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EXAMINING THE IMPACT OF COOPERATIVE LEARNING STRATEGIES ON STUDENT PERFORMANCE IN GEOGRAPHY, NINE YEARS BASIC EDUCATION PROGRAM, GS MUSHERI, MUSHERI SECTOR, RWANDA

James Harindintwari,
Josue Michel Ntaganira,
Steven Mugunga,
Uwamahoro Betty[i]
Kibogora Polytechnic,
Rwanda

Abstract:
The study concerns the impact of cooperative learning on students' performance in Geography in nine years of primary education in Musheri Sector. The study used a descriptive survey design; 46 subjects were used as a sample from 230 as a target population. Stratified sampling and purpose sampling were used to get the sample size, questionnaires and interview guides were used to collect data, and Microsoft Excel was used to analyze the data. The study found that teachers use different cooperative learning methods, including jigsaw, think pair share, three-minute review, teamwork and group performance. The study found that 17.4% of the respondents revealed that teachers use round tables as the simple cooperative learning structure used in the G.S Musheri, enabling them to cover much content, build team spirit, and incorporate writing. Of 46 respondents, 36.9% indicated that the teacher's negative attitude led to the lack of effective use of corporative learning in the classroom. This was brought up by the issue of lack of teachers' motivation. The study recommends having assessments such as daily competitions, quizzes, tests, and other types of assessments to increase student performance. The study recommended that the government train teachers on cooperative learning skills as one way of helping students acquire knowledge, skills and attitudes and also to have continuous professional development for teachers on teaching and learning methods.

Keywords: cooperative learning, student performance, Geography

[i] Correspondence: email harindintwarijames@gmail.com, m.steven.baros@gmail.com, josuemichelntaganira@gmail.com, uwamabetty2017@gmail.com

1. Introduction

Cooperative learning is a pedagogical practice that has attracted much attention over the last three decades because of a large body of research that indicates students gain both academically and socially when they have opportunities to interact with others to accomplish shared goals (Johnson 2012: Lou *et al.*, 1996: Slavin, 1996). Through interaction, students learn to interrogate issues, share ideas, clarify differences, and construct new understandings (Gillies & Boyle, 2010).

Education is the passage of knowledge from persons with know-how to persons wanting to get enlightened. This could be accomplished through cooperative learning. Different studies have shown that college students perform better through cooperative learning than through a teacher-centered approach (Lynda & Brody, 2017). This is due to the ability to integrate interpersonal relationships into the social interdependence theory of Cooperative learning, which also enables students to accomplish practical procedures effectively and perform valid research, making it easier for educators to manage student learning.

In addition, CL encourages the students to contribute effectively to the problems, leading to a better understanding of the subjects (Gillies, 2014). Hence, cooperative learning could be presumed to be a better approach that could benefit students in Saudi Arabia only if it could be implemented properly. Traditional learning is a teacher-centered method that focuses on memorization and rote learning. In Saudi Arabia, traditional learning is the standard strategy in college education. However, according to research, cooperative learning may benefit students more than the traditional approach (Mohammad, 2004). According to research, students' participation in subjects increases their level of understanding. By making learning fun, enjoyable and autonomous, cooperative learning could effectively enhance students' understanding.

In every aspect of life, effective learning requires teamwork and cooperation to enhance the productivity of individuals. Adopting cooperative learning would enable the students to learn from each other, and this enables them to gain interpersonal skills through group participation (Abramczyk & Jurkowski, 2020). Furthermore, cooperative learning enables the students to have a broader understanding of the subjects since they can collaborate in the learning process. This affirms that students who adopt the jigsaw strategy can perform better academically than their counterparts taught through a teacher-centered strategy (Jainal & Shahrill, 2021). In cooperative learning, group discussions enhance understanding comparatively to traditional teaching, which heavily depends on teachers as resources. This implies that academic excellence is teamwork-based (Johnson *et al.*, 2007). Hence, cooperative learning could be classified as a way of embracing teamwork in academics. Many college students are willing to learn, share skills and competencies with their colleagues, and develop leadership and other important aspects of teamwork (Amerstarfer & Freiin, 2021).

Cooperative learning has begun to show potential benefits in the Rwandan education system in many aspects. For example, it increases students' understanding of

content, academic achievements, and class participation. Hence, cooperative learning conditions have enabled students to be challenged by their colleagues; this triggers the desire and agility to spend extra time digesting learning content that is not well understood. In fact, the students get to learn from their colleagues through consultations in a cooperative learning environment.

1.2. Purpose of the study

The study examines the impact of cooperative learning on students' Geography performance in G.S Musheri, Nyagatare District.

1.3. Objectives of the study

1) To find out methods of cooperative learning used in Geography in G.S Musheri,
2) To identify the effects of cooperative learning on the student's performance in Geography, and
3) To examine the challenges faced in implementing cooperative learning in G.S Musheri.

2. Review of related literature

Slavin (1983) asserted that learning is a step-by-step process in which individual experiences permanent, lasting changes in knowledge, behaviors, or ways of processing the world. Let us go through a few examples of different types of learning you might hear about in educational psychology.

Cooperative learning is a learning process that involves restructuring classes within small groups so that teamwork is embraced. In addition, it is a learning strategy that encourages group participation in handling assignments and academic or learning problems (Dallmer, 2007). Cooperative learning is a teaching approach in which small groups, each with learners of diverse capabilities, use various educational activities to enhance their comprehension of a topic (Dyson & Casey, 2012). Cooperative education is a recent remarkable and productive area of research, theory, and practice in learning. It denotes students functioning together to attain the objectives and the instructional events that organize the students' joint efforts (Gömleksiz, 2007).

Teachers used different methods in the teaching and learning process, including student team learning, jigsaw, group investigations, and learning together. The student team learning method was developed by Slavin (1983 a). The two most popular student team learning methods are student teams and achievement divisions). Moreover, teams-games-tournaments). In both methods, students are grouped in teams and compete against each other. Student teams consist of students with different achievement levels. The team's overall grade is based on the collective improvement of the team members. The team game tournament consists of games and tournaments in which teams are formed with students of the same achievement level.

The jigsaw method was developed by Aaronson (1978) and is based on the concept of division of labour among the individual group members. Here, each student is responsible for completing a task and teaching the task to the rest of the group. An intermediate step in the jigsaw method would be for a student of one group to discuss and compare the results with the students from other groups.

The group investigation method was developed by Sharan & Sharan (1976). this method is similar to the jigsaw method. In this method, each group has a different task and groups create presentations to teach the rest of the class. This method is unique because of the use of open-ended problems that provide students with significant control over the subtasks. Students are assessed on their presentations. Learning together was developed by Johnson (1975). learning together is based on the belief that all students work together on the same task and should share a common goal.

