

Effectiveness of Using Groups in Sharing Available Library Resources in the Teaching/Learning of Biology in Senior Two at G.S. Kampanga, Musanze District

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ABSTRACT

This research project seemed to test several strategies that may contribute to use library resources effectively and successfully in learning and teaching processes. This quantitative research was carried out with 83 students of senior two A and C at G.S Kampanga. The school is located in Northern province of Rwanda, Musanze district and Kinigi sector. Pretest and posttest Biology group works were used as research instruments. Those works were used as data collection methods in order to gather strong evidence for each strategy implemented. Furthermore, the purpose of the study was to identify the suitable requirements in a library that facilitate the teaching/learning of Biology, discover the best sharing method of the available library resources; and also to ascertain the impacts of sharing the available resources on students' performance. In conclusion, the analysis of the data obtained showed the effectiveness of using groups in sharing available library resources in enhancement of teaching and learning effectively and also obtained strategies that can be used by teachers in solving the problem of lack of enough learning materials available in library. Use of groups in sharing library resources was chosen as an essential method of sharing library resources because it facilitates students to achieve their learning performance and achievements. Findings showed that library resources should be shared and accessed by all learners as much as possible. Recommendations were established such as teachers were recommended to choose possible ways of sharing library resources to their students. School administrators were recommended to manage, organize and supply available library resources that are required by teachers and learners in their everyday academic activities.

1.1. INTRODUCTION

Today, the world is developing quickly and its development is based on education especially education of sciences and technology as well. People of this world are encouraged in seeking new skills and knowledge about science and technology because science and technology are cornerstones of quickly financial development and have great impact on people's development.

In addition, Biology is one of many branches of science and it has great impact on the world whether on people and whole planet. Biology as science subject contributes in medicines production, industrial development and conservation of living and nonliving things for sustainable development of our planet.

On other side, our country (Rwanda) has aim that stated that quickly development based on science and technology. This aim will be achieved through education by producing well skilled people in science and

technology. Also Rwanda has been starting to achieve them by establishment of nine and twelve year's basic education for its people.

Although, in order to produce well skilled person in science as in biology, Biology teaching and learning materials are needed and also library with many books of different authors. But lack of enough learning materials affects negatively teaching and learning processes. When this problem is established teacher is advised to overcome it in right ways.

1.2. BACKGROUND OF THE PROBLEM

In this world education acts as key to development and many countries try to develop their education systems in order to achieve and speed up economic development. Science and technology are very important in development either in economic and social development as well. Our country (Rwanda) is striving towards development by promoting science and technology through education system but teaching and learning materials are still problem. In some schools there are a few teaching materials needed in teaching and learning processes, libraries with small number of books needed by students. These are problems for teachers and students in their achievements. Also learning materials are not enough for students where more than five students use one learning materials during group discussion.

In addition, teaching and learning materials available in library at G.S Kampanga especially in senior two are not enough. When this problem is not solved will affect negatively teachers and learners. In order to achieve well knowledge and skills needed in Biology and health sciences subject for each student, library contains teaching and learning materials is required. On other side some learners of senior two are not motivated in making research in library because they do not get all needed books in library. This case of lack of motivation in reading Biology books and other subject books is a problem for teachers and even for student performance, because teaching and learning processes take long time due to long time explanation by teachers.

Rwanda is now trying to develop very quickly based on well skilled and knowledgeable people in sciences and technology. This aim can only be achieved through education systems that produce Rwandan citizens who have knowledge and skills needed on labor market and abilities to compete on global labor market. Concern of this research is to know the effectiveness of using groups in sharing available library resources by teacher in order to overcome problem of lack of enough teaching and learning materials especially in G.S. Kampanga. In addition, this research also will show us the outcomes of using groups in sharing learning materials available in library. Either for all learners especially in senior two.

1.3. STATEMENT OF THE PROBLEM

G.S Kampanga is striving towards development of skilled people by providing good quality education to its students. However, there are small numbers of Biology books especially Biology books. In order to produce skilled person in Biology as well, well designed teaching and learning materials of Biology are needed and library with different kinds of books is required. Biology text books for all senior two students are 105 found in the school, means that there are no enough biology learning materials available in library and also library has small scale means that library is not capable for supporting all learners. In addition, lack of enough learning materials for learners affect negatively learners and teachers in ways of teaching and learning processes. The school has 1,150 books and 100 computers available for all users.

If there is nothing done about solving problem of lack of enough teaching and learning materials some learners will continue to failure in their courses and others will end ordinary level without any knowledge of using library resources in their learning. The school has 100 computers that are used by students in their learning, but those computers are used by more than 1,200 students from senior one up to senior six. In

addition, the school has an internet connection(WIFI) but it is not efficient and does not satisfy all needs of all students. Furthermore, it is necessary to solve this problem by using groups in sharing available resources. This problem does not only affect teachers and learners but also will affect Rwandan society. Many people have done more on effects caused by lack of enough learning materials but this research is trying to establish the effectiveness of using groups in sharing available resources that are available in library in order to enhance students learning and performance.

1.4. OBJECTIVES AND RESEARCH QUESTIONS OF THE STUDY

1.4.1. GENERAL OBJECTIVES

To establish the suitable techniques of using groups in sharing available library resources (Biology resources) hence realize their contributions in teaching and learning processes.

1.4.2. SPECIFIC OBJECTIVES

1. To identify the suitable requirements in a library that facilitate the teaching/learning of biology;
2. To discover the best sharing method of the available library resources; and
3. To ascertain the impacts of sharing the available resources on students' performance.

1.4.3. RESEARCH QUESTIONS

1. What are requirements of library that facilitate teaching/learning of Biology?
2. What is the best method that can be used in sharing available library resources?
3. What are impacts of library resources on student's performance?

1.5. SIGNIFICANCE OF THE ACTION RESEARCH

It is believed that this research will establish the effectiveness of using groups in sharing available library resources when library resources cannot reach all needs of each learner. Learners, school administrators and teachers will benefit from the study.

This study will help us to discover the best method sharing available library resources and will establish the outcomes of using groups in teaching and learning processes by use of available learning materials that are available in school library especially in G.S Kampanga. This will encourage both teachers and learners in using library resources as much as possible in order to achieve desirable learning outcomes.

CHAPTER 2: LITERATURE REVIEW

2.1. INTRODUCTION

This part of the study tries to show what was already done about library and its uses and identify the gaps of studies. The reviewed literature was mainly from primary sources, secondary sources and journals.

2.2. LIBRARY REQUIREMENTS

M. Muthu (2013) stated that "Every library is required to have computers, electronic database and connectivity of data communication network to enact resource sharing. A computerized database of bibliographical records of library materials is to be developed to provide a broad perspective about in various libraries in the network. Other than hardware and software following facts should be taken into consideration to make resource sharing effective and successful".

According to Babcock university journal established on 16 July, 2013 demonstrated that locating material in the library is as important as the material itself because if the right strategy is not employed it may lead to users' frustration. The role and development of library was to provide trustworthy information and to help

students distinguish reliable information sources of social, political, economic, scientific, technological, educational, and cultural issues among the community (Campbell, 2006).

