HAWASSA UNIVERSITY

COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCESDEPARTMENT OF SPORT SCIENCES

ASSESSING THE IMPLEMENTATION OF COOPERATIVE LEARNING IN PHYSICAL EDUCATION CLASS IN HAWASSA CITY SECONDARY SCHOOLS, SIDAMA REGION

M.SC. THESIS

BY

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Declaration

The researcher, the undersigned, declares that this research work entitled "**Assessing the implementation of cooperative learning in physical education class in Hawassa city secondary schools, Sidama region**". The originality of this thesis work is assessing the implementation of cooperative learning in selected secondary schools of Hawassa city administration, Sidama region. I truthfully declare that this thesis is my real original work in study area, and it has not previously formed the basis for the award of any Degree, Diploma of University or other institutions of higher learning except where due acknowledgement is made in acknowledgements.

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This is to certify that the thesis entitled "**Assessing the implementation of cooperative learning in physical education class in Hawassa city secondary schools, Sidama region**" submitted in partial fulfillment of the requirements for the degree of Master's with specialization in **Teaching physical education and sports** the Graduate Program of the Department of **Sport science**, and has been carried out by **Tigist Mergia Leta** ID. No._____, under my/our supervision.

Therefore, I recommend that the student has fulfilled the requirements and hence hereby can submit the thesis to the department.

Bizuneh Yirga Geberemariam (PhD)	_____	_____
Name of major advisor	**Signature**	**Date**

Dedication

This thesis is dedicated to late my mother Almaz Wondemagegn without here endless love and encouragement I would never have been able to reach this stage. I love you Mom and I appreciate everything that you have done for me during your life.

Author biography

The Author Tigist Mergia Leta was born on February12,1974 E.C in Sidama National Regional State specific place of Aleta Wondo Woreda. She was started her elementary study from grade one up to eight from 1983 E.C up to 1990 E.C in Aleta Wondo town. She attended her secondary education from grade nine up to grade twelve in Aleta Wondo secondary school from 1991 E.C up to 1994 E.C in Aleta Wondo town. After completion of secondary education join Hawassa College of Teacher education in 1998 E.C to learn Diploma program Aesthetics and physical education summer program and I had graduated in 1998 E.C. She joined Dilla University sport science department in 2003 E.C and graduated with Bachelor of Degree in sport science in 2008 E.C. Up on completion she was employed at Sidama National regional State teaching for three consecutive years. Then she joined Hawassa University for M.Ed. Summer program in Sport science department (Teaching in physical Education) in 2010 E.C.

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Abbreviations and Acronyms

CLM: Cooperative learning method

IL: Individual Learning

FDRGE: Federal Democratic Republic Government of Ethiopia

IBM SPSS: International Business Machines Statistical Package for Social Sciences

ME: Ministry of Education

PE: Physical Education

PET: Physical Education Teachers

Table of Contents Page

List of figures

List of tables

Abstract

Cooperative learning is a pedagogical practice that has been shown to benefit students' social and academic abilities. The purpose of the study was to assess the implementation of cooperative learning method in physical education class on selected secondary schools in Hawassa City Administration, Sidama region (Adarie Millenium, Addis Ketema, Misrak Chora and Tabor secondary grade 9 and grade 10 students). The study employed a descriptive survey design and to identify the implementation of cooperative learning level of views physical education teachers (PET) and students. Population of the study were eight (8) physical education teachers and 6,944 students in 2015 E.C academic year in four selected schools. From total population teachers and students were taken by using of purposive sampling method eight (8) and seven-hundred (700) simple random sampling methods respectively. The results of the study revealed that PET perception on cooperative learning was advantageous for students to improve the social interaction, enhance creativity, psychological benefit and academic benefit. But they complained on the availability of classrooms size as well as number of students assigned with huge class size and materials and equipment's to conduct the subject matter in apocopate way. The study results showed that the student's attitude towards cooperative learning was positive they were improving to social benefit, enhance skills, develop to express their understanding for their teachers and classmates and successively academic achieved. The view of grade 9 and grade 10 students on cooperative learning were not significant different the Levine's test was greater than 0.05 with data collection instrument questions of item number 1, 2, 3, and 5 of mean scores were the same. Contrary, item number 4 and 6 the Levine's test were less than 0.05, which means that the variance for the two groups mean scores were significantly different, thus the degrees of students working with their classmate collaborative manner was different during cooperative learning. Finally, the study results strongly recommended that, the schools and the teachers should work together to improve the school environment so as to create conducive cooperative learning for implementation of quality of education.

Key Words: Cooperative Learning, Secondary Schools, Social, psychological, academic, Benefits, skill

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

Education is the process of passing down from one generation to another the experience, new knowledge, and values that people have gained through their lengthy battle for survival and progress. Education allows people to completely engage in the process of obtaining understanding, abilities, and skills and attitudes, which helps society as a whole. (FDRGE, 1994). In Ethiopia, secondary educational institutions have a single topic subject entitled physical education, which focuses on increasing physical exercise and training for improved health. Physical education used to be marginalized in schools or regarded as a lesser-valued subject than other courses. The goal of physical education as an educational instrument, the characteristics of the pupils, and the decisions teachers make about the lessons they provide may be taken into account.

Depending on the teaching context, there are three categories into which collaborative learning approaches fall. The first kind is communication, which is centered on group members exchanging ideas. Competency types that concentrate on course material make up the second category. The third kind, known as inquiry, is centered on assisting groups in examining predetermined assignments and resolving issues (Dyson, B., 2002).

We need to start altering some of the pedagogues that educators employ on a daily basis if we are to change the roles that educators and learners play. A pedagogy known as collaborative learning (CL) shifts the focus of instruction from more traditional methods to ones in which students have greater control over their education. In CL, students collaborate in groups to build knowledge through mutually beneficial interactions. When used appropriately, it strengthens students' academic and social skills (Brown & Thomson, 2000, cited in Page, 2017).

A method of teaching called cooperative learning encourages student participation and teamwork in the classroom. It has been widely used to improve the experiences of learners and academic performance in a variety of disciplines, including physical education. Its application and efficacy in secondary school in Hawassa city, Sidama Region, have not, however, been thoroughly evaluated. Using a qualitative research design, this study attempts to evaluate how cooperative learning strategies are applied in physical education classrooms. The results of this investigation will offer significant perspectives on the challenges and barriers encountered when executing cooperative learning within this particular setting (Dyson & Casey, 2012). Furthermore, Johnson et al. (2013) noted that

co-operative learning is an instructional strategy in which students collaborate to comprehend a subject better.

With the student-centered pedagogy, the teacher's job shifts from imparting knowledge to helping students learn as they acquire their individual knowledge and interpret it for themselves. Five crucial components have been identified as mediating the successful implementation of this methodological methods: positive interdependence, individual responsibility, collaborative processing, encouraging interaction, and interpersonal skills. These five elements are helpful in conducting the teaching and learning process of important group essentials that are required to ensure that a CL duty is most effective. Group processing, appropriate social competencies, individual accountability, and positive interdependence are the five elements that have been mentioned. Members of the group gain the most when all five of these criteria are met. Benefits in the classroom include increased achievement and meta-cognition, as well as social benefits such as gaining group working skills, greater self-esteem and more positive peer relationships (Johnson et al., 2013).

Teachers of physical education frequently claim to be performing cooperative learning (CL), but this is only because their pupils are working in groups or groups. This does not, however, imply that cooperative learning is being used. As Antil, Jenkins, Wayne, and Vadasy (1998) found, many teachers actually only possess a cursory comprehension of the concepts and methods of collaborative learning in general education, and especially in physical education. Five essential components of the model serve as explicit guidelines for its successful implementation in order to truly use cooperative learning as a pedagogical model rather than just working together or playing team games: positive interdependence, personal responsibility, encouraging face-to-face interaction, interpersonal skills and small group skills, and group processing (Johnson & Johnson, 2009).

These five components are briefly discussed in this study, with a special emphasis on group processing a topic that teachers usually ignore. When students accept responsibility for finishing their share of the assignment for the entire group and gaining knowledge in the process, they are being held individually accountable. There is a large variation in teachers' comprehension of CL and its many constructions throughout the teaching profession. While some instructors had taken part in professional growth on CL and made substantial use of CL in their individual teaching practice, others were never exposed to CL or had not had any particular training in CL (Hennessey and Dionigi, 2013). However, Thomas (1990) asserts that a variety of reasons mean that students' performance levels during the process of instruction and learning are not anticipated to be the same.

All grade level's students have distinct physical, social, emotional, and cognitive traits that greatly influence their ability to learn (Biehler, 1987). According to Carbo et al. (1991), every student has a different learning style that influences their readiness, focus, understanding, and ability to retain new material. In keeping therewith this, Weinert (1987) made the observation that it's critical to assess the relationship between individual variances in academic performance and instructional strategies. One key component of human learning models has become the efficient application of methods of instruction.

The psychologists who study education describe the tools that gained when learners are actively engaged, actively self-regulate, and use a variety of learning strategies. Ethiopia has seen a number of studies looking into the impacts, efficacy, and challenges associated with implementing cooperative learning strategies. For instance, Mekasha (2000) studied the factors influencing academic achievement in this nation and discovered that female students' academic success was impacted by a shortage of study time as well as support from both the family and the school. The relationship between the aforementioned characteristics and academic achievement has been proposed by a number of academics; nevertheless, research involving Ethiopian high school pupils has not given much attention to these variables' contribution. Pupils working alone are more inclined to put off or totally neglect assignments. But it spurs you on to finish your assignment on time when you know that there are people who depend on you.

Thus, this study's main objective was to assess how cooperative learning was used in physical education courses at some selected secondary schools in Hawassa City administration, Sidama Region.

1.2. Statement of the Problem

The Ministry of Education has emphasized the importance of applying cooperative learning methods in education at different levels of educational institutions to promote the development of students' problem-solving abilities and skills (MoE, 2002, (cited in Derseh, 2019).

Countries have developed curricula based on their own diverse learning experiences and by sharing specific experiences from other countries. In this regard, one of the main objectives of the current Ethiopian education and practice policy is to develop the physical and mental potential of students so that they can perform better and achieve in learning (FDRGE, 1994). However, (Daniel, 2007, cited in Derseh, 2019), in this study on the traditional teacher-centered method in education, found that the teacher learning process in most schools in Ethiopia continues to be dominated by teachers and copy notes from the blackboard with the teachers. Daniel's argument is that learning by doing, problem solving, collaborative learning, and group approaches have limitations in the field of learning.

However, proper facilitation of cooperative learning groups will ensure that students complete their assignments and will also encourage communication and relationships between students and teachers. This relationship becomes an essential part of achieving an effective collaborative classroom. Many of the basic theories that make up collaborative learning are also based on pedagogy and psychology, which have been applied **and** used in education since the early 20th century (Chung, 1994).

Furthermore, the proper implementation of cooperative learning in physical education in Ethiopia faces problems due to teacher apathy and time constraints (one lesson per week was allocated for physical education), which are not effective in implementing cooperative learning in Ethiopia. This is important in determining appropriate education in curriculum (Ambaye, 1999).