In the era of information society, one of the most important skills is cooperation. In the early days, studying with someone else was defined as an indicator of dependency, but today, learning together and asking for help is considered among the best strategies for learning to learn (Chen, 2002). Producing information, theorizing or developing models in a field requires more complicated information and skills. Therefore, the common mind is better than the single best mind. The common mind is more effective for the mentioned novelties or, in other words, in creating acceptable societal change. All the systems from health to economics, law to education, information industry to the service industry consider cooperative working among priorities to keep up with the times and make a difference in society. The output of the education system provides the labour force input for other systems. For this reason, the efficiency and productivity of the education system are proportional to its ability to raise the desired labour force for other systems. Under these circumstances, cooperative working habits should be introduced to students at all levels of education (Slavin, 1987; Johnson & Johnson, 1999).

According to Johnson (2009), cooperative learning is more than just asking students to sit and work together. Research has identified some components that mediate the effectiveness of cooperative learning, such as:

a) positive interdependence, which allows students to perceive that they are linked with each other in such a way that one cannot succeed unless everyone succeeds;
b) individual accountability, which gives each member of the group a sense of personal responsibility toward goal achievement,
c) promotive interaction, which takes place when students facilitate each other's efforts to learn through exchanging resources, help, motivation, and points of view,
d) interpersonal and small group skills, which means that students must be taught social skills for high-quality cooperation, and
e) group processing occurs when group members discuss how well they are achieving their goals and maintaining their working relationships (Johnson & Johnson, 2009).

Cooperative learning cannot be taught through verbal instruction. Students can adopt cooperative learning through a process that involves working together in groups, developing a product at the end and examining both the product and cooperative learning skills. The "cooperative learning" (CL) method emerges in the literature as a method that assists instructors in carrying out this process. CL emerges when students gather to reach a common goal (Johnson & Johnson, 1999). Each group member reaches his goal only if all the other members reach their own learning goals (Deutsch, 1962).

Acikgoz (2002) defines cooperative learning as working with students in small groups and helping each other in the learning process. There are certain principles and requirements for the implementation of CL. These are:

- **Positive Interdependence:** Each individual depends on the other group members. Each individual complements the other.
- **Individual Accountability:** Individual accountability is the evaluation of each individual's performance and the effect of the result on individual and group success.
- **Face-to-face Interaction:** Group members reach success by helping each other and sharing ideas. As face-to-face interaction increases, the sense of responsibility and social solidarity increases.
- **Social Skills:** In cooperative learning, the students work in a group, which helps them acquire social skills better.
- **Evaluation of the Group Processing:** At the end of the group work, students gather and discuss the project's productivity and whether they have reached the goals (Johnson & Johnson, 1999; Johnson, Johnson & Smith, 1998).

Based on Bandura's Social Dependency Theory, Behavioral Learning Theory (Johnson, Johnson & Smith, 1998) and Vygotsky's (1978) Zone of Proximal Development theory, Social Dependency Theory assumes that the way to form social dependency is about how social dependency develops, how individual interacts and what the result will be as a result of the interaction. Accordingly, positive interdependence (cooperative approach) results in such an interaction that the group members encourage, support and improve the efforts of the individuals. Behavioral Learning Theory focuses on the effect of group consolidation and rewards on learning. According to this theory, behaviors, which are rewarded externally, are repeated. Slavin (1987) has recently stated that external "group awards" are needed in order to motivate individuals to learn in groups based on cooperative learning.

According to Vygotsky's Zone of Proximal Development Theory, a student can take his/her learning to the optimum level by asking for help when he/she is stuck. The person to whom he asks for help may be his/her teacher or friend.

Although there are many techniques in CL, Jigsaw and Team Game Tournament (TGT) techniques were used in this study. The jigsaw technique was developed by Aronson (2000). Students are divided into groups of 5-6 members using this technique. Each member works on his subject, and students from different groups working on the same subject gather and create expert groups. The subject is discussed in depth in the

expert groups. Students learn the subject entirely in the expert groups and teach their subject to other students when they return to their original groups. Even if the students are graded individually, students need others for a good mark, and therefore, this technique requires cooperative working (Slavin, 1987; Aronson, 2000; After the teacher or students make the presentation related to the courses, students are divided into heterogeneous groups using this technique. After the students teach the subject to each other, students compete with the students at the same level from other groups at the tournament table. The team points are calculated by summing up the students' points. The groups with high points are rewarded (Slavin, 1995). It is stated that individuals have benefited from science and technology instruction in using these scientific processes and principles for decision-making, participating in scientific discussions that affect society, and developing their skills to produce ideas on a subject (Slavin & Oickle, 1981).

According to another approach, using ICT and other Science and Technology instruction is accessible and tangible instruction that should be conducted with proper methods and techniques by taking students' interests, needs, level of development, desires and environmental facilities (Hancer *et al.,* 2003). As can be understood from the explanations, for practical Science and Technology instruction, students' sense of curiosity should be enhanced, and an active environment in which students can discover and produce information should be created. Moreover, the Ministry of National Education has advised the implementation of cooperative learning methods in Geography classes (Ministry of National Education, 2005).

Many research literatures indicate the efficacy of cooperative learning for student learning and development ("Cooperative Learning", n.d.). Teachers feel professional pressure to use this research-based teaching strategy and implement cooperative learning without adequate training ("Cooperative Learning", n.d.). This results in giving "group activities" to students, which is labeled as cooperative learning. These students, teachers, and administrators then grow dissatisfied with the results of their "cooperative learning" experience. These individuals are often "inoculated" against cooperative learning based on their exposure to group work ("Cooperative Learning", n.d.).

Sheehy found that though she had experienced successful cooperative learning, fellow teachers using cooperative learning experienced some difficulties in the classroom. Sheehy noticed that though students had been tested, observed, videotaped, and analyzed, their voices seemed missing in the literature. Sheehy found that it is important to understand students' social, emotional and mathematical experiences of cooperative problem-solving teams from students' perspectives (Sheehy, 2004, p. 174).

Johnson and Johnson stated that teachers must assess the contribution of individual members to the group's work to ensure that each individual is accountable for doing their job in the group's work (Sheehy, 2004). Sheehy observed that regardless of how meaningful this contribution is, students feel pressured to contribute an idea or complete a task to their group's activity. Sheehy noticed that the assessment of individual accountability indicates that mathematical activity supporting the group is valued more than activity enhancing individual learning.