The importance of satisfaction in libraries is stressed by Wang and Shieh (2006) who maintain that libraries should be concerned with bringing satisfactory services when offering information and data to readers even though they are non-profit organization. Information sources are accessible in various forms such as journal articles, research papers, books, CD's, Databases, open access, open educational resources and various other formats. Kent & Galwin (1977) defines a resource as a thing/ person/ action to which one turns for and in time of need.

Library plays an essential and indispensable role in teaching and learning which directly supports the library usage which contributes to student's achievement. Basil (2012) in his study and reveals that the facilities, services, information resources are the major facets which make more impact on the satisfaction of the users of the library. Information literacy program have a direct effect on the utilization of the library resources and usefulness of the library. It basically includes orientation to library amenities, assets & holding and services & application of information tools to locate the resources.

2.3.METHODS OF SHARING AVAILABLE LIBRARY RESOURCES

Different authors did more about how library resources can be shared. Dougherty and Hughes (1991) observed that libraries and library services were no longer individual university problems and that a collective approach is now absolutely essential. The only way evolved by academic libraries to improve their services to the library user, is by broadening the base of information availability through resource sharing. Sharing of library resources which is an aspect of inter library cooperation means that one library uses the resources of other libraries and vice-versa. As such, a group of Libraries working together in cooperation for a common purpose of mutual benefit can be termed as resource sharing system (Sangal, 1984).

Song (2000) was of the view that "no library can effectively satisfy its users from the resources within its walls". We are living in a time where a library's worth is increasingly being measured by the services it offers in terms of helping clients to access universal information rather than its respective collection. Song (2000) further emphasized that we are living in a time where the level of utilization of information resources has become the yardstick to determine a country's economic advancement and strength. In her contribution, Miambo (2002) asserted, "cooperation between libraries is a universal language spoken indifferent dialects". The mission of the cooperative ventures is to improve library services through cooperation. She emphasized that cooperation, is no longer instrumental for libraries, it is strategic.

Gang (1980) Ekuoye (2002) and Ejedafiru (2003) agreed that there is no way a single library can satisfy the demands of its users. But when libraries cooperate and make their resources accessible to one and another, we see results. The justification for resource sharing is hinged on the fact that no library, however large, could be completely self-sufficient. In the opt words of Smethurst (1991), "cooperation can obviously lead to some savings, particularly in expenditure on common materials of marginal interest and it can lead to better use.

2.4.IMPACTS OF SHARING AVAILABLE LIBRARY RESOURCES ON STUDENT'S PERFORMANCE

Library resources have great effects on its users. According to Singh, H., and Mahajan, P. (2015)expressuser's assessment is one of the important activities of an academic library. The overall objective of the library should to see that students acknowledge the value of information and to impart

library skills and study skills. Allen Kent, Bhargava (1986) stated the objectives of resource sharing networks as: "Library user should have access to more materials or services providing level service at less cost, increased service at level cost, or much more service at less cost."

Library resources as well as instructional materials have positive impacts on student's learning. Writing on the role of instructional materials in teaching and learning, Balogun (1982) commented that science education programs cannot be taught effectively without the existence of equipment for teaching. This is because instructional materials help those who learn to develop problem-solving skills and scientific attitudes.

Elaborating further on the same point, Ajayi and Ogunyemi (1990) emphasize that when instructional materials are provided to meet relative needs of teaching process, students will have access to the reference materials mentioned by the teacher, and also each student will be able to learn at his or her own pace. The overall result is that students will perform much better.

2.5. CONCLUSION

Many researches were conducted including "Resource sharing in libraries: Avital Role of consortia by M. Muthu (2013)" and "Resource sharing activities in academic libraries services: Result of a survey by Efe Francis Ejedafiru (2011)" but they did not establish the use of groups as a method of sharing available library resources. The concern of this study is to establish use of groups as a method that can be used in sharing available library resources especially in teaching/learning Biology in senior two A and C at G.S Kampanga. It will contribute in achievement of teaching and learning outcomes for both teacher and learners and it will realize the contributions of library resources in teaching and learning processes.

CHAPTER 3: METHODOLOGY

3.1. INTRODUCTION

This part outlines methodology (method and techniques) the researcher used in carrying out research, gathering the information and to solve the problem of lack of enough learning materials available in library especially in Biology subject. In addition, this part of study also describes the research design, target population, the sampling and sample size, the methods of data collection, analysis and interpretation and schedule of activities.

3.2. DESIGN

Design: refers to plan or drawing produced to show the look and function or working of a building, or other object before it made. (Macmillan dictionary 2009). Therefore, research design refers to a plan for investigating the effective of using groups in sharing available library resources in teaching /learning Biology. This study is quantitative research and quantitative approaches were used where group works were used during investigation.

3.3. TARGET GROUP

The G. S Kampanga is located in Northern province of Rwanda, Musanze district, and Kinigi sector, this school is twelve years' basic education it contains approximately 1,139 students of secondary school, 1,056 pupils of primary school and 218 pupils of nursery school but the senior two has seven classrooms with 305 students. Teachers of secondary school are 32, primary school teachers are 22 nursery teachers are 4 and number of administrative staff is 4. The school has two combinations in advanced level which are

Mathematics, Computer science and Economics (MCE) and Literature in English, French and Kinyarwanda (LFK).

Senior two A and C are among the 7 ordinary level classrooms of senior two at G.S Kampanga. Those two classes are composed by 83 students where senior two A has 43 students and senior two C has 40 students. Each class has 4 periods of studying Biology and health sciences per week.

Table 1: The study population was explained in the following table:

Level	Number of rooms	Number of boys	Number of girls	Total number of students
Nursery	4	122	96	218
Primary	18	545	511	1,056
Secondary	25	505	634	1,139

The accessible population of this study was students of senior two A and C at G.S Kampanga. Groups were created and then after a certain period of time library resources were shared among groups.

3.4. RESEARCH TOOLS/INSTRUMENTS

First of all, number of students of senior two A and C was 83. Students of senior two A were grouped into 9 groups and students of senior two C were grouped into 10 groups. Each group was made by 4 or five students. In addition, all groups were created by combining or grouping students together that sit near to each other. In addition, Biology text books were shared among all groups of senior two A and C. One Biology text book was given to one group in each class, means that all groups got 19 books. Types of books given to all groups were Longhorn Biology text books and comprehensive biology text books.

Furthermore, guidelines were given to all groups about the use and monitoring of books that were shared. All students were warned about the use of books. Each group was given a group leader that manage the use of book by its members. As a teacher I advised them to use the resources effectively and avoid any kind of misuse. Each group had given a time to use the book that it had given, the time for use for each group was 2months. The students were given guideline of avoiding all activities that can cause any destruction of books that were given and avoid any sharing resource to another student who did not belong to the group or another class. In addition, as the one who had shared all resources I kept the records of each group about its members and the type of book got and I told them before sharing books that If any student or group lost the book that have given will buy it or purchase it on its own or his/herself. Biology group works were designed in order to investigate the outcomes of resources that were shared. One Biology group work (pretest Biology group assignment) was given to all groups of senior two A and C before sharing of resources. Also another Biology group assignment (posttest Biology group assignment) was given to all groups again. But some students had failed in following all guidelines that were given before sharing of library resources, Biology resources as well.

