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Teaching and Learning Resource Availability and Teachers' Effective Classroom Management and Content Delivery in Secondary Schools in Huye District, Rwanda

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Abstract
The purpose of this study was to determine the correlation between availability of teaching and learning resources and effective classroom management and content delivery in secondary schools in Huye District, Rwanda. The study was framed on the systems theory propounded by Bertalanffy in 1968.A descriptive survey research design was used .Stratified sampling technique was applied to select a sample size of 619 respondents comprising 81 school administrators, 160 teachers and 378 students. A questionnaire was the main research instrument used to collect data. Data was analyzed using Pearson's Product Moment Correlation Coefficient statistical technique. The major finding was that although the level of teaching and learning resources in the study locale was insufficient, hence compromising the effectiveness of classroom management and content delivery There was a positive and significant correlation between most of the teaching and learning resources and level of classroom management and content delivery($r = .711$ $p < .001$) at $\propto = .05$ level of statistical significance. It is recommended that the Government of Rwanda through the Ministry of education and other key education stakeholders should increase allocation of critical teaching learning resources such as audio-visual resources, library facilities and computers in order to facilitate effective teaching and learning not only in the study locale of Huye District, but the entire country of Rwanda. Similarly, the Government of Rwanda through the Ministry of Education should ensure the acquired teaching and learning resources are equitably distributed in secondary schools across the country on time to facilitate timely implementation of curriculum (250 words).
Keywords: teaching and learning resources, teacher effectiveness, classroom management, content delivery, secondary schools, Rwanda.

INTRODUCTION

Background to the study

The status of facilities and quality of education in Rwanda can be traced from the formal European system of Education in the country which was introduced by the colonial government of German Administration with the aid of missionaries and first schools founded by white missionaries (Ndengejeho, 1985). Muligande (2006) contends that education in Rwanda developed because of the initiative of voluntary organizations especially those of the Christian missionaries. Good educational facilities during those days were only available to a small elite group and the masses remained largely illiterate or poorly educated. During the nineties, emphasis was placed on the general recovery and rehabilitation of structures and restoration of provision of facilities and services all which had been damaged by war and civil strife. Although considerable expansion took place in a number of primary and secondary schools in the early eighties, most of the new schools were ill-planned and ill-equipped (Muligande, 2006).

In the first established schools infrastructure and scholastic materials were provided by the founder missionaries (Mutsindashyaka, 2008). The German administration took eleven years, that is 1907 to 1918 and it was replaced by the Belgians after the World War I. Belgians had then to reopen schools suspended by the war in 1919. Though from different nationalities, missionaries continued to support education building infrastructure, providing physical resources and building more schools after the World War I (Mukabaranga, 1999).

After the independence schools formerly owned by the missionaries were controlled by the government and the government began a major expansion of its educational programs. Educational resources to these schools came from the government and Non-Governmental Organizations but also the Roman Catholic Church continued to support education building infrastructure and providing resources (Kabaana, 1999). After the 1994 genocide, however, facilities had been pillaged and destroyed in most schools and the limited survey undertaken by the World Bank (1997) indicated that in visited schools a high proportion of children were taking classes under the

trees without any textbook or other written materials.

The Republic of Rwanda, Ministry of Education, Science, Technology and Scientific Research (1998) committed to match resource availability with resource requirements, increase infrastructure and provide equipment in accordance with set standards, provide relevant textbooks, equip Science and ICT labs in schools to meet curricula demands especially teaching and learning materials for science and technology, expand education facilities specifically laboratories and equipment for priority subjects, improve learning environment in terms of space, equipment and learning materials taking into account gender differences.

However, the Ministry of Education Republic of Rwanda, Ministry of Education, Science, Technology and Scientific Research (2009) reports that although the achievements in school standards, constraints are aggravated by the fact that supplementary reading materials are inadequate, particularly for the lower primary and secondary school grades, textbook and other resource distribution is heavily dependent on the availability of funds, which affects the government's ability to conduct adequate planning, and may not effectively respond to supply and demand. These factors result in discrepancies in pupil to textbook ratios between schools and within districts. This goes on to show that there is still a challenge in terms of access and high quality scholastic materials in Rwanda which are expected to be addressed in upcoming plans.

In the same line of view, the Rwanda Parliament, the Senate (2011) also points out that the major challenges that Rwandan system of education has to put up with at all levels include insufficiency of infrastructure, equipments and lack of didactic materials. Different people including the Ministry of Education and teachers stress the scarcity of resources in education area in Rwanda. Teachers on the other side link ineffective teaching and learning, ineffective classroom management and content delivery to this scarcity of resources. It is against this backdrop that this study which investigated the level of teaching and learning resource availability and their influence on teacher effective classroom management and content delivery in Rwandan schools was based .