"*The purpose of group processing is to clarify and improve the effectiveness of the members in contributing to the efforts to achieve the group's goals*" (Sheehy, 2004, p.183). For group processing to be effective, teachers should provide students with organized format for discussion. Group processing promotes behavior that promotes the group goal rather than behavior that promotes mathematics. If the group goal were to solve a specific problem, group processing would center on questions like: What did each group member contribute to finding this formula? How could your group work together tomorrow to solve problems more effectively? What is one thing each individual could improve on? If individual mathematical activity were privileged in group processing, questions would center on questions like: What was the first idea each participant had? How many different representations/ideas were discussed? How were the ideas connected? How did the group agree upon one representation? Why? How would each member proceed with or extend the problem?

Teachers and students generally interpret social interaction as a required characteristic of effective learning in cooperative groups. A student who does not engage in conversation is often called a "free-rider" or antisocial or is accused of not supporting and contributing to the group. The expectation of interaction might create social pressure on group members to share their own ideas and suggestions and listen to others. Hence, self/other binary tension emerges when individuals believe that their individual mathematical activity is valued only when it is shared and possibly only when the group takes it up. Because students do not feel free to reflect quietly on their own mathematics or to dismiss the ideas of others without polite consideration, the expectation of interaction could significantly hinder the mathematical activity of the individual learner (Sheehy, 2004).

Johnson (1999) said that teachers must not only hold individuals accountable for what they contribute to their group but also for how they contribute and interact with other group members. Sheehy found that although the ability to work with other people is an important characteristic to develop with students, the self/other binary tensions this structure creates not only leads to a decreased focus on individual learning but also on mathematics altogether. The findings of Sheehy's study reveal that if a student perceives manners rather than mathematics as privileged in a cooperative learning environment, the student tends to do what is socially expected rather than what furthers the student's own mathematics. This privileging leads to a number of problematic outcomes, such as students abandoning their own ideas in order to be respectful of others, forfeiting their own reflection time in order to participate in group activity actively, or accepting one solution instead of many in order to arrive at one agreed on group solution.

3. Methodology

The researcher used a descriptive survey study design; both qualitative and quantitative approaches were used to get data. The study used a stratified sample size and purposive sampling to get a sample size of 46 respondents including 20 teachers, 15 students, 10

parents and 1 sector education officer. A questionnaire and interview guide were used to collect data, and reliability and validity were done to ensure the validity of the content. Data analysis was done using Microsoft Word.

4. Findings, Discussion and Implications

4.1.1 Gender of respondents

Data on respondents' gender was collected to determine whether males and females participated.

Table 1: The gender of respondents

Gender	No. of respondents	Percentage (%)
Male	29	63.0
Female	17	37.0
Total	**46**	**100.0**

Source: Primary data (2017).

The findings in Table 1 show that most of the respondents (63.0%) were males, while only (37.0%) were females. This scenario is associated with the fact that, in the area where this study was conducted, female teachers in the secondary section are still low, and this was clearly translated in their enrolment at the secondary level. However, the ratio of female and male students was almost the same. The gender of the respondents was further presented in Figure 1 below.

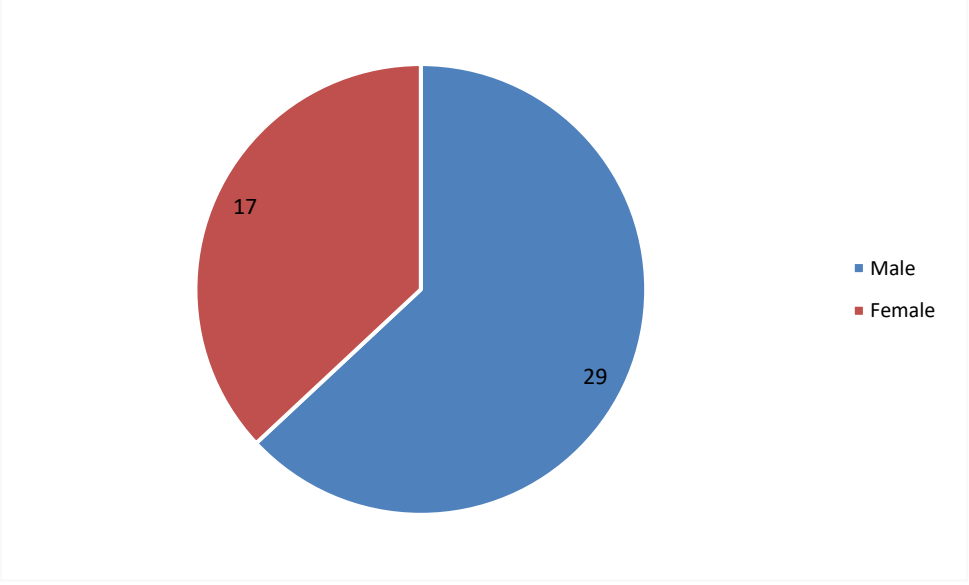

Figure 1: The gender of respondents

4.2 Age bracket of respondents

Data on respondents' age groups was collected to determine which age group participated most. Respondents' age demographics helped the researcher determine the age bracket of Musheri Sector staff, students, parents, and education officers.

Table 2: The age bracket of respondents

Age Bracket	No. of respondents	Percentage (%)
13-25 years	17	37.0
26-32 years	9	19.6
33-40 years	11	23.9
41-49 years	5	10.9
50-56 years	3	6.5
57+ years	1	2.2
Total	**46**	**100.0**

Source: Primary data (2017).

From Table 2, it can also be noted that the majority of the respondents (37.0%) were aged between 13-25 years, mainly students and a few new teachers who had just entered the teaching profession. About 19.6% and 23.9% were aged between 26-32 years and 33-40 years above years, respectively. Most teachers and administrators were within the age bracket of 26 – 40 and scored the highest percentage, which means they are still strong and energetic to fill the teaching profession. The fact that the researcher had respondents from both the young and old age meant she obtained unbiased data. The information on the age of the respondents is further represented in Figure 2 below.

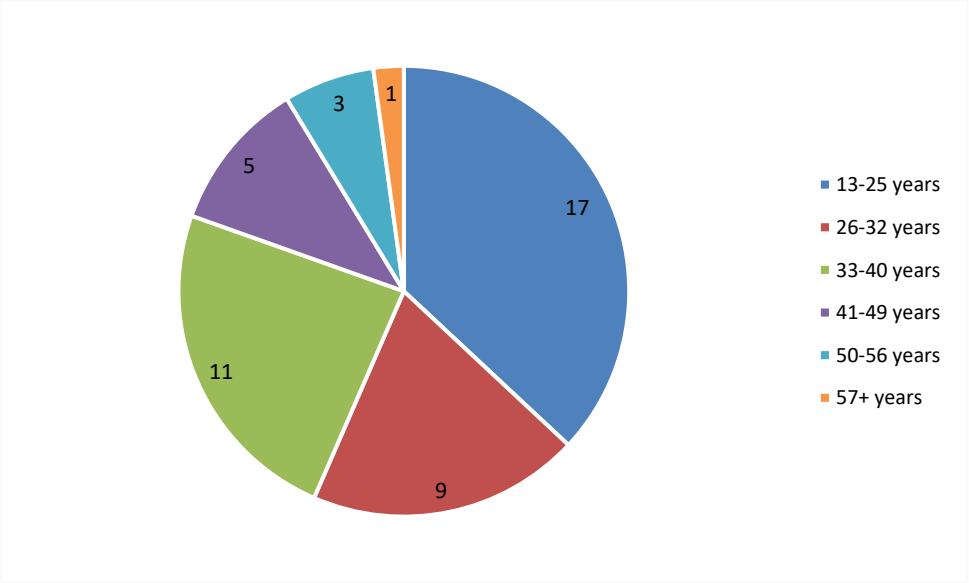

Figure 2: The age of the respondents

4.1.3 Marital status of respondents

Data on respondents' marital status group was collected to determine which marital group participated most. Respondents' marital status demographics helped the researcher determine the marital status bracket of Musheri Sector staff, students, parents, and education officers.