The results of first Biology group work were recorded but it was before sharing library resources (Biology resources). First Biology group work was done at the beginning of investigation period, then after recording

the results of first Biology group work, library resources (Biology books) were shared among all groups of senior two A and C. After two months later, another Biology group assignment was exposed to all groups and its results were recorded again. At the beginning of period of investigation, the students were invited to participate in the study by working in groups in order to improve their performance especially in Biology. Collaborative activities with handwritten and group presentations were made by a researcher(student-teacher). The research instrument were group works. Tests were done before and after sharing available library resources. All 83 students of senior two A and C were actively participated in their respective Biology groups. Some questions required handwritten replies and also presentations were done. At the end of investigation period, the performance of all groups in pretest done before sharing available library resources were compared with the results of all groups in the posttest group work. In addition, quantitative approach was employed using two classes of senior two (A and C) with 83 students. For clarification purpose, all groups of each class were tested before sharing of library resources and after sharing available library resources.

3.5. SCHEDULE OF ACTIVITIES

Table 2:Schedule of activities

S/N	Topic (problem)	Activities/ Action	Participants	Duration	Lesson learnt
1	Lack of enough learning materials like student text books, especially Biology text books.	Grouping students in groups in order to share available library resources.	-Student-teacher -Students	From 14 th ,02,2020 to 13 th ,03,2020	Students were not using them or were being monopolized by a few active students.
2	Poor performance of students.	Give students library resources and guidelines that engage them in effective learning.	-Student-teacher -Students	From 23 rd ,11,2020 to 18 th ,12,2020	Discover best strategies of using available library resources in order to improve student's performance.
3	Lack of knowledge about how to use ICT tools in learning process for students.	To use ICT tools like computer with internet connectivity in teaching and learning processes, this because internet connectivity is available. Also appreciate the use downloaded resources such as audio-visual resources.	-Student-teacher -Students	From 21 st ,12,2020 to 15 th ,01,2021	Appreciated the using ICT tools in teaching and learning processes.
4	Poor communication of students of senior two (A & C) in expressing their ideas during biology teaching and learning processes.	Use of groups during teaching and learning processes of biology and allow students to present their findings after they have exploited the provided library resources.	-Student-teacher -Students	From 18 th ,01,2021 to 02 nd ,04,2021	Appreciated the effects of using student's self-presentation in order to improve student's communication skills.

CHAPTER 4: PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1. INTRODUCTION

This part describes the data collected and how data collected led the researcher to achieve effective and accurate conclusions. Researcher was facilitated to get accurate results about the establishment of suitable techniques of using groups in sharing available library resources (Biology resources) and know the contributions of teachers and students in using available library resources in achievement of teaching and learning outcomes and also realize the contributions of library resources in teaching and learning processes.

4.2. PRESENTATION OF FINDINGS

Data collected was in form of marks, each group got marks out of ten and then were expressed in percentages.

The tables below show the marks of each group in each class in senior two A:

Table 3: Marks of each group in pretest Biology group assignment (before receiving library resources) in senior two A:

Class	Number of group	Marks of each group out of 10	Percentage of marks of each group
S2A	1	7	70%
	2	6.5	65%
	3	8	80%
	4	7	70%
	5	6	60%
	6	7	70%
	7	6.5	65%
	8	7.5	75%
	9	8	80%

Table 4: Marks of each group in posttest in Biology group assignment (after receiving library resources) in senior two A:

Class	Number of group	Marks of each group out of ten	Percentage of marks of each group
S2A	1	9	90%
	2	8.5	85%
	3	8	80%
	4	9	90%
	5	9	90%
	6	9.5	95%
	7	8.5	85%
	8	9	90%
	9	9.5	95%

Table 5: Marks of each group in pretest Biology group assignment (before receiving library resources) in senior two C:

Class	Number of group	Marks of each group out of ten	Percentage of marks of each group
S2C	1	8	80%
	2	9	90%
	3	8	80%
	4	9	90%
	5	8	80%
	6	8	80%
	7	9	90%
	8	9	90%
	9	8.5	85%
	10	9	90%

Table 6: Marks of each group in posttest Biology group assignment (after receiving library resources) in senior two C:

Class	Number of group	Marks of each group out of ten	Percentage of marks of each group
S2C	1	9	90%
	2	9	90%
	3	8.5	85%
	4	9	90%
	5	9	90%
	6	9	90%
	7	9.5	95%
	8	9	90%
	9	9	90%
	10	9.5	95%

4.3. DATA INTERPRETATION AND DISCUSSION

Data that was collected show that there was difference in marks of each group in pretest and posttest Biology group assignments. The data showed that there was an improvement in performance of each group in posttest rather than in pretest Biology group assignments. Performance of each group in posttest was good because of Biology library resources that were shared among all groups of senior two A and C.

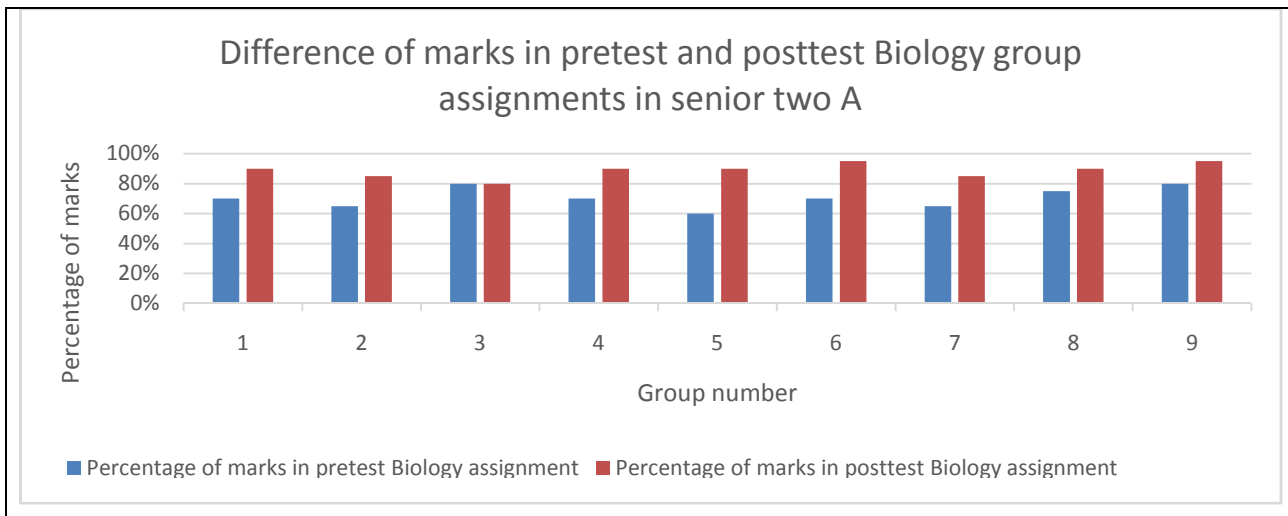


Figure 1: Difference of marks in pretest and posttest Biology group assignments in senior two A

