

Website: www.jriie.com

ISSN 2520-7504 (Online) Vol.4, Iss.3, 2020 (pp. 199-208)

The Impact of Geography Instructional Resources on Learning: Case of Geography Students in Selected Public Schools of Kayonza District, Rwanda

John K. Mugisha

College of Education, University of Rwanda

Email: mugishajohn64@gmail.com

Received July 25, 2020; Revised August 25, Accepted September 10, 2020

Abstract: The use of instructional resources and their impact on students' performance have been widely research. But the way these instructional resources impact the learning of geography students especially in low income countries like Rwanda is still missing. The purpose of this study was to assess the available instructional resources used in the teaching of geography, the frequently used ones, how they are used, and the impact they have on students' learning in the selected public schools of Kayonza district, Rwanda. Using a descriptive survey design, the study population was all geography students in 4 purposively selected public schools. A structured questionnaire was used to obtain data from 60 students using convenience and cluster sampling. Descriptive statics and inferential statistics were applied to analyse data. Findings indicated the frequently used instructional resources as learners' text books, pictures, and real objects; the available resources were used when demonstrating, emphasizing a point, and observing a phenomena. Their effects on students' learning were- attracting students learning, gaining practical skills, and improving students' performance. Correlation results showed frequently used instructional resources (.790**). Regression results revealed the predictors as the available instructional resources frequently used, and how the instructional resources are used. It was concluded that geography instructional resources significantly impacted students' learning. The study recommended areas for further study and teaching improvements.

Keywords: Instructional resources, Students, Learning, Geography, Learners, Performance

How to reference this article (APA):

Mugisha, J. K. (2020). The impact of Geographical Instructional Resources on learning: Case of Geography Students in selected Public schools of Kayonza District, Rwanda. *Journal of Research Innovation and Implications in Education*, 4(3), 199-208.

1. Introduction

Geography is a course that deals with how environment relates to human activities. It is taught and specialized in mainly at secondary and university levels. It endevours to bridge the spreading gap between gap between the changing physical and biological phenomena and the changing human phenomena (Adhikari, 2003; Dhakal, 2017).Teaching is explained in the literature as "an art which helps to transmit information, ideas, values, and concepts to students to bring about positive changes in the behavioral pattern of learners" (Sarkar, 2016, p.1). It as an act where curricular and resources are organized with the aim of promoting learning (Damar, 2004). For learning to effectively take place, it has to be backed by a variety of learning materials. In this study, these learning materials or teaching aids are referred to as geography instructional resources.

These instructional resources are highlighted by literature as text books, video/audio and visual aids, printed and

graphic materials, Maps, sketch maps, pictures, photographs, film stripes, tape recording, radio, films, diagrams, thermometer, barometer, wind vain, rain gauge, geography laboratory equipment, projectors and computers (Ashaver & Mwuese, 2013, Dhakal, 2017; Datti & Garba, 2015; Sarkar, 2016; Save the Children 2017; Harichandan, Shaik & Sunni, n.d.). These instructional resources are important in students' learning as they attend to various learners' needs. That is to say, they provide learners with skills of critical thinking, problem solving creativity, memorization, problem solving, as well as stimulate learning in a fun and inclusive manner. They also influence the content and process of children's learning (Save the Children, 2017), stimulate learners' attitude, performance, attention, comprehension (Ashaver & Mwuese, 2013; Hinchliff, 1992; Ibeh et al., 2013; Ogzor, 2011), aid in the visualization of the phenomena, enable learners to learn facts about the phenomena and analyse and interpret them, and help learners to make generalizations of facts and phenomena (Oyesola, 1991).