Table 3: The marital status of respondents

Marital status	No. of respondents	Percentage
Single	3	18.8
Married	11	68.8
Divorced	1	6.3
Widowed	1	6.3
Widower	0	0.0
Total	**16**	**100.0**

Source: Primary data (2017).

According to the table, 68.8% are married, 18.8% are single, 6.3% are divorced, and 0% are widowed. This indicates that the respondents are stable at their work since the highest percentages are for married people.

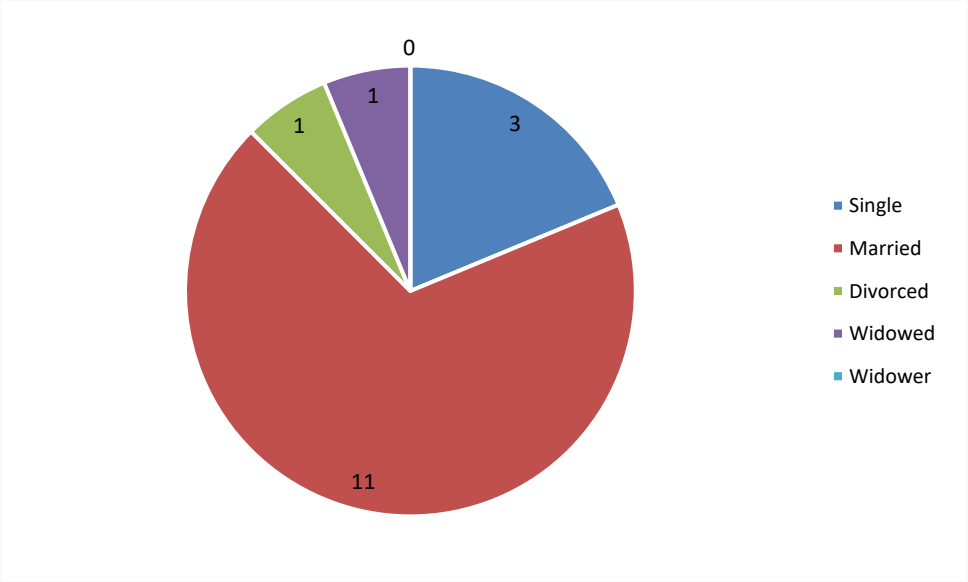

Figure 4: The marital status of respondents

4.1.4: Qualification of respondents

The research was also carried out to determine whether respondents were in a position to provide informed responses on the subject under study.

Table 4. Qualification of respondents

Qualification of respondents	No. of respondents	Percentage (%)
Certificate	3	18.75
Diploma	4	25.0
Degree	9	56.25
Total	**16**	**100.00**

Source: Primary data.

The findings revealed that 18.75% of the respondents were certificate holders, 25% were diploma holders, and 56.25% were degree holders. It is also observed that the majority of the teachers were professionals who had attained either a certificate, diploma, or degree

in education. According to the findings, most of the teachers and administrators of G.S Musheri were degree holders who were competent and rightly qualified.

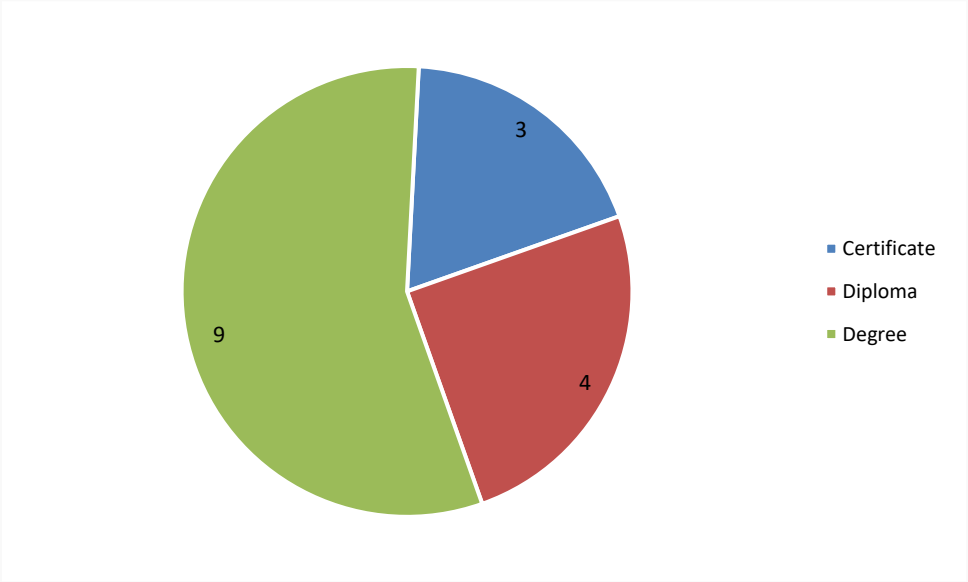

Figure 4: Qualification of respondents

4.2 Respondents' opinion on methods of cooperative learning used

Several items in the questionnaire were presented to the respondents so they could rate the methods of cooperative learning used by G.S Musheri.

The respondents were asked to reveal whether various cooperative learning methods are used during the teaching and learning process. Their responses are presented in the table below.

Table 5: Respondents' opinion on methods of cooperative learning used

Response	No. of Respondents	Percentage (%)
Yes	46	100.0
No	0	0.0
Total	**46**	**100.0**

Source: Primary data, (2017).

All respondents agreed that they incorporate cooperative learning in the classrooms to ensure students contribute ideas or complete tasks to their activity, ensuring individual learning through the support of the group members. This implies that the teachers and students of G.S Musheri incorporate collaborative learning during the teaching and learning process.

Through the interview guide with one of the students in the G.S Musheri, she asserted that her Geography teacher uses groups when assigning student assessments. This has allowed them to grasp the content and solve the problems quickly since it is done in groups.