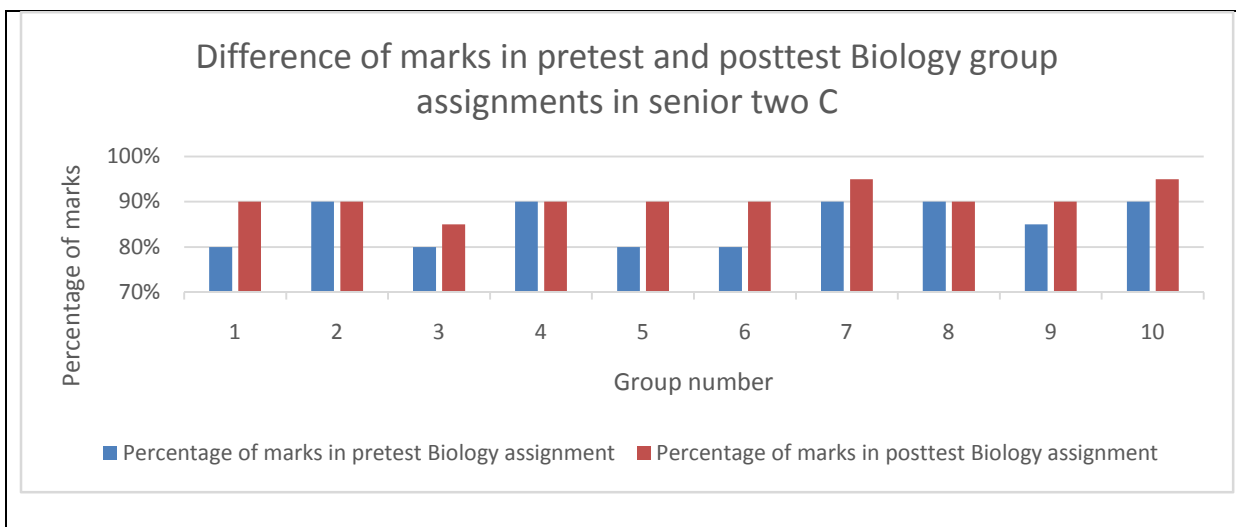


Figure 2: Difference of marks in pretest and posttest Biology group assignments in senior two C

In pretest Biology group assignment, 8 groups of senior two A got marks above 60% but below 80% and 1 group got 60% while in posttest Biology group assignment, all groups in senior two A got marks equal or above 80%. In senior two C, 4 groups got marks equal to 80% and 6 groups got marks above 80% but not above 90% in pretest Biology group assignment while in posttest Biology group assignment, 7 groups got marks equal to 90% and 3 groups got marks equal to 95%. The different in marks of pretest and posttest Biology group assignment was caused by use of library resources (Biology resources) in posttest Biology group assignment rather than before in pretest group assignment.

In addition, the improvement of groups of senior two A and C in their works was caused by the use of library resources (especially Biology resources) in their works whether in written assignments and in presented assignments. I can say that library resources have great impact on learning of students and their performance. Library resources are required in academic environment in order to improve student's learning and achievements. Library resources are needed by students in their academic learning in order to improve their reading capacity and also in their academic achievements.

Furthermore, when library resources do not satisfy the needs of every learner, it is clear to use groups in sharing available resources. In addition, based on results from pretest and posttest groups assignments showed that library resources had encouraged students of senior two A and C in reading and communicating skills. The results of each group in pretest Biology assignment were not good because students did not get required resources that enable them to get required information of their works while in posttest Biology assignments, all groups performed well, this was because they have accessed all required resources (Biology resources) that were shared among groups of senior two A and C.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1. INTRODUCTION

This part of study concerns the end process of investigation of the study that took place at G.S Kampanga. It demonstrates the overview of the study. It shows the main conclusion and recommendations that were demonstrated.

5.2. CONCLUSION

As far as the concern of this study, all library resources are very essential in academic teaching and learning. Library resources should be shared and accessed by all library users. This is because the academic activities require library resources in order to achieve required knowledge and skills. Teachers and students are advised to use library resources effectively. While using the academic library, commitment and preferences of students is important because good academic achievement shows positive results. Findings suggested that there is a positive impact of library resources on students' academic achievement and performance.

5.3. RECOMMENDATIONS

- Students are recommended to follow all instructions regarding the use of library resources.
- Teachers are recommended to use library resources in teaching and learning processes as much as possible in order to enhance academic teaching, learning and achievements.
- School administrators are recommended to manage, organize and supply available library resources that are required by teachers and learners in their everyday academic activities.

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APPENDICES

APPENDIX 1: RESEARCH INSTRUMENTS

1. PRETEST RESEARCH INSTRUMENT (PRETEST BIOLOGY GROUP ASSIGNMENT):

Table 7: Pretest Biology group assignment

Class	Group number	Question for each group
S2A	1	Discuss about general characteristics of mammals?
	2	Give and explain general characteristics of animals?
	3	Discuss about invertebrates
	4	Differentiate vertebrates from invertebrates.
	5	Explain the adaptations of fish in their environment?
	6	Insects are both useful and harmful explain.
	7	Talk about osmosis
	8	Discuss about diffusion?
	9	Why is diffusion and osmosis referred to as passive processes?

1. POSTTEST RESEARCH INSTRUMENT (POSTTEST BIOLOGY GROUP ASSIGNMENT):

Table 8: Posttest Biology assignment

Class	Group number	Question for each group
S2A	1	Active transport is affected by different factors. Explain?
	2	Athletes are normally given glucose and not sucrose. Give a reason for this ?
	3	Talk about enzymes.
	4	Differentiate enzymes from catalysts?
	5	Enzymes can be affected by pH and temperature. Explain?
	6	Suggest a reason why an enzyme catalyzes only one specific reaction.
	7	Explain the enzyme denaturation?
	8	What enzyme inactivation?
	9	Discuss about key and lock hypothesis?

3. PRETEST RESEARCH INSTRUMENT (PRETEST BIOLOGY GROUP ASSIGNMENT):

Table 9: Pretest Biology group assignment

Class	Group number	Question for each group
S2C	1	Discuss about general characteristics of mammals?
	2	Give and explain general characteristics of animals?
	3	Discuss about invertebrates
	4	Differentiate vertebrates from invertebrates.
	5	Explain the adaptations of fish in their environment?
	6	Insects are both useful and harmful explain.
	7	Talk about osmosis
	8	Discuss about diffusion?
	9	Why is diffusion and osmosis referred to as passive processes?
	10	What would happen if osmosis was not available in plants?

4. POSTTEST RESEARCH INSTRUMENT (POSTTEST BIOLOGY GROUP ASSIGNMENT):

Table 10: Posttest Biology group assignment

Class	Group number	Question for each group
S2C	1	Active transport is affected by different factors. Explain?
	2	Athletes are normally given glucose and not sucrose. Give a reason for this ?
	3	Talk about enzymes.
	4	Differentiate enzymes from catalysts?
	5	Enzymes can be affected by pH and temperature. Explain?
	6	Suggest a reason why an enzyme catalyzes only one specific reaction.
	7	Explain the enzyme denaturation?
	8	What enzyme inactivation?
	9	Discuss about key and lock hypothesis?
	10	What is the role of nitrate in plant growth?

