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### RESEARCH ARTICLE

#### EFFECT OF AUDIO-VISUAL AIDS IN TEACHING AND LEARNING AND STUDENT ACADEMIC PERFORMANCE IN GEOGRAPHY SUBJECT IN DAY SECONDARY SCHOOLS IN RWANDA

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#### Abstract

The research investigated the influence of audio-visual aids in teaching and learning on students' academic performance in geography subjects: a case study of public secondary schools in the Gasabo area of Rwanda. This study is important to the government of Rwanda and other educational stakeholders. The total population of respondents is equal to 388, and it was composed of 165 geography teachers who were sampled as 84 teachers, 23 headteachers, and 200 students who were sampled as 101 respondents. To triangulate the data, primary sources were acquired utilizing questionnaires, interviews, and observation methods. To generate a sample population from the respondents, this study employed purposive, stratified, and simple random sampling methods. In data gathering and analysis, the study used both quantitative and qualitative methodologies in tandem. Content analysis aided qualitative data analysis, while quantitative data was presented using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics (correlational and regression analysis) in the statistical package for social sciences. The finding indicates that there was a relationship between audio-visual aids in teaching and learning and students' academic performance in geography. The findings suggest that enhancing physical facilities can improve student outcomes and were positively and statistically correlated since most of their level of significance was more than 0.05 in association with girls' retention rates in public secondary schools in Gasabo District, Rwanda.

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#### Introduction:-

Despite efforts, students' geographic performance in Rwanda's public secondary schools is still poor. In 2014, GS Nyagahandagaza performed poorly in the REB Advanced Secondary Schools results for the Kayonza District, with only one student awarded a principal A or B. In 2015, only one student out of ten achieved a major A. This poor performance is linked to instructional materials used, teacher ability, and teaching strategies. Previous research has shown that students in secondary school who study Geography face poor performance in school, high absenteeism, poor understanding, and poor class involvement.

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In the Gasabo District, only 49 out of 1,340 candidates qualified for university admission in 2016. The low performance in geography results is connected to the instructional material used in teaching Geography topics. This study aims to investigate the relationship between audiovisual aids in teaching and learning and students' academic performance in geography subjects in public secondary schools in the Gasabo area of Rwanda

**The General objectives of The Study**

To investigate the influence of audio-visual aids in teaching and learning on students’s academic performance in geography subjects: a case study of public secondary schools in the Gasabo area of Rwanda

**Literature Review:-**

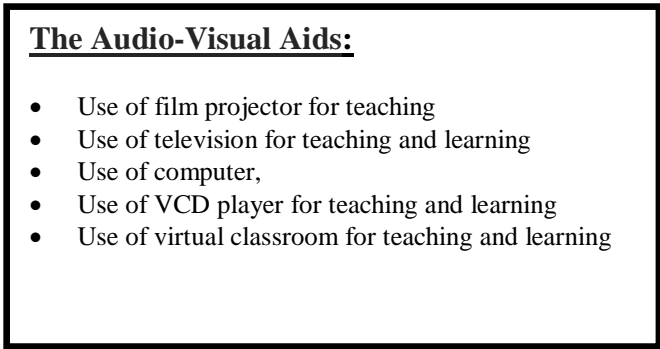
Datti and Garba (2015) discovered that the current visual instructional materials were insufficient and ineffective for successful geography education. According to Gaudence et al. (2013), pupils' lackluster achievement in geography in Nigeria was ascribed to students' unfavorable attitude toward the topic in question.

Dhakal (2017) discovered that written and graphic resources in geography instruction were more readily available and frequently utilized than audio, visual, and audio-visual elements, which were hardly available and infrequently used in classrooms during instruction and learning activities. In addition, he discovered that indigenous materials remained rarely used.

