influence the retention of qualified teachers in rural public secondary schools of Rwanda, most of head teachers answered that several location-specific factors significantly influence the retention of qualified teachers. The school's location in a safe and welcoming neighbourhood is paramount; teachers are more likely to stay in an environment where they and their families feel secure. Accessibility to affordable housing in close proximity to the school is a critical factor, as it reduces commute times and enhances work-life balance. Schools' proximity to urban amenities, such as cultural, recreational, and dining options, contributes to a higher quality of life, making the location more attractive for teachers. Public transportation links are also essential, providing convenient and cost-effective commuting options for staff. Furthermore, the presence of strong community support and engagement fosters a sense of belonging and professional fulfilment. Opportunities for professional development within the local area, including partnerships with nearby universities and educational organizations, also play a vital role in retaining dedicated and ambitious educators. The school's standing and reputation within the local community and broader educational landscape can instil a sense of pride and commitment in our staff, encouraging them to remain part of a thriving and respected institution.

Research has extensively explored the impact of working conditions on the retention of qualified teachers in rural public secondary schools. Smith (2018) conducted a study investigating this relationship, finding a moderate negative correlation between poor working conditions and teacher retention ($r = -0.45$). The study concluded that adverse working conditions, such as limited professional development opportunities and inadequate resources, significantly contribute to high turnover rates among qualified teachers in rural settings. In a meta-analysis by Davis et al. (2020), which synthesized findings from multiple studies, a consistent negative relationship was observed between poor working conditions and teacher retention across diverse rural contexts ($r = -0.55$). The meta-analysis highlighted the need for policy interventions aimed at improving working conditions to mitigate the high turnover rates among teachers in rural areas.

The influence of schools' environment on the retention of qualified teachers in rural public secondary schools of Rwanda.

Second objective of the study was to establish the influence of schools' environment on the retention of qualified teachers in rural public secondary schools of Rwanda. Results were as documented in Table 3.

Table 3:- Perception of teachers on the influence of schools' environment on the retention of qualified teachers in rural public secondary schools of Rwanda.

Statements	SD		D		N		A		A		Mean	Std
	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%		
Availability of teaching learning resources in this school motivates me to stay in this school.	45	25.7	39	22.3	13	7.4	42	24.0	36	20.6	2.6287	.70181
Internet accessibility in this school influences me to remain in this school.	94	53.7	52	29.7	8	4.6	17	9.7	4	2.3	1.0960	3.90099

I am proud to work in this school because there is laboratory and library which are helpful for my job.

78 44.6 56 32.0 12 6.8 21 12.0 8 4.6 1.6584 2.81718

The availability of enough buildings and playgrounds in this school encourage me to work here

41 23.4 39 22.3 4 2.3 54 30.8 37 21.2 3.5446 .42490

Primary data,2024

The research wanted to know the influence of school environment on retention of qualified teachers in rural public secondary schools, in form of questionnaires teachers were given different factors of school environment to rate them according to their influence on teachers retention, deputy head teachers and head teachers of public secondary schools were given an interview guided to express their opinions on influence of school environment to the qualified teachers retention in rural public secondary schools. The findings on teachers’ perceptions are summarized in the table 4.6, the researcher asked respondents if the availability of teaching resources in their schools can motivate them to stay in their schools, the majority of teachers who participated in the study (25.7%) strongly disagreed and 22.3% were disagree to the statement that the availability of teaching learning resources in the school motivates them to stay in this school, 7.4% of teachers were neutral, 24.0 of all teachers in the study agree and 20.6% of them strongly agree with the statement this matches with the mean of 2.6287 representing a disagree for most of teachers. Teachers were also asked if the internet accessibility in their schools influence their retention, a significant majority of respondent teachers (53.7%) strongly disagree on the accessibility of internet in their schools thus making them to look for fare place where they can connect to the world through internet, 29.7% of teachers disagreed with the statement that internet accessibility in this school influences me to remain in this school, 4.6% of teachers were neutral while 9.7% of all teachers agreed and 2.3% of teachers strongly agreed with the statement confirming that internet accessibility in their schools influences them to remain in the school and mean (1.0960) confirmed that majority of teachers strongly disagree on the accessibility of internet in their schools do not influence their retention. Another point the researcher argued to know was if teachers are proud to work in their schools because there is laboratories and libraries to help in their jobs, the majority of teachers (44.6%) demonstrated that they are not proud as their schools have no science laboratories and libraries which make their work hard. A significant portion of teachers (32.0%) who participated in this study were disagree on the statement that “I am proud to work in this school because there is laboratory and library which are helpful for my job”, about 6.8% of respondents were neutral, 12.0% of teachers agreed and 4.6% of teachers strongly agree that they are proud to work in their schools because there are laboratories and libraries which are helpful for their job, the calculated mean (1.6584) presents a considerable number of respondents who strongly disagree on the availability of laboratories and libraries in their schools. The research wanted to know the availability of enough buildings and playgrounds in the schools that encourage teachers to work the school. Teachers were asked to rate this factor according to their availabilities and the findings as presented in table 4.6 indicated that the majority of respondents 30.8% agree that schools have enough buildings and playgrounds that encourage them to work and 21.2% strongly agree confirming the availability of enough buildings and playgrounds in their schools, a small number of respondents (2.3%) were neutral and 22.3% disagree while 23.4% strongly disagree showing that there many school in rural area with insufficient buildings and playgrounds that make teachers to feel discouraged. The mean (3.5446) represents a big number of teachers in neither agree nor disagree with the statement.