APPENDIX 2: MONTHLY REPORTS

**FIRST MONTHLY REPORT DONE AT G. S. KAMPANGA
FROM 13TH, JANUARY TO 13TH, FEBRUARY, 2020**

1. INTRODUCTION

G.S Kampanga is twelve years’ basic education school. This school is located in Northern province of Rwanda, Musanze district, Kinigi sector and Kampanga cell. This school is also near Kinigi center of commerce. This school is a twelve years’ school because it has a nursery, primary cycle, ordinary level and advanced level cycles. The school has two combinations in advanced level which are Mathematics, Computer science and Economics (MCE) and Literature in English, French and Kinyarwanda (LFK). On the first day I visited the school, I observed its buildings which are clear and well designed. In addition, I saw a time table from the director of studies that guides teachers in their activities of teaching. From time table that I saw, the teaching sessions start at 7h40 a.m and each period of lessons has forty minutes. Another thing is that, students who are in secondary school take lunch at school and also teachers get food at school.

ADMINISTRATIVE STAFF AND TEACHERS

Table 11: Administrative staff and teachers

Number of administrative staff	4
Number of primary teachers	22
Number of secondary teachers	32
Number of nursery teachers	4

SCHOOL STRUCTURE:

Table 12: School structure

Level	Number of rooms	Number of boys	Number of girls	Total number of students
Nursery	4	122	96	218
Primary	18	545	511	1,056
Secondary	25	505	634	1,139

TIME TABLE OF ACADEMIC YEAR 2020-2021

SCHOOL: G.S. KAMPANGA

STUDENT-TEACHER TIME TABLE FOR BIOLOGY AND HEALTH SCIENCE IN SENIOR TWO A AND C

Table 13: Time table

TIME	DAYS				
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
7h40'-8h20'					
8h20'-9h00'	S2C				S2A
9h00'-9h40'			S2A		
9h40'-10h20'		S2A	S2A		
10h20'-10h40'	BREAK				
10h40'-11h20'				S2C	
11h20'-12h00'				S2C	S2C
12h00'-12h40'					
12h40'-14h00'	LUNCH				
14h00'-14h40'					
14h40'-15h20'					
15h20'-16h00'	STUDENT SELF STUDY				
16h00'-16h40'					
16h40'-17h00'					

2. SCHEDULE OF ACTIVITIES IN FIRST MONTH

Table 14: Schedule of activities in first month

Month/January	Activities	Lesson learnt
WEEK 1		
13 th ,01,2020	Head Teacher or Head master of G.S Kampanga welcomed me in the school.	I learnt how a school leader welcome new teacher in the school.
14 th ,01,2020	Director of studies has welcomed me in her office and asked me to show her a letter from University of Rwanda, college of education and after she introduced me to my mentor. My mentor also welcomed me again and she introduced me in class which is senior two (S2C).	I learnt how director of studies welcome student-teacher in the office and how mentor facilitates student-teacher during internship period.
15 th ,01,2020	My mentor has introduced me in new class and asked me to introduce myself again.	I learnt how teacher introduce a new person in the classroom and I learnt how can I introduce myself in new situations.
16 th ,01,2020	My mentor has taught me how to fill or complete class diary and how to prepare a lesson plan.	I learnt how a lesson plan should be prepared and how to complete class diary.
17 th ,01,2020	My mentor has taught me how to deal with disruptive behaviors of learners and how to overcome disruptive behaviors of learners.	I learnt how to avoid disruptive behaviors when I am teaching and how to control students having bad behaviors.
WEEK 2	Activities	Lesson learnt
20 th ,01,2020	My mentor showed me how to introduce lesson in classroom and how to prepare notes of Biology and also she gave me an opportunity of teaching a lesson called characteristics of reptiles . Also she taught me how to evaluate myself after lesson delivery.	I learnt how to prepare notes and how to motivate learners during teaching and learning process and also I learnt how to evaluate learning achievement of lesson after teaching.

21 st ,01,2020	My mentor has told me how to evaluate learning achievement of learners through exercises and quizzes.	I learnt how to organize exercises for lesson and quizzes and how to evaluate learners' achievement.
22 nd ,01,2020	I have prepared quiz and marking scheme for students of senior two A and C and I gave that quiz to students.	I learnt how to control learners behaviors during quiz and how to organize marking scheme for quiz.
23 rd ,01,2020	I taught lesson that had a title called adaptations of birds to their environment .Some learners were very active in that lesson and I did an evaluation and I understood that teaching and learning activities have achieved through the results from students .	I learnt how to make learners active during teaching and learning process and how to motivate slow learners through different activities.
24 th ,01,2020	I taught a lesson with a title called characteristics of Arthropods and the main classes of arthropods. The lesson took place outside the classroom. Lesson was practical	I learnt how learners can be motivated when are learning outside the classroom and how to avoid any injury when learners are doing a field work.
WEEK 3	Activities	Lesson learnt
27 th ,01,2020	I taught a lesson with title called characteristics of Arthropods and its classes.	I learnt how to organize learners for practical lesson and how to avoid injury during field study.
28 th ,01,2020	I taught a lesson with title called advantages and disadvantages of arthropods .	I learnt how to correct homework and how to engage students in think pair share.
29 th ,01,2020	I taught a lesson with title called other phyla of animals found in Animalia kingdom.	I learnt how to motivate learners at the beginning of lesson and how to avoid noise in classroom.
30 th ,01,2020	I taught a lesson with title called economic importance of arthropods to human being.	I learnt how students are engaged in activities during group work and how to control behaviors of students during group work.

31 st ,01,2020	I have prepared formative assessment test and its marking scheme to students of senior two A.	I learnt how to develop formative assessment test and how to avoid cheating of students during assessment test.
Month/February	Activities	Lesson learnt
WEEK 4		
03 rd ,02,2020	Public holyday	
04 th ,02,2020	I taught a lesson with a title called concepts of ecology.	I learnt how to manage classroom during group discussion.
05 th ,02,2020	I taught a lesson with a title called energy flow in ecosystem, food chain and food web.	I learnt how to use ICT tools in teaching and learning processes while teaching.
06 th ,02,2020	I taught a lesson with title called trophic levels and how energy lost from one trophic level to the next.	I learnt how to concretize a lesson in making lesson more understandable.
07 th ,02,2020	I taught a lesson with title called ecological pyramids and I gave a formative assessment to students.	I learnt how to use charts in lesson delivery and how to manager students during formative assessment.
WEEK 4	Activities	Lesson learnt
10 th ,02,2020	I taught lesson with title called ecological pyramids.	I learnt how to use teaching aids in lesson delivery and how to concretize a lesson in a critical manner.
11 th ,02,2020	I taught a lesson with title called biotic factors and ecological pyramids.	I learnt how to use improvisation in lesson delivery and how to use local available materials.
12 th ,01,2020	I taught a lesson with title called passive movement of substances across cell membrane: Diffusion, importance of diffusion and factors affecting rates of diffusion. This was done in senior two A.	I learnt how practical work can be done using local available materials. Lesson was both practical and theoretical. Students were grouped in different groups and they have performed practical activities of how diffusion occurs in gaseous and liquid states. Perfume and soluble substance were used in experiment.