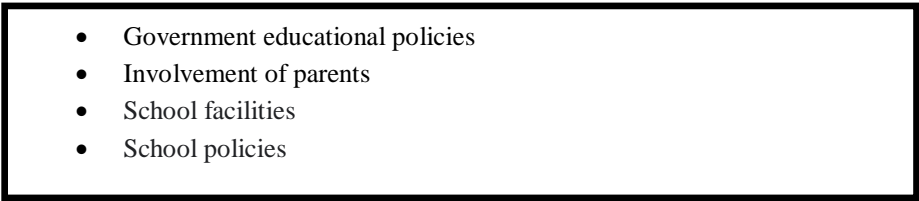
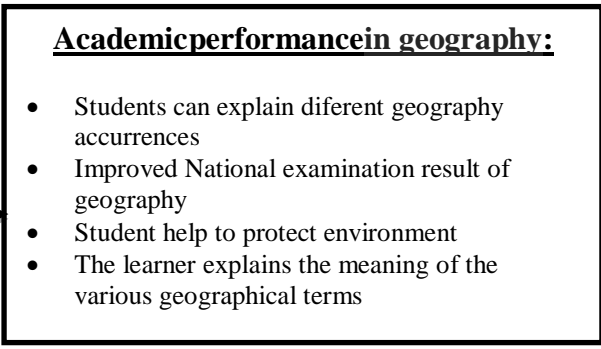
The efficacy of audio-visual aids comes in their multimodal nature, which stimulates the audience's many senses. It is also interactive, allowing application users to control the content and flow of information. This has caused significant changes in the educational system and has an influence on how teachers deliver knowledge to students.

According to Singh (2015), audio visual aids are any equipment that, by sight and sound, extends an individual's experience beyond that gained from reading. Audio-visual aids are educational technologies that are used in the classroom to stimulate learning and make it easier and more entertaining. Materials such as charts, maps, models, film strips, projectors, radios, and televisions are examples of teaching aids Rather (2014).

**Conceptual Framework**  
**Independent variables**



**Dependent variables**



## Research Methodology:-

### Research Design

According to Babbie (2011), the purpose of a descriptive study is to determine who, what, why, where, and how the variables are, which is what this study is attempting to do. This research used a descriptive survey research design with both quantitative and qualitative methodologies. On the one hand, a survey was employed in conjunction with the quantitative technique, in which questionnaires were distributed to teachers and randomly selected students throughout the study.

### Target Population

According to Mugenda and Mugenda (2012), the target population is a group that the study needs in order to generalize its findings. Hence, 388 respondents from secondary schools in the Gasabo District make up the study's target population, which consists of 165 teachers, 23 head teachers, and 200 students

"The total amount of people that comprise a research study to represent a population is referred to as sample size." The term "sample size" refers to the overall number of survey respondents, which is typically broken down by demographic such as age, gender, and area to ensure that the total sample reflects the entire population. Choosing a sufficient number of samples is an important aspect of statistical analysis (herbelt, 2021).

Yamane (1976) devised the following formula to determine the sample size of a population: The calculation assumes a 95% confidence level and  $P = 0.05$ , where  $n$  is the sample size,  $N$  is the population size, and  $e$  is the degree of accuracy or margin of error.

When we use this formula, we get:

formula:  $\frac{N}{1+N(e)^2}$ ; and then the sample size is  $n = \frac{388}{1+388(0.05)^2}$ ;  $n = \frac{388}{1.97} = 196.9$ , then the sample size is 197 respondents.

**Table 3.1:-**Sample Distribution.

Category of Population	Target Population	Sample Population
Geography teachers	165	84
Students	200	101
Headteacher	23	12
Total	388	197

**Source:** Researcher 2024

According to Jaylt (2022), purposeful sampling is a type of non-probability sampling process in which units are chosen depending on the attributes that you desire in your sample. In other words, unit populations are picked "on purpose" in purposive sampling. A simple random sample is a subset of a population chosen at random. Each member of the population has a precisely equal probability of being chosen using this sampling approach (Kalmax, 2020). Purposive sampling strategies was used in this study to choose geography Teachers and head Teachers from several public secondary schools in the Gasabo district employ simple random sampling to choose pupils as respondents. The researcher employed these methodologies to give virtue information based on the experience, traits, and knowledge of all respondents