State of the Art Review

Literature is abundant which attempts to relate the concepts of teaching and learning resources and eventually on their overall influence on classroom management and effective curriculum implementation (Coleman &Anderson 2001; Orodho, 2013;Orodho, Waweru,Ndichu & Nthinguri,2013; Sherman, Bohlander& Nell, 1996; Woodford, Jack, Gillard, Crazy, & Glennonn,2003). Orodho, Waweru, Ndichu and Nthinguri(2013) established that the challenges of availability and adequacy of learning resources was found to negatively affect teacher effectiveness in the use of teaching methods as well as focus on individual learner , hence fostering discipline and good attainment of good academic results. According to Woodford et. al. (2003), a resource is a useful or valuable possession or quality of a country, organization or person. Sherman et. al. (1996) contends that resources available for organizations are human, financial, physical and informational. Coleman and Anderson (2001) say that in education area resources fall into two main categories: those used to provide support services such as the running costs of the buildings, administration and management and those for operational core of teaching and learning like physical or tangible resources.

Nsubuga (1978) writes that school teaching and learning resources include buildings particularly classrooms with lockable doors for storage of materials, teaching aids like textbooks, visuals aids and other scholastic materials. According to Sood (2000), at a bare minimum level, schooling would require a building; some provision for seating children, drinking water, and sanitation facilities, teaching material; teachers and provision for upgrading skills of teachers. Lack of any of these would render the schooling experience ineffective.

Farrell (1993) writes that a teaching and learning resource is any support material available for use by the teacher in the class and a reading material for children. Mintzberg (1979) contends that resources directly utilized in teaching and learning are clearly classrooms and curriculum support resources (i.e. books, stationery materials and equipments, wall pictures, blackboards, audio-visual aids, globes, maps, atlases, concrete objects and classroom environment). Callahan and Clark (1982), UNESCO (1996) and Kabaana (1999) recommend audio-visual materials namely wall pictures, charts diagrams, films tape-recorders, maps, blackboards, projectors, motion pictures, television, radios and video.

NCERT (2005) arguments that teaching and learning resource appear in three types. The first type of instructional materials includes such objects and phenomena as minerals, rocks, raw materials; semi finished and finished manufactured articles, and plant and animal specimens. Included among these materials are reagents and apparatus for producing chemical and other reactions and for demonstrating and studying such reactions during laboratory sessions. Also included in the first group are materials and equipment for students' expeditions and other travel, as well as supplies, instruments, and equipment for production training and for courses in drafting and the representational arts. Among such supplies, instruments, and equipment are wood, metal, plastic, and glass objects, measuring and monitoring instruments and equipment, equipment for the assembling and finishing of various products, and machines and machine tools.

The second type of educational materials, that of representations of actual objects and phenomena, NCERT (2005) goes on to say that this category includes three-dimensional materials (castings, globes, and experimental models), two-dimensional materials (charts, pictures, photographs, maps, diagrams, and drawings), and

audiovisual materials (motion pictures, film clips, filmstrips, slide sequences, transparencies, records and tape recordings, and radio and television broadcasts). Audiovisual materials, including the resources of films, radio, and television, help acquaint students with the achievements of modern science, technology, industry, and culture and with phenomena that are inaccessible to direct observation. Audiovisual materials also acquaint students with early periods of history and with distant places in the world and in space. Such materials elucidate natural and social phenomena and enable students to study the inner world of matter and the internal motion of waves, elementary particles, atoms, molecules, and living cells.

The third type of instructional materials, that of written descriptions, includes scientific, scholarly, reference, and methodological teaching aids, as well as textbooks, books of problems and exercises, books for recording scientific observations, laboratory manuals, manuals for production training, and programmed textbooks (NCERT, 2005). Another type of instructional materials is technological instructional media. Among these are equipment for the transmission and assimilation of information recorded on film or on phonograph recordings: film projectors, tape recorders, phonographs, and television sets. Monitoring devices include punched cards and various types of automatic apparatus. Teaching machines include language-laboratory machines, closed-circuit television systems, and computers (NCERT, 2005).

With regard to the effects of resource availability on classroom management and content delivery, Ominde cited in Kabaana (1999) aver that teaching and learning resource availability helps teachers teach effectively in convenient and comfortable surroundings. The lack of physical resources inevitably hampers the teaching; depress the spirit of the children and the enthusiasm of the teachers. In a similar vein, Eicher, et. al. (1982) counsels that in order to improve the effectiveness of their teaching, teachers use techniques and tools like the simple tool as the blackboard and technology techniques and tools as experimentation in laboratories, drama classes in the school theatre, radio, television, video and audio cassettes and computers to supplement what they can do with their local resources.

The need for the availability of teaching and learning resources for teacher effective classroom management and content delivery is stressed by Eicher et.al. (1982) as they compare education to a motor-car industry. They say that like in motor-car industry teachers use techniques and tools to achieve their goals. These are like the simple tool as the blackboard and technology techniques and tools as experimentation in laboratories, drama classes in the school theatre, radio, television, video and audio cassettes and computers. Doff (1988) stresses the interrelation of teachers, teaching and learning resources and students in teaching and learning operational core of education. He says, "*Teaching is a three-way relation between the teacher, the materials he/she is using and the students*."