How they are used is through demonstrating, locating, comparing, analyzing and emphasizing a phenomena by the learners and teachers in the classroom (Ibeneme, 2000).Without instructional resources, geography concepts are learned in an abstract manner that leaves learners with a lot of imaginations about the learned phenomena (Okunrotifa, 1970). Kelly et al. (2020) note that teacher professional learning in regard to instructional resources use has to be emphasized so as to lead to practice change in the classroom and the planning of geography learning experiences. Save the Children (2017) stresses that teachers need to be supported so that they create appropriate instructional resources using low costs as well as obtaining them from the available local materials.

Sarkar (2016) notes challenges to quality geography teaching as the instructional resources used, the method used in teaching, the quality of teacher and students, and the school management. This is supported by Datti and Garba (2015) who investigated the availability and use of visual teaching and learning materials and how adequately and effectively are used in the teaching of geography. Their findings indicate that the available few visual instructional resources were insufficient for successful teaching of geography. Dhakal (2017) explored the availability and utilization of instructional resources in the teaching of geography in secondary schools in Nepal. The study findings illustrated that printed and graphic materials in geography teaching were available and mostly used than the audio, visual and audio-visual materials that were not available and rarely used in classrooms during the teaching-learning activities. Furthermore, local materials were also rarely used.

In Rwanda, Geography is one of the many subjects taught in secondary schools from ordinary level to advanced level. For the teaching and learning of this geography subject, to be effective, however, it requires instructional materials that are appropriately selected and used. The government is aware of this. In order to address it, it, it has since 2009 through the Rwanda Education Board (REB) embarked on a program of providing instructional resources in all public primary and secondary schools, including geography instructional resources. With government's insufficient funding, mobilization of resources has been done through partnerships with various donor agencies and book suppliers (REB, Department of Curriculum Development, 2008). Besides, the national teaching curriculum was changed in 2015, shifting from knowledge based curriculum to competence based, which also led to designing instructional resources supporting the new curriculum.

Despite such efforts, however, students' performance in geography are still not satisfying For example, according to the 2014 REB Advanced Secondary Schools results in Kayonza District, GS Nyagahandagaza performed poorly. Out of its 6 students who sat for national geography exam, nobody got principle A or B grade; only one student got Principle C; one got Principle E, and the rest got S grade. In 2015 out 10 students who sat for geography exam, nobody got principal A, only one got B, one got C, one got E, five got S, while two got F grade. In 2016, out of 15 students who sat for geography exam, one got principle B, two got C, two got D, five got E, and five got S grade. Surprisingly, related results were also realized in GS Juru, where out of 7 students who sat for geography exam, only 3 got an S grade, while the rest got F grade. In 2016, out of 9 who 9 who sat for the geography exam, only one got B, two got C, five got E and one got S grade(REB 2014; 2015; 2016).

Factors that might cause this poor performance in other regions of the world include the instructional resources used and teacher competence and approaches used (Sarkar, 2016; Datti & Garba, 2015). For the case of Rwanda, such literature is missing. This study, therefore, intended to do so by exploring the available resources, how they are used in teaching geography course, the frequently used ones, and their effect on students' learning in Kayonza district. It was guided by the following research questions:

- 1. What are the available instructional resources used in the teaching of geography?
- 2. How are the available instructional resources used in the teaching of geography?
- 3. Which geography instructional resources are frequently used?
- 4. What are the effects of those used instructional resources on students' learning?

Hypotheses

This study was hypothesized that:

1. H₀: Geography instructional resources have no significant effect on students' learning.

2. H₁: Geography instructional resources have a significant effect on students' learning.

2. Literature Review

According to studies (Ashaver & Mwuese, 2013; Save the Children 2017: Harichandan, Shaik & Sunni, n.d.) various types of available resources used in the learning of geography include text books, video, audio and visual aids, printed materials, graphic materials, maps, sketch maps, pictures, photographs, film stripes, tape recording, radio, films, diagrams, thermometer, barometer, wind vain, rain gauge, geography laboratory equipment, projectors and computers (Ashaver & Mwuese, 2013, Dhakal, 2017; Datti & Garba, 2015; Sarkar, 2016; Save the Children 2017; Harichandan, Shaik & Sunni, n.d.). These instructional resources are crucial in impacting students' learning. They should be used by the teachers when covering main points and concepts, clarifying the relationships between material objects and concepts, and guiding teachers in teaching as well as saving time. Furthermore, should be used also so as to facilitate learners to participate in learning, overcome language barriers, as well as understand and retain important learned content (Harichandan, Shaik & Sunni, n.d.). According to Falode et al. (2016) notes that instructional resources stimulate students' positive attitude towards learning process. This is evidenced in the fact that learners who learn without textbooks perform lower in their test grades compared to those who learn while having textbooks (Chicagos and West, 2010). Sarkar (2016) has found limited use of geography instructional resources in West Bengal. UNESCO (2012) also has found these instructional resources insufficiently provided in the rural schools of southern Africa.

Artvinil (2017) has analysed the perceptions of geography teachers on the innovative geography teaching and found that the geography teachers are eager to employee the available technologies while in class despite challenges. These challenges might be related to how to use those technologies. Relatedly, a study by Gatsinzi, Ndayisenga, Mukamazimpaka & Kabeja (2020) on enhancing quality education in poorly resourced and overcrowded classrooms in public schools of Gasabo district, find the provision of adequate instructional resources as key to addressing the issue of quality education in poorly resourced and overcrowded classrooms.

Gaudence, Too, & Nabwire (2013) investigated the use of video resource in the teaching geography students' enhances in schools of Homa Bay district in Western Kenya. Using experimental research design that included pretest and post-test control groups, established that video usage enhanced learning accomplishment through understanding, participation and retention. A study by Mupa and Chinooneka (2015) observed insufficient instructional resources whose use in classroom was

limited to textbooks and syllabuses in Zimbabwe. Didactic materials made from locally available resources like text books that reflect the curricular content can be capitalized on to avoid the inequities that arise from teaching and learning (Williams, 2016). According to the World Bank (2014), transforming effectively the schools' available resources is what measures the quality of an education system.

Sarkar (2016) examined the use of teaching aids in geography at secondary school level in West Bengal. Using a survey research design, findings revealed a limited use of geography instructional resources. Besides, a diversity of instructional resources were found not uniformly used. A study by UNESCO (2012) found instructional resources as insufficiently provided in the rural schools of Eastern and Southern Africa. Chicagos and West (2010) found learners without textbooks significantly performing lower in test scores than those with text books. Computer simulation instructional package was found by Falode et al. (2016) as stimulating students' positive attitude towards the geography teaching and learning process.

3. Methodology

In this study on the geography instructional resources impact on students' learning, descriptive research design was to guide. This is because the study described the available instructional resources, the frequently used available resources, how they are used in learning, and their impact on students' learning using the quantitative approach. The study population was 29 schools offering geography courses in the advanced level of secondary school. 5 schools were purposively sampled due to limited time and were selected from the 29 using random selection. Convenience sampling was used to survey 60 students who were found in their clusters of geography class.

A structured survey questionnaire was used to collect data through self-administration by the respondents. Its content/ questions were measured on two different 5 Likert scales- strongly disagree (1) – strongly agree (5), and always (5) - never (1). Content Validity was used to check whether the questions of the questionnaire measured what they were designed for. Reliability test was done through a pilot survey of 15 students in two schools. A cronbarch alpha coefficient of .065 was set to determine whether the questionnaire was reliable. Cronbarch alpha results for the available instructional resources was .806; the frequently used instructional resources was .824; how the resources are used was .689; and effects of the instructional resources was .927. These results provided assurance that the questionnaire was reliable for final data collection.

During the data collection, the researcher thought authorization from the district authorities and then proceeded to schools. At schools, he thought permission from the school leaders. He then proceeded to geography classes and met students. He introduced himself to them, told them the purpose of the study and requested them to voluntarily participate in providing data. He guaranteed them confidentiality of the data they would provide and that its use was for research purpose only. A time for collecting the field questionnaires was then arranged.