To collect information relevant to the objectives, the research employed a questionnaire that included a series of open questions on themes that were expected from respondent information. These sorts of questions were given to respondents by the researcher

### Reliability And Validity

Reliability is the degree to which a test consistently measures whatever it measures (Gay 1987). Refers to the consistency of results obtained when using a research instrument. Reliability has two aspects: stability and equivalency. The researcher used the test-retest method to test the reliability of the instruments. This method involves administering the same test twice to the same group after a certain time interval has elapsed since the previous test. The researcher then calculated a reliability coefficient to indicate the relationship between the two sets of scores. Determine the reliability of the instruments by looking at the two outcomes, i.e., the first and second results.

The researcher used content-related validity. This type of validity refers to the content and format of the instrument. This enabled the researcher to test the appropriateness of the instrument for the purpose of the study. It showed how comprehensive the instrument is in measuring all the constructs of the variables being measured. Also, this shows if the content logically gets at the intended variables. Content-related validity also tests the appropriateness of the format presented by the instrument. The researcher provided answers to these questions before using the instrument to collect data. Research experts, including the supervisor, professional experts, and peers, were consulted to ensure that the instrument measured what it was intended to measure.

Ethical considerations in research are a set of principles that guide your research design and practices. Fontana and Frey (2014) advise that because the objects of inquiry in interviewing are human beings, extreme care must be taken to avoid any harm to them. At the preliminary stage, before going for fieldwork to collect the data, the researcher received a request letter from the school of education at Mount Kenya University, which helped him introduce himself to the school authorities where he was collecting the data. In order to maintain the confidentiality and anonymity of respondents, the names of the participants were not disclosed

### Findings, Interpretations And Discussions:-

Respondent's gender profile was very important in investigating the influence of Remedial practices and students' competences in mathematics in Gasabo district, Rwanda.

**Table 4.1:-** Gender Profile of Respondents.

	Geography teachers		Students		Head Teachers	
	N	%	N	%	N	%
Male	40	47.6	50	49.5	10	83.3
Female	44	52.4	51	50.5	2	16.7
Total	84	100.0	101	100.0	12	100.0

**Source:** Primary Data (2024)

Information given in table 4.1, 47.6 % of Geography Teachers who participated in this study are male while 52.4% are female. 49.5% of students who participated in this study are male while 50.5 % are female, in this regard, 83.3% of head teachers are male while only 16.7% are female. There is gender balance, but also female liberation in secondary schools, with more female students attending classes. The Bangladesh International Policy Research Institute did a study on remedial techniques and students' biology competencies (Akaline, 2017).

### Age of Respondents

It is very important to provide information related to age category of respondents as depicted in Table 4.2

**Table 4.2:-** Age Group of Respondents.

Age of Respondents	Frequency	Percentage
16-20 Years	65	32.9
21-25 Years	75	38.07
26-30 Years	45	22.8
30 years and above	12	6.09
Total	197	100.0

**Source:** Primary Data (2023)

As reflected in Table 4.1.2, 32.9% respondents are between 16-20 years of age, 38.07% of respondents are between 21- and 25-years' age, 22.8 % of respondents who were involved in the study process were between 26 and 30 years and finally 6.09 of respondents who were involved in the study process were above 30 years, this means that age characteristics was balanced in this study. The results of the study were consistent with those of Williams (2018), who looked at students' mathematical competency and the use of audio-visual aids in instruction. The bulk of replies, the study found, were in the 17–20 age range. The presence of adult respondents allowed the researcher to get valuable data.

### Education Qualification of Respondents

It was necessary to assess the highest level of qualification attained by respondents from ordinary level of secondary, advanced level of secondary schools, bachelor's degree, master degree to doctoral degree.