To improve students' learning skills, it is important to implement a collaborative learning approach that allows students to communicate as effectively as possible. The majority of studies showed positive results in terms of success when using collaborative learning compared to traditional methods. However, some of these studies still argue that further research is needed on the practices and challenges of cooperative learning methods at different stages and curricula. To foster effective policy implementation at this level, education systems must identify and address all challenges. The gap of this study is there is no previous research work on cooperative learning method in physical education in Hawassa city administration, so that this study focuses on evaluating the implementation of cooperative learning in physical education in some secondary schools in Hawassa City, Sidama Region.

1.2.1. Research questions

To address the problem of this study the following basic questions raised:

1. What is students' attitude towards cooperative learning method?
2. Is there the attitude differences in CL between female and male students during PE class?
3. Does cooperative learning method in physical education class improve social benefit of students?
4. Does cooperative learning method in physical education class impacts on psychological benefit of students?
5. Does cooperative learning method in physical education class effects on academic achievement of students?

1.3. Objectives of the study

1.3.1. General objective

The general objective of this study was to assess the implementation of cooperative

learning method in physical education class on selected secondary schools in Hawassa City Administration, Sidama region.

1.3.2. Specific objectives of the study

To address the general objectives the study includes the following issues as a specific objective:

1. to assess the students' attitude towards cooperative learning method.
2. to identify the degree of participation of female and male students in cooperative learning method in physical education class.
3. to identify the social benefit of students during cooperative learning method in physical education class.
4. to assess the psychological benefits of students during cooperative learning method in physical education class.
5. to assess the academic achievement of students during cooperative learning method in physical education class.

1.4. Significance of the study

The main objective of this study was to assess the implementation of cooperative learning in physical education class in selected secondary schools of Hawassa city administration, Sidama region. So, the following will be the main contribution of the study:

- The finding of this study may help students to understand the impact of cooperative learning to improve the social benefit, enhance creativity, psychological benefit and academic achievement.
- The finding of this study may contribute for teachers to understand their student's attitude and help them to guide their students during cooperative learning.
- This finding may be evidences and references for policy makers, planners, decision makers and researchers to have to plan, to make decisions and to make policies.
- It may provide to teachers' understanding about students' positive interdependence, accountability and face to face interaction to promote cooperative learning.
- It might help them to provide strategies to apply these principles in physical education classrooms during practical as well as theoretical classes.
- This study may also provide basic information for further studies in this area.

1.5. Scope of the study

The purpose of the study was to assess the implementation of cooperative learning in physical education classes in selected secondary schools of Hawassa city administration, Sidama region. The study area was geographical delimited in Sidama region, Hawassa city administration in four public secondary schools, namely Adarie Millenium, Addis Ketema, Misrak Chora and Tabor secondary schools.

The study participants were students and physical education teachers of grade 9 and 10 respectively. The dependent variable was cooperative learning and the dependent variables were student perception, social benefit, enhance creativity, psychological benefit, and academic achievement.

1.6. Limitation of the study

During conducting this study, the budget consternate was delayed the research work due to the university was released the research fund was not indorsed on time. The other limitation of the study was data collection the study participants are not available as well as some respondents were unwillingness to fulfill the questionnaire and return the questionnaires on time. The study participants were not including all secondary schools of grade levels, so that grade 11 and grade 12 were not the part of this study. However, the researcher made smooth relation with his respondents and using their free time attempted to make the study as complete as possible.

1.7. Operational definition of terms

- **Assessing:** is the process of checking (evaluating) whether or not learner-centered method is being implemented in teaching physical education classes measures used to determine a complex attribute of an individual or group of individuals. This involves gathering and interpreting information about student level of attainment of learning goals (Brown, 990).
- **Cooperative learning**: is an educational approach which aims to organize classroom activities into academic and social learning experiences promotes a situation in which students work together in small groups to maximize the learning of all members, sharing their resources, providing mutual support, and celebrating their joint success to enhances students' cognitive development and social development such as knowledge building, metacognition, self-esteem and positive peer relationship (Nuntrakune, 2008).
- **Implementation:** the execution or practice of a cooperative learning plan of groups working in teams on a common goal, students sharing resources to ensure everyone succeeds, and students testing one another to check for knowledge. As such, implementation is the action that must

follow any preliminary thinking for something to actually happen (Kristie,2003).

- **Secondary schools:** are the schools which are teaching students and attend based on the curricular of Ministry of education in grades 9 and 10 (MoE, 2002).

1.8. Organization of the study

This study is consisted of five chapters. The first chapter is introduction which is deals with the background of the study, statement of the problem, research questions, objectives of the study, significance of the study, scope of the study, limitation of the study, definitions of terms and organization of the study, the second chapter is review literature of the study which is deals with relevant and supportive literature of the study, and the third chapter is materials and methods which is deals with the description of the study area, research design, population of the study, sampling size and sampling techniques, method of data collection, method of data analysis, ethical issues, pilot test, reliability and validity of the study methodology of the study, the fourth chapter is results and discussion which deals with presentation, analysis, and discussion of the data, Finally, the fifth chapter presents, summary, conclusions and recommendations and lastly, a list of references and appendices are attached at the end of the research work.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1. Introduction

This part provided a brief overview of the relevant literature on the main topic of the study. These are the concept of cooperative learning, an overview of cooperative and individualized learning, elements of cooperative learning, types of cooperative learning, benefits of cooperative learning, and students' perceptions of cooperative learning methods.

2.2.The Concept of cooperative learning.

In recent decades, the importance and value of integrated teaching with a constructivist perspective have become increasingly important. Unlike the previous mainstream knowledge transfer model, in which teaching consisted almost entirely of one-way communication (Jonassen et al., 2005), the constructivist model of teaching creates an emphasis on student activity and the ability to build awareness based on interactions with peers. (Jonassen, 1999). Peer interaction in constructivist learning contexts is a frequent topic of educational research (Goodman et al., 2005; Lopata et al., 2003; Slavin, 2004). Unlike the competitive approach to teaching, in which students achieve their own goals without considering the goals of other students, and the individualistic approach that emphasizes achieving goals through individual work (in which the goals students achieve are unrelated to the goals of other students) (Johnson & Johnson, 2009), through cooperative learning, students achieve common goals, encourage your group members and help each other to learn (Woods and Chen, 2010). On that basis, it can be concluded that collaborative learning is a strategy that ensures positive cohesion and interdependence between group members and brings about the learning outcomes of each group member. Positive interdependence within a group exists when individuals perceive that they can only achieve their goals if other individuals with whom they cooperate also connect group members as entities in the field. cooperation area (Johnson et al., 2007). Such interdependence in cooperative learning ensures each student's responsibility for his or her own learning as well as for the learning of other members of the group in which he or she is located. There are three basic types of interdependence: the outcomes they wish to achieve, the means by which they will achieve them, and boundary interdependence (Johnson and Johnson, 2009). In such learning, personal responsibility also arises from each group member having to contribute to his or her own commitment and work.

Facilitate interactions among group members occur when individuals support the group's efforts to complete tasks and achieve goals. Meaningful facilitative interactions are only possible in smaller groups (Leikin, 2004). A small number of students in a group makes it easier for students to exchange information, but it also allows them to resist each other in their conclusions and observations. Separation of roles within a group may also promote positive interactions (Rose, 2004). Furthermore, the effectiveness of peer collaboration is strongly influenced by how well the student group itself thinks about how well it works and how it can improve the learning process.

Therefore, teachers should set aside time during class to ask group members to describe behaviors that will help achieve group goals and maintain effective collaboration. Such learning goals not only focus on students' cognitive abilities, but also social skills are considered an important part of the learning process and learning outcomes. These skills and cognitive abilities and skills should be promoted in students (Johnson, 2006; Johnson & Johnson, 1999). Students' communication skills, decision-making skills, and conflict management are important for collaborative learning (Johnson & Johnson, 2009).

Cooperative learning was developed in the 1960s as a form of group work in which students achieved a common goal and their performance was assessed individually (Millis & Cottell, 1998). Among various models of cooperative learning, the Learning Together model by Johnson and Johnson (1999) is well known, but other important models include Structural Approach (Kagan, 1994), Group Investigation (Sharan, 1994), and Slavin's team learning method (1996). These are models in which students work together to achieve a common goal using appropriate dialogue and group processes (Prichard et al., 2006).

This learning method enables specific forms of interaction between group members, such as asking questions, discussing and explaining, and providing conditions in which each member of the group benefits from cooperating (Dillenbourg, 1999). Its key feature is the sense of community that is developed among group members, and learning, which is an important part of this way of working, is an active and constructive process (Millis & Cottell, 1998).

From its baseline, the use of cooperative learning in physical education was dynamically influenced by the Johnson brothers (Johnson and Johnson, 1975). Orlick (1978) advocated for the use of cooperative games in physical education, building on the work of Johnson and Johnson. Although his focus was on cooperative games, he was the first to utilize the work of Johnson and Johnson in the field of physical education, alongside Deutsch's (1949) theory of

social interdependence. He used Johnson & Johnson's ideas to argue that cooperative children are better able to recognize the needs of others than competitive children.

Roger Johnson's work was one of the first to mention cooperative learning in physical education. Johnson et al. (1984) argued that cooperative goal structures promoted putting skill in golf and positive attitudes towards the instructor and one another. Five years later the focus on positive goal structures continued through the work of Grineski (1989), who reported that cooperative goal structures improved affective outcomes by enhancing students' pro-social behaviours. Grineski (1991, 1996) repeated this argument when using the works of Johnson and Johnson to emphasize the need for group goals.

Although Dunn and Wilson (1991) drew on Kagan (1989) to position the use of cooperative learning in physical education, the emphasis on Johnson and Johnson's work continued throughout the 1990s. Yoder (1993), for example, emphasised three of the four elements (positive interdependence, individual accountability and face-to-face contact) proposed by Johnson et al. (1984) in their earlier interpretations of the model. The five elements again appeared in a Cooperative Learning in Physical Education symposium presented at the 1997 American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD**)** national conference.

Table 1: Five elements of cooperative learning in physical education.

Positive interdependence	Students rely on each other to complete the pre-designed task. Success can only be achieved when students work together and rely on each other to complete the task.
Promotive face-to-face interaction	Students in their groups should be literally head-to-head, toe-to-toe and knee-to-knee, and provide positive comments and engage in positive and supportive dialogue.
Individual accountability	Students take responsibility for completing their part of their task for their group.
Interpersonal and small-group skills	These are student behaviours that allow comfortable and relaxed communication. These include listening, sharing decision-making, taking responsibility, giving and receiving feedback, leading, following and encouraging each other.
Group processing	A reflective, guided discussion that is student-centered, that is guided by students rather than driven by the teacher.

Source adopted from Dyson and Casey, 2016

Dyson's research in the 2000s further positioned the five elements as central to teacher practice (Dyson, 2001, 2002; Dyson and Grineski, 2001; Dyson and Strachan, 2000). However, Dyson (2001, 2002) added Cohen's perspective to his earlier discussion of different schools of thought as he began to advance his understanding of collaborative learning. Nevertheless, the five elements remained central to Dyson's discussion of designing collaborative learning environments. Discussions about cooperative learning emphasize the essential differences between traditional group work and cooperative learning. This is reflected in the unique responsibility of each individual for collaborative learning for the learning process.

