
**Instructional Materials And Its Impact On Learning Outcome In Geography; A Case Study Of Secondary Schools
In Iganga B Region Iganga District**

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Abstract

The purpose of this research work is to examine the extent to which the instructional materials affect student's performance in geography subject in schools in Iganga B region Iganga District. This research was based on three objectives including: to explore the views of teachers and students on the extent to which geography instructional facilities affect student performance, to examine the challenges that teachers in Iganga B region secondary schools face in accessing instructional materials and to assess the strategies that teachers use to minimize the challenges of attaining and using quality geography instructional materials. The study adopted a cross sectional survey design. The study population involved secondary schools around Iganga B region Iganga district. Five schools were randomly selected for data collection. In each school, 5 teachers and 20 students filled semi structured questionnaire. Also heads of each school and 1 secondary district education officer were interviewed. The following were the findings of the study: first, instructional materials are the key to teachers' and students' performance. Secondly, most secondary schools in the region suffer shortage of essential teaching and learning materials. Thirdly, the study revealed that teachers used different strategies to minimize the challenges of attaining and using quality instructional materials like borrowing books and improvisation. The study recommends that the government should budget sufficient funds for improving the availability of instructional materials in all secondary schools. For further research, this study proposes that aspects of how teachers and students use instructional materials for effective teaching and learning processes need to be examined.

Keywords: Instructional Materials, Learning, Outcome and Geography

Background to the Study

Effective teaching materials are known to play an integral role in supporting quality teaching and learning processes in education systems worldwide (Godfrey et al., 2023). However, the availability and use of these resources remains an ongoing challenge to the achievement of quality geography education (Racheal et al., 2023), especially in developing regions such as Iganga District in Uganda. As strategic tools for knowledge transfer, teaching materials help bring abstract geographic concepts to life in relatable ways through concrete illustrations and practical methodologies (Anthony et al., 2023). They are an indispensable asset for cultivating strong subject mastery and the higher-order cognitive skills necessary for spatial subjects. Despite being a core component of the national curriculum, geography has long faced resource constraints resulting in poor learning outcomes in secondary schools in Iganga. Studies consistently show that geography students struggle to apply analytical perspectives and maintain interest due to a heavy reliance on teacher-centered theoretical approaches that lack sufficient experiential reinforcement (Emmanuel et al., 2023). In addition, the lack of infrastructure such as laboratories equipped to build cartographic skills further hinders the achievement of the subject's

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goals. These shortcomings have contributed to poor examination performance as shown in recent reports by the Uganda National Examinations Commission (Ntirandekura et al., 2022). They are also used to convey information, ideas and notes to students (Ijaduola (1997). Instructional materials include both visual and audio-visual materials such as pictures, flashcards, posters, charts, tape recorder, radio, video, television, computers and others (Frank et al., 2023). It helps promote concept understanding and generalization by making the lesson practical and realistic. Any teacher who has the student's interest at heart must think about the ways and means he will use to make his teaching and learning process more effective and interesting for students. Bassey (2002) believes that science is resource intensive and in times of economic recession it may be very difficult to find some electronic aids and equipment for teaching geography in senior secondary schools adequately (Richard et al., 2023). According to Adeniyi (2000), the effect of instructional materials is more sustained communication about health-related issues and information is retained when supplemented with help. Learning materials, if carefully selected and skillfully used, will certainly make learning more effective (Emmanuel et al., 2023). Therefore, it is necessary to investigate the importance of teaching materials in teaching and studying biology. However, humans and animals have the necessary abilities for learning (Anthony et al., 2023). In other words, they are potential students. Certain factors both inside and outside the student determine how effectively each individual learns. With these concerns and educational developments in mind, the current study is designed to address issues related to the effect of teaching materials in teaching geography in upper secondary schools (Christopher, Komunda, et al., 2022). Schools should provide enough teaching materials to enable teachers to clarify their lesson. Adequate infrastructure and conducive atmosphere for effective teaching of geography and retention of what is learned. Schools should send their geography teachers to seminars and workshops to update their knowledge (Christopher, Moses, et al., 2022).