**Table 4.3:-** Education Attainment of respondent.

	Mathematics teachers		Students		Head Teachers	
	N	%	N	%	N	%
Ordinary Level	-	-	64	100.0	-	-
Advanced Level	-	-	-	-	-	-
Bachelors	80	95.2	-	-	8	66.6
Masters	4	3.1	-	-	5	41.6
PhD	-	-	-	-	0	0
<b>Total</b>	<b>84</b>	<b>100.0</b>	<b>64</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>

Source: Primary Data (2024)

Information presented in Table 4.1.3, geography teachers, 96.9% hold bachelors degree while 4.7 masters degree. Finally, 66.6% head teachers hold bachelor's degree and 41.6 % hold master degree. The study's findings are noteworthy because they show that the participants can recall the knowledge they value most, use it when necessary, and evaluate their own learning. Learning is influenced by motivation and environment (Chamot, 2018). Less than 50% of females in half of the listed African nations are proficient in basic reading after completing the fifth grade of education (Kevin, 2013).

### Distribution by Work Experience

Learning/teaching experiences for research participants is categorized by < one year, one and three years, four and six years and more six years. Data is shown in Table 4.4.

**Table 4.4:-** Work Experience of Respondents.

Years	Teachers		Head Teachers	
	N	%	N	%
<5	32	35.5	0	0
5 <10	46	51.1	6	33.7
>10	12	13.4	11	77.3
<b>Total</b>	<b>84</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>

Source: Primary Data (2024)

Data in Table 4.4: 35.5% Geography Teachers who have taught in secondary schools have under five years of experience; 51.1% have between five and 10 years of experience, while only 21.2% have above 10 years of experience. In a group of school principals, 77.3% have more than 10 years of experience, and 33.7% have between five and 10 years of working experience.

### Presentation of Findings

The relationship between audio-visual aids in teaching and learning and students' academic performance in geography subjects in Gasabo district, Rwanda.

The following table establishes the relationship between audio-visual aids in teaching and learning and students' academic performance in geography subjects in Gasabo district, Rwanda.

Correlation between audio-visual aids in teaching and learning and students' academic performance in geography subjects in Gasabo district, Rwanda

	Use of film projector for teaching	Use of television for teaching and learning	Use of VCD player for teaching and learning	Students can explain different geography occurrences	Improved National examination result of geography	The learner explains the meaning of the various geographical terms
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Use of film projector for teaching	Pearson Correlation	1					
	Sig. (1-tailed)						
	N	197					
Use of television for teaching and learning	Pearson Correlation	.704**	1				
	Sig. (1-tailed)	.000					
	N	197	197				
Use of VCD player for teaching and learning	Pearson Correlation	.488**	.693**	1			
	Sig. (1-tailed)	.000	.000				
	N	197	197	197			
Students can explain diferent geography accurrences	Pearson Correlation	.496**	.716**	.493**	1		
	Sig. (1-tailed)	.000	.000	.000			
	N	197	197	197	197		
Improved National examination result of geography	Pearson Correlation	.803**	.601**	.446**	.414**	1	
	Sig. (1-tailed)	.000	.000	.000	.000		
	N	197	197	197	197	197	
The learner explains the meaning of the various geographical terms	Pearson Correlation	.261**	.433**	.612**	.245**	.197**	1
	Sig. (1-tailed)	.000	.000	.000	.000	.000	
	N	197	197	197	197	197	197

\*\* . Correlation is significant at 0.01 level (2-tailed).  
 \*Correlation is significant at 0.05 level (2-tailed)

Source: Primary Data (2024)

Findings from Table indicate A strong relationship was established between the use of a film projector for teaching and Students can explain different geography occurrences (r =.496\*\*, p-value = 0.000), the improved national examination result of geography (.601\*\*, p-value = 0.000), and the meaning of the various geographical terms (.433\*\*, p-value =0.000). The connection is positively connected since the p-value was less than 0.05, explaining that adjustment. Use of film projectors for teaching affects Students can explain diferent geography occurrences, improves national examination results in geography, and uses film projectors for teaching and vice versa.