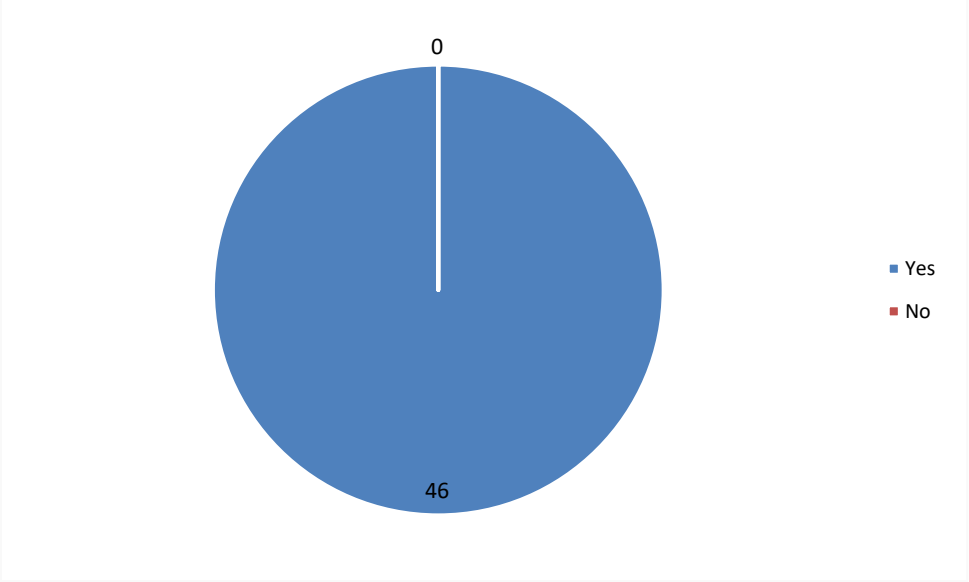

Figure 6: Respondents' opinion on methods of cooperative learning used

Also, respondents were requested to reveal the different methods of cooperative learning that are used by teachers in the G.S Musheri. The information obtained from the respondents is presented in the table below.

Table 7: Methods of cooperative learning that are used by teachers in G.S Musheri

Methods of cooperative learning used	No. of Respondents	Percentage
Round table	8	17.4
Jigsaw technique	6	13.0
Think-Pair-Share	11	23.9
Three-minute review	4	8.7
Teamwork	10	21.7
Group performance	7	15.2
Total	**46**	**1000**

Source: Primary Data (2017).

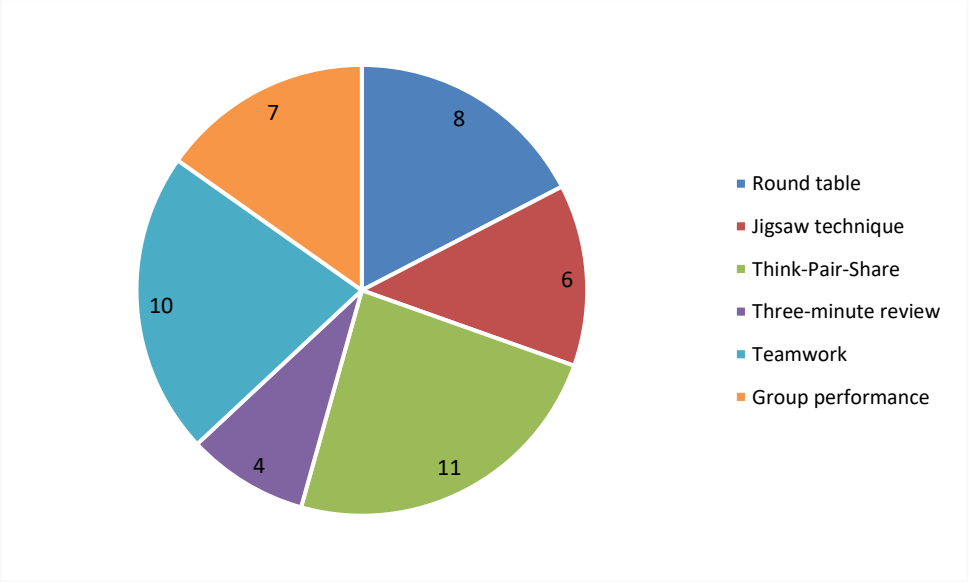

Figure 8: Methods of cooperative learning that are used by teachers in G.S Musheri

From the study findings, 17.4% of the respondents revealed that they use round tables as represented by. Through the interview guide that was conducted with one of the teachers in the primary section, she asserted that "*round tables have been the simple cooperative learning structures that are used in the G.S Musheri, which has enabled them to cover much content that has enabled to build team spirit and incorporates writing*". She also revealed to the researcher that "*round tables provide struggling learners access to additional reinforcement, while high achievers may pursue enrichment activities like independent research.*" Ability grouping is appropriate during participation in science lessons or after assessments when there are apparent gaps in learners' understanding.

Also, from the research findings, 6 respondents, who represent 13.0% of the total respondents, revealed that they use the jigsaw technique. One of the secondary teachers revealed that "*within jigsaw technique, the class he divides students into teams, where each team member is responsible for learning a specific part of a topic. After meeting with members of other groups, who are the "experts" in the same part, the "learners" return to them in groups and present their findings. This has enabled learners to understand the content easily*".

23.9% of the respondents revealed to the researcher that they use the think pair share method. One of the teachers revealed that he uses the think pair share method to allow students to contemplate a posed question or problem silently. He said that "*the student writes down thoughts or simply just brainstorms in his or her head. When prompted, the student pairs up with a peer to discuss his or her idea(s) and then listens to the ideas of his or her partner. Following pair dialogue, the teacher solicits responses from the whole group. When teachers use this technique, they do not have to worry about students not volunteering because each student will already have an idea in their head. Therefore, the teacher can call on anyone and increase discussion productivity*".

Other respondents, 8.7%, said that they use a three-minute review. From the interview guide conducted with the students, they said, "*the teachers give them three or more minutes to review the previous work. They continued and said that this has given them a chance to grasp the content easily."*

The other group of respondents said that they use the teamwork technique 21.7%; one of the teachers in the secondary section revealed to the research that "*teamwork during teaching and learning of Geography has enabled individual The success of the team can only be truly attained if individual responsibility leads all the members to fulfill their duties*. *Within such procedures, we can distinguish four methods. He also asserted that the classroom organization with this method allowed us to create an intergroup procedure to compare the degree of performance of the different teams. It consists of creating teams of 4 to 5 students and arranging a competition with the members of the other teams. There is also evaluation with the awarding of marks*".