In data analysis, data was first edited and coded in SPSS. It was treated and analyzed using descriptive statistics. Under the descriptive statistics, the actual scores were converted into mean scores and the interpretation was made using means. In inferential statistics, the Pearson Moment correlation Coefficient of 0-05 was set to establish the relationship/impact of instructional resources on students' learning. Linear regression analysis was also performed to find the predictors in students' learning. Analysed data was interpreted and presented in tables as illustrated below basing on each research questions.

This section presents how analysed data was interpreted and presented according to each research question. The descriptive data were interpreted using mean scores: 1:00-1:99 (low mean); 2:00-2:99(average mean); 3:00- 3:99 (high mean); and above 4:00 (highest mean). The following sections highlight the descriptive data in tables followed by the interpretation.

Exploring the available used geography instructional resources

The first research question investigated the available used instructional resources in the secondary schools offering geography in advanced level. The responses were measured on a5-lickert scale of strongly disagree(1), disagree(2), neutral(3), agree(4), and strongly agree(5). The numerical scores were converted into mean scores to analyse and interpret data as: 1:00-1:99(low mean); 2:00-2:99(average mean); 3:00- 3:99 (high mean); and above 4:00 (highest mean). The analysed data are presented in tables as shown below according to each research question.

4. Results and Discussion

 Table 1: Descriptive Statistics on the available instructional resources

Items	Ν	Minimum	Maximum	Mean	Std. Deviation
Radio	60	1	4	1.80	.988
Recorded material with tape recorder	60	1	5	2.15	1.246
Video and Video Cassettes	60	1	5	2.53	1.443
Instruments in the weather station	60	1	5	2.62	1.648
Projector with films	60	1	5	2.65	1.482
Overhead Projector with charts	60	1	5	2.87	1.490
Others	59	2	5	3.88	.911
Real objects	60	2	5	3.97	1.178
Globe	60	1	5	4.12	1.236
Picture (including photograph)	60	3	5	4.15	.547
Maps (Sketch, Wall maps etc)	60	3	5	4.52	.676
Pupils textbooks of Geography	60	3	5	4.68	.596

As observed in the above table 1, the most affordable and available used instructional resources are those with the highest and high means. That is to say, pupils' textbooks (4.68 highest mean), maps (4.52 highest mean), pictures (4.15 highest mean), globes (4.12 highest mean), real objects (3.97 high mean), and others (3.88 high mean). Despite that, however, those resources with the average means are also available but their usage is minimal. The ones with low means don't exist in the school. This points out that a few resources are available for use in teaching geography course and this affects students' motivation to learn.

Describing how the available geography instructional resources are used

The second research question that guided this study solicited responses on how the available instructional resources are used in the teaching of geography course. Like in the first research question above, responses were measured on the 5-lickert scale and the actual scores converted into mean scores so as to help in the analysis and interpretation of data. The following table presents the results and interpretation follows.

Table 2: Descriptive Statistics on how the instructional resources are used	Table 2: Descriptive Statistics	on how the instructiona	l resources are used
---	---------------------------------	-------------------------	----------------------

Items	Ν	Minimum	Maximum	Mean	Std. Deviation
Making learning practical/real	60	1	5	3.80	1.232
Comparing features/phenomena	60	1	5	3.98	1.097
Interpreting concepts	60	1	5	4.08	1.154
By demonstration	60	4	5	4.30	.462
Observing features	60	4	5	4.37	.486
By emphasizing a point	60	3	5	4.37	.581

As illustrated in the table 2 above, the available instructional resources are used when emphasizing appoint (4.37 highest mean), observing features (4.37 highest mean), demonstrating (4.30 highest mean),

interpreting concepts (4.08), comparing features (3.98 high mean), and making learning practical (3.80 high mean). These findings do suggest that students understand how the available resources should be used to impact learning. This implies that whenever teachers use instructional resources, students get in-depth understating of the subject matter.