For the use of television for teaching and learning and Students can explain different geography occurrences (r =.716\*\*, p-value = 0.000), improved national examination results in geography (.803\*\*, p-value = 0.000), with The learner explains the meaning of the various geographical terms (.261\*\*, p-value =0.000). The association is positively related because the p-value was less than 0.05, explaining that adjustment. The use of television for teaching and learning affects Students can explain different geography occurrences, improved national examination results in geography, the use of film projectors for teaching, and vice versa.

There is a significant correlation found between the use of a VCD player for teaching and learning and Students can explain different geography occurrences (r =.493\*\*, p-value = 0.000), improved national examination results in geography (.612\*\*, p-value = 0.000), and having a high attractiveness rate (.261\*\*, p-value = 0.000). The p-value was below 0.05, which means the connection is positive, demonstrating that the modification Use of a VCD player for teaching and learning Students can explain different geography occurrences, improved national examination results in geography, the use of film projectors for teaching, and vice versa. (Niyitegeka, 2019) examines the link between instructors' use of instructional materials and students' attitudes towards learning science topics in Rwandan high schools. The sample included sixty-three instructors from Muhanga District. Data were gathered via an online survey and questionnaires. Pearson’s Product Moment Correlations revealed significant relationships between the usage of illustrations, pictures, and visual aids, laboratory equipment, models, and drawings, originality, invention, and audio-visual aid integration. The study suggests that teachers employ a variety of instructional tools in the classroom to boost students' involvement and attitudes towards learning.

Regression Coefficients between Independent variable and Students can explain different geography occurrences

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Beta	Lower Bound
1 (Constant)	.827	.134		6.163	.000	.562	69.5
Use of film projector for teaching	.016	.050	.564	-.316	.006	-.114	.083
Use of television for teaching and learning	.942	.080	.732	11.816	.000	.785	1.099
The availability of cleaning materials and restrooms	-.007	.051	.457	-.131	.001	-.106	.093

Dependent Variable: Students can explain different geography occurrences

Source: Primary data (2023)

Findings in the above Table from respondents to this study show that the regression equation is (y = axe + b + ε), thus y is the dependent variable. Students can explain different geography occurrences (x: independent variable as the availability of cleaning materials and restrooms, use of film projectors for teaching, use of television for teaching

and learning), thus  $y = (\text{Beta}) x + .827 + \epsilon$ . Despite this, there is 95% confidence that the implementation of the school feeding programme can influence Students can explain different geography occurrences, somewhere between 59.2% and 69.5%. The above table 4.5 shows that the use of a film projector for teaching was statistically significant to Students can explain different geography occurrences ( $B = .564$ ,  $p\text{-value} = .006$ ). The use of television for teaching and learning was statistically significant. Students can explain different geography occurrences ( $B = .732$ ,  $p\text{-value} = .000$ ), and the use of VCD players for teaching and learning is significant, affecting Students can explain different geography occurrences ( $B = .457$ ,  $p\text{-value} = .001$ ). The result of the regression analysis indicated that there are significant differences between independent variables with Students can explain different geography occurrences.

Regression Coefficients between independent variable and Improved National examination result of geography

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.791	.114		6.907	.000	.565	.887
	Use of film projector for teaching	.791	.046	.752	17.302	.000	.701	.881
	Use of television for teaching and learning	.045	.073	.733	.623	.000	.698	.189
	Use of VCD player for teaching and learning	.061	.046	.656	1.313	.000	.730	.152

Dependent Variable : Improved National examination result of geography

Source: Primary data (2023)

Respondents of this study presented that the regression equation is ( $y = ax + b + \epsilon$ ), thus  $y$ : dependent variable as the improved national examination result of geography,  $x$ : independent variable as the availability of cleaning materials and restrooms, use of film projectors for teaching, use of television for teaching and learning, thus  $y = (\text{Beta}) x + .791 + \epsilon$ . Despite this, there is 95% confidence that implementing the school feeding programme can influence the improved national examination results in geography, somewhere between 56.5% and 88.7%. The above table shows that the use of a film projector for teaching was statistically significant to the improved national examination result of geography ( $B = .752$ ,  $p\text{-value} = .000$ ), the use of television for teaching and learning was statistically significant to the improved national examination result of geography ( $B = .733$ ,  $p\text{-value} = .000$ ), and the use of a VCD player for teaching and learning was significant to the improved national examination result of geography ( $B = .656$ ,  $p\text{-value} = .000$ ). The result of the regression analysis indicated that there is a significant relationship between independent variables and the improved national examination result in geography.