Therefore, it is important to structure collaborative activities in a way that students rely on. Individuals are responsible for the results of their work as well as each other (Nedeva et al., 2015).

In the mid-1960s, cooperative learning was relatively unknown and largely ignored by educators as individual learning was the main focus of instruction at the time (Gillies, 2007). However, since the 1970s, cooperative learning has been considered an acceptable educational approach for all levels of education, all regions of the world, and all age groups. The schoolteacher divides students into groups and assigns them tasks related to academics and social interactions. Students focus their attention on assigned duty to improve their own learning and the learning of group members.

In cooperative learning, interaction and effective communication between students during cooperative work tasks is very important.

Collaborative learning has its roots in theories of social interdependence, cognitive development, and behavioral learning. Some research has shown strong evidence that cooperative learning leads to more positive interpersonal relationships and greater effort to achieve better mental health than competitive or individualistic learning efforts evidence (Gillies, 2016).

In cooperative learning situations, the student's role is to fulfill the role assigned to the group and work collaboratively with other students to achieve a common goal through interaction and problem solving, and the learner Strive to achieve results that are beneficial to yourself. It is advantageous for all other group members (Altun, 2015).

Cooperative learning is a way in which students organize their learning by collaborating with their peers toward a common academic goal rather than competing with them or working

separately (Zakaria et al., 2013). We have provided a simple definition and differentiated it from: Competitive learning and individualistic learning are: Cooperative learning is the educational use of small groups in which students work together to maximize their own learning and each other's learning. According to (Slavin, 2006), cooperative learning is a teaching method in which teachers divide students into small groups and then collaborate with each other to help them learn academic content. According to (Wyman and Watson, 2020), collaborative learning is structured learning that emphasizes positive relationships, peer cooperation, active learning, academic achievement, equal participation, and equal standing for students in the classroom. refers to the type of interaction between peers. It can be used to teach all kinds of subjects, including foreign languages, mathematics, and social studies.

Different researchers have different definitions of collaborative learning. However, most of these attempts to explain collaborative learning reflect the same idea in a more or less consistent way. From the above definition of cooperative learning, we can conclude that students should focus their attention on the given task in order to maximize their own and group members' learning.

During the transition of collaborative work, interaction and effective communication between students is very important. Group members are equally responsible for learning and completing the assigned tasks within the group. Each member of the team is responsible not only for learning what is being taught, but also for supporting the learning of their colleagues.

Overall, cooperative learning is a great teaching method because it allows students of different abilities to work together to learn more

2.3. Cooperative learning and individualistic learning overview

An examination of collaborative learning research findings and trends indicates that the incorporation of collaborative learning into educational programs initially began with content areas such as social studies, science, and mathematics. However, after these innovative methods proved effective in educational research, researchers in the field of academic teaching and learning began to pay attention to this approach.

Cooperative learning is an educational approach in which learners with different skills, talents, and backgrounds work together in small groups to achieve a common goal. “Cooperative learning is a group learning activity organized such that learning relies on socially structured information exchange between learners within the group, where each learner takes responsibility

for his or her own learning and be motivated to improve the learning of other learners" (Olsen and Kagan, 1992, cited in Richards and Rodgers, 2001). Collaborative learning methods differ greatly in details. Group size can be from two to several people. Group members can have individual roles and tasks, or they can all have the same tasks. Groups can be evaluated or rewarded based on average group performance or individual performance.

Cooperative learning, in one form or another, has been used and studied in every major discipline, with students in all types of schools, from kindergarten to university. Research shows that cooperative learning methods improve academic performance in many subjects, second language learning, attendance, behavior, intergroup relations, social cohesion, acceptance of classmates with disabilities, and subject attitudes have been shown to contribute to a variety of outcomes, including (Webb, 2008; Slavin, 2006).

Richards and Rodgers (2001) argue that traditional learning methods that do not focus on the learning process and student centrality are teacher-centered approaches that promote competition rather than collaboration. This is due to the teacher's 70% class time being passive, while the students are sitting and listening.

2.4. Elements of cooperative learning

Collaborative learning can be considered an umbrella term for a variety of educational practices.

Slavin (1985) asserted that "cooperative learning is a structured and systematic instructional strategy," while Johnson and Johnson (1999) argued that "cooperative learning is a method in which students and the use of small group instruction to maximize learning by collaborating for each other's learning.

Despite the classification of many educational approaches that fall under the category of "cooperative learning" (Schmuck, 1985; Slavin, 1985), this group of approaches has been primarily influenced by social psychological research and theory.

Slavin (1985) suggested that the "engine" that drives collaborative learning is always the same. Heterogeneous groups working together to achieve a common goal. However, he concluded that actual collaborative learning methods differ in almost every respect. Similarly, Slavin (1985), all cooperative learning methods are useful when (a) they are used to meet the intended practical needs of the classroom, and (b) to solve problems raised by cooperative learning itself. When manipulated (i.e., maintain individual responsibility while working towards group goals).

Given the mixed origins of collaborative learning and the interchangeable use of terms such as 'method', 'teaching' and 'learning', in the case of physical education it is important to consider the epistemological basis of the model.

According to (Johnson & Johnson 1990), the perception of positive interdependence is the most important element for effective CL, as it largely defines the existence of cooperation.

Positive interdependence occurs when students realize that they are connected to group members in such a way that they cannot succeed unless the group members succeed. In other words, students must recognize whether they "sink or swim together" (Johnson & Johnson, 1999; Johnson & Johnson, 1998).

2.4.1. Individual accountability

In CL, individual accountability has a great importance for the success of the group. As the name implies, individual accountability refers to the necessity of each group member being accountable for achieving its goals (Johnson et al., 1994). Also, individual accountability involves both group and individual performance, for example, by assigning each student a grade on his/ her portion of a team project or by calling on a student at random to share with the whole class, with group members, or with another group (Richards & Rodgers, 2001).

2.4.2. Face-to-face interaction

This means that all students are actively engaged during class at the same time. Essentially, CL creates an interactive context where students have genuine reasons to listen to each other, ask questions, and repeat their opinions. As cited in Kefale (2015), interactive tasks and activities naturally stimulate and develop students' cognitive, language, and social skills (Kagan, 1994).

2.4.3. Social skills

Collaborative learning groups give students an opportunity to learn social skills. These skills help learners build strong collaboration among group members. Leadership, decision making, trust building, communication, and conflict management skills are social skills that can be developed through collaborative learning (Nunan, 1992). In real-life situations, social skills determine how students interact with each other as teammates. However, explicit instruction in social skills is usually required to ensure successful interactions (Richards & Rodgers, 2001).

2.4.4. Group processing

The final step in the discipline of using cooperative groups is the structuring of group processing.

Effective group work is influenced by how well the group functions.

A process is an identifiable sequence of events that occur over time, and a process goal is a sequence of events that helps achieve an outcome goal (Johnson & Johnson, 1999).

The five elements of cooperative learning - 1) active interdependence, 2) personal interaction, 3) personal responsibility, 4) interpersonal and small group skills, and 5) group processing - are the basis of the lesson.

Positive interdependence refers to being connected to your groupmates in such a way that you cannot succeed unless your groupmate succeeds (or vice versa), and/or the effort your groupmate has to complete the task versus your own effort occurs when students perceive that there is a match (Hwong, Caswell, Johnson, & Johnson, 1993; Johnson & Johnson, 1991).

Wise implementation of cooperative education in the classroom requires consideration and implementation of a variety of important factors.

It is believed that there are several methods of collaborative learning, but the most commonly mentioned is the method proposed by Johnsen and Johnson (2009). Furthermore, Johnsen and Johnson stated that dividing students into groups does not necessarily lead to collaboration.

In order to be collaborative and maximize a group's potential, he suggested five key elements that they should carefully incorporate into their situations: These are positive interdependence, individual and individual responsibility, personal interaction, appropriate use of social skills, and group handling.

Facilitative interaction can be defined as people encouraging and supporting each other to accomplish tasks, complete tasks, and achieve group goals.

Although positive interdependence itself may have some influence on outcomes, it is the personal and nurturing relationships between individuals that are facilitated by positive reciprocity, as well as psychological adjustment and social competence.

Individual responsibility exists when an individual student's performance is evaluated, the results are reported to the individual and the group, and the student is accountable to the group members for making an equitable contribution to the group's success.

It is important that the group knows who needs more help, support, and encouragement to complete the task (Harkins & Petty, 1982).

To coordinate efforts to achieve a common goal, students must: 1) know and trust each other, 2) communicate accurately and clearly, and 3) each other.

4) Resolve conflicts constructively.

Putting socially inept students into a group and telling them to "cooperate" does not guarantee that they will cooperate. We are not born instinctively knowing how to interact effectively with others.

Interpersonal and small group skills don't magically appear when you need them.

Students must be taught the social skills necessary for high-quality collaboration and motivated to utilize them if cooperative groups are to be productive (Johnson & Johnson, 1991, Derseh, 2019).

2.5. Types of cooperative learning groups

Johnson, Johnson, and Holubec's (1998) social interdependence theory states that the structure of social interdependence determines how individuals interact, which in turn determines individual and group outcomes.

This theory identifies his three types of cooperative learning groups: formal groups, informal groups, and grassroots groups.

Formal cooperative learning groups range in length from one class period to several weeks. The teacher can structure any academic assignment or course requirement for formal cooperative learning. "Formal cooperative learning groups ensure that students are actively involved in the intellectual work of organizing material, explaining it, summarizing it, and integrating it into existing conceptual structures. They are the heart of using cooperative learning.

Informal cooperative learning groups are ad-hoc groups that may last from a few minutes to a whole class period. The teacher uses them during direct teaching (lectures, demonstrations) to focus student attention on the material to be learned, set a mood conducive to learning, help set expectations about material, what the lesson will cover, ensure that students are cognitively processing the material being taught, and provide closure to an instructional session.

Cooperative base groups are "long-term (lasting for at least a year), heterogeneous groups with stable membership whose primary purpose is for members to give each other the support, help, encouragement, and assistance each needs to progress academically. Base groups provide students with long-term, committed relationships.

2.6.Class activities in cooperative learning

Most of these structures were developed by Kagan (1994) and his colleagues at Kagan Publishing and Professional Development. Professional development resources and information about Kagan

structures. Below are some of the collaborative learning activities developed by Kagan and his collaborator.

2.6.1. Jigsaw

Students form groups of five. Each member of the group is assigned their own material to study, which is then taught to the rest of the group. To aid learning, students from classes working on the same subsection come together to decide what is important and how to teach it. After practicing with these "expert" groups, the original groups regroup and the students teach each other.

2.6.2. Timed pair share

The teacher first asks the students to think about the topic. Then, for a pre-announced period of time (often one minute), one student in each pair shares their thoughts, and their partner just listens. Eventually students become the speaker and listener respectively, with their roles changing over time (Stahl 1994). This is an ideal situation.

2.6.3. Team pair solo

Students first solve the problem in teams, then work with a partner, and finally solve the problem independently. The purpose is to motivate students to tackle and successfully solve problems that are initially beyond their capabilities. It is based on the simple concept of mediated learning. Students can accomplish more with help (mediation) than they could on their own.