13 th , 02, 2020	I taught a lesson with title called passive movement of substances across cell membrane: Diffusion, importance of diffusion and factors affecting rates of diffusion. This was done in senior two C.	I learnt how practical work can be done using local available materials. Lesson was both practical and theoretical. Students were grouped in different groups and they have performed practical activities of how diffusion occurs in gaseous and liquid states. Perfume and soluble substance were used in experiment.
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3. PROBLEM IDENTIFICATION

Teaching and learning materials are needed during teaching and learning processes. As I am doing my internship at G.S. Kampanga, I have realized that there is a problem of lack of enough learning materials for students. I have established a problem through observation during sharing of learning materials for students and through interview I carried to teachers. In addition, I have found that more than five students use one text book during teaching and learning processes.

In this world education acts as key to development and many countries try to develop their education systems in order to achieve and speed up economic development. Science and technology are very important in development either in economic and social development as well. Our country(Rwanda) is striving towards development by promoting science and technology through education system but teaching and learning materials are still problem. In some schools there are few teaching materials needed in teaching and learning processes, this is a problem for teachers and students in their achievements. Also learning materials are not enough for students where more than five students use one learning materials during group discussion.

In addition, the problem of lack of enough learning materials is found in G.S Kampanga especially in senior two. When this problem is not solved or overcome will affect negatively teachers and learners. In order to achieve well knowledge and skills needed in Biology and health science subject for each student, some practical works are designed to be done in Biology laboratory but some materials and equipment are absent in laboratory, so some practical works are not done. On other side, some learners of senior two are not motivated in making research in library because they do not get all needed books in library. This case of lack of motivation in reading biology books and other subject books is a problem for teachers and student performance because teaching and learning processes take long time due to long time explanation is required for teacher.

Concern of this research is to know strategies that can be applied by teacher in order to overcome problem of lack of enough teaching and learning materials especially in G.S. Kampanga and also this research will show us problems caused by insufficiency teaching and learning materials either for teacher and learners and also for whole school.

3.1. BACKGROUND OF THE PROBLEM

In this world education acts as key to development and many countries try to develop their education systems in order to achieve and speed up economic development. Science and technology are very important in development either in economic and social development as well. Our country(Rwanda) is striving towards development by promoting science and technology through education system but teaching and learning materials are still problem. In some schools there are a few teaching materials needed in teaching and learning processes, libraries with small number of books needed by students. These are problems for teachers and students in their achievements. Also learning materials are not enough for students where more than five students use one learning materials during group discussion.

In addition, teaching and learning materials available in library at G.S Kampanga especially in senior two are not enough. When this problem is not solved will affect negatively teachers and learners. In order to

achieve well knowledge and skills needed in biology and health science subject for each student, library contains teaching and learning materials is required. On other side some learners of senior two are not motivated in making research in library because they do not get all needed books in library. This case of lack of motivation in reading biology books and other subject books is a problem for teachers and even for student performance, because teaching and learning processes take long time due to long time explanation by teachers.

Rwanda is now trying to develop very quickly based on well skilled and knowledgeable people in sciences and technology. This aim can only be achieved through education systems that produce Rwandan citizens who have knowledge and skills needed on labor market and abilities to compete on global labor market. Concern of this research is to know the effectiveness of using groups in sharing available library resources by teacher in order to overcome problem of lack of enough teaching and learning materials especially in G.S. Kampanga. In addition, this research also will show us the outcomes of using groups in sharing learning materials available in library. Either for all learners especially in senior two.

3.2. STATEMENT OF THE PROBLEM

G.S Kampanga is striving towards development of skilled people by providing good quality education to its students. However, there are is small numbers of biology books especially Biology books. In order to produce skilled person in Biology as well, well designed teaching and learning materials of Biology are needed and library with different kinds of books is required. Biology text books for all senior two students are 105 found in the school and all books, means that there are no enough biology learning materials available in library and also library has small scale means that library is not capable for supporting all learners. In addition, lack of enough learning materials for learners affect negatively learners and teachers in ways of teaching and learning processes. The school has 1,150 books and 100 computers available for all users.

If there is nothing done about solving problem of lack of enough teaching and learning materials some learners will continue to failure in their courses and others will end ordinary level without any knowledge of using library resources in their learning. The school has 100 computers that are used by students in their learning, but those computers are used by more than 1,200 students from senior one up to senior six. In addition, the school has an internet connection(WIFI) but it is not efficient and does not satisfy all needs of all students. Furthermore, it is necessary to solve this problem by using groups in sharing available resources. This problem does not only affect teachers and learners but also will affect Rwandan society. Many people have done more on effects caused by lack of enough learning materials but this research is trying to establish the effectiveness of using groups in sharing available resources that are available in library in order to enhance students learning and performance.

3.3. OBJECTIVES AND RESEARCH QUESTIONS OF THE STUDY

3.3.1. GENERAL OBJECTIVES

To establish the suitable techniques of using groups in sharing available library resources (Biology resources) hence realize their contributions in teaching and learning processes.

3.3.2. SPECIFIC OBJECTIVES

1. To identify the suitable requirements in a library that facilitate the teaching/learning of biology;
2. To discover the best sharing method of the available library resources; and
3. To ascertain the impacts of sharing the available resources on students' performance.

3.3.4. RESEARCH QUESTIONS

1. What are requirements of library that facilitate teaching/learning of Biology?
2. What is the best method that can be used in sharing available library resources?
3. What are impacts of library resources on student's performance?

4. ACTION PLAN

Table 15: Action plan

S/N	Topic (problem)	Strategies or solutions	Participants	Duration
1	Lack of enough learning materials like student text books, especially Biology text books.	Grouping students in groups in order to share available library resources.	-Student-teacher -Students	From 14 th ,02,2020 to 13 th ,03,2020
2	Poor performance of students.	Give students library resources and guidelines that engage them in effective learning.	-Student-teacher -Students	From 23 rd ,11,2020 to 18 th ,12,2020
3	Lack of knowledge about how to use ICT tools in learning process for students.	To use ICT tools like computer with internet connectivity in teaching and learning processes, this because internet connectivity is available. Also appreciate the use downloaded resources such as audio-visual resources.	-Student-teacher -Students	From 21 st ,12,2020 to 15 th ,01,2021
4	Poor communication of students of senior two (A & C) in expressing their ideas during biology teaching and learning processes.	Use of groups during teaching and learning processes of biology and allow students to present their findings after they have exploited the provided library resources.	-Student-teacher -Students	From 18 th ,01,2021 to 02 nd ,04,2021

5. SECOND MONTHLY REPORT**5.1. IMPLEMENTATION OF STRATEGIES****5.1.1. INTRODUCTION**

This was second monthly report. Before talking about what happened in this second report, let us remind about first report. The first report was talking about introduction about school where internship is taking place, observation activities, student-teacher activities, identification of problem, specific research objectives, research questions, challenges faced and proposed solutions for these challenges. The challenges were the following: Lack of enough learning materials for students especially in biology subject., poor communication of learners in English language, poor performance in biology and lack of knowledge of using ICT tools in learning process for students.