Providing sensory experiences for children in the classroom helps children learn better. In early grades, an opportunity for learning through manipulating objects pays dividends for internalizing knowledge by children (Badeka, 1999). A famous child educationist named Badeka (1999) wrote extensively that many years ago several play way methods were used to weave knowledge into stories and games for primary school children, exposing children to real life situations where teacher creates a conducive learning environment and the children are motivated to create their own knowledge by exploring, analyzing and understanding.

Elisabeth and Shuard (1980) contend that in order to foster the learning, the teacher should give the learners chance for practical work. In this respect, teachers should be availed with a wide range of materials. They advise teachers to allow children to make their own conclusion from their findings. Children should be let discover knowledge and answers to challenges in their daily lives. Of course the practices mentioned above are possible with the availability of sufficient and adequate teaching and learning resources for teachers (Elisabeth and Shuard, 1980). Resources help the teacher organize and manage the classroom environment as an efficient learning environment and thereby maximize engagement rates (Creemers & Reezigt, 1996; Kyriakides, 2008). Doyle (1986) claims that resources promote good preparation, smoothness and momentum lesson pacing and clarity about when and how students can get help and about what options are available when they finish. Kabaana (1999) writes that materials enable the teacher to bring into a classroom the situation which was impossible to being possible. He suggests a case in point where a teacher is teaching about irrigation scheme in hilly areas, hence by the use of these equipments he brings the real situation of irrigation in the classroom just by the use of a screen which can show the pictures. According to Kabaana (1999), the use of audio-visual aids like tape recorders, radios, television can enhance pupils' better understanding because they produce plays, speeches, music which can capture the pupils' attention.

Farrant (1980) asserts that wall sheets including picture charts, diagrams, maps on which selected information is portrayed make pupils react easily and the effect of this is a visual impression of the pupils. The pictures represent subjects containing a lot of information that need to be disseminated to the pupils. It is this technique that helps a teacher illustrate and bring a sense of reality in classroom. Farrant (1980) also says that maps, atlases and globes are used in social sciences and help pupils master because they symbolize something that is real and at the same time do so in form of a summary of what would be taught to the pupils. The author adds that if such instruments are not available for teachers the possibility of pupils knowing geography would be limited, failure

to have chance to know their geographical situation in one way or another affect their academic performance.
In the same line of view, Heneveld and Craig (1995) argument that the teaching/learning process has not to rely only on a lecture method with chalk, duster, and blackboard as in the traditional classroom teaching where there is hardly any scope for the children to interact with the teacher, teaching–learning materials and the teaching-learning environment, where teaching becomes very monotonous and students have to mostly rely on rote learning.
Other presented variables concern the form and quality of teacher's organized lessons, which is not possible without resources, and can be divided into those that involve giving information (structuring), asking questions (soliciting) and providing feedback (reacting) (Rosenshine & Stevens, 1986). In regard to the structuring factor, (Rosenshine and Stevens (1986) point out that achievement is maximized when teachers not only actively present material but also structure it by: a) beginning with overviews and/or review of objectives; b) outlining the content to be covered and transitions between lesson parts; c) calling attention to main ideas; and d) reviewing main ideas at the end. Summary reviews are also important since they integrate and reinforce the learning of major points. These structuring elements not only facilitate memorizing of the information but allow for its apprehension as an integrated whole with recognition of the relationships between parts (Creemers & Kyriakides, 2008).
Moreover, achievement is higher when information is presented with a degree of resources and redundancy, particularly in the form of repeating and reviewing general views and key concepts. Muijs and Reynolds (2000) indicate that using resources, teachers are seen as actively presenting the subject matter. Farrant (1980) writes that textbooks and other teaching materials provide exercises and opportunities for the pupils to learn and later apply in their academic progress. Textbooks, according to him, are essential to teachers since teacher keep informed of what to teach and to pupils since it supplements on what a pupil has learnt in class.
Grossinikle (1983) confirms that concrete objects or material that a learner can touch, feel, hold or move create initiative to learn and it is due to this fact that teachers are encouraged to use them to make learning real and interesting. Analyzing teaching and learning resources, Gagne (1976) talks about live objects which help the teacher form the concept easily. He adds that actual objects which cannot be obtained because they are not available or too expensive can be illustrated by use of pictures models or diagrams, which needs teacher's creativity. It is reasonable that pictures basically contribute to an image which generates and help teachers form the concept which is desired for children. As a matter of exemplification, Gagne (1976) says that showing a picture of a desert to a child helps form a concept of a desert more easily than telling and describing the features of a desert in abstract. The idea is backed by Kabaana (1999) saying that it is by the use of demonstrative objects that the pupils can internalize what they are taught.
Young (1982) notes that the arrangements of the classrooms affect teachers' teaching practices and consequently pupils' academic performance. He says that good physical arrangement of the class will create conducive atmosphere which will positively contribute to teaching and learning, good academic performance of the pupils while poor arrangement of classrooms may lead to low academic success because pupils' knowledge may be disorganized as the classroom disorganization. In the same line of view of Kabaana (1999) asserts that the arrangements of classrooms desks and chairs discourage interactions among pupils and teachers, which review as disruptive to the teaching process. Good classroom arrangement also creates a clear zone of greater pupils. Teacher exchange, pupils seated across the front row and down the center are most likely to interact with teachers. This is in accordance with Rosenshine and Stevens' (1986) view that when desks are arranged in circles children raise their hands more frequently and make spontaneous comments about the lessons than when desks are positioned in rows and columns.
In the view of Graham (1991), the new teaching theories should require students by external stimuli that are resources to engage in information processing and actively take the initiative to promote and acquire knowledge, skills, and cognitive processes. For this author, to fully mobilize the enthusiasm of both teaching and learning, teaching information, organization and management, improve information exchange between teachers and students, the efficiency and quality, and thus truly both teaching and learning and promote the teaching means and methods of update, the diversification of the development of teaching style, the use of resources is a sine qua non of teaching and learning.
Furthermore, Graham (1991) emphasizes, education program cannot succeed without adequate facilities like classroom, textbooks to name just a few. He goes on to say that scientific laboratories and workshops need to be well equipped and supplied with consumables and provision must be made for proper maintenance of building and equipment. Institutions should operate with well-stocked and up-to-date libraries that have sufficient study space and that cater to the teaching and research needs of the various academic departments. The quality of education and teaching institution, Graham (1991) keeps on saying, is related to an extensive use of modern educational technologies, such as 'multi-media technology', 'network communication technology' and so on, which have increasingly become the quality of education and teaching the new 'growth points'.
Effective teachers ask a lot of questions and attempt to involve students in class discussion. There should also be