By allowing you to work together, first as a team and then with a partner to tackle problems you couldn't solve alone, you'll be able to do things on your own that you couldn't do without help in the first place.

2.6.4. Three-step interview

Each member of the team selects another member as a partner. In the first step, individuals interview their partners by asking clarifying questions. The second step is to swap the roles of the partners. In the final step, members share their partners' answers with the team.

This structure can be used not only as a team builder, but also for opinion questions, predictions, ratings, sharing reading reports, etc.… (Olsen & Kagan, 1992)**,** cited in Bayat (2004).

2.6.5. Numbered heads together

A team of four will be formed. Each member is assigned her number 1, 2, 3, 4. The group will be asked questions. The group should work together to answer the questions so that everyone can answer the questions orally. The teacher calls out a number (two) and is asked for an answer every second.

2.6.6. Circle the sage

First, the teacher surveys the class to determine which students have specific information they would like someone else to share.

For example, a teacher might ask who in the class could solve a difficult physical activity homework, who has visited Mekele, or who knows the chemical reaction that adds salt to roads to remove snow.

These disciples (the wise ones) are standing and spread out in the room. The teacher then has the remaining classmates surround her one sage each, but does not allow her two members of the same team to go to the same sage. The wise man explains what he knows while his classmates listen, ask questions, and take notes. All students then return to their teams. Everyone takes turns explaining what they learned. We all went to different sages, so we compare our experiences. If we have a disagreement, we wait as a team. Finally, disagreements are expressed and resolved.

2.6.7. Partners

The class will be divided into teams of four people. Partners move to one side of the room. Half of each team is given a task to complete to teach the other half. Partners can engage in learning and consult with other partners working on the same content. The teams come back together and each group's partner coaches the other group. Partner quizzes and teammate coaching. The team reviews how well they learned and taught and how they can improve the process.

2.6.8. Round robin brainstorming

The class is divided into small groups (4-6 people) and one person takes notes. A question with many answers is asked and students are given time to think about their answers. After a "think time," team members share their answers in a round-robin format. The note taker notes the group members' answers.

The person next to the recorder starts and each person in the group takes turns answering until the time is called.

2.6.9.Three-minute review

The teacher should pause at any time during the lecture or discussion to give teams three minutes to review what was said, ask clarifying questions, and answer questions.

2.7. Academic achievement in cooperative learning

Recent research in the field of education emphasizes the importance of the learning process and the central role of the student (Leila, 2010). This situation is achieved when students are given the opportunity to learn collaboratively.

Moving from a teacher-centered to a student-centered approach typically reduces teacher dialogue by about 50%, allowing additional time to be spent praising students and supporting the sharing of ideas. Therefore, in a collaborative classroom, students can remain in control of their own discovery and become truly excited about the learning process (Vermette, 1998). Johnson and Johnson (2000) argued that collaborative learning methods (CLM) are based on theories that have been validated through research and operationalized based on procedures used by educators.

A stage of cognitive development occurs when students are willing to help each other in the learning process. Collaborating with peers has academic benefits because students can understand things more easily than simply listening to someone who is at a different developmental stage than the learner himself. Similarly, Hirst and Sinclair (1989), with peer help, receive individualized instruction and more targeted instruction. They may also be more responsive to their peers than their teachers and may be able to develop relationships with their tutors.

Furthermore, Krashen and Terrel (1983) pointed out that the inputs of cooperative learning methods are easier to understand and more likely to contribute to student achievement.

According to Krashen and Terrell, this can enhance learning and lead to higher levels of understanding and reasoning, the development of critical thinking, and improved accuracy of long-term memory.

2.7.1. Impacts of cooperative learning on students' academic achievement

Collaborative learning has been shown to be more effective than individualistic or competitive learning (Johnson and Johnson, 1989; Slavin, 2012). Similarly, students who participate in cooperative learning activities develop more positive relationships with their peers, including those with academic disabilities, and have more positive attitudes toward class content (Johnson & Johnson, 1989), you can achieve academic success. Therefore, cooperative learning methods provide students with: (a) the opportunity to review and redo what they have done, as peer criticism helps them improve their knowledge and skills regarding academic performance; and (b) the group elements of educational systems and collaborative learning, and (c) opportunities to evaluate one's work (Slavin, 2012).

This allows children to feel confident in their academic performance and reduce their fear of learning physical education. Therefore, introducing cooperative learning methods into physical education classes will have a significant effect on improving academic performance.

2.8.Student attitude towards cooperative learning

At all levels of education, students achieved greater academic, social, and psychological benefits in supportive environments (Johnson & Johnson, 2005).

In particular, cooperative learning has been reported to improve students' academic performance (Beck & Chizhik, 2008; Sousa, 2006; Zain, Subramaniam, Rashid, & Ghani, 2009).

Attitudes play an important role in the language learning process. Learners' attitudes toward the language they study also influence them outside the classroom. Research conducted by Burden (2004), cited in Hagose (2012), shows that a positive attitude motivates students to achieve their learning goals. If students want to learn a foreign language in the process of learning English, this positive attitude will help them learn.

Many studies have been conducted on student perceptions of cooperative learning and instructional practices. According to her Fahad (2009), a study on students' attitudes and perceptions towards the effectiveness of mobile learning, the results showed that many students recognized the importance of cooperative learning to better retain the teaching and learning process. It shows what you are doing. Additionally, students in his class were successful in implementing cooperative learning activities. Caroline et al. (2007) also investigated the “perceptions of students with low cooperative learning skills” as cited in Fahad (2009).

Low-ability students also perceive cooperative learning as an effective teaching or learning method to improve their ability to interact with others, but they do not fully benefit from cooperative learning programs.

It shows that there are organizational and leadership issues that need to be addressed.

advantage. With some exceptions, students were successful in implementing collaborative learning. In addition to the above findings, Holtfreter and Holtfreter conducted a study on “Cooperative Learning Teams: Perceptions of Accounting Students” cited in Thanh (2008).

In this study, most students felt that they were part of a team and were able to interact well with other students and instructors. The students accepted their role as active learners, whereas the teacher's role was relatively passive.

Students also embrace the principles of cooperative learning as a means to improve academic performance, self-esteem, attitudes toward learning, and positive relationships.

Additionally, students in the study enjoyed collaboration, demonstrated a strong preference for collaboration over competitive or individualistic work, and were effective in implementing collaborative learning in practice.

2.9.Teachers attitude towards cooperative learning

In the context of teachers' perceptions of cooperative learning, Thanh (2008) conducted a study on the role of teachers in implementing educational innovations, taking the implementation of cooperative learning as an example. This study shows that many teachers in Vietnam have serious problems in implementing collaborative learning. This was due to low attitudes towards cooperative learning. his study argues that many principles of collaborative learning seriously contradict Vietnamese teachers' traditional ideas about the nature of teaching and learning.

Veenman (2001), cited in Vossen (2011), also assesses teachers' perceptions of collaborative learning and teaching practices. Based on pre- and post-course observations, this study found significant treatment effects for four of the five basic principles considered essential for collaboration in teaching activities (excluding personal responsibility).

Additionally, the course had a positive effect on students' engagement rates in treatment situations.

The majority of teachers chose cooperative learning to achieve both academic and social goals and expressed a desire to utilize cooperative learning in future classes.

Researchers also observed the positive attitude of teachers working in groups and rated the benefits of cooperative learning compared to competitive and individualistic learning very positively.

In her class, many teachers practiced cooperative learning effectively.

Additionally, Tippawan (2008) conducted a brief study on her two Thai teachers' perceptions of cooperative learning. This study was conducted based on the teachers' teaching experience. According to this study, teachers without years of teaching experience lack confidence in implementing collaborative learning effectively. However, teachers with more teaching experience were better at implementing cooperative learning in their classrooms.

Therefore, his findings clearly showed that experience itself has a unique impact on the implementation of collaborative learning. However, both teachers embrace the principles of cooperative learning to improve learning performance and interaction.

Veenman et al. (2000) cited in Hennessey (2013) state that “there is limited information about how teachers and students perceive cooperative learning as an effective learning method.” I am.

In addition to the research results mentioned above, many projects have already been conducted overseas regarding teachers' perceptions of collaborative learning.

Almost all studies report that many teachers are enthusiastic about using cooperative learning and view its role positively for students in their classrooms.

2.10. Benefits of cooperative learning

The ideas presented in the "Definitions and Concepts of cooperative Learning" section can be used to understand the extent to which collaborative learning is a multidimensional learning strategy.

In addition to those introduced above, there are many other benefits of using cooperative learning effectively in the classroom.

Below are some benefits of using cooperative learning in the actual teaching and learning process.

Academic benefit： Researchers and education experts argue that fostering a sense of "we're all in this together," a core principle of cooperative learning, can maximize student learning and improve academic performance (Akhtar et al., 2012). When lessons are structured in a way that allows students to work collaboratively on learning tasks, students benefit both academically and socially.

In cooperative learning groups, learners can discuss, debate, and demonstrate their understanding of the concepts and material covered in class, and they can help each other master the basic facts needed for mathematics, Similarly, Slavin and Cooper (1999) argue that the purpose of collaborative groups is to improve student academic performance by providing students with more opportunities for discussion, encouraging each other to learn, and to excel.

Enhance creativity: Johnson (1977) cited in Johnson and Johnson (2009) states that collaborative learning increases the number of ideas, the quality of ideas, the sense of stimulation and pleasure, and the originality of expression in creative thinking and problem solving. Increased states that it promotes creative thinking.

It is natural for students to be "inspired" by the ideas of others, and different perspectives encourage group members to consider more alternatives. Collaboration also provides a context for considering and evaluating the ideas of other members of the group, rather than ignoring them (individualism) or trying to find a better idea (competitiveness).

Psychological benefits: Cooperative learning helps build relationships between learners.

The opportunity to discuss their ideas in small groups and receive constructive feedback on those ideas helps increase students' self-esteem.

The cross-class format requires learners to answer questions in front of the entire class without much time to think about their answers. Collaborative learning creates a safe and nurturing environment because solutions come from groups rather than individuals. Mistakes are corrected within the group before presentation to the class (Isaacs, 2008).

Social benefit: One of the most valuable applications of collaborative learning is teaching social and interpersonal skills. Collaborative learning teams provide a safe, intimate atmosphere in which other group members can practice social skills. It is a place where students can practice new skills (Johnson and Johnson, 2009).

Learners who engage in collaborative learning tend to be more tolerant of different perspectives, consider deeply the thoughts and feelings of others, and seek more support and clarification of others' positions (Stahl, 1994). To encourage desired behavior, social skills should be taught systematically, just like subjects such as math and social studies.

Benefits for teachers: Collaborative learning allows both teachers and students to take responsibility for assessing the skills and contributions of group members. When learners participate in group activities, teachers often gather and share information about how the group functions in relation to the academic and social aspects of the lesson.

This information will be shared with the group during and after class.

Direct observation is a valuable tool for teachers concerned with learner performance in specific areas (Isaacs, 2008).