Assessing the frequently used instructional resources

The third research question in this study investigated how frequently the available instructional resources are used. Using a 5 Likert scale of always (5), sometimes (4) often (3), rarely (2), and never (1), actual scores were changed into mean scores like in the preceding results for easy analysis and interpretation. The following table indicates the findings.

Items	N	Minimum	Maximum	Mean	Std. Deviation
Recorded material with tape recorder	60	1	5	2.45	1.641
Radio	60	1	5	2.45	1.641
Video and Video Cassettes	60	1	5	2.87	1.523
Instruments in the weather station	60	1	5	2.88	1.728
Globe	60	1	5	3.00	1.687
Overhead Projector with charts	60	1	5	3.20	1.375
Projector with films	60	1	5	3.25	1.422
Others	60	1	5	3.32	1.347
Real objects	60	1	5	3.60	1.330
Maps (Sketch, Wall maps etc)	60	1	5	4.00	1.105
Picture (including photograph)	60	1	5	4.05	1.032
Pupils textbooks of Geography	60	1	5	4.15	1.436

Table 3: Descriptive Statistics on the frequently used instructional resources

In the table 3 above, the always(most frequently) used geography instructional resources were highlighted as pupils' text books (4.15 highest mean), pictures and photographs (4.05 highest mean), maps (4.00 highest mean) compared to the rest of the resources which have the high, average, and low means. These findings indicate that those resources which are always used are the ones available at schools because they affordable and donated by the REB.

The effect of geography instructional resources on students' learning

The fourth research question attempted to find out whether geography instructional resources have effect on students' learning. Using a 5-likert scale of strongly disagree to strongly agree, actual scores were also changed into mean scores to help in the interpretation and analysis. The following table shows the obtained findings.

Table 4: Descriptive Statistics on the effects of instructional resources on students' learning

Items	N	Minimum	Maximum	Mean	Std. Deviation
Students' mastery of the content/subject	60	1	5	4.05	1.171
Arouse students' interest in learning geography	60	2	5	4.25	.895
Students gain practical skills	60	1	5	4.30	1.154
Attract students' attention	60	1	5	4.45	.928
Improves students' grade/ performance	60	1	5	4.47	.999

As seen in the table 4 above, instructional resources used in teaching geography had tremendous effects on students' learning. These effects are realised in the highest means as improving performance, attracting attention, gaining practical skills, arousing learners' interest, as well as the masterly of the subject matter. These effects signify the relevance of having and using the instructional resources in learning.

Establishing the significance level of the relationship between variables

After describing the effects of instructional resources on students' learning in the above section, the next step was to establish whether the effect was significant. The bivariate correlation analysis was performed to establish the significance of the effect. The Person Moment correlation Coefficient of 0.05 was used to estimate the significance level of the variables effects. The following correlation matrix illustrates the results.

Table 5: Correlation matrix

Variables		Available instructional resources	Instructional resource applicability	Instructional resource frequently used	Instructional resources effect
Available Instructional resources	Pearson Correlation	1	.198	.790**	.254
	Sig. (2-tailed)		.133	.000	.052
	Ν	59	59	59	59
Instructional resource applicability	Pearson Correlation	.198	1	.135	222
	Sig. (2-tailed)	.133		.303	.089
	Ν	59	60	60	60
Instructional resource frequently	Pearson Correlation	.790**	.135	1	.274*
used	Sig. (2-tailed)	.000	.303		.034
	Ν	59	60	60	60
Instructional resource effects	Pearson Correlation	.254	222	.274*	1
	Sig. (2-tailed)	.052	.089	.034	
	N	59	60	60	60

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

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

As illustrated in the table 5 above, frequently used instructional resources had a positive significant association with the instructional resources effects on students' learning (.274*), and the available used instructional resources (.790**). This means that students understand and successfully perform according to expected outcomes when the geography instructional resources are frequently used. The reverse is true when these instructional resources are not used.