a mix of product questions (i.e., expecting a single response from students) and process questions (i.e., expecting students to provide explanations), but effective teachers ask more process questions (Askew & William, 1995; Kyriakides & Creemers, 2008, 2009). Effective teachers also use seatwork or small group tasks since they provide needed practice and application opportunities. The effectiveness of seatwork assignments is enhanced when the teacher explains the work that students are expected to do and once the students are released to work independently the teacher circulates to monitor progress and provide help and feedback (Askew & William, 1995; Kyriakides & Creemers, 2008, 2009).

Statement of the Problem

Since 1997, Huye secondary school teachers have been blamed for not performing effectively. This has been evidenced by poor students' academic performance on the national examinations compared to other districts. However, teachers' effectiveness can be measured by other factors like teachers' practices that positively impact on the teaching/learning process such as effective classroom management and content delivery or non-academic achievement related indicators such as enthusiasm for teaching, regularity, punctuality, relationship with school authorities, collaboration with the parents, class time use efficiency, involvement in extramural activities, responsiveness to students with special needs, etc. Many teachers have approached this problem from teaching and learning resource availability point of view. For instance, Hoimes (1983) asserts that in normal circumstances, a school with enough teaching and learning materials has a high chance of providing good quality of education to its pupils. As for Nsubuga (1978), school facilities help both teachers and pupils to teach effectively and effectively learn in convenient and comfortable surroundings. This has contributed to a lot of argument between teachers and other education stakeholders. The question is therefore what is the level of teaching and learning resource availability in Huye district? And how is teacher classroom management and content delivery affected by the level of teaching and learning resource availability in schools?

Purpose and Objectives of the Study

The purpose of this study was to validate the theory to which the study was underpinned, test the hypothesis of no significant relationship between the study variables and contribute to the world of knowledge by coming up with new knowledge based on the findings of the study. The general objective was to correlate between the level of teaching and learning resource availability and the level of teacher effective classroom management and content delivery in selected secondary schools in Huye district. Specifically, the study sought to determine the level of teaching and learning resource availability in Huye selected secondary schools, identify the level of teacher effective classroom management and contend delivery in the area of study and establish the relationship between the level of teaching and learning resource availability and the level of teacher effective classroom management and content delivery in Huye selected secondary schools.

Theoretical Framework

This study drew upon Bertalanffy (1968) theory known as System Theory. According to this theory, a system can be said to consist of four things. The first is objects – the parts, elements, or variables within the system. These may be physical or abstract or both, depending on the nature of the system. Second, a system consists of attributes – the qualities or properties of the system and its objects. Third, a system has internal relationships among its objects. Fourth, systems exist in an environment. A system, then, is a set of things that affect one another within an environment and form a larger pattern that is different from any of the parts (Infante et al. 1997).