In summary, from the above benefits of cooperative learning discussed by various scholars, both cognitive and emotional growth result from cooperative learning. Additionally, cooperative learning benefits students by improving their academic performance, increasing their self-esteem, and increasing their motivation to learn. However, to realize the benefits of cooperative learning described above, teachers must be familiar with the various steps involved in implementing cooperative learning.

2.11. Factors that hinder academic achievement in cooperative learning in PE

Corporative learning implementation can be influenced by many factors. Therefore, it is mainly concerned with personal and other factors (Nunan, 1992).

2.11.1 Human factors

Personal factors refer to tendencies or predispositions to behave in a particular way. Factors such as extremely low or high self-esteem, authoritarianism (domination), anxiety, lack of tolerance,

negative attitudes towards cooperative learning, and unwillingness to participate in cooperative learning activities seriously affect cooperative learning possible (Nunan, 1992).

Humans have a hard time rejecting familiar patterns of behavior that have been inculcated within them, so they always resist anything that contradicts their previous beliefs and practices.

Teacher: The application of pedagogical innovations might be impacted by the characteristics and beliefs of teachers. According to Molalign (2011), a number of elements, including teachers' beliefs, attitudes, training, professional experiences, motivation, and comprehension of innovation, influence how pedagogical innovations are implemented. A major issue with teachers' understanding of the cooperative learning method (CLM) is that the cooperative learning theories and terminology provided to them during teacher training seldom match the environment in which the teacher is positioned, according to Jacob, 1999, quoted in Hennessey (2013). The results demonstrated the important ramifications for educators, who must place cooperative learning within their unique context and navigate the many variables that influence its implementation, including student behaviour and age, class size, and other considerations.

Students: Cooperative learning is used differently depending greatly on how well students understand how it is done and what is expected of them. According to Keritha (2009), student experience is more important than passive knowledge acquisition since it can modify learning. It is observed that learners are likely to adopt a passive acquaintance to the teachers' knowledge structure unless they take into consideration the implications of the ideas in their own lives and decide to act know and believe in new ways. Age, motivation, attitude, and prior language learning experience are typical internal factors linked to psycho-social components that impact pupils' learning. These will all come together to create each student's standard, and the total of those standards will obviously create the class standard. the majority of the ground rules for behavior and carefully crafting the group dynamics (Kagan, 1995) as cited in Liang (2002).

2.11.2. Non-human factors:

The normal process of cooperative learning can be affected by situational factors such as group size, composition (heterogeneous groups are preferred), cohesiveness (the degree to which members like each other), friendship, gender, age, time, discipline, staffroom atmosphere, educational materials, etc. (Nunan, 1992).

2.11.2.1. Class size

Different experiments and group projects involving a large number of pupils are inappropriate in a packed classroom. According to Akhtar (2012), there are a lot of pupils in several African schools. It is so challenging to provide each student adequate attention and to meet their unique needs, making it difficult for them to participate actively in the learning process. Because of this, teachers try to maintain control by lecturing to every student at the same time. All that can be mentioned is that the ideal student-teacher ratio is needed to ensure that cooperative learning is properly implemented**.**

2.11.2.2. The physical environment

Many educational institutions attested to the fact that a classroom's physical layout, furniture placement, and overall design all play a significant role in fostering cooperative learning. An organised, spotless classroom with the right supplies in it sets the stage for a successful lesson. Furthermore, according to the Gavteng Department of Education (1998), which was quoted by Bekele (2011), an open classroom is defined by a more active learning approach that frequently incorporates group projects, student movement between areas, the use of resource centers, and independent study. Additionally, the seating configurations will be moveable, with chairs that are not fixed to the floor.

2.11.2.3. Shortage of instructional materials

Instructional materials are essential because they allow students to study independently and increase student participation through active engagement exercises. Brown (1994) identifies the following functions of educational materials:

- Ensure longer retention of the information gain,
- Motivate the students to pay attention to the lesson,
- Give opportunity to learn through engagement and immediate action use of all senses and muscles, and
- To help students to integrate prior experience with the preset varying from abstract to concrete.

2.11.2.4. The organization of curricular materials

The way that curriculum materials (textbooks, teachers' guides, and other materials) are organised has a big influence on how cooperative learning is implemented.

The majority of curriculum materials are prepared with an abundance of information or contents, but relatively few exercises and activities are included. In support of this theory, Wondwosen (2008) noted that instructors frequently skip the activities and move straight to the next unit because they are under time pressure to finish the book and cover or present every topic. Here, it is clear that this significantly lowers students' independent creativity, which impedes the application of cooperative learning.

During the past ten years, schools have allowed less time for physical education, which has resulted in more time being allotted to other academic subjects (Hillman et al., 2008).

To improve academic performance, schools have reduced physical education in an effort to save money and to meet academic targets. Prominent decision makers even held the belief that devoting time to extracurricular activities could have a detrimental effect on academic performance (Lidner, 2002). Supporters of physical education and exercise in schools, however, contend that these programmes may improve students' academic performance either directly or indirectly by achieving larger social goals that may have an effect on academic performance.

CHAPTER THREE: MATERIALS AND METHODS

This section includes description of the study area, research design, sample of population and sampling techniques, methods and procedures of data collection, methods of data analyses, ethical considerations, and pilot test.

3.1. Study area

Hawassa city is established in 1952 E.C during the period of Emperor Hailesilasie. The city got its name from Lake Hawassa, Hawassa means "Wide" in Sidama language. Hawassa city is located in the Sidaama National Regional State on the shores of Lake Hawassa in the Great Rift Valley 275 km south of Addis Ababa and 1,125 km north of Nairobi, Kenya. The city lays on the Trans African High Way-4: an international road that stretched from Cairo (Egypt) to Cape Town (S. Africa).

Geographically the City lays between $6^0$55'0'' to $7^0$6'0'' latitude North and $38^0$25'0'' to $38^0$34'0'' longitudes east. Rainfall mostly occurs in the summer season. In 2012 E.C the highest monthly rainfall is registered in April 2020 (215.3 mm). Daily minimum and maximum temperature are almost moderate, the minimum monthly average temperature is 12.6◦c and monthly average maximum temperature is 30.1 ◦c.

Hawassa city is bounded by Lake Hawassa in the West, Oromia Region in the North, Wendogenet woreda in the East and Shebedino woreda in the south. The city administration has an area of 157.2 (sq.kms), divided in to eight (8) sub-cities and thirty- two (32) Kebeles, these eight sub cities are Hayek Dare, Menehariya, Tabor, Misrak, Bahile Adarash, Addis Ketema, Hawela-Tula and Mehal ketema sub city. Currently, the city is serving as the seat of Sidama Region & Hawassa City Administration. The city administration has eight secondary schools namely: Hawassa Tabor, Adiss Ketema, Adarie Millenium, Alamura, Halade, Hawassa Adarie, Teso, and Misrak Chora. From these secondary schools four schools are selected randomly for the study these are Hawassa Tabor, Adiss Ketema, Adarie Millenium, and Misrak Chora (Hawassa city administration, 2021).

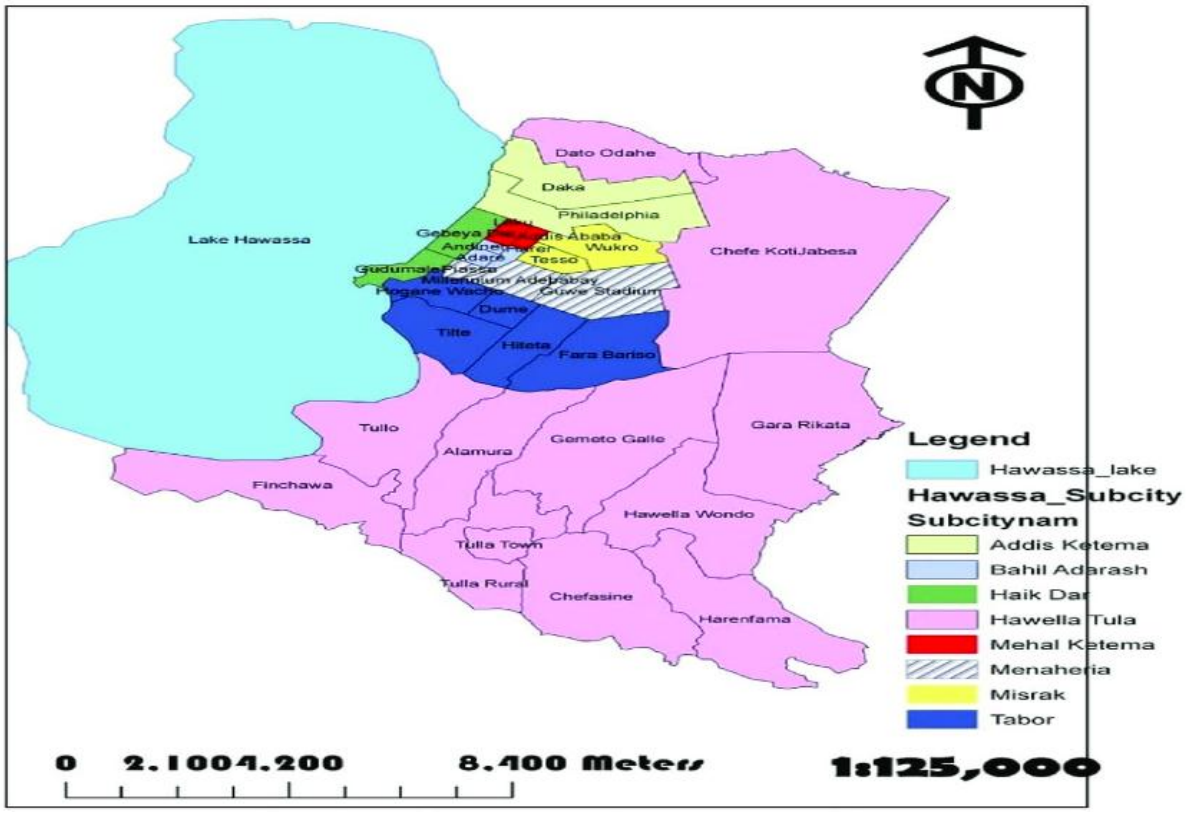

Figure 1: Map of Hawassa City Administration

Source: (2021) Development data collection and dissemination process, finance and economic development department, Hawassa city administration.

3.2. Study design

Researchers differ in how they define the research design. "A plan of the method and procedures that is used by the researchers to collect and analyze the data needed" is the definition of research design given by Shukla (2008). Therefore, the research design is thought of as a blueprint that outlines the steps involved in conducting the research. Creswell (2009) states that descriptive research is a suitable design for identifying trends, characteristics, and categories. This study was employed descriptive research design.

The purpose of this study was to assess the implementation of cooperative learning in physical education classes in Hawassa City Administration. The descriptive survey design was selected for the reason that enables the researcher to obtain the current detailed and a variety of information concerning the issue under the study. Furthermore, Descriptive research design allows the collection of quantitative and qualitative data through a wide use of questionnaires. To conduct this study both quantitative and qualitative approaches was employed. Data was collected from four randomly

selected secondary schools of Hawassa city administration (Adarie Millenium, Addis Ketema, Misrak Chora and Hawassa Tabor). The population for this study includes all grade 9 and 10 students and physical education teachers of selected secondary schools.