Establishing the predicting factors in students' learning

After establishing the significant effects/association of the variables, linear regression analysis was performed to find out which variables predict students' learning. The following model summary table illustrate the results.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.392ª	.153	.107	4.377

a. Predictors: (Constant), instructional resources frequently used, instructional resource applicability, available instructional resources

As shown in the above model summary, the predictors which entered the regression were instructional resources frequently used, instructional resource applicability, and the available instructional resources. The correlation coefficient of the entered predictors was .392 which contributes to .107 adjusted R square equivalent to 10.7% of variance in students' learning.

This study was conducted under the hypotheses that:

- 1. H₀: Geography instructional resources have no significant effect on students' learning.
- 2. H₁: Geography instructional resources have a significant effect on students' learning.

The P-value was set at 0.05. Using the ANOVA table below, the P-value is .026. Meaning that .026<0.05. Therefore, the null hypothesis is rejected and the alternative hypothesis accepted.

Table 7: ANOVAb

Model		Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	190.808	3	63.603	3.319	.026 ^a	
	Residual	1053.904	55	19.162			
	Total	1244.712	58				

a. Predictors: (Constant), frequently used instructional resources, how instructional resources are used, available instructional resources

b. Dependent Variable: Students' learning.

Determining the model equation

Testing the research hypothesis

The coefficient table below provides the equation model of the prediction variables as:

Y=X1+X2+ X3 24.014 = -.402+.106+.083

Table 8: Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	24.014	4.979		4.823	.000
	How Instructional resources are used	402	.182	280	-2.212	.031
	Available instructional resources	.106	.125	.173	.845	.402
	Frequently used Instructional resources	.083	.097	.173	.855	.396

The above findings on the available geography instructional resources, how they are used in teaching and learning, the frequently used ones, and their effect on learning are contributing to the existing literature in the field of geography instructional resources and their effect on students learning. For example, the available resources (pupils' textbooks (4.68 highest mean), maps (4.52 highest mean), pictures (4.15 highest mean), globes (4.12 highest mean), real objects (3.97 high mean), and others (3.88 high mean) have also been found by other studies (Datti & Garba, 2015; Sarkar, 2016; Dhakal, 2017). Furthermore, the frequently used re4sources have been indicated as pupils' text books (4.15 highest mean), pictures and photographs (4.05 highest mean), maps (4.00 highest mean) compared to the rest of the resources which have the high, average, and low means. Other resources with

average and low means indicate that despite their availability, they are not effectively utilized like videos, projectors, computers, weather instruments. Yet, they are crucial in impacting students learning (Sarkar, 2016). On how these resources are used, the findingsreveal it is done through demonstrating, interpreting, emphasizing a point, comparing, and observing a phenomena.

The effects of instructional resources on students' learning were- attracting students' attention, arousing students learning, gaining practical skills, masterly of concepts, and improving students' grades/performance. These findings are in conformity with the existing literature of Ashaver and Mwuese (2013), Hinchliff (1992), Ibeh et al. (2013), Ogzor (2011), and Oyesola (1991) who found that instructional resources stimulate learners' attitude, performance, attention, comprehension, visualization of the phenomena, enable learners to learn facts about the phenomena and analyse and interpret them, and help learners to make generalizations of facts and phenomena.

The appropriate and diversified learning materials do provide learners with skills of critical thinking, problem solving creativity, memorization, problem solving, as well as stimulate learning (Save the children, 2017). Chicagos and West (2010) found learners without textbooks significantly performing lower in test scores than those with text books. Teacher professional learning in regard to instructional resources use has to be emphasized so as to lead to practice change in the classroom and the planning of geography learning experiences (Kelly et al., 2020).