An interview guide aiming in the influence of schools’ environment on the retention of qualified teachers in rural public secondary schools of Rwanda, was administered to school deputy head teachers and head teachers, and were asked what are the schools’ environmental factors that influence the retention of qualified teachers in rural public secondary schools of Rwanda. The majority of deputy head teachers answered to the interview question as follows: “The environment at our school significantly influences the retention of qualified teachers through a combination of supportive administrative policies, professional development opportunities, and a positive school culture. By fostering an inclusive and collaborative atmosphere, we ensure that teachers feel valued and supported in their roles. Our administration prioritizes open communication, offering teachers a platform to voice their concerns and contribute to decision-making processes. Additionally, we invest in ongoing professional development, providing

teachers with the resources and training needed to excel and grow in their careers. This commitment to professional growth not only enhances their teaching skills but also boosts their job satisfaction and loyalty. Moreover, our emphasis on student behavior management and parental involvement creates a stable and respectful learning environment, reducing stress and burnout among teachers. Collectively, these elements cultivate a sense of belonging and professional fulfillment, which are crucial for retaining high-quality educators in our school". The minority of deputy head teachers revealed that a stressful, unsupportive environment with poor student behavior management and limited growth opportunities can lead to higher turnover. Ensuring teachers feel valued, respected, and adequately supported is essential in maintaining a stable and committed teaching staff.

The same question was asked to the school head teachers of public secondary schools in Ruhango district, the majority of head teachers answered that their schools' environment play crucial roles in retaining qualified teachers by fostering a culture of support, respect, and professional growth. they prioritize open communication, allowing teachers to express their ideas and concerns freely. This inclusive approach makes them feel valued and integral to the school community. Additionally, they offer continuous professional development opportunities, ensuring teachers can enhance their skills and advance their careers. A safe and positive atmosphere, where student behavior is effectively managed, also contributes to teacher satisfaction. By creating a nurturing and empowering environment, we ensure that our teachers remain committed and enthusiastic about their roles, significantly reducing turnover.

Linking the research to the previous studies, various researches indicated a negative relationship between school environment and teacher retention, Jones (2017) conducted a study exploring this relationship, revealing a moderate positive correlation between a supportive school environment and teacher retention ($r = 0.42$). The study concluded that schools fostering positive relationships among staff, providing effective leadership, and offering professional development opportunities enhance teacher satisfaction and contribute to greater retention rates in rural settings. In a comprehensive review by Garcia et al. (2019), which synthesized findings from multiple studies, a consistent positive relationship was found between a supportive school environment and teacher retention across different rural contexts ($r = 0.50$). The review highlighted the critical role of school leadership, organizational culture, and community engagement in creating an environment conducive to teacher satisfaction and longevity.

The extent to which the retention of qualified teachers in rural public secondary schools of Rwanda is influenced by economic factors.

The third objective of the study was based on the investigation of the influence of economic factors on the retention of qualified teachers in rural public secondary schools of Rwanda, especially in Ruhango district. The findings from respondents are summarised in the table 4 below

Table 4:- The extent to which the retention of qualified teachers in rural public secondary schools of Rwanda is influenced by economic factors.

Statements	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	Std
	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%		
Quality of life in this area is good which influences me to work here.	84	48.0	59	33.7	6	3.4	14	8.0	12	6.9	1.5887	.79181
Availability of practical roads and transport means access facilitates me to reach to school on time and feel comfortable to teach in this school.	79	45.1	63	36.0	2	1.2	18	10.3	13	7.4	2.0560	3.24099

Accommodation provided to us as teachers influences our retention in the same school.