3.3. Study population

The population of this study was categorized into two physical education teachers and students who teaching and learning in the selected secondary schools of Hawassa city administration respectively. Hawassa city administration has eight (8) Governmental secondary schools namely: Adarie Millenium, Alamura, Halade, Hawassa Adarie, Addis Ketema, Hawassa Tabor, Teso, and Misrak Chora from these four (4) secondary schools were randomly selected namely: Adarie Millenium, Addis Ketema, Hawassa Tabor, and Misrak Chora.

The population of the study participants of physical education teachers selected from four (4) secondary schools teachers teaching and students learning in grade 9 and 20 selected schools of Hawassa city administration in 2015 E.C academic year eight (8) physical education teachers and 3,927 grade 9 and 3,017 grade 10, totally 6,944 students were teaching and learning in four selected schools respectively. From total population eight (8) physical education teachers were selected purposive sampling method from Adarie Millenium one male and one female, Adiss Ketema one female, Misrak Chora one male, and Hawassa Tabor two males and two females).

3.4. Sample size and sampling technique

The samples of this study were selected from eight (8) secondary schools at Hawassa city administration, Sidama region. The selected of samples of the study secondary schools of teachers and students were used purposive and simple random sampling techniques respectively. From eight (8) secondary schools four (4) secondary schools (Adarie Millenium, Addis Ketema, Hawassa Tabor, and Misrak Chora) were selected by simple random sampling method and eight (8) physical education teachers those were teaching physical education in grades 9 and 10 selected by purposive sampling method. Seven-hundred (700) students were selected from 3,927 grade 9 and 3,017 grade 10 totally 6,944 population by using simple random sampling method was employed to select appropriate number of respondents. Furthermore, for appropriate sample size determination from the target population used statistical formula developed by Yamane (1967) was used. It is computed as follows:

Assumptions

n= $\frac{N}{1+Ne^2}$were used to select appropriate size of participants in the sample.
Where, n = required sample size,

N = No of population in a selected Schools and

e^2 = is level of precision, assuming 95% confidence level and e = 0.05 or 5% error.

Hence, the required sample size of grade 9 is calculated as: n = $\frac{3927}{1+3927*0.0025}$

$$n = \frac{3927}{1+9.8175}$$

$$n = \frac{3927}{10.8175}$$

n = 363

Sampling fraction: 363/3927= **0.09**

Hence, the required sample size of grade 10 is calculated as: n = $\frac{3017}{1+3017*0.0025}$

$$n = \frac{3017}{1+7.9525}$$

$$n = \frac{3017}{8.9525}$$

n = 337

Sampling fraction: 337/3017= **0.11**

Based on the above calculation results the selected sample size of 700 from each school, grade level, and sex was summarized in the following table below.

Table 2: Summary of sample size of students

Respondents	Grade	Sex	Adarie Millenium	Addia Ketema	Misrak Chora	Hawassa Tabor	Total
Students	9	Male	26	39	26	82	173
		Female	36	36	31	87	190
		Total	**62**	**75**	**57**	**160**	**363**
	10	Male	22	34	29	82	167
		Female	25	43	26	76	170
		Total	**47**	**77**	**55**	**158**	**337**

Source: Own survey data, 2023

3.5. Methods and procedures of data collection

Source of data for this study was primary data collected from study participants by using questionnaires for physical education teachers and students, interview for physical education

teachers, and Classroom observation checklist for teachers and students. The method of data collection instruments is discussed below.

3.5.1. Data collection instruments

3.5.1.1 Questionnaires

The quantitative data collection instruments of questionnaires were adapted from (Derseh M., 2019). The questionnaires were prepared in English language for both the study participants of physical education teachers and students. For availability of communication and response for data collection the questionnaires of English language version were translated in Amharic version for the students. For physical education teachers twenty-six (26) questionnaires were prepared from these questionnaires twenty-one was (26) closed ended by using Linkert scale format of four alternatives 1 (Agree); 2 (disagree); 3 (I do not realize); and 4 (undecided), whereas for the students twenty-four (24) questionnaires were prepared all were closed ended by using Linkert scale format of five alternatives 1 (strongly disagree); 2 (disagree); 3 (undecided); 4 (agree); and 5 (strongly agree).

3.5.1.2. Interview

The qualitative data collection instruments of interviews were adapted from (Derseh M., 2019). The instrument used for the collection of primary data for the study was an interview. The interviews were prepared in English language for physical education teachers which has five (5) semi structured interview guides were used in the process of data collection. Interview guides permit in-depth information gathering, and free response and flexibility that can't be obtained by other procedures. It was helpful to supplement the data gathered through other instruments, as well as for the clarification of some unforeseen information. Consequently, a face-to-face interview was held with available physical education teachers of the four sample schools because of their experiences of training in the area and the knowledge they possess on the topic of the study. The interview was conducted at each school and the interviewer asks about all items within twenty minutes.

3.5.1.3. Classroom observation

The quantitative data collection instruments of classroom observation checklist of theoretical and practical classes were adapted from (Derseh M., 2019). The observational checklist was prepared in English language for both the study participants of physical education teachers and students. The observational checklist prepared for physical education teachers has fourteen (14) questions

with ‘’Yes’’ or “No” alternatives, whereas for the students fourteen (14) questions were prepared with ‘’Yes’’ or “No” alternatives. According to Best and Kahn, (2003), the information obtained through observation is more accurate, more valid and more reliable than any information gathered through other means. The purpose of observation was to have a clear picture about how the teachers implement their plan and get information the overall activities of the students during practical class and in the classroom. Observational checklist gives the actual progress and evidence of the implementation of cooperative learning information during teaching-learning program in theoretical as well as practical classes in research study schools.

3.5.2 Procedures of data collection

It is obviously that without appropriate procedure any instrument couldn’t provoke the required information from the research participants. Accordingly, the researcher adopts three steps in collecting data for the study. Firstly, relevant literature was reviewed to get adequate information. Secondly, objective and research questions were formulated to show direction of the study. Thirdly, data gathering tools were developed. After the questionnaires were distributed and collected, classroom observations had taken place. At the end, researcher was conducted interview with study schools’ physical education teachers.

Both quantitative and qualitative data were collected based on the study objectives. Preliminarily the researcher designs data tools based on the study objectives. Each questionnaire was coded, administered and recollected, with the intention that the researcher only knows the respondents. Here the coding technique was only be used for the purpose of matching returned complete questionnaires with those delivered to the respondents to collect primary data.

3.6. Data quality control

Data quality in research refers to the accuracy, completeness, consistency, and credibility of the data collected for a study. Ensuring high-quality data is crucial as it helps researchers draw reliable conclusions and make informed decisions. Data quality can be assessed at both the group level and the individual level. Researchers look for evidence that the data are consistent, correct, complete, and credible. To ensure the data quality in the study, the researcher conducted pilot test and expertise consultation. In addition, during questionnaire preparation, the language usage was considered to be easy for the respondents, then after the questionnaire was distributed to representative sample students. Representativeness of the samples selected was confirmed by taking sample teachers from all secondary schools and sample of students in the schools. Interview

was also made with PE teachers who have a direct relation to the research topic.

3.7. Methods of data analysis

In this study, both quantitative and qualitative methods were used to analyze the collected data. To analyze quantitative data descriptive analysis was used. Accordingly, distractive statics (frequencies, percentage, mean and standard deviation) were used to analyze demographic characteristics and the items of the questionnaires. Information gathered from open and closed ended questionnaires, interview and observations were presented and described qualitatively and inferential statistics, particularly independent sample t-test was used to find out whether there is significant difference mean between grade 9 and 10 students on the benefits of cooperative learning. The quantitative data was analysed by using IBM statistical package for social science (SPSS) version 20 software. Furthermore, the qualitative data, which were collected through interview and observation, have been analyzed through narration**.** Based on the data analysis, interpretation was made and reached at certain findings. The level of significant was set at $p < 0.05$.

3.8. Ethical consideration

The investigators endeavored to uphold fundamental ethical principles in order to guarantee dignity, foster positive interactions, and maintain scientific rigor while working with the study's respondents. Researchers should maintain participant rights and privacy and maintain confidentiality, according to Creswell (2007). They contend that one of the best ways to safeguard participants' rights is to get their consent. After giving the participants an explanation of the study's goal, the researcher got their consent to carry on with the activity. The research does not use the participants' names or personal information; instead, it uses their numbers when mentioning them. This protects their rights and privacy. It is unethical to gather data in any discipline.

3.9. Pilot test

As per Streiner (2003), Lee Cronbach created alpha in 1951 to gauge the internal consistency of a scale or test. It can be represented as a number between 0 and 1. Internal consistency, which is related to the interrelatedness of the test's items, is the degree to which each item measures the same idea or construct. Prior to using a test for research or assessment, internal consistency needs to be established in order to guarantee validity. Furthermore, it was mentioned to him that varying reports exist regarding the permissible alpha values, which vary from 0.70 to 0.95. One reason for a low

alpha value could be a small sample size, inadequate.

This study was conducted the pilot test in Alamura secondary school which is present in Hawassa city administration and the school was not a part of this study. The data collection instrument was distributed randomly for twenty (20) students ten (10) from grade 9 (10) and ten from grade 10 and eight (8) physical education teachers. The pilot study Cronbach's alpha value 0.831. The result of the pilot study showed a score of over 0.7 for high internal consistency which shows the questionnaire is reliable.

3.9.1. **Reliability**

Triangulation, which compares results from several sources and consciously seeks evidence from a wide range of sources, was the preferred method for increasing the validity and reliability of findings. Data from surveys, interviews, and observations are used to examine issues from various perspectives. The reliability of the data and the findings can also be improved by gathering various forms of information from various sources. Measurement consistency and stability are referred to as reliability. Prior to the main study, a pilot study was carried out by the researcher to assess the instrument's efficacy, validity, and reliability in demonstrating the validity of the data used to implement the Cronbach Alpha coefficient. Generally speaking, validity and reliability are essential ideas to guarantee the caliber of quantitative research, but qualitative case study research.

3.9.2.**Validity**

The key to a method's validity is how well it reflects or measures the things it purports to measure. Physical education teachers and researchers assess the appropriateness of the data collection instruments to determine whether a measurement tool accurately captures the idea it is meant to assess. Modifications were made as needed in response to these insightful suggestions and recommendations. Overall, every section of the survey was completed, new questions were created, and certain questions underwent careful revision. A pilot study was carried out at Alamura Secondary School, which is currently one of the high schools run by the Hawassa City Administration and is not included in the study sample. Before the survey was conducted, the questionnaire was tested and refined. Thus, prior to giving out the questionnaires to the respondents.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.1. Results

4.1.1. Quantitative analysis

In this research, four secondary school students (340 males and 360 females) and 8 teachers (4 males and 4 females) totally 708 samples have participated. The participants were selected based on their willingness to participate. This section presents the demographical profile of the seven-hundred eight (n=708) participants of the study. The demographics information includes the sex, age, educational and educational status of selected study participants from each school.