Instructional resources such as globe, pictures, and diagrams, maps (political and physical maps) were found by Sarkar (2016) as the most used in the teaching and learning of geography compared to other instructional aids.Gaudence, Too, & Nabwire (2013) established that video usage enhanced learning accomplishment. Save the Children (2017) stressed that teachers need to be supported so that they create appropriate teaching learning resources using low costs and obtaining them from the available materials. Datti and Garba (2015) found that the available visual instructional resources were insufficient as well as ineffectively used for successful teaching of geography. Gaudence et al. (2013) revealed that students' geography poor performance results in Nigeria was attributed to students' negative attitude towards the subject.

Dhakal (2017) found that printed and graphic materials in geography teaching were available and mostly used than the audio, visual and audio-visual materials that were not available and rarely used in classrooms during the teaching-learning activities. He also found that local materials were rarely used.

5. Conclusion and Recommendations

This study assessed the available instructional resources, the frequently used ones, how they are used and their impact on student learning during the in the teaching of geography in the 4selected public schools of Kayonza district, Rwanda. The design of the study was descriptive survey deign and employed quantitative approaches to collect, analyse and present data. The study population was all geography students in 4 purposively selected public schools. A structured survey questionnaire was used to obtain data from 60 students using convenience and cluster sampling.

Descriptive statistics in SPSS was applied to analyse data on the research questions of the available instructional resources, how they are used, the frequently used ones, and their impact on students' learning. Inferential statistics of bivariate correlations and linear regressions were used to find whether a significant effect exists as well as which variables predict students' learning. The main findings from descriptive statistics showed that the most available and frequently used instructional resources in the learning of geography course are the learners' text books, maps, sketch maps, pictures, and real objects. They are used by demonstrating, interpreting, emphasizing a point, comparing, and observing a phenomena. Their effects on students' learning were- attracting students' attention, arousing students learning, gaining practical skills, masterly of concepts, and improving students' grades/performance.

Inferential statistics revealed that the frequently used instructional resources have a positive significant association with the students' learning (.274*).The predictors of students' learning are the available instructional resources, frequently used instructional resources, and how the instructional resources are used. These predictors contribute to 10.7% of total variance in students' learning. Basing on those results, the study concludes that geography instructional resourceshave a positive significant impact students' learning.

These study findings have implications in that they are of a great contribution of knowledge to the existing literature on how geography instruction resources impact learning. They also provide a dipper and broad insights on how the teachers are availed with limited resources that hinder their effective teaching. They also implies that students are used to learning using limited resources- printed resources such as books, pictures, diagrams and sketch maps (Dhakal, 2015). Other resources-audio, audio visual, computers, projectors, radios, etc. are not given priority when education leaders and school leaders are designing the instructional resources. Furthermore, findings implicate teachers as no knowing how to use some available resources specifically the audio, and audio visual materials. Hence a need for training.

This study recommends the increase and accessibility of instructional resources for use in the teaching and learning of geography lesson so as to boost students' motivation for learning as well as increasing their practical skills acquisition. The available resources should be used maximally and effectively by learners. The teachers have to expose all the available learning resources without mostly using text books as the descriptive findings have shown. The school leadership should organize trainings for geography teachers on how to use effectively the few available resources at school. A similar study should be replicated in other districts to establish whether similar findings are obtained. Comparative studies should be conducted on effects of geography instructional resources on students' performance.

Furthermore, a study that uses a different methodological approach like the mixed methods or a qualitative study using the same topic but gathering data from teachers would add significant contribution to this research.