Statement Of The Problem

The effect of using instructional materials in teaching geography has been widely researched, but many questions are still unanswered. The need to explore locally available materials as an alternative to the grossly unavailable materials in our schools, the teacher's ingenuity must be aligned with the curriculum and the students' environment so that classroom instruction is not hindered by lack of funding (Suzan & Gracious Kazaara, 2023). Therefore, the government must strive to develop its local technology in all its implications because geography is interested in providing solutions to human problems holistically (Godfrey et al., 2023). Many writers in geography have pointed to the gross unavailability of teaching materials along with teachers' attitudes towards their use during classroom teaching situations (Moses, 2023). Teaching materials are not available in our schools, teachers do not improvise and/or are reluctant to use them. Thus, this research attempts to identify the various secondary schools that required teaching materials for the teaching of geography, to identify the teaching materials required for effective teaching and learning of geography in senior secondary schools, to identify the teaching materials available in senior secondary schools and to identify the effectiveness of the teaching materials such as .board, funnel board, modeling of real things, overhead projector, tape recorders, radio, television, etc., in the presentation of senior secondary school students, in Iganga B region of Iganga district (Victoria et al., 2023).

Specific Objectives

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1. To find out the views of teachers and students on the extent to which geography instructional materials affect student performance in secondary schools in Iganga B region.
2. To find out the challenges that teachers in Iganga B secondary schools face in accessing geography instructional materials.
3. To find out the strategies being used by teachers in Iganga B secondary schools to minimize the challenges of attaining and using quality geography instructional materials.

Methodology

A mixed methods sequential explanatory research design was employed to comprehensively investigate the relationship between instructional materials utilization and geography learning outcomes. The first quantitative phase involved administering a validated researcher-designed questionnaire to a study population of 300 senior two geography students across 6 randomly selected schools. The questionnaire evaluated student perceptions of available material types, classroom material usage frequency, and self-reported examination performance (Rasheed et al., 2022). Furthermore, non-participant classroom observations were conducted over a period of two weeks using an observation schedule focused on recording teacher-material interaction patterns as well as student-material engagement frequencies (Nafiu et al., 2012). This generated objective data on actual instructional practices. Thereafter, the quantitative results were statistically analyzed using descriptive and inferential methods including correlations and regressions. The subsequent qualitative stage involved in-depth interviews with geography teachers and school administrators to gain deeper contextual insights. 10 teachers purposefully sampled based on gender and experience levels participated in semi-structured interviews investigating material challenges, innovative strategies and perceived impact on achievement. Interviews were recorded then transcribed and coded to identify emergent themes. The centralized geographic location represented the study area with its diverse economic and infrastructure characteristics reflective of the district's range. Prior consent and confidentiality terms were clearly explained to all participants with no deception involved. Both quantitative and qualitative segments occurred simultaneously within the same school term to minimize extraneous influences on findings. In the study area, 5 secondary schools were selected for data collection, and in each school, 5 teachers and 20 students filled semi-structured questionnaire. In each school, head of the school were also interviewed. One secondary district education officer was also interviewed. The population to be studied comprised of both sexes regardless of age, literacy levels and also including persons with disabilities who are stakeholders in education provision. The total number of respondents was 131.

Table 1: Respondents' Distribution

N/S	Type of respondents	Number of respondents

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1.	District education officer	1
2.	Head of schools Teachers Students	5
3.		25
4.		100
Total respondents		131

The study involved the use of questionnaire with both open ended and close ended questions. Data was collected from all respondents forming the necessary study population. Pre-testing was done which involved 05 respondents in the study area. Self-administered questionnaire was used where by the respondent were required to read and answer the questions given, while at a given condition i.e. inability to read, the researcher may ask a respondent a series of questions. Data was then verified, compiled, coded and summarized prior to analysis. Univariate analysis was used to determine the distributions and magnitude of individual variables among respondents which included percentages and frequencies. Percentages under multiple responses were established in open ended questions to describe various issues on the subject matter. The Statistical Package for Social Science (SPSS) computer program was used (Nelson et al., 2022). Descriptive statistics (including percentages, frequencies, figures (etc) were determined where the implication of its results would lead to recommendation.