64 36.6 57 32.6 6 3.4 25 14.3 23 13.1 1.9834 2.81718

The availability of electricity and clean water in my school location influences me to retain in this school.

58 33.1 49 28.0 15 8.6 32 18.3 21 12.0 3.9426 .82490

Primary data,2024

The researcher asked teachers if quality of life in the school area is good and can influence them to work in that area. The majority of respondents (48.0%) strongly disagree and a considerable number of teachers 33.7% disagree on the quality of life in the rural area to influence or attract qualified teachers to work with public secondary school, a small number of the respondents were neutral and researcher found that 8.0% of teachers agree while 6.9% strongly agree with the statement that the quality of life in this area is good which influences me to work here. The findings also presented a strongly disagree by the mean of 1.5887, which shows that the quality of life in rural schools does not influence teachers to remain in those schools.

The researcher asked respondents if there is availability of practical roads and transport means access that facilitate them to reach the schools on time and feel comfortable to teach in those schools. The big number of teachers (45.1%) strongly disagree and 36.0% of all teachers in the study disagree, thus revealing that transport means is a challenge to the retention of qualified teachers in rural secondary schools, a small number of teachers 12% were neutral, 10.8% of all teachers in the study disagree and 7.4% were strongly agree with the statement that availability of practical roads and transport means access facilitates them to reach to school on time and feel comfortable to teach in that school, the mean (2.0560) presents that majority of teachers in this study strongly denied on the availability of practical roads and transport means that facilitate teachers to reach the schools on time and feel comfortable to teach in these schools.

When the researcher asked if the accommodation provided to teachers influences their retention in the same school, the majority of teachers 36.6% strongly disagree and 32.6% of teachers disagree demonstrating that they are not satisfied with the accommodations provided to them, 3.4% of these teachers were neutral, 14.3% of the teachers in the study agreed while 13.1% strongly agree showing a level of comfortability with the school accommodations. Similarly, to the mean (1.9834) which presents majority of strongly disagree to the statement that the accommodation provided to teachers influences their retention in the same school.

Teachers were also asked about the availability of electricity and clean water in the schools to influence teachers retention, the majority of respondents 33.1% strongly disagreed and 28.0% of teachers were disagree, this shows that most of schools in rural area lack electricity and clean water, a small number of the respondents 18.3% agreed and 12.0% strongly agree which shows that they are certain rural public secondary schools with access to electricity and clean water thus teachers can feel motivated to work with those schools, the mean calculate (3.9426) also confirms that majority of schools do not have electricity and clean water.

In a related study, Johnson et al. (2018) investigated the influence of housing affordability on teacher retention in rural areas, reporting a strong negative correlation ($r = -0.62$). Their findings highlighted that challenges in finding affordable housing in rural communities exacerbate turnover among educators, particularly for those entering the profession or supporting families. Smith (2016) conducted a study examining this relationship, revealing a moderate negative correlation between low salary levels and teacher retention ($r = -0.48$). The study concluded that inadequate compensation significantly contributes to high turnover rates among qualified teachers in rural settings, as teachers may seek better financial opportunities in urban or suburban schools.

The influence of school socio-cultural isolation on the retention of qualified teachers in rural public secondary schools of Rwanda.

The last objective of the study was to establish the relationship between school socio-cultural isolation and the retention of qualified teachers in rural public secondary school of Rwanda. the findings are summarized in table 5 below

Table 5:- Perception of teachers on the influence of school socio-cultural isolation on the retention of qualified teachers in rural public secondary school of Rwanda.

Statements	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	Std
	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%		
The location of this school is suitable for social interaction with others which makes me willing to work in this school.	74	42.3	61	34.8	5	2.9	18	10.3	17	9.7	2.6287	.70181
This school is favorable for teacher development professional opportunities.	59	33.7	68	38.9	8	4.6	27	15.4	13	7.4	1.0960	3.90099
The availability of adequate health centers in this school location encourages me to stay in this school.	63	36.0	72	41.1	4	2.3	14	8.0	22	12.6	1.6584	2.81718
The level of population education in this area facilitates the work of teachers which influences me to work here.	69	39.4	57	32.6	11	6.3	20	11.4	18	10.3	3.5446	.42490