15.2% of other respondents asserted that they use group performance. This method has enabled competition in the class since the students aim at scoring many marks, which promotes intrinsic motivation, with the commitment to the chosen subtopic and the work plan of the team members and autonomy and has also resulted in a high level of grasping of the content.

The above cooperative learning methods were further represented in the figure below for clear understanding.

4.3 Effects of cooperative learning on students' performance

The respondents were tasked to reveal to the researcher whether cooperative learning affects students' performance. The table below shows the responses of the sampled respondents on the appropriateness of cooperative learning for students.

Table 9: The responses on the effects of cooperative learning

Response	Frequency	Percentage (%)
Yes	37	80.4
No	3	6.5
I don't know	6	13.0
Total	**46**	**8.7**

Source: Primary data, (September 2017).

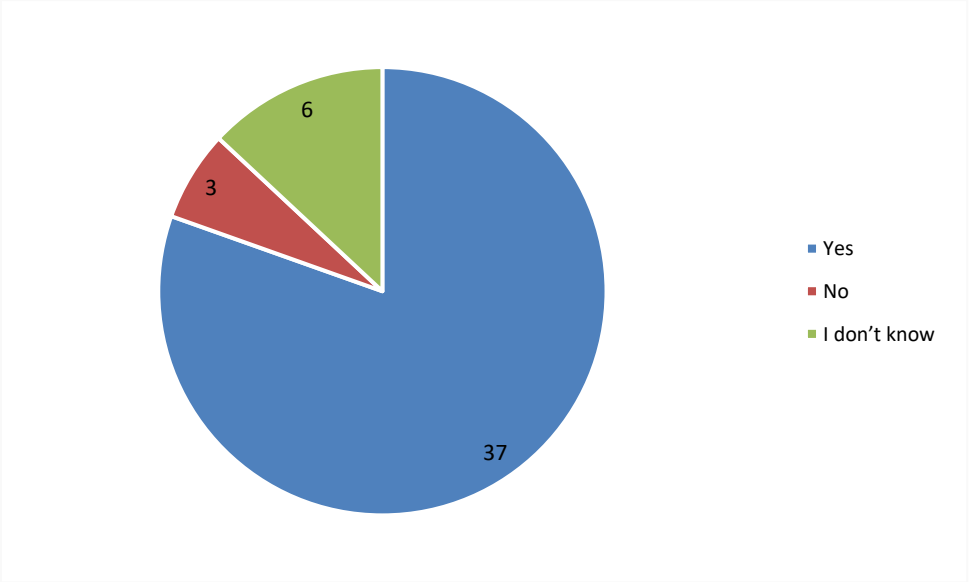

Figure 10: The responses on the effects of cooperative learning

The study findings showed that the majority of the respondents, 80.4%, said that cooperative learning has various effects on the student's performance. 13.0% said that they did not know, and these were mainly learners. Meanwhile, 6.5% of other respondents said that they do not involve cooperative learning in the teaching and learning process, and this was mainly attributed to the teachers' conservativeness regarding traditional methods.

The respondents were also tasked with revealing the effects of cooperative learning. The responses obtained from the field are presented in the table below.

Out of 46 respondents, 15.2% indicated that cooperative learning involves active learning by encouraging the sharing ideas that avoid boredom. The finding was further supported by Toulia *et al.* (2023), which states that deeper learning and understanding usually result when learners get actively involved in the materials.

Table 11: The effects of cooperative learning

Effects of cooperative learning	Frequency	Percentage (%)
Cooperative learning involves active learning	7	15.2
Depending on the activities, it is possible to divide out components and share workload	19	41.3
Depending on the activities, it is possible to divide out components and share the workload	5	10.9
Working successfully in groups assists in development of transferable skills	15	32.6
Total	**46**	**100**

Source: Primary data (2017).

Further, 19 out of 46 (41.3%) respondents indicated that learners feel less isolated and alone. Learners feel less isolated, especially at the beginning of the activity participation; they have support at the where-to start stage (https://iopn.library.illinois.edu/pressbooks/instructioninlibraries/chapter/active-learning-engaging-people-in-the-learning-process/).

The table above shows that 5 out of 46 (10.9%) respondents indicate that depending on the activities, components are divided and workloads shared. The activity is done much faster and becomes more accessible. Less time is used in a particular activity, and the learner handles different tasks quickly. The research shows that 15 (32.6%) of the respondents indicated that working successfully in groups assists in developing transferable skills.

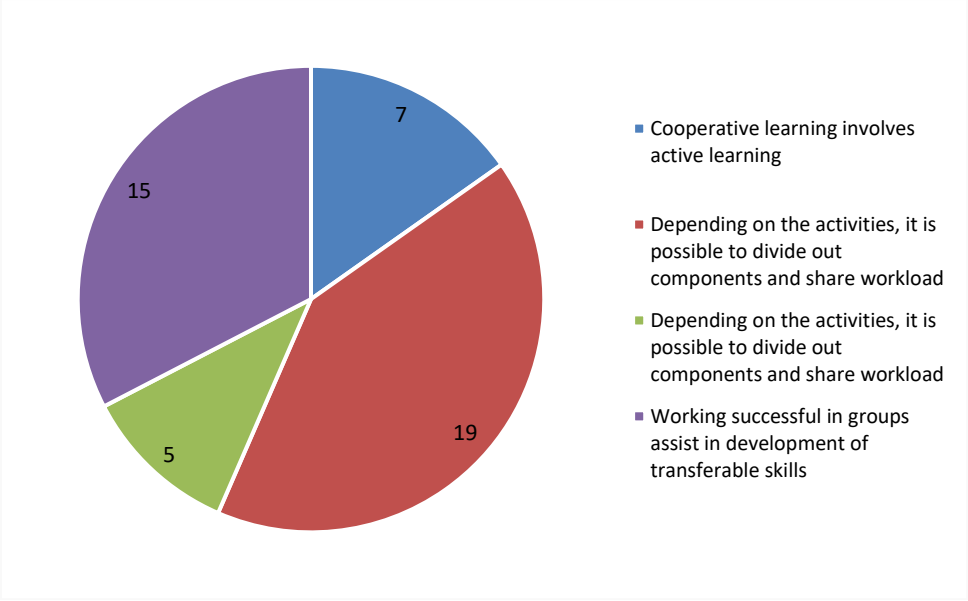

Figure 12: The effects of cooperative learning

4.4 The challenges faced in the implementation of cooperative learning in G.S Musheri

The respondents were also tasked to reveal whether various challenges were faced while implementing cooperative learning in G.S Musheri. The table below further elaborates on the reasons for the ineffective use of cooperative learning in G.S Musheri on participation in science classrooms. The study's main objective was to find out why

cooperative learning in G.S Musheri is not effectively used. This was brought up by the issue of learners not achieving the goal at the end of participation in geography. The findings on whether various challenges are faced in implementing cooperative learning in G.S Musheri are presented in the table below.