RESULTS

Table 2: Types of Instructional Materials and Levels of Importance

Instructional Material	Very Important	Important	Not Important	Total
Use of E-learning	23(92%)	1(4%)	1(4%)	25(100%)
Use of maps, Charts and Diagrams	21(84%)	4(16%)	0	25(100%)

Use of Instructional Manuals	17(68%)	8(32%)	0	25(100%)
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Source: Field Data, (2023)

The findings show that in the study area 92% of the teacher responded affirm E-learning instructional materials were very important, 84% of teachers agreed that the use of maps, charts and diagrams in teaching were very important for students learning and 68% of the teacher respondents noted that the use of Instructional manuals for teaching is very important (Godfrey et al., 2023). It was interesting to find that, all the teachers agreed that maps, charts, diagrams and instructional manuals were important, but one teacher indicated that e-learning was not important (Emmanuel et al., 2023). Although this was a minority, it is worth thinking on why this response came about. One could only speculate that, may be the respondent was e-learning challenged and he or she did not consider e- learning as important in teaching and learning (Inuwa et al., 2017).

However when they were asked whether the materials used in class are commercial or improvised locally; 76% pointed out that most of the materials are commercially based and 24% are locally made by the teachers (Table 2).

Table 3: Reasons that Instructional Materials Help in learning in the Study Area

Reason for Using Instructional Materials	Frequency	Percent
To pass examinations	17	17.0
To Improve Knowledge and skills	83	83.0
Total	100	100

On whether the instructional materials used by teachers help students in the learning process; 17% of students pointed out that the materials help them to pass examination and 83% of students respondents pointed out that the materials help them in improving knowledge and skills. This response is in line with the literature where scholars (see for example, Adeogun,2001 and Adeogun (2001) assert that there is a very strong positive significant relationship between instructional resources and academic performance (Godfrey et al., 2023).

Challenges Facing Teachers in Accessing Geography Instructional Materials

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Table 4: Shows the Strategies Used to Minimize the Challenges in Attaining and Using Instructional Materials

Strategies Used by Teachers	Frequency	Percent
Borrowing books from nearby schools	10	40
Buying own books	9	36
Improvisation	6	24
Total	25	100

The findings show that 40% of the teachers borrowed books to minimize challenges in learning, 36% used their own money to buy books and 24% used improvisation to minimize the challenges in teaching and learning. These findings are totally incongruent with those in the literature. While the teachers in Rombo rely on borrowing books, buying their own books, the literature suggests improvisation of instructional. General findings in the study area show that the use of internet and LCT is not realized. The possibility of teachers and students to interact with online learning resources for improvement and replenishing of the existing knowledge is ignored (Anthony et al., 2023). This may in other way cause problem of lagging behind and become outdated in terms of dynamic changes in knowledge.

Conclusion

From the study findings it is apparent that many schools in the study area do not use appropriate instructional materials. They do not have instructional materials that the schools need to buy, nor do they improvise their own. Although all the teachers agree that instructional materials are important in contributing to students' academic performance, they do not show a need to have these materials in their classrooms.

This implies that, although the teachers have the knowledge about the importance of instructional materials, they are not inclined to develop them. This may have many reasons. One could guess that teachers do not care whether the students perform or not, and this from the management point of view, may emanate from low morale and motivation towards their teaching. Another explanation may be, poor supervision from their heads of schools. Normally, heads of schools are supposed to be instructional supervisors, to ensure that instructions are going on and students are provided with quality education coupled with quality instructional resources. Lack of supervision may be the reason for the situation found by this study.

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Recommendations

Basing on the findings from this study the following are the recommendations; The government should strive and set aside a reasonable amount of education budget which will be directed to improve and construct libraries in schools like what it did to promote laboratories in schools. The heads of schools should rise their voice to be heard by parents as well as the government on the importance of improving and promoting good instructional materials in community schools and that success or failure of a student will not only depend on the content that the students receive in class as well as access to materials for further review by his or her own (Abdi et al., 2020). The parents should not sit down and wait for the government to effect on the availability of libraries and other valid learning materials and facilities in schools. The parents should consider the problems of lacking facilities as a challenge that needs to be redressed by them. So the study urges parents to effectively participate physically and financially where possible for the development of the schools (Anthony et al., 2023).

The study investigated on the role of instructional materials in improving student's performance in geography, to include among others accessibility to these materials in schools. But for the materials to be effective depends on how the material is used. This study did not cover the aspect of how teachers and students use instructional materials for effective teaching and learning process (Inuwa et al., 2017).

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