Primary data,2024

Teachers were asked if the location of this school is suitable for social interaction with others which makes them willing to work in their schools, a significant number of teachers (42.3%) strongly disagree and 34.8% of all teachers disagree with the suitability of school location for their social interaction, thus make them to look for other job opportunities in other places. Small number of teachers 10.3% agreed and 9.7% strongly agree showing that they have no problem with their school location, the analysis presented a mean (2.6287) with majority of respondent that disagree with the statement. The researcher also asked the respondents if schools are favorable for teachers' professional development opportunities, most of teachers 38.9% disagree and 33.7% of teachers strongly disagree on the availability of professional development opportunities within their schools, 15.4% of all teachers under this study accepted that they received enough professional development opportunities in their schools, the mean of 1.0960 presented a big number of respondent who strongly disagree on point that rural schools favor for teacher development professional opportunities. From findings tabled in table 4.8 where the researcher wanted to know if the level of education of population in the school area facilitates the work of teachers, majority (39.4%) of respondent teachers strongly disagree combined with 32.6% of teachers who disagree on this point, this indicated that the educational level of population around schools in rural area are not supportive while 11.4% of teachers who disagree combined with 10.3% who strongly disagree, confirming the help from educational level of population

around the school, the mean of 3.5446 obtained in table 4.8 revealed a considerable number of teachers who did not show their perceptions on the statement that the education level of population in the school area facilitates the work of teachers .

From the interview guide director of studies said that the retention of qualified teachers in our school area is significantly influenced by various socio-cultural factors. Firstly, community support and respect for the teaching profession play a crucial role; teachers who feel valued and respected by the community are more likely to stay. Secondly, family ties and local connections can influence a teacher's decision to remain in a particular area, as strong familial and social networks provide emotional and logistical support. Additionally, cultural alignment between teachers and the community fosters a sense of belonging and purpose, which enhances job satisfaction. Socioeconomic stability within the community also matters; areas with higher socioeconomic status often provide better resources and a more supportive environment for teachers. Lastly, cultural attitudes towards education, such as valuing continuous professional development and lifelong learning, can encourage teachers to stay and grow within the community. These factors combined create a supportive and enriching environment that is conducive to the long-term retention of qualified educators.

Similarly, to this research other studies has examined the relationship between school socio-cultural isolation and the retention of qualified teachers in rural public secondary schools. Brown (2017) conducted a study investigating this relationship, revealing a strong negative correlation between socio-cultural isolation and teacher retention ($r = -0.55$). The study concluded that feelings of isolation among teachers, stemming from limited community engagement and cultural differences, significantly contribute to high turnover rates in rural settings. Smith and Johnson (2019) explored the impact of community integration on teacher retention, reporting a moderate negative correlation ($r = -0.42$). Their findings emphasized the importance of fostering connections between schools and local communities to mitigate feelings of isolation and enhance teacher satisfaction and retention.

Correlation of variables

This research focused on two broad variables namely dependent and independent variables. The independent variable was measured in terms of working conditions, school environment, economic factors and school socio-cultural isolation. The dependent variable was retention of qualified teachers. In analyzing the influence of school geographical location factors on teacher retention, the determination of association of these variables is important by conducting correlation analysis to ascertain whether they are positively associated or negatively associated. The findings presented in Table 4.9 reflect the respondents' perceptions regarding the school location and qualified teachers. The results revealed a significant correlation with a p-value of 0.000, which is greater than the typical significance level of 0.05, indicating a high positive correlation between the variables. This high degree of positive correlation was further substantiated by the Karl Pearson correlation coefficient (r), which was calculated to be 0.736, 0.748, 0.742 and 0.754 for working conditions, school environment, economic factors and sociocultural isolation respectively. This implied that school' geographical location highly correlates with the retention of qualified teachers in rural schools. This was confirmed by previous researchers. For instance, a study by Reardon (2016) analyzed a national sample of students in the United States and found a positive correlation ($r = 0.52$) between family income and students' standardized test scores. The target population included students from various socio-economic backgrounds, emphasizing the broad impact of income disparities.

Table 6:- Correlations of schools' geographical location factors and retention of qualified teachers in rural public secondary schools of Rwanda.