Table 13: Showing whether there are various challenges faced in the implementation of cooperative learning

Response	Frequency	Percentage (%)
Yes	46	100.0
No	0	0.0
Total	**46**	**100.0**

Source: Primary Data (September, 2017).

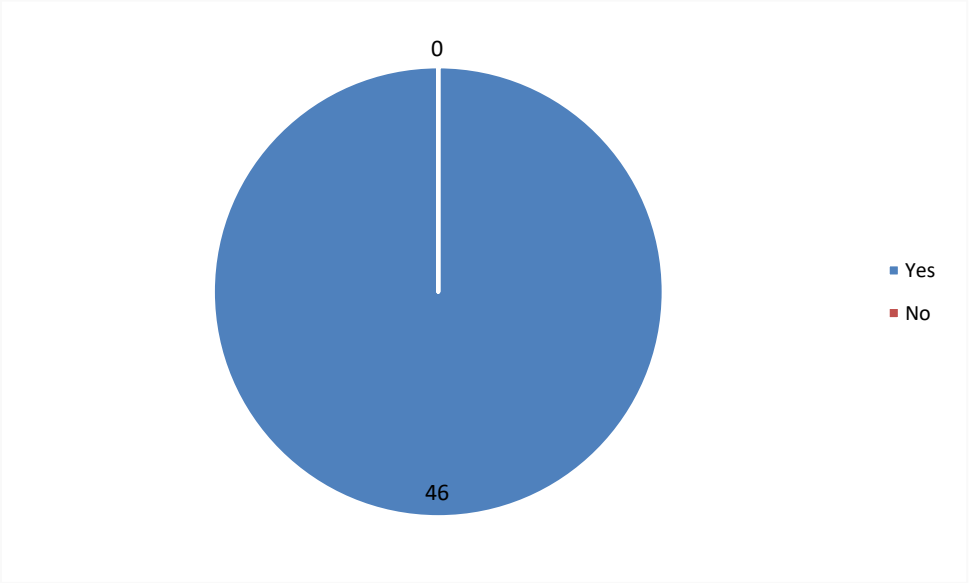

Figure 8: Showing the effects of cooperative learning

The research findings, presented in Table 8 above, show that the majority said that various challenges are faced in implementing cooperative learning.

The respondents were also asked to reveal the challenges faced in implementing cooperative learning. Their responses are presented in Table 15 below.

Table 14: Challenges faced in the implementation of cooperative learning

Challenges faced in the implementation of cooperative learning	Frequency	Percentage
Large number of learners per class	11	23.9
Lack of enough compound for the centres	8	17.4
Lack of learners' confidence	03	10.9
Language barrier	02	4.3
Teacher's negative attitude	17	36.9
Lack of professional skills	05	10.9
Total	**46**	**100**

Source: Primary data (2017).

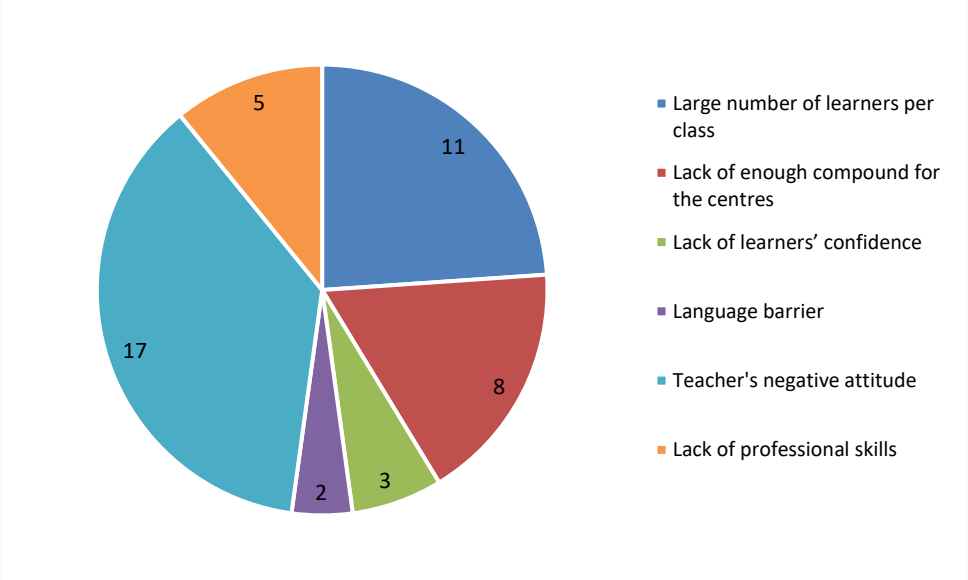

Figure 15: Challenges faced in the implementation of cooperative learning

Eight (17.4%) of the respondents stated that there was not enough field for the centres. The compound set aside for centres is very small compared to the number of learners enrolled per class annually. Even in the schools that have enough compounds, there are no trees that provide learners with shade. Yet, the school compounds help to provide a favourable learning area for learners in groups.

Out of 46 respondents, 10.9% indicated that the lack of learners' confidence led to the lack of effective use of cooperative learning during the teaching and learning process. Some of the learners are shy and fearful while using cooperative learning alone during participation, leading to intimidation by other learners. Some learners come from wealthy families and are not taught how to handle things independently; they always rely on their house help.

The language barrier was a reason indicated by 4.3% of the respondents. Teachers use English and French while explaining during participation in the study area due to the fact some learners are pure Rwandans who have a poor background in the use of English since they are brought up in families that use Kinyarwanda as a medium of communication yet in the schools English and, sometimes, French is used as the medium of instruction, and the majority do not understand well. Teachers find it difficult to communicate with those who are not yet fluent in English. According to the interview conducted with one of the students, he asserted that it is difficult for him to communicate with his fellow students in English. However, English can be used when discussing things with fellow classmates during the teaching and learning process.

Out of 46 respondents, 36.9% indicated that the teacher's negative attitude was a reason leading to the lack of effective use of corporative learning in the classroom. This was brought up by the issue of teachers' lack of motivation. Some teachers have a negative attitude toward using groups in classrooms, as most of them think that students cannot afford to discuss in groups, yet students are already experts in the use of groups.

Out of 46 respondents, 23.9% indicated that the reason for not using cooperative learning effectively was the large number of learners per class. The GSM consists of learners from nearly nine years of primary education schools with poor backgrounds; therefore, teachers must concentrate on each to ensure that the desired concept is glued to the mind. This means that if the number of learners is large, the teacher lacks sufficient time to explain to each student how to use the groups. Many learners resulted from the introduction of free 12-year primary education.