Table 3: Demographic characteristic of participants

No.	Characteristics	Categories	Teachers (n=8)		Students (700)			
					Grade 9		Grade 10	
1	**School**		*n*	%	*n*	**%**	**n**	**%**
		Male	1	50.00	25	40.98	25	50
1.1	**Adarie Millenium**	Female	1	50.00	36	59.02	25	50
		Total	**2**	**100**	**61**	**100**	**50**	**100**
		Male	-	-	39	48.75	30	46.15
1.2	**Addis Ketema**	Female	1	100	41	51.25	35	53.85
			1	**100**	**80**	**100**	**65**	**100**
		Total						
		Male	1	100	25	46.30	31	45.59
1.3	**Misrak Chora**	Female	-	-	29	53.70	37	54.41
		Total	**1**	**100**	**54**	**100**	**68**	**100**
		Male	2	50.00	83	48.54	77	55.99
1.4	**Tabor**	Female	2	50.00	88	51.46	74	49.01
		Total	**4**	**100**	**171**	**100**	**151**	**100**
		Male	4	50.00	172	46.99	168	50.30
1.5	**All study participants**	Female	4	50.00	194	53.01	166	49.70
		Total	**8**	**100**	**366**	**100**	**334**	**100**
		15-17	-	-	198	54.10	182	54.49
2	**Age**	18-20	-	-	150	40.98	130	39.92
		21 - 22	-	-	18	4.92	22	6.59
		31 - 40	7	87.50	-	-	-	-
		40 above	1	12.50	-	-	-	-
3	**Educational level**	Grade 9	-	-	366	52.29	-	-
		Grade 10	-	-	334	47.71	-	-
			-	-	**700**	100	-	-
		Total						
		Bachelor degree	5	62.50	-	-	-	-
		Master's degree	3	37.50	-	-	-	-
			8	**100**				
		Total						

Key: n: samples of the study %: Percentage

Source: Own Survey data, 2023

The table 2. shows that in this study 708 questionnaires were distributed for four secondary schools' physical education teachers (PET) and students out of which 708 (100 %) were properly filled the questionnaires and returned to the researchers. A total of 360 questionnaires were for females and 340 questionnaires were for males, the number of female and male students were almost the same with 51.43% and 48.57% respectively. Among PET study participants, 4 (50%) were males and 4 (50%) were females. This shows that there was a possibility of keeping gender balance while group formation to reduce dominance of male over female and the vice-versa. Interviews were also conducted with 8 PET study participants. Among student's study participants, 340 (48.57%) were males and 360 (51.43%) were females. In terms of age category, PET 7 (87.50%) of them were under 40 years old and 1 (12.50%) were above 40 years old and 380 (54.29%) of the students were under 18 years old, 280 (40%) between 18-20 years old and 40 (5.71%) were above 21 years old. This implies that students were at a good age status to understand each other while they carry out their tasks by using cooperative learning. The study participants were selected from different educational level of study 334 (47.71%) were grade 9 and 366 (52.29%) were grade 10 and 5(62.50%). PET were first degree holders while 3(37.50%) were second degree holders.

4.1.1.1. Descriptive statistics data results collected from Physical Education Teachers

To determine perceptions of teachers on the benefits of CL in secondary schools of Hawassa City Administration, five-point Likert scale (1 = strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 = strongly Agree) questions were distributed. Hereunder the tables (4.2, 4.3, and 4.4) presents the summary of it.

Table 4: Descriptive statistics data results towards perception of PET on CL

No.	Item	Rating scale				Total	Mean ±SD
		A	DA	IDR	U		
1	Collaborating to work with each other in the school community	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.000
2	Teaching the students cooperatively rather than conventional lecturing	6 (75)	1 (12.5)	1 (12.5)	0 (0)	8 (100)	1.38±0.744
3	Implementing cooperative learning approaches on a regular basis	7 (87.5)	0 (0)	0 (0)	1 (12.5)	8 (100)	1.25±0.707
4	Organizing the students to work on the basis of interest and academic achievement level	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
5	Grouping students regarding achievement division (higher achievers organized alone, and middle and lower achievers distinctly)	6 (75)	1 (12.5)	1 (12.5)	0 (0)	8 (100)	1.38±0.744
6	Surveying their levels and scaling up their achievement division after subsequent measurement through test or other mechanisms	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
7	Sharing experience with peers on the consecutive execution of cooperative learning approaches	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
8	Developing ways to enhance all-round participation of the students during cooperative learning approaches	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
9	Providing appropriate reinforcement and initiation to do things in group	7 (87.5)	0 (0)	1 (12.5)	0 (0)	8 (100)	1.25±0.707

Key: SD = Standard Deviation, Numbers in bracket under rating scale refers to percentage

Source: Own survey data, 2023

As it is depicted in table 3. above, the perception of physical education teachers (PET) on cooperative learning. The PET placed questions 1, 4. 6, 7 and 8 in the first position with mean score of 1.00 and 0.00 respectively. Thus, data implies that PET have awareness on cooperative learning which help students collaborate each other when they apply throughout teaching learning process. Based on the course format, organization arrangement will be on the student academic achievement level the PET expected to mentor their CL progress by giving different types of assessments to check overall peer interaction and giving support during CL activities for their students while comparing with traditional teaching methods. Contrary, while organizing students in group during CL most PET 6 (75%) agreed that students of high achievers are classified in the same group and moderate and low achiever are organize in the same groups. On the other hands, 1 (12.5%) of respondent was disagreed with the above grouping system the remaining 1 (12.5%) of respondent was do not realized whether such type of group classifications was crucial issue for CL during teaching and learning process. From the above statements PET perception towards CL is well understood, but the PET perception of group classification based on the students have gaps how different achiever are distributed within each group CLM organization done.

Table 5: Descriptive statistics data results towards lesson evaluation

No.	Item	Rating scale				Total	Mean ±SD
		A	DA	IDR	U		
1	Intending the annual plan in accordance with cooperative learning activity	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
2	Integrating cooperative learning activities with the lesson objectives	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
3	Allocating the appropriate depth of the lesson for cooperative learning in accordance with their achievement division	7 (87.5)	0 (0)	1 (12.5)	0 (0)	8 (100)	1.25±0.707
4	Dividing the lesson into small and easily digestible pieces for the discussion (explain prerequisite facts and reteaching if necessary)	7 (87.5)	0 (0)	1 (12.5)	0 (0)	8 (100)	1.25±0.707

Table 4. (Continued)

No.	Item	Rating scale				Total	Mean ±SD
		A	DA	IDR	U		
5	Maintaining proper time for discussion and allowing them to reflect their ideas at the time of discussion	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
6	Providing review or stabilizing the lesson following students' discussion	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
7	Evaluating students' attitude and understanding frequently following the cooperative learning activities (by giving questions and group and individual works)	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00

Key: SD = Standard Deviation, Numbers in bracket under rating scale refers to percentage

Source: Own survey data, 2023

The results of the questionnaires that the majority of physical education teachers used to assess their students' lessons were in agreement with the intended annual plan, as indicated by the eight (100%) respondents who answered items 1, 2, 5, 6, and 7. This is displayed in Table 4. The schedule includes the appropriate period for discussing lesson stabilization and evaluating students who have been categorized appropriately for cooperative learning activities. Two responses were given for items 3 and 4: 7 (87.5%) agreed, and 1 (12.5%) said they were unsure if they were breaking the lesson up into manageable chunks for the discussion and assigning the proper depth of the lesson for cooperative learning, respectively. The lesson evaluation of teachers was based on the respondent's response, and basic tasks throughout the teaching and learning process to meet the objective.

Table 6: Descriptive statistics data results towards availability of school environment for CL

No.	Item	Rating scale				Total	Mean ±SD
		A	DA	IDR	U		
1	Arranging proper placement for the students during CL	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
2	Creating conducive environment for cooperative learning	7 (87.5)	1 (12.5)	0 (40)	0 (0)	8 (100)	1.25±0.354
3	Monitoring the behaviour of the students when in discussion and advising those disrupting the class	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
4	Attending (controlling) the students regularly using various monitoring mechanisms during cooperative work	8 (100)	0 (0)	0 (0)	0 (0)	8 (100)	1.00±0.00
5	Conducting case study or action research about the effectiveness, factors, possible solution, and on school environment for cooperative learning activities	7 (87.5)	0 (0)	1 (12.5)	0 (0)	8 (100)	1.25±0.707

Key: SD = Standard Deviation, Numbers in bracket under rating scale refers to percentage

Source: Own survey data, 2023

The physical education teachers' responses regarding the school environment's suitability for cooperative learning are displayed in table 5. above. These include the availability of classrooms, which allow teachers to monitor student behaviour, assign tasks, and monitor any misbehavior during class. CL showed that most of them answered to questions 1, 3, and 4. About whether the schools have a place available to conduct case studies or action research about the efficacy, factors, and potential solutions for CL, as indicated on question item number 2, eight (100%) of the teachers strongly agreed. Seven (87.5%) of the teachers also agreed. Item number 5 indicated that 7 (87.5%) of the respondents agreed, while 1 (12.5%) disagreed.

4.1.1.2. Descriptive statistics of students towards the benefit of cooperative learning

To determine perceptions of grade 9 and grade 10 students on the benefits of CL in secondary schools of Hawassa City Administration, five-point Likert scale (1 = strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 = strongly Agree) questions were distributed. Hereunder the tables (4.5, 4.6, 4.7, and 4.8) presents the summary of it.

Table 7: Descriptive statistics data results towards social benefit of cooperative learning (CL)

No	Item	Rating Scale					Total	Mean ±SD
		SDA	DA	U	A	SA		
1	I willingly participate in cooperative learning activities.	22 (3.1)	29 (4.1)	36 (5.1)	220 (31.4)	393 (56.1)	700 (100)	4.33±0.976
2	When I work with other students, I achieve more than when I work alone.	19 (2.7)	35 (5.0)	38 (5.4)	235 (33.6)	373 (53.3)	700 (100)	4.30±0.972
3	Cooperative learning can improve my attitude towards work.	13 (1.9)	22 (3.1)	45 (6.4)	233 (33.3)	387 (55.3)	700 (100)	4.37±0.880
4	Cooperative learning helps me to socialize more.	21 (3.0)	32 (4.6)	50 (7.1)	235 (33.6)	362 (51.7)	700 (100)	4.26±0.986
5	Cooperative learning enhances good working relationships among students.	17 (2.4)	26 (3.7)	37 (5.3)	244 (34.9)	376 (53.7)	700 (100)	4.34±0.919
6	Cooperative learning enhances class participation.	13 (1.9)	19 (2.7)	51 (7.3)	226 (32.3)	391 (55.9)	700 (100)	4.38±0.876

Key: SD = Standard Deviation. (Scales: 1.00 - 1.80 = strongly disagree, 1.81- 2.60 = disagree, 2.61 – 3.40 = undecided, 3.41 – 4.20 = agree, 4.21 – 5.00 = strongly agree) Numbers in bracket under rating scale refers percentage.

Source: Survey data, 2023

As indicated in table 6. students were responded for question number 1 regarding the students participating in CL the responses showed that 22 (3.1%) were strongly disagreed, 29 (4.1%) were disagreed, 36 (5.1%) were undecided, 220(31.4%) and 393(56.1%). The result revealed that the students are participated interestingly in CL.