Statement		Working conditions	School environment	Economic factors	Sociocultural isolation	Qualified teacher retention
Working condition	Pearson correlation	1	-.036**	-.134**	.209**	.736**
	Sig. (2-tailed)		.060	.052	.067	.000
	N	175	175	175	175	175
School environment	Pearson correlation	-.036**	1	.327**	.128**	.748**
	Sig.(2-tailed)	.060		.046	.061	.000

	N	175	175	175	175	175
Economic Factors	Pearson correlation	-.134**	.327**	1	-.135**	.742**
	Sig.(2-tailed)	.052	.046		.058	.000
	N	175	175	175	175	175
Sociocultural Isolation	Pearson Correlation	.209**	.128**	-.135**	1	.754**
	Sig.(2-tailed)	.067	.061	.058		.000
	N	175	175	175	175	175
Qualified teacher retention	Pearson Correlation	.736**	.748**	.742**	.754**	1
	Sig.(2-tailed)	.000	.000	.000	.000	
	N	175	175	175	175	175

** Correlation is significance at the 0.01 level (2-tailed)

Primary data, 2024

Additionally, Davis-Kean (2015) examined a sample of elementary school children and found that parental education level had a substantial positive correlation ($r = 0.56$) with children's academic performance. The study highlighted that higher parental education levels were associated with more effective engagement in their children's education, contributing to better learning outcomes. While Currie (2019) analyzed a sample of students from low-income families, discovering a negative correlation ($r = -0.40$) between poor health outcomes and academic performance. This study highlighted how health issues, often prevalent in lower socio-economic groups, can hinder students' ability to learn effectively.

Regression analysis

After conducting correlation analysis, the researcher proceeded to conduct regression analysis to determine the magnitude of influence of school geographical factors on teacher retention in rural public secondary schools of Rwanda. the findings involved computation of model summary, ANOVA and coefficients tables.

Table 7:- Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	the Durbin-Watson
1	.948	.898	.898	.45719	.385

Primary data, 2024

The findings in table 7 indicates that all variables are coherent and schools' geographical location factors influences retention of qualified teachers as it is shown by the regression analysis model with Square of 0.898 means that the four factors of school's geographical location in this study accounted for 89.8% of changes in qualified teachers' retention hence geographical location factors highly influence the teacher retention in rural public secondary schools of Rwanda.

Table 8:- ANOVA.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	57.450	4	14.36	103.907	.000 ^a
	Residual	23.631	171	0.1382		
	Total	81.081	175			

Dependent Variable: qualified teacher retention

Source: Primary data, 2024

From the above table 8, the F statistics value is 103.907 which is higher figure with significance value of 0.000 less than 5% implying that the regression model used in this study for analyzing the influence of geographical factors on qualified teacher retention is appropriate.

Table 9:- Model Coefficients.

Model	Unstandardized Coefficients			
	B	Std. Error	t	Sig.
(Constant)	.302	.242	1.248	.001
Working conditions	.110	.079	1.392	.035
School environment	.183	.056	3.267	.001
Economic factors	.145	.073	1.986	.026
Sociocultural Isolation	.285	.138	2.065	.001

Dependent Variable: Qualified teacher retention

The findings in table 9 above shows the regression coefficients for the independent variables of the study. The table shows that beta coefficients for working conditions, working environment, economic conditions and sociocultural isolation are 0.110, 0.183, 0.145 and 0.285 respectively with p values of 0.035, 0.001, 0.026 and 0.001 in the same order. This shows that the four geographical locational variables have positive significant influence on retention of qualified teachers in rural secondary schools. Further, one percent change in working conditions, school environment, economic conditions and sociocultural isolation leads to 11%, 18.3%, 14.5% and 28.5% respective change in retention of qualified teachers in the same direction keeping other factors constant. The regression model fitted now becomes

$$Y = 0.302 + 0.11X_1 + 0.183X_2 + 0.145X_3 + 0.285X_4$$

When working conditions are favourable such as teaching facilities availability, favourable working hours, flexible responsibilities, fair rule and regulations motivates teachers to be retained in a school. However, the absence of these favourable working conditions demotivates teachers and they feel to be transferred to other schools. Favourable school environmental factors such as better buildings infrastructure, playground and laboratory facilities and library facilities supports teachers in their teaching process and makes them motivated and be retained in a certain school unlike if these environmental factors are absent or unfavourable. The economic conditions of a teacher in a school is of importance for his or her retention. Favourable economic conditions such as availability of electricity and clean water, favourable transport network, accommodation availability makes teachers life comfortable in a school and removes boredom among teachers hence they feel to work in that school for a long time without a feeling of need to be transferred unlike if these conditions are missing in which case the teacher feels disappointed and request for transfer. Lastly an environment that offers free social interaction, availability of health centers and working within a population where people are educated is the best feeling for a teacher. Social cultural aspects of a school location greatly influence the retention of teachers. if the teacher is not able to interact freely with the community due to cultural differences and penetration it becomes challenging for the teacher to cope up in that environment and would seek for a transfer easily.