Out of 46 respondents, 10.9% revealed that some teachers lack professional skills to enable them to use cooperative learning. The lack of these skills denies any teacher the knowledge required to impart to learners how to use cooperative learning.

5. Conclusion and Recommendations

The study found that 17.4% of the respondents revealed that they use round tables. Round tables are a simple cooperative learning structure used in G.S Musheri, which has enabled them to cover much content, build team spirit, and incorporate writing.

The study also found that 13.0% of the respondents supported the use of the jigsaw technique in G.S Musheri as the cooperative learning method. Teachers divide students into teams, where each team member is responsible for learning a specific part of a topic.

Each student receives part of the necessary information to do the task, becoming an "expert" in his/her jigsaw piece or knowledge part. The team members are responsible for knowing the corresponding information in depth, teaching it, and learning the information presented by the rest of the team members.

The research findings also stated that the teachers use think pair to allow students to contemplate a posed question or problem silently. In the thinking pair method, the student writes down thoughts or just brainstorms in his or her head. When prompted, the student pairs up with a peer to discuss his or her idea(s) and then listens to the ideas of his or her partner. Following pair dialogue, the teacher solicits responses from the whole group. When teachers use this technique, they do not have to worry about students not volunteering because each student will already have an idea in their head. Therefore, the teacher can call on anyone and increase discussion productivity. This is in line with the findings presented by Johnson (1999). In heterogeneous teams of 4 or 5 members, the students cooperate to obtain a product in a group. The reward is based on the team's means, which is established from individual progress.

The study sought to establish the effects of cooperative learning on students' performance. It was apparent that 15.2% indicated that cooperative learning involves active learning by encouraging the sharing ideas that avoid boredom. The finding was further supported by the finding presented by Toulia *et al.* (2023), which states that when learners get actively involved in the materials, deeper learning and understanding usually result. Further, 19 out of 46 (41.3%) respondents indicated that Learners feel less isolated and alone. The results in table above show that 5 out of 46 (10.9%) respondents indicate that depending on the activities, components are divided and workloads shared.

The activity is done much faster and becomes more accessible. Less time is used in a particular activity, and the learner manages to handle different tasks quickly (Edward (2008). The research shows that a group of 15 (32.6%) of the respondents indicated that working successfully in groups assists in developing transferable skills Emily (2009).

The study sought to establish the challenges faced in implementing cooperative learning in G.S Musheri. It found that 10.9% indicated that the lack of learners' confidence was a reason for the lack of effective use of cooperative learning during the teaching and learning process. Some of the learners are shy and fearful when using cooperative learning alone during participation, leading to intimidation by other learners. Some learners come from wealthy families and are not taught how to handle things independently; they always rely on their house help.

The language barrier was a reason indicated by 4.3% of the respondents. Teachers use English and French while explaining during participation in the study area due to using Kinyarwanda at home. Learners are weak in using English, as their families use Kinyarwanda for communication. Sometimes, the teachers use English and French as the medium of instruction, and the majority do not understand them well. Teachers find it difficult to communicate with those who are not yet fluent in English. According to the interview conducted with one of the students, he asserted that it is difficult for him to communicate with his fellow students in English. However, English can be used when discussing things with fellow classmates during the teaching and learning process.

Out of 46 respondents, 36.9% indicated that the teacher's negative attitude led to the lack of effective use of corporative learning in the classroom. This was brought up by the issue of teachers' lack of motivation. Some teachers have a negative attitude toward using groups in classrooms, as most of them think that students cannot afford to discuss in groups, yet students are already experts in using groups.

Out of 46 respondents, 23.9% indicated that the reason for not using cooperative learning effectively was the large number of learners per class. The GSM consists of learners in nearly nine years of primary education schools with poor backgrounds; therefore, the teacher needs to concentrate on each to ensure that the desired concept is glued to the mind. This means that if the number of learners is large, the teacher lacks sufficient time to explain to each student how to use the groups. Many learners resulted from the introduction of free 12-year primary education.

Out of 46 respondents, 10.9% revealed that some teachers lack professional skills to enable them to use cooperative learning. The lack of these skills denies any teacher the knowledge required to teach learners how to use cooperative learning.

6. Conclusion

Following the study results, it can be concluded that grouping learners is very important. This was evident as the respondents indicated that they knew the importance of grouping differently. The grouping has benefited the learners to some extent in developing transferable skills, as indicated by some respondents. Finally, the study concluded that

the management of cooperative learning improves pupils' participation in the classroom. This was evident as the respondents indicated that records help teachers to be conversant with feeble areas of the learners and hence strive to enhance it; they further indicated that records management enables the teacher to group according to abilities, hence quick learning through confidence rather than intimidation of slow learners by quick learners.

7. Recommendations

The study recommends that educators look for specific learning techniques that will help improve student achievement and content literacy. Cooperative learning methods will most likely be one of the learning techniques teachers must embrace to try to provide a learning environment conducive to higher student achievement.

Cooperative learning methods must also have a track record of positive results in the classroom. Once the teacher has attained the proper amount of background information, an educated choice can be made as to which cooperative learning technique is best suited for their classroom and students.

The study recommends that teachers monitor the dynamics of a group setting, place emphasis on collaboration of motivation, assess the mastery of learning materials by students on a group or individual basis, have assessments such as daily competitions, quizzes, tests and any other type of assessment to increase student performance, ensure that learners with complex in communication they get information taught in class by the use of very simple vocabularies during teaching and learning process.

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Author(s)

Dr. James Harindintwari, Lecturer of School Administration, Economics of Education, Educational Psychology, Class Management, Comparative Education, Principles and Practice of Teaching at Faculty of Education, Kibogora Polytechnic. He has taught different education modules for both undergraduate and postgraduate diplomas in Education since 2014. His research interests focus on issues that concern education, particularly educational resources, student performance, teachers' continuous professional development, and disruptive student behaviors. Dr. James has authored research publications such as availability of materials and school materials utilization in implementing competence-based curriculum, cognitive and affective teachers' skills determinants as amalgam to generate students' performance.

Ntaganira Josue Michel, Lecturer of School Administration, Sociology of Education, Educational Psychology, Class Management, Deontology of Teachers, Child Friendly School and Concept, Curriculum Design and Practice, Action Research at Faculty of Education, Kibogora Polytechnic. He has taught different modules of education for both undergraduate and postgraduate diplomas in education. He has been working in local

government as Vice Mayor in charge of economic development in Nyamasheke District for six years (2016-2021).

Mugunga Steven, Assistant Lecturer in Introduction to Economics, Macroeconomics, Microeconomics, and International Economics at the Faculty of Education and Business Development Studies at Kibogora Polytechnic, Rwanda.

Uwamahoro Betty, Graduate, Faculty of Education, Kibogora Polytechnic, Rwanda.

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