According to Infante, et. al. (1997), the fundamental systems-interactive paradigm of organizational analysis features the continual stages of input, throughput (processing), and output. Several system characteristics are: wholeness and interdependence (the whole is more than the sum of all parts), correlations, perceiving causes, chain of influence, hierarchy, supra-systems and subsystems, self-regulation and control, goal-oriented, interchange with the environment, inputs/outputs, the need for balance/homeostasis, change and adaptability (morphogenesis) and equifinality.

This study was guided by the System Theory because schools are systems where the teaching/learning process is observed as a throughput (process) used to transform inputs students and resources into outputs (graduates with different skills and attitudes). In schools we also observe an interrelation between teachers, resources and students which constitute a sine quoi none condition for the effectiveness of the teaching/learning process. Realistically, any school has objectives to achieve and achieving them requires it to treat all the elements involved in the process (inputs like students, teachers and resources; throughput like teaching methods and outputs like graduates with different skills and attitudes) as interdependent.

II. RESEARCH DESIGN AND METHODOLOGY

According to official data available at the moment of this study, the research population of this study was 102 school administrators, 266 teachers and 7001 students of which total was 7369 found in 17 formerly established secondary schools from Huye district, that is all secondary schools excluding the Groupes Scolaires established with Nine Year Basic Education since students in these schools had not presented examinations from the

Rwanda National Examination Council and yet there has been a trend of evaluating teacher effectiveness based on the how students perform at the national examinations. These schools also comprise primary and secondary levels. The total number being too high, the researcher proceeded to the determination of a sample focusing to the three clusters of respondents, i.e. school administrators, teachers and students. The sample size was determined using the Sloven's formula written as $n = \frac{N}{1+N(e^2)}$, where n= the sample size, N= the population size, e= the level of confidence (Amin, 2005). Applying the same formula, 81 school administrators, 160 teachers and 378 students were selected to participate in the study.

Purposive, stratified and simple random sampling methods allowed the researcher to reach the targeted respondents. Purposive sampling was used to select respondents basing on the following inclusion criteria: either male or female, and only those schools that do not have Nine Year Basic Education. Stratified random sampling was used to select different schools from which respondents were selected and different strata such as school administrators, teachers and students. Simple random sampling was used to select respondents from the qualified schools.

The research instruments in this study were questionnaire to determine the level of teaching and learning resource availability (LTLRA) and a questionnaire to determine the level of teacher effective classroom management and content delivery (LTECMCD). The response for the questionnaire on the LTLRA and LTECMCD were the same in terms of scoring (4,3,2,1), response mode for the LTLRA (very many, enough, few, not available) and LTECMCD (strongly agree, agree, disagree and strongly disagree), description and interpretation for LTLRA responses was very satisfactory, satisfactory, insufficient and not available and very high, high, fair and poor for LTECMCD responses. Indeed, it was by deleting the neutral response from the traditional five point classifications as done by some contemporary researchers (Sisson & Stocker, 1989). The questionnaire to measure the level of teaching and learning resource availability was administered to school administrators whereas students responded to the questionnaire that measured teacher effective management and content delivery. The mean and standard deviations were applied for the levels of resource availability and teacher effective classroom management and content delivery. An item analysis illustrated the strengths and weaknesses based on the indicators in terms of mean and rank. From these strengths and weaknesses, the recommendations were derived.

The following Likert mean ranges were used to arrive at the mean of the individual indicators and interpretation (Rensis, 1932 and Amin, 2005): These are summarized in tables1a and table1b.

Table 1a: Level of resource availability

Mean Range	**Response Mode**	**Interpretation**
3.26-4.00	Very many	Very satisfactory
2.51-3.25	Enough	Satisfactory
1.76-2.50	Few	Insufficient
1.00-1.75	Not available	Not available

Table 1b: *Level of teacher effective classroom management and content delivery*

Mean Range	**Response Mode**	**Interpretation**
3.26-4.00	strongly agree	Very high
2.51-3.25	Agree	High
1.76-2.50	Disagree	Fair
1.00-1.75	Strongly disagree	Poor

The analysis of Pearson Moment Correlation Coefficient was utilized to test the relationship between teaching and learning resource availability and teacher effective classroom management and content delivery.

III.FINDINGS AND DISCUSSIONS

Level of Teaching and learning Resource Availability

To ascertain the extent of teaching and learning resource availability, it was deemed appropriate to get the perceptions about such indicators as classroom resources, laboratory resources, audio-visual resources, library resources and computer lab resources. The respondents' perceptions were summarized and depicted in tables 3.1, 3.2, 3.3, 3.4, and 3.5 below. The analysis relates to principal divisions of the questionnaire and objectives of the study: The first objective of this study was to determine the level of teaching and learning resource availability. This was concerned with the extent to which schools are provided with teaching and learning resources.