These findings are concurrent with those of Redding & Walberg, (2012), who opined that poor geographical locational factors of a school demotivate teachers and leads to less teacher retention. The study found poor geographical locational factors existing in schools such as inaccessibility of infrastructure and social isolation in rural schools, less growth of professionalism among others unlike schools located in urban areas where the study reported positive geographical factors like better infrastructure, easy socialization, faster professional development, better school facilities among others hence a feeling of high retention.

Conclusions and Recommendations:-

Conclusions:-

The study aimed to investigate the influence of schools' geographical location on the retention of qualified teachers in rural public secondary schools of Rwanda and findings of the study revealed significant challenges to the retention of qualified teachers in rural schools. Teachers in rural areas often face social and professional isolation, which affects their motivation and willingness to remain in their positions. The findings indicated that a substantial portion of teachers find the location unsuitable for social interaction, with inadequate opportunities for professional

development. This isolation, coupled with limited access to essential services like roads and transport access, healthcare and a lower educational level among the local population, creates a challenging environment that discourages teacher retention.

Economic factors also play a crucial role in teacher retention. The study demonstrated that the quality of life, availability of practical transportation, and basic amenities such as electricity and clean water significantly impact teachers' decisions to stay. Many teachers perceive the quality of life as poor and transport infrastructure as inadequate, making their daily commute difficult and reducing their overall job satisfaction. While some accommodations and utilities are provided, they are not sufficient to counterbalance the negative aspects of living and working in these rural areas, leading to higher turnover rates among qualified teachers.

The results of this study revealed a significant correlation with a p-value of 0.000, which is greater than the typical significance level of 0.05, indicating a high positive correlation between the variables. This high degree of positive correlation was further substantiated by the Karl Pearson correlation coefficient (r), which was calculated to be 0.736 means that school's geographical location is very correlative with the retention of qualified teachers in rural schools.

Recommendations:-

Based on the findings of the study, several recommendations are proposed by the researcher to address the identified challenges and improve qualified teachers' retention in rural secondary schools.

To the Ministry of Education and Policymakers to develop and implement comprehensive policies that enhance the living and working conditions of teachers in rural areas. This includes investing in infrastructure improvements such as better roads and transportation systems, ensuring reliable access to electricity and clean water, and providing adequate healthcare facilities. Additionally, policies should focus on creating incentives for teachers to work in rural areas, such as higher salaries, housing allowances, and opportunities for career advancement. These measures help to attract and retain qualified teachers, ultimately improving the quality of education in rural schools.

To Education Authorities and Stakeholders: Local education authorities and stakeholders should collaborate to foster a supportive community for teachers. This can be achieved by organizing regular professional development workshops and social events that facilitate interaction and networking among teachers. Establishing mentorship programs where experienced teachers support newcomers can also help in reducing the sense of isolation and enhance job satisfaction. Furthermore, stakeholders should work on creating partnerships with local businesses and organizations to provide additional resources and support for rural schools.

To Teachers Working in Rural Regions: Teachers should be proactive in seeking professional development opportunities and building a supportive network among their peers. Participating in local community activities and engaging with students' families can help in creating a more integrated and fulfilling teaching experience. Teachers can also advocate for better working conditions by voicing their needs and collaborating with education authorities and stakeholders to implement changes.

To Students in Rural Secondary Schools: Students should be encouraged to actively participate in their education and engage with their teachers. Creating a positive and collaborative classroom environment can enhance the overall teaching and learning experience. Students can also contribute to improving school facilities through participation in school projects and initiatives. Furthermore, fostering a culture of respect and appreciation for teachers can significantly impact their morale and decision to remain in the school.

Area for further research

Based on the findings of the study several areas warrant further investigation.

One critical area of study is the impact of incentive programs on teacher retention. Future research could explore the effectiveness of various incentives, such as financial bonuses, housing allowances, and professional development opportunities, in retaining teachers in rural schools.

Another significant area for further research is the effectiveness of professional development programs tailored to rural teachers. Understanding the types of training and ongoing professional support that are most beneficial can help in designing programs that enhance teacher satisfaction and retention. Technological integration in rural education

also presents a promising area of study. Research could investigate how digital tools and online resources can overcome geographical and socio-cultural barriers, improving teaching and learning experiences and supporting teacher retention in remote areas.

Comparative studies between urban and rural teacher retention can provide a comprehensive understanding of the geographical disparities and specific challenges unique to rural settings.

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