Although, as I have tried to explain the content of first monthly report, let us talk about the second monthly report. This second report is talking about the implementation of strategies or solutions proposed for solving the problems faced in the first month of my internship. Implementation means to put in practice the solutions of solving different problems in order to improve the achievement of teaching and learning processes among teacher and students.

In addition, the following were solutions proposed in solving the problems faced in first month: To put students in group at least six students per each group in order to share available learning materials such as biology text books for senior two students, providing many home works, group works and quizzes in order to improve students’ performance in biology subject as well, giving students group discussion works and presentation of their findings in front of class in order to improve their communication using English language as language of instructions in upper primary and whole secondary cycles and use of ICT tools in lesson delivery and facilitate students to know how to use Information and Communication Technology tools in learning. The implementation of strategies is divided in different months. Each strategy has one month for its implementation and result will be presented at the end report. The first strategy proposed was to make groups of six students for each group in order to share available learning materials such as biology student text books in order to facilitate students to learn effectively. The first strategy was started to be implemented on 14th, February, 2020. Students were grouped in different group based on their sitting arrangement and given them biology student text books for improving their learning both at school and at home.

5.1.2. IMPLEMENTATION OF FIRST STRATEGY

Table 16: Implementation of first strategy

Serial number	Topic(problem)	Strategy solution	or Participants	Duration
1	Lack of enough learning materials like student books.	Grouping students in groups in order to share available resources.	-Student-teacher -Students	From 14 th ,02,2020 13 th ,03,2020

The implementation of first strategy which was to make groups of four students where each group get one biology student text book in order to improve their learning using student text books and their reading skills. This strategy was achieved and student’s performance and reading ability of students have improved. This strategy was evaluated by using assessment test which were group works and their presentation. Through group presentations, student’s communication skills also have improved.

5.1.3. INVOLVEMENT OF PARTICIPANTS

Implementation process in this month was done with 48 students of S2A and 47 students of S2C. All students were full participated in activities as much as possible.

5.1.4. REACTION OF PARTICIPANTS

Most students had fear to say anything in front of whole class and some of them had tried to overcome the challenges happened during group work presentations. In addition, some students also had presented their work well.

5.1.5. TESTING AND EVALUATION

In evaluation, three questions were given to students in order to be done in their respective groups. One day was given to students as duration to finish their work. Each group had given ten minutes to present the work.

The table below showed the result from group work assignments and presentations:

Table 17: Marks of each group in pretest Biology group assignment (before receiving library resources) in senior two A:

Class	Number of group	Marks of each group out of ten	Percentage of marks of each group
S2A	1	7	70%
	2	6.5	65%
	3	8	80
	4	7	70%
	5	6	60%
	7	7	70%
	8	6.5	65%
	9	7.5	75%

Table 18: Marks of each group in posttest in Biology group assignment (after receiving library resources) in senior two A:

Class	Number of group	Marks of each group out of ten	Percentage of marks of each group
S2A	1	9	90%
	2	8.5	85%
	3	8	80%
	4	9	90%
	5	9	90%
	7	9.5	95%
	8	8.5	85%
	9	9	90%

Table 19: Marks of each group in pretest Biology group assignment (before receiving library resources) in senior two C:

Class	Number of group	Marks of each group out of ten	Percentage of marks of each group
S2C	1	8	80%
	2	9	90%
	3	8	80%
	4	9	90%
	5	8	80%
	7	8	80%
	8	9	90%
	9	9	90%
	10	8.5	85%

Table 20: Marks of each group in posttest Biology group assignment (after receiving library resources) in senior two C:

Class	Number of group	Marks of each group out of ten	Percentage of marks of each group
S2C	1	9	90%
	2	9	90%
	3	8.5	85%
	4	9	90%
	5	9	90%
	7	9	90%
	8	9.5	95%
	9	9	90%
	10	9	90%

5.1.6. ACTION PLAN FOR NEXT MONTH

The next month of internship will concentrate on implementation of second strategy.

Table 21: **Action plan for next month**

Serial number	Topic(problem)	Strategy solution or	Participants	Duration
2	Poor performance of students in Biology subject.	Give students library resources and guidelines that engage them in effective learning.	-Student-teacher -Students	From 23 rd ,11,2020 to 18 th ,12,2020

6. THIRD MONTHLY REPORT

6.1. IMPLEMENTATION OF SECOND STRATEGY

Table 22: **Implementation of second strategy**

Serial number	Topic(problem)	Strategy solution or	Participants	Duration
2	Poor performance of students in Biology subject.	Give students library resources and guidelines that engage them in effective learning.	-Student-teacher -Students	From 23 rd ,11,2020 to 18 th ,12,2020

6.1.1. INTRODUCTION

In the third month, it was for implementation of second strategy which is the solution for poor performance of students especially in Biology subject. The solution was to give students more exercises, quizzes, homework and library resources that engage them in learning Biology and succeed in different assessments. For each lesson, students were given exercises, home works and one quiz for each unit.

The results from student’s work and quizzes showed that their performances were improved and many students understood well the purposes of exercises and quizzes which are to know the achievement of teaching and learning processes. From student’s performance, I realized that many students have engaged in learning at school and at home. In addition, in the implementation of second strategy which was to improve student’s performance in Biology and Health Sciences as science subject, laboratory experiments were designed for students. All students were allowed to go in laboratory and each group has done its own experiment and were asked to make report for what they have done in experiments needed for unit five which has title called **Identification of food components**. During different experiments, students acquired knowledge and skills of laboratory and improved the abilities of doing experiments in laboratory, this was assessed through different reports from groups which had good results.

6.1.2. INVOLVEMENT OF PARTICIPANTS

Implementation process in this month was done with 44 students of S2A and 42 students of S2C. All students were full participated in activities as much as possible.

6.1.3. REACTION OF PARTICIPANTS

Some students had ignored to do homework but some of them had tried to do them and got good results.

6.1.4. TESTING AND EVALUATION

In evaluation, many homework, quizzes and exercises were given to students in order to be done but one quiz, one homework and exercises results were presented in my report. Works were given to students and enough time was provided to finish their works.

Table 23: The table below showed the result from students:

Class	Number of students in classroom	Percentage of students succeed in of quizzes	Percentage of students succeed in home works	Percentage of students succeed in exercises	Percentage of students succeed in all activities	Percentage of students failed in all activities
Senior two C	42	76%	70%	80%	75%	24%
Senior two A	Number of students in classroom	Percentage of students succeed in quizzes	Percentage of students succeed in home works	Percentage of students succeed in exercises	Percentage of students succeed in all activities	Percentage of students failed in all activities
	44	22%	64%	67%	51%	52%

6.1.5. ACTION PLAN FOR NEXT MONTH

The next month of internship will concentrate on implementation of third strategy.