Classroom resources

The first task of the study was to assess the level of adequacy of teaching learning resources in the study locale. It was envisaged that the adequacy and use of teaching and learning materials affect the effectiveness of a teacher in the classroom. The study sought adequacy of teaching learning resources ranging from chalks and

chalk boards, sitting space, lighting condition, soft boarding frames and drawings. As proposed by Rensis (1932) and Amin (2005), a summated scale for the assessment of survey of respondent's attitudes was carried out. Individual items in Likert's sample scale had four response alternatives: very many, enough, few and not available. Coded in table 3.1 are respondents' perceptions about classroom resources as a subgroup of indicators of teaching and learning resources.

The rigorous analysis is to get a weighted mean by which the level of indicator is judged and standard deviation which is an indication of the average distance from the mean whereby a low standard deviation would mean that most observations cluster around the mean and high standard deviation would mean that there was a lot of variation in the answers. A standard deviation of 0 is obtained when all responses to a question are the same. The results are displayed in Table 2.

Table 2: Level of classroom resource availability

Items	Mean	Std. Dev	Interpretation	Rank
Chalks	3.10	.43	Satisfactory	1
Blackboard	3.00	.20	Satisfactory	2
Chairs	2.81	.47	Satisfactory	3
Space for students sitting	2.80	.45	Satisfactory	4
Classroom lighting	2.74	.48	Satisfactory	5
Dustbins	2.74	.54	Satisfactory	6
Textbooks	2.08	.52	Insufficient	7
Maps	1.97	.44	Insufficient	8
Atlases	1.77	.54	Insufficient	9
Teachers' tables	1.69	.64	Not available	10
Electrical outlets	1.68	.68	Not available	11
Teachers' chairs	1.67	.51	Not available	12
Wall charts	1.62	.56	Not available	13
Globes	1.52	.51	Not available	14
Soft boarding frame	1.18	.33	Not available	15
Wall pictures	1.11	.41	Not available	16
Diagrams	1.09	.28	Not available	17
Drawings	1.03	.11	Not available	18
Average Mean	**1.97**	**.45**	**Insufficient**	

In this respect, indicators were arranged in the order of strength whereby indicators from 1 to 6 ranked satisfactory (the means range between 2.51 and 3.25), 7 and 9 ranked insufficient (the means range between 1.76 and 2.50) and 10 to 18 ranked not available with means ranging between 1.00 and 1.75. The results displayed in Table 2 indicate that the average mean was 1.97 which means that the level of classroom resources is insufficient, since this mean ranges between 1.76 and 2.50 on the Likert scale. This finding implies that the teaching and learning in most secondary schools that experienced shortages of the critical teaching and learning resources was not effective. This is based on the finding by Orodho.et.al (2013) that instructional resources such as text books enable learners to follow the teachers sequence of lesson presentation and subsequently aids in understanding of the lesson.

Laboratory resources

A summated scale for the assessment of survey of respondent's attitudes was carried out as proposed by Rensis (1932) and Amin (2005). Individual items in Likert's sample scale had four response alternatives: very many, enough, few and not available. Coded in table 3 are respondents' perceptions about laboratory resources as a subgroup of indicators of teaching and learning resources.

Table 3: Laboratory resources

Item	Mean	Std. Dev	Interpretation	Rank
Laboratory apparatuses	1.90	.63	Insufficient	1
Laboratory consumables	1.89	.62	insufficient	2
Lab manuals	1.51	.44	Not available	3
Average Mean	**1.76**	**.56**	**Insufficient**	

Weighted means by which the levels of indicators were judged and standard deviations which are indications of the average distance from the means whereby a low standard deviation would mean that most observations cluster around the mean and high standard deviation would mean that there was a lot of variation in the answers. A standard deviation of 0 is obtained when all responses to a question are the same. In this respect, indicators were arranged in the order of strength whereby indicators from 1 to 2 ranked insufficient with means ranging between 1.76 and 2.50 whereas the third ranked indicator was not available on the basis of the mean rank that ranges between 1.00 and 1.75.

The results carried in Table 3 indicate that the average mean was 1.76 which means that the level of laboratory resources is insufficient, since this mean ranges between 1.76 and 2.50 on the Likert Scale. The implication of this finding is that the teaching science subject in most secondary schools in Huye was being done theoretically without any practical exposure. This, again, is contrary to what the orodho (2013) study recommended that effective teaching should be more learner-centered with learners exposed to adequate practical work in the subject being taught.

Audio-visual resources

To ascertain the status of audio-visual resource availability, a summated scale for the assessment of survey of respondent's perceptions of every single indicator of audio-visual resources was carried out. Individual items in Likert's sample scale as suggested by Rensis (1932) and Amin (2005) had four response alternatives: very many, enough, few and not available. Coded in table 4 are respondents' perceptions about audio-visual resources.