Regression analyses between Independent Variable and The learner explains the meaning of the various geographical terms

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.471	.097		4.859	.000	.554	.662
	Use of film projector for teaching	-.116	.076	-.088	-1.531	.000	-.264	.033
	Use of television for teaching and learning	.138	.120	.080	1.149	.001	-.098	.375



Use of VCD player for teaching and learning	.805	.076	.599	10.530	.000	.654	.955
a. Dependent Variable: The learner explains the meaning of the various geographical terms							

**Source:** Primary data (2023)

From above Table; respondents to this study presented that the regression equation is  $(y = ax + b + \epsilon)$ , thus  $y$  is the dependent variable. The learner explains the meaning of the various geographical terms,  $x$ : independent variable as the availability of cleaning materials and restrooms; use of film projectors for teaching; use of television for teaching and learning; thus,  $y = (\text{Beta}) x + .471 + \epsilon$ . Despite this, there is 95% confidence that implementing a school feeding programme can influence the learner explains the meaning of the various geographical terms, somewhere between 55.4% and 66.2%. The above table shows that the use of a film projector for teaching was statistically significant to the learner explains the meaning of the various geographical terms ( $B = .088$ ,  $p\text{-value} = .000$ ). The use of television for teaching and learning was statistically significant. The learner explains the meaning of the various geographical terms at ( $B = -.080$ ,  $p\text{-value} = .001$ ), and the use of a VCD player for teaching and learning is significant, affecting the learner explains the meaning of the various geographical terms ( $B = .599$ ,  $p\text{-value} = .000$ ). The result of the regression analysis indicated that there are significant differences between independent variables with the learner explains the meaning of the various geographical terms

## Conclusion And Recommendations:-

### Conclusions:-

Reconsidering findings from this present research, it concludes: According to the first research objectives, The study found that 89.3% of respondents believe that using film projectors, televisions, computers, VCD players, and virtual classrooms effectively utilises audiovisuals in geography education, compared to 92.9% and 86.9%, respectively. This highlights the importance of audiovisuals in geography education.

For the second objective, the researcher reveals that 64.3% of students can explain geographical occurrences, 92.3% Agree that national examination results indicate performance, 96.6% contribute to environmental protection, and 92.3% understand geographical terminology significance which all indicate student academic performance in Geography.

Results from objective three reveal that the correlation and regression results established the existence of a positive correlation among audio-visual aids in teaching and learning and students' academic performance in geography subjects in Gasabo district, Rwanda, where the Pearson's  $p$ -value and significance were justified by  $p$ -values less than 0.05, and the research results evidenced a positive correlation between audio-visual aids in teaching and learning and students' academic performance in geography subjects in Gasabo district, Rwanda, in the Gasabo district.

### Recommendations:-

Reconsidering concluding remarks from the investigation's findings and information, stated that the author intended to give a few recommendations for the study.

Rwandan government recommended to provide enough resources and materials to support Student Academic Performance In Geography and encourage the parents to be aware of their children by giving them the school materials.

A statewide study of the availability and use of audiovisual aids in geography courses is necessary to understand the present status of implementation in Rwanda. This will assist uncover gaps and difficulties that must be addressed.

Rwanda's Education Board Has Creating and executing a thorough strategy or set of rules for incorporating audiovisual aids into the geography curriculum would offer schools and teachers with a clear framework to operate within.

The school leaders must Allocating adequate funding and resources to equip schools with the necessary infrastructure and technology is critical to promoting the effective use of audiovisual aids, and the government, through the Ministry of Education, will provide geography teachers with training and professional development programmes to help them develop the skills and knowledge required to effectively integrate audiovisual aids into their lessons.