Table 24: Action plan for next month

Serial number	Topic(problem)	Strategy or solution	Participants	Duration
3	Lack of enough knowledge about the use of ICT tools in learning process.	To use ICT tools like computer with internet connectivity in teaching and learning processes, this because internet connectivity is available. Also appreciate the use downloaded resources such as audio-visual resources.	-Student-teacher -Students	From 21 st ,12,2020 to 15 th ,01,2021

7. FOURTH MONTHLY REPORT

7.1. IMPLEMENTATION OF THIRD STRATEGY

Table 25: Implementation of third strategy

Serial number	Topic(problem)	Strategy or solution	Participants	Duration
3	Lack of enough knowledge about the use of ICT tools in learning process.	To use ICT tools like computer with internet connectivity in teaching and learning processes, this because internet connectivity is available. Also appreciate the use downloaded resources such as audio-visual resources.	-Student-teacher -Students	From 21 st ,12,2020 to 15 th ,01,2021

7.1.1. INTRODUCTION

In the fourth month, there was an implementation of third strategy that was about use of ICT (Information and Communication Technology) tools in teaching and learning processes. Computer was used in presentation of some lessons in order to improve student’s knowledge about the use of computer in learning process. Email is very essential in digital teaching and learning processes. As a student-teacher, I have facilitated students about how to use email in teaching and learning processes and also class email was established in order to improve communication between student-teacher and students. Email that was created, it was belonging for all senior two students found in G.S Kampanga.

In addition, some activities were sent to class email and they were done by students, and then after sent them to student-teacher email in order to be marked. The use of email was very useful during the period of pandemic disease which is called COVID-19. All students of senior two (S2A and S2C) were advised to use email in communication between them and their teachers. Another thing is this, some learning materials like student’s books were sent to class email in order to be accessed by all students especial senior two students.

Table 26: The table below shows class email and number of teaching and learning materials available on class email:

Class email	Number of teaching and learning materials available on class email
Username: allseniortwo@gmail.com Password: alltwo123	195 text books

7.1.2. INVOLVEMENT OF PARTICIPANTS

Implementation process in fourth month was done with 45 students of S2A and 42 students of S2C. All students were full participated in activities as much as possible.

7.1.3. REACTION OF PARTICIPANTS

Some students had bad reactions to do activities on email but some of them had tried to do them and got good results. Those who had not willing to do activities on email were advised and finally accepted it.

7.1.4. TESTING AND EVALUATION

In evaluation, some activities like exercises and homework were sent to class emails and all students were advised to do them in electronic form and sent them to student-teacher email in order to be marked.

Table 27: The table below shows the performance of learners in activities via emails:

Class	Number of students in classroom	Percentage of students who succeed in activities that were done via emails.	Percentage of students who failed in activities that were done via emails.
S2A	44	60%	40%
S2C	42	65%	35%

7.1.5. ACTION PLAN FOR NEXT MONTH

The next month of internship will concentrate on implementation of fourth

Table 28: **Action plan for next month**

Serial number	Topic(problem)	Strategy or solution	Participants	Duration
4	Poor communication of students of senior two in expressing their ideas during Biology teaching and learning process.	Use of groups during teaching and learning processes of Biology and allow students to present their findings after they have exploited the provided library resources.	-Student-teacher -Students	From 18 th ,01,2021 to 26 th ,02,2021

8. FIFTH MONTHLY REPORT

8.1. IMPLEMENTATION OF FOURTH STRATEGY

Table 29: Implementation of fourth strategy

Serial number	Topic(problem)	Strategy solution	or Participants	Duration
4	Poor communication of students of senior two in expressing their ideas during biology teaching and learning process.	Use of groups during teaching and learning processes of Biology and allow students to present their findings after they have exploited the provided library resources.	-Student-teacher -Students	From 18 th ,01,2021 to 26 th ,02,2021

8.1.1. INTRODUCTION

This was an implementation of fourth strategies that was talking about the use of self-work presentation by students. The purpose of this strategy was to improve student communication skills especially in English language in expression of their ideas, using English language as a language of instructions in secondary schools. In the implementation, different works were designed in order to be presented by students in front of their colleagues. In addition, in order to improve student communication skills, four works were designed for presentations and their results were recorded in this report.

This implementation was done in two classrooms which were senior two A with 43 students and senior to C with 40 students. Most students of each class were full involved in implantation but some students did not work because they were absent. At the beginning of implementation of all strategies, the solution for problem of poor communication of students was to use groups in presentation of their works but because of pandemic disease which was covid-19, the implementation of four strategies was changed in order to avoid the spread of covid-19. In order to implement the fourth strategy in good ways, group presentations were replaced by self-work presentations.

8.1.2. INVOLVEMENT OF PARTICIPANTS

Implementation process was done with 44 students of S2A and 42 students of S2C. All students were full participated in activities as much as possible.

8.1.3. REACTION OF PARTICIPANTS

Most students had good intentions in presentation of their works but some of them were not interacted in doing their works but finally all students were engaged in activities.

8.1.4. TESTING AND EVALUATION

As I was written in the beginning of this report of implantation of fourth strategy, works were designed in evaluating the results of my implementation. One works before implementation and one works after implementation but because of time the implementation of fourth strategy became continuous in fifth month of internship.

8.1.5. ACTION PLAN FOR NEXT MONTH

The implementation of fourth strategy was not completed, then the sixth moth of internship will be a continuation of implementation of fourth strategy of improving communication skills of learners. Learners will be advised to use different books in doing their works.

Table 30: Action plan for next month

Serial number	Topic(problem)	Strategy or solution	Participants	Duration
4	Poor communication of students of senior two in expressing their ideas during biology teaching and learning process.	Use of groups during teaching and learning processes of Biology and allow students to present their findings after they have exploited the provided library resources.	-Student-teacher -Students	From 01 st ,03,2021 to 02 nd ,04,2021

9. SIXTH MONTHLY REPORT

9.1. CONTINUATION OF IMPLEMENTATION OF FOURTH STRATEGY

Table 31: implementation of fourth strategy

Serial number	Topic(problem)	Strategy or solution	Participants	Duration
4	Poor communication of students of senior two in expressing their ideas during biology teaching and learning process.	Use of groups during teaching and learning processes of Biology and allow students to present their findings after they have exploited the provided library resources.	-Student-teacher -Students	From 01 st ,03,2021 to 02 nd ,04,2021

9.1.1. INTRODUCTION

Sixth month was concentrated on implementation of fourth strategy that was not completed in fifth month. The implementation was not completed because fifth month end when all learners were still presenting their works. The decision was to allow them to continue their presentation in order to facilitate all learners to present the works. This implementation was done in two classrooms which were senior two A with 43 students and senior two C with 40 students. Most students of each class were full involved in implementation but some students did not work because they were absent.

9.1.2. INVOLVEMENT OF PARTICIPANTS

Implementation process was done with 43 students of S2A and 40 students of S2C. Most students were full participated in activities as much as possible.

9.1.3. REACTION OF PARTICIPANTS

Most students had good intentions in presentation of their works but some of them were not interacted in doing their works but finally all students were engaged in activities.

9.1.4. TESTING AND EVALUATION

Works were designed in evaluating the results of implementation. One works before implementation and one works after implementation.

Table 32: Results from student's self-work

Class	Number of students in each class	Percentage of performance of learners in activities before implementation	Percentage of performance of learners after implementation
S2A	43	72% succeed and 28% failed.	97% succeed and 3% failed.
S2C	40	65% succeed and 35% failed.	72% succeed and 28% failed.