Table 4 : Audio-visual resources

Item	Mean	Std.Dev	Interpretation	Rank
Radios	1.83	.45	Insufficient	1
Screens	1.80	.48	Insufficient	2
Records	1.78	.49	Insufficient	3
Film clips	1.77	.33	Insufficient	4
TV broadcasts	1.76	.22	insufficient	5
Film tape recorders	1.75	.49	Not available	6
Motion pictures	1.54	.23	Not available	7
Projectors	1.26	.44	Not available	8
Transparencies	1.23	.51	Not available	9
Average Mean	**1.63**	**0.40**	**Not available**	

The computation of a mean for each item and its interpretation in appropriate likert mean range allowed the researcher to judge its level. As depicted in table 3.3 above, items 1 to 5 proved to be insufficient as their means ranged between 1.76 and 2.50 on likert scale. Items 6 to 9 proved not to be available as their means were between 1.00 and 1.75. The mean average for this category of resources was 1.63, which fell under not available on the likert scale. The implication of this finding is that the teachers hardly use any audio-visual devices in teaching since these were in grossly insufficient in most secondary schools in Huye district.

Library resources

Depicted in the table below are means and standard deviations computed to ascertain the status of library resource availability. It based on a summated scale for the assessment of survey of respondent's perceptions of library resources. Individual items in Likert's sample scale as suggested by Rensis (1932) and Amin (2005) is presented in Table 5.

Table 5 : Library Resources

Item	Mean	Std.Dev	Interpretation	Rank
Library resources	2.26	0.43	Insufficient	1
Average Mean	**2.26**	**0.43**	**Insufficient**	

The computation of a mean and its interpretation in appropriate likert mean range allowed the researcher to judge library resources as insufficient. As expected, the computed mean was 2.26, which fell in the range of 1.76 to 2.50 therefore proving to be insufficient on Likert scale. Yet studies by Orodho (2013) have demonstrated the critical importance of library and other instructional resources in enhancing learning, and by extension, academic excellence.

Computer lab resources

Furthermore, the respondents were asked to rate computer lab resources in terms availability. Summarized in table 6 are the mean and standard deviation of respondents' scores to ascertain their perception of the status of the resources in question.

Table 6: Computer lab resources

Item	Mean	Std.dev	Interpretation	Rank
Computers	2.02	0.36	Insufficient	1
Average Mean	**2.02**	**0.36**	**Insufficient**	
Grand Mean	**1.92**	**0.44**	**Insufficient**	

The computed mean (2.02) falls between 1.76 and 2.50 on likert scale mean ranges. It goes without saying that the level of computer lab resources was insufficient. The computed grand mean index for all categories of teaching and learning resources was 1.92, which falls in the range of 1.76 and 2.50 on the likert scale. This

means that, the computer which are meant to accelerate computer literacy and application are in short supply in secondary schools in Huye District. This finding undermines the quest to attain computer literacy in Rwanda.
The overall impression made from the foregoing is that all the teaching and learning resource in Huye district is insufficient. The implication is that the effectiveness of classroom management and content delivery is being compromised by these shortages in critical teaching and learning resources. The overall impact of all this is low quality of education in the study locale.

Level of Teacher Effective Classroom Management and Content Delivery

The second objective of this study was to determine teacher effective classroom management and content delivery in the area of the study. The mean for each item, on the basis of which each single item's level was determined, and standard deviations of respondents' scores were presented in the table 7 .

Table 7: Level of teacher effective classroom management and content delivery

Indicators	Mean	Std. Dev	Interpretation	Rank
Teachers in my school use class time appropriately	3.45	.49	Very high	1
Teachers make a great effort to prepare their lessons	3.37	.53	Very high	2
I appreciate what teachers do for me	3.21	.44	High	3
Teachers monitor students' discipline in the classrooms	3.16	.44	High	4
Teacher use momentum lesson pacing	3.15	.42	High	5
Teachers use a variety of methods while teaching	3.12	.36	High	6
Teachers make effort to help students with special needs	3.10	.54	High	7
I appreciate teachers' clarity	3.09	.36	High	8
I have more respect and consideration for teachers	3.08	.30	High	9
Teachers monitor students' progress constantly and adjust pace accordingly	3.07	.34	High	10
Teachers sustain students attention and respond with activities	3.07	.36	High	11
Teachers inspire students to seek more knowledge on the subjects	3.05	.39	High	12
Teachers involve students in class discussion	3.01	.52	High	13
Teachers timely give feedback to the students	3.01	.23	High	14
Teachers show a high enthusiasm for teaching	2.99	.44	High	15
Teachers use a lot of group tasks	2.92	.59	High	16
Teachers arrange student sittings in a way that promotes interaction	2.80	.41	High	17
Teaching aids that are brought to the classroom by teachers consider the class size	2.65	.48	High	18
Teachers produce their own resources where industrial ones are lacking	2.49	.22	Fair	19
Total	**3.04**	**.41**	**Moderate**	