### References:-

1. Abubakar, A. S. (2021). Availability and Use of Visual Teaching and Learning Materials in Teaching Geography at Nassarawa Education Zonal Office. *The Universal Academic Research Journal*.
2. Ali, D. M. (2022). Impact of Language Skills of English Teachers on the Academic Performance of Students at Secondary Level. *Journal of scientific Research*.
3. Aslam, U. (2017). The Impact of Teacher Qualifications and Experience on Student Satisfaction: A Mediating and Moderating Research Model. *ResearchGate*. Récupéré sur [https://www.researchgate.net/publication/312021524\\_](https://www.researchgate.net/publication/312021524_)
4. Bello, Z. (2017). effects of audio-visual aids and students academic performance in Basic Science and Technology in junior secondary schools in Mkpato Enin Local Government Area. *African research Journal*.
5. Betty, K. J. (2020). Factors influencing perormece in english as a subject in kenya certificate of primary and secondary school. *Kenyata University Instutitional Repository*. Récupéré sur <https://rediie.cl/wp-content/uploads/Project-research.pdf>
6. Collins, L. (2015). Research Design and Methods Cronbach Alpha Coefficient. *Scientific of research journal*.
7. Edwin, K. (2019). Reliability and Validity of Research Instruments Correspondence to kubaiedwin@yahoo.com. *researchgate*.
8. Galton, S. F. (2021). Questionnaire Surveys. *Libretest social science* .
9. Hasan, K. S. (2014). ffects of using audio-visual aids on student's academic performance in Geography in junior secondary schools in local government area, Yobe state. *Essentials Instructional Technology*, published by Darya gaj New Delhi. .
10. Hassan, M. A. (2019). Research Population. *Limited TimeAcademia Primum*. Récupéré sur [https://www.academia.edu/5563491/Research\\_Population](https://www.academia.edu/5563491/Research_Population)
11. Kabir, S. M. (2016). oncept of Sampling: Population, Sample, Sampling, Sampling Unit, Sampling Frame, Sampling Survey, Statistic, Parameter, Target Population, Sampled Population, Sampling With and Without Replacement, Sample Design . *researchgates*.
12. McCombes, S. (2019). *Descriptive Research | Definition, Types, Methods & Examples*. Scribbr.
13. Mugisha, J. K. (2018). The Impact of Geography Instructional Resources on Learning: Case of Geography Students in Selected Public Schools of Kayonza District, Rwanda. *ournal of Education and Training Studies*, 5(6): 9-23.
14. Mugisha, J. K. (2020). the influence of instructional resources on geography students in public schools in the Kayonza district of Rwanda. *Journal of Research Innovation and Implications in Education*, 4(3),.
15. Muyombana Casian. (2019). Impact of Teacher' Qualification on Students' Academic performance i english . *Stratford*.
16. Nikolopoulou, K. (2022). *What Is Purposive Sampling? | Definition & Examples*. Scribbr.
17. Niyitegeka, G. (2019). Secondary School Teachers' Perceived Influence of Instructional Materials on Students' Learning Science Subjects in Muhanga District in Rwanda. *Journal of Early Childhood and Primary Education*, 2(2), 1-12.
18. Noemy, M. S. (2018). Exploring Academic Performance: Looking beyond Numerical Grades. *Universal Journal of Educational Research* 5(7): 1105-1112, 2017.
19. Roberston, D. P. (2018). Indirectness Markers in Korean and Persian English Essays:. *English Language Education Journals*.
20. Sam, A. (2023). *What Is A Virtual Classroom And Why Is It The Future Of Online Learning? Elearning Industry*.
21. Shabiralyan, G. (2018). Impact of Visual Aids in Enhancing the Learning Process Case. *Journal of Education and Practice*.
22. Taiwo, K. (2019). Assessment of Effectiveness of Audio-Visual Aids on Secondary School Students' Academic Performance on Iwo Local Government Area of Osun State, Nigeria. *International Journal of Academic Multidisciplinary Research (IJAMR)*.