References

- Adhikari, J. (2003). Geographical education and studies in Nepal. (Unpublished Seminar Paper). Kathmandu. Pp.1-35.
- Artvinil. E. (2017). What is innovative geography teaching? A Perspective from geography teachers. *Journal of Education and Training Studies*, 5(6): 9-23.
- Ashaver, D., & Mwuese, I.S. (2013). The use of audiovisual materials in teaching and learning process in colleges of education in Benue state- Nigeria. *IOSR Journal of Research & method in Education*, 1(6):44-55.
- Chingos, M. M. & West, M. R. (2010). Do effective teachers earn more outside of the classroom? Programme on Education Policy and governance working Paper Series PE-PG 10-02.
- Damar, D. N. (2004). *The making of a Geography Teacher*. Jos: Deka Publications.
- Datti, I.S., & Garba, M. (2015). Availability and use of teaching and learning materials in teaching geography at Minjibir Education Zone (undergraduate thesis). Kano: Bayero University.
- Dhakal, K.R. (2017). Availability and utilization of instructional materials in teaching geography in secondary schools. *The Third Pole: Journal of Geography*, 17: 51-58.
- Falode, C.O, Usman, H., Ilobeneke, C.S., Mohammed, A.H., Godwin, A.J., & Jimoh, A.M. (2016). Improving secondary school geography students' positive attitude towards map reading through computer simulation instructional package in Bida, Niger State, Nigeria. *Bulgarian Journal of*

Social Science and Education Policy, 10(1): 142-155.

- Gatsinzi, P., Ndayisenga, W., Mukamazimpaka, M.C., & Kabeja, J.M. (2020). Innovative approaches to ensuring quality education in poorly-resourced and over-crowded classrooms of the public schools of Gasabo District-Kigali City. *Journal of Research Innovations and Implications in Education*, 4(2): 111-119.
- Gaudence, O., Too, J.K., & Nabwire, K.V. (2013). Enhancing learning of Geography: A focus on video use. *International Journal of Social Sciences and Education*, 4(1): 277-288.
- Harichandan, S., Shaik, A., & Sunni, S. (n.d.). Methods of teaching geography. Paper-V. Available at: Hinchliff, S. (1992). The practitioner as a teacher. London: Scutari Press.
- Ibeh, G. F., Onah, D.U., Umahi, A. E., Ugwuonah, F. C., Nnachi, N. O., & Ekpe, J.E. (2013). Strategies to improve attitude of secondary school students towards physics for sustainable technological development. In Abakaliki .L.G.A, Ebonyi, Nigeria. Journal of Sustainable Development Studies, 3(2):127-135.
- Ibeneme, O.T. (2000). Provision and utilization of instructional equipment for teaching and learning science and technology. *Issues in Educational Journal*, *1*: 139-144.
- Kelly, H.H., Wendi, B., Stephen, H., Michael, W., Jeremy, K., Oksana, Z., & Clare, V. (2020). Teacher engagement in professional learning: what makes the difference to teacher practice? *Studies in Continuing Education*, Doi: 10.1080/0158037X.2020.1781611.
- Mupa, P., & Chinooneka, I.T. (2015). Factors contributing to ineffective teaching and learning in primary schools: Why are schools in decadence? *Journal* of Education and Practice, 6(19):125-133.
- Oguzor, N.S. (2011). A spatial Analysis of Infrastructures and Social Services in Rural Nigeria: Implications for Public Policy. *Geo Tropico*, 5(1).
- Oyesola, G.O. (1991). Criteria for selecting audio-visual materials in geography teaching in post primary institution. *Ilorin Journal of Education*, 11. Available at: http://unilorin.educ.ng/journals/education/ije/de c1991/index.php.

- Sarkar, S. (2016). A study on the use of teaching aids in geography at secondary school level in West Bengal. Scholarly Research Journal of Interdisciplinary Studies, 4(31): 5648-5655.
- Save the Children. (2017). *The quality learning framework*. London: Save the Children International.
- Williams, T.P. (2016). Towards orientation for action: The political economy of primary education in

Rwanda. ESID Working Paper No. 64. UK. The University of Manchester. Retrieved from: www.effectivestates.org.

World Bank (2011). Toward quality enhancement and achievement of universal nine year basic education: An education system in transition; a nation in transition. Rwanda education country status report 783 57926. World Bank.