To assess the level of teacher effective classroom management and content deliver, respondents were asked to give their opinion by scoring on items depicted in table 6. Means and standard deviations were computed from their scores and items were ranked in order of strength from the highest to the lowest. Infact, the means indicate that the the items ranked from 1 to2 are perceived to be very high with the means ranging between 3.26 and 4.00 on the likerty scale. Indicators from 3 to 18 were perceived as high on the liker scale with means ranging between 2.51 and 3.25. Only one indicator, that is indicator 19, proved to be fair with 2.49 as a mean, which ranged between 1.76 and 2.50 on the likert scale mean ranges of interpretation. The overall computed mean to ascertain the level of classroom management and content delivery was 3.04, which in turn fell under high as it ranged between 2.51 and 3.25 on the likert scale mean ranges of interpretation. All in all, the level of classroom management and content delivery was moderate.

Relationship between Level of Teaching and learning Resource Availability and the Level of Teacher Effective Classroom Management and Content Delivery

The third objective of this study was to establish the relationship between the level of teaching and learning resource availability and teacher effective classroom management and content delivery in selected secondary schools in Huye district. Correlation coefficient was used to identify the relationship direction between variables as indicated in table 3.6 below.

Table 8 : Relationship between level of teaching and learning resource availability and level of teacher effective classroom management and content delivery

Variables Correlated	r-value	Sig-value	Interpretation of Correlation	Decision on Ho
Level of teaching and learning resource availability vs level of teacher effective classroom management and content delivery	.711	.001	Significant correlation	Rejected

The results in table 8, obtained through computation of Pearson's Product Moment Correlation Coefficient, confirmed that there is significant correlation between the variables of the study. The computed correlation coefficient (r= .711, p=.001) at $\propto$=0.05 level of statistical confidence indicates a positive and significant correlation between level of teaching and learning resource availability and level of teacher effective classroom management and content delivery in the study locale of Huye district.

Since school facilities are related to students' achievement in the affective and psycho-motor skills, it is arguable that schools cannot improve the level of content delivery and achieve high academic achievement levels in circumstances in which critical learning resources are scanty. This is in consonance with Orodho (2013) study in Kenya that submitted that teaching and learning in most schools that took place in un-conducive learning environments ended up performing dismally in national examinations in the country. The study by Orodho.et.al (20140 also established school facilities, especially instructional resources had a direct impact on quality of learning. This current study has established that the adequacy of teaching and learning resource was low and this has negative implications for effective classroom management and content delivery in secondary schools in Huye District, Rwanda.

IV CONCLUSIONS AND RECOMMENDATIONS

The study established that despite the fact that the Republic of Rwanda, through the Ministry of Education, Science, Technology and Scientific Research (1998) is committed to match resource availability with resource requirements, increase infrastructure and provide equipment in accordance with set standards, provide relevant textbooks, equip Science and ICT labs in schools to meet curricula demands especially teaching and learning materials for science and technology, expand education facilities specifically laboratories and equipment for priority subjects, improve learning environment in terms of space, as well as equipment and learning materials taking into account gender differences, these promises were not being met fully.

In fact, the study established that the level of teaching and learning resources availability was insufficient. It was also evident that the teachers and administrators in the study locale were not improvising some of these resources from local materials since they largely relied on purchased materials. Yet, the study also demonstrated that there was a significant and positive relationship between teaching and learning resource availability and teacher effective classroom management and content delivery. The implication is that the paucity of teaching learning resources was compromising the effectiveness of classroom management and content delivery in the study locale of Huye District.

Given the mixed results regarding the availability and adequacy of teaching learning resources and their perceived impact on the effectiveness of classroom management and content delivery, the following five recommendations are posited.

First, the Government of Rwanda , through the relevant line ministries and other key education development partners should provide adequate teaching and learning resources not only to secondary schools in the study district of Huye but also other districts that might be experiencing similar constraints in the country. Specifically, the Government should provide adequate classroom resources, laboratory equipment, audio-visual aids, library facilities as well as computers to enhance teaching and learning for improved quality of education in the entire country.

Secondly, the Government of Rwanda through the Ministry of education should provide secondary schools in the Huye District with sufficient financial subsidies to enable them acquire adequate and appropriate teaching/learning facilities.

Third, teachers should be encouraged to be more innovative and improvise some of the teaching learning resources from locally available materials instead of relying entirely on purchased facilities.

Furth, the Government of Rwanda should aspire to attain equity of educational provision by ensuring that teaching and learning resources equitably reach all secondary schools in different districts of Rwanda. As of the time of the study, it was evident that theses instructional resources were not evenly distributed across the country.

Finally, there is urgent need for further research using a larger sample in more districts across the country to map out the status of teaching and learning resources and find out how these are impacting on content delivery and quality of education not only in Huye District but the entire Republic of Rwanda.

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