Students were asked on question number 2 regarding the students benefited in CL rather than working alone the responses of the students indicated that 21(3%) were strongly disagreed, 32 (4.6%) were disagreed, 38(5.4%) were undecided, 235(33.6%) and 373(53.3%). The majority of respondents were responded while they are participating, they achievement is better rather than working alone.

Similarly, the students were asked on question number 3 regarding the CL is improving the attitude of work the responses of the students showed that 13(1.9%) were strongly disagreed, 22(3.1%) were disagreed, 45(6.4%) were undecided, 233(33.3%) and 387(55.3%). The results of the respondents were revealed that the involvement of with different academic activities increased after CL.

In addition, the students were asked on question number 4 regarding the CL is help the students to socialize than earlier. The responses of the students disclosed that 13(1.9%) were strongly disagreed, 22(3.1%) were disagreed, 50(7.1%) were undecided, 235(33.6%) and 362(51.7%). The results of the majority were showed that the CL help them to increase the connection with their classmate than earlier became involved socially with others.

The students were asked on question number 5 regarding the CL boosts good working relationships among students. The responses of the students disclosed that 17(2.4%) were strongly disagreed, 26 (3.7%) were disagreed, 37(5.3%) were undecided, 244(34.9%) and 376(53.7%). The results of the respondents showed that the CL help them to increase working with their classmate better than earlier.

The students were asked on question number 6 regarding the CL increases class participation of students. The responses of the students disclosed that 13(1.9%) were strongly disagreed, 19(2.7%) were disagreed, 51(7.3%) were undecided, 226(32.3%) and 391(55.9%). The results of the respondents indicated that the CL is help the students the participation in their physical education class.

The table 6. shows the mean scores of six items are between 4.21-5.00 which means the rating scale rest on strongly agree. The results of the data revealed that cooperative learning method is help to develop social benefits for the students.

Table 8: Descriptive statistics data results towards CL to enhance creativity for students

No	Item	Rating Scale					Total	Mean ±SD
		SDA	DA	U	A	SA		
1	Creativity is facilitated in the group setting	31 (4.4)	37 (5.3)	41 (5.9)	234 (33.4)	357 (51)	700 (100)	4.21±1.065
2	Group activities make the learning experience easier.	33 (4.7)	25 (3.6)	35 (5.0)	222 (31.7)	385 (55.0)	700 (100)	4.29±1.042
3	I learn to work with students who are different from me.	21 (3.0)	21 (3.0)	49 (7.0)	225 (32.1)	384 (54.9)	700 (100)	4.33±0.950
4	I enjoy the material more when I work with other students.	12 (1.7)	22 (3.1)	52 (7.4)	233 (33.2)	381 (54.4)	700 (100)	4.36±0.879
5	My work is better organized when I am in a group.	11 (1.6)	33 (4.7)	40 (5.7)	236 (33.7)	380 (54.2)	700 (100)	4.34±0.901
6	I prefer that my teachers use more group activities / assignments	27 (3.9)	32 (4.6)	38 (5.4)	232 (33.1)	371 (52.9)	700 (100)	4.27±1.022

Key: SD = Standard Deviation. (Scales: 1.00 - 1.80= strongly disagree, 1.81- 2.60 =disagree, 2.61 – 3.40 = undecided, 3.41 – 4.20 =agree, 4.21 – 5.00 = strongly agree) Numbers in bracket under rating scale refers percentage.

Source: Survey data, 2023

The table 7. shows, students were responded for item number 1 regarding the CL for creativity was facilitated in the group setting. The student's responses showed that 31(4.4%) were strongly disagreed, 37(5.3%) were disagreed, 41(5.9%) were undecided, 234(33.4%) and 357(51%). The result revealed that the majority of respondents agreed all available things are prepared to enhance creativity in their groups.

Students were asked on item number 2 regarding the group activities make the learning experience easier students. The students indicated that 33(4.7%) were strongly disagreed, 25(3.6%) were disagreed, 35(5.0%) were undecided, 222(31.7%) and 385(55%). The majority of respondents were responded that while they working in CL the learning activities are easily understood.

Similarly, the students were asked on question item 3 regarding the students learn to work with students who are different from others. The students responded that 21(3.0%) were strongly disagreed, 21(3.0%) were disagreed, 49(7.0%) were undecided, 225(32.1%) and 384(54.9%). The results of the respondents were revealed that the students are sharing each other the idea regarding

the topics their discussing during CL.

The students were asked on item 4 regarding the students enjoy the material more when they work with other students. The responses of the students disclosed that 12 (1.7%) were strongly disagreed, 22 (3.1%) were disagreed, 50 (7.1%) were undecided, 233(33.2%) and 381(54.4%). The results of the majority were showed that while involve in CL they enjoy with those materials prepared for them.

The students were asked on item 5 regarding their work is better organized when they are in a group. The responses of the students disclosed that 11(1.6%) were strongly disagreed, 33(4.7%) were disagreed, 40(5.7%) were undecided, 236(33.7%) and 380(54.2%). The results of the respondents showed that the students are organize their works when they are participating in CL.

The students were asked on item 6 regarding their preference during teaching -learning process given by their teacher more group activities/assignments. The responses of the students revealed that 27(3.9%) were strongly disagreed, 32(4.6%) were disagreed, 38(5.4%) were undecided, 232(33.1%) and 371(52.9%). The results of the respondents indicated that the students are interested the group activities/ assignments are given from their subject teachers.

As indicated above table 7. the mean scores of all items (six items) were rating scale lie between 4.21-5.00 which means strongly agree. The results of the data revealed that cooperative learning method is help to enhance creativity for the students.

Table 9: Descriptive statistics data results towards psychological benefit of CL

No	Item	Rating Scale					Total	Mean ±SD
		SDA	DA	U	A	SA		
1	I enjoy the class more when I work with other students.	23 (3.3)	25 (3.6)	37 (5.3)	221 (31.5)	394 (56.2)	700 (100)	4.34+0.970
2	When I work in a group, my work habits improve and impressed during the class	23 (3.3)	20 (2.9)	35 (5.0)	246 (35.1)	376 (53.6)	700 (100)	4.33+0.942
3	When I work in a group, I do have better motivations in quality learning in the class	21 (3.0)	36 (5.1)	47 (6.7)	214 (30.5)	382 (54.5)	700 (100)	4.29+1.004
4	The work load is usually less when I work with other students	19 (2.7)	28 (4)	47 (6.7)	226 (32.2)	380 (54.2)	7000 (100)	4.31+0.958

Table 8. (Continued)

No	Item	Rating Scale					Total	Mean ±SD
		SDA	DA	U	A	SA		
5	I feel working in groups is a waste of time.	65 (9.3)	29 (4.1)	49 (7.0)	204 (29.1)	353 (50.4)	700 (100)	4.07+1.254
6	My grades improve when I work with other students.	27 (3.9)	37 (5.3)	40 (5.7)	205 (29.2)	391 (55.9)	700 (100)	4.28+1.048

Key: SD = Standard Deviation. (Scales: 1.00 - 1.80= strongly disagree, 1.81- 2.60 =disagree, 2.61 – 3.40 = undecided, 3.41 – 4.20 =agree, 4.21 – 5.00 = strongly agree) Numbers in bracket under rating scale refers percentage.

Source: Survey data, 2023

As indicated in table 8., students were responded for item number 1 regarding the students enjoy the class when they work with other students. The student's responses showed that 23 (3.3%) were strongly disagreed, 25(3.6%) were disagreed, 37(5.3%) were undecided, 221(31.5%) and 394(56.2%). The result revealed that the majority of respondents agreed that the students are enjoy when they are working with other students.

Students were asked on item number 2 regarding the when they work in a group, their work habits improve and impressed during the class. The students indicated that 23(3.3%) were strongly disagreed, 20(2.9%) were disagreed, 35(5.0%) were undecided, 246(35.1%) and 376(53.6%). The majority of respondents were responded that while they working in group, they improve working habits with other students and the level of presenting the given activities are well addressed to concerned parties.

Similarly, the students were asked on item 3 regarding the when the students work in a group, they do have better motivations in quality learning in the class. The students responded that 21(3.0%) were strongly disagreed, 36(5.1%) were disagreed, 47(6.7%) were undecided, 214(30.5%) and 382(54.5%). The results of the respondents were showed that while the students are involving in group, they are motivated more to have positive attitude towards quality of learning in the class.

The students were asked on item 4 regarding the students enjoy the material more when they work with other students. The responses of the students disclosed that 12(1.7%) were strongly disagreed, 22(3.1%) were disagreed, 50(7.1%) were undecided, 233(33.2%) and 381(54.4%). The results of the majority were showed that while involve in CL they enjoy with those materials prepared for them.

The students were asked on item 5 regarding they feeling working in groups is a waste of time. The

responses of the students disclosed that 65(9.3%) were strongly disagreed, 29(4.1%) were disagreed, 49(7.0%) were undecided, 204(29.1%) and 353(50.4%). The results of the respondents showed that most students are indicated that the student's participation in groups is a wastage of time.

The students were asked on item 6 regarding their grades improve when I work with other students. The responses of the students revealed that 27(3.9%) were strongly disagreed, 37(5.3%) were disagreed, 40(5.7%) were undecided, 205(29.2%) and 391(55.9%). The students are responded that they when they are working with other students, they improve their grades.

As indicated above table 8. the mean scores of item number 1, 2, 3. 4 and 6 were lie in between the rating scale 4.21 - 5.00 which means strongly agree and item number 5 was lie in between the rating scale 3.41 – 4.20 which means agree. The results of the data revealed that cooperative learning method was help to develop psychological benefit for the students.

Table 10: Descriptive statistics data results towards academic benefit of CL for students

No	Item	Rating Scale					Total	Mean ±SD
		SDA	DA	U	A	SA		
1	When I learn in a group, I get the grade what I deserve	20 (2.9)	23 (3.3)	48 (6.9)	211 (30.1)	398 (56.8)	700 (100)	4.35+0.952
2	When I learn in a group, there are opportunities to express my opinions	29 (4.1)	22 (3.1)	41 (5.9)	215 (30.7)	393 (56.1)	700 (100)	4.32+1.010
3	My group members benefit me to communicate and get tutor from classmate	18 (2.6)	29 (4.1)	34 (4.9)	218 (31.1)	401 (57.2)	700 (100)	4.36+0.942
4	I help my group members with what I am good at.	18 (2.6)	16 (2.3)	45 (6.4)	230 (32.8)	391 (55.8)	700 (100)	4.37+0.899
5	I have to work with other students who are not as smart as I am	24 (3.4)	30 (4.3)	52 (7.4)	212 (30.2)	382 (54.5)	700 (100)	4.28+1.011
6	I am forced to work with students I have better academic achievement	30 (4.3)	25 (3.6)	39 (5.6)	220 (31.4)	386 (55.1)	700 (100)	4.30+1.025

Key: SD = Standard Deviation. (Scales: 1.00 - 1.80= strongly disagree, 1.81- 2.60 =disagree, 2.61 – 3.40 = undecided, 3.41 – 4.20 =agree, 4.21 – 5.00 = strongly agree) Numbers in bracket under rating scale refers percentage.

Source: Survey data, 2023

The table 9. shows, students were responded for number 1 regarding the when they learn in a group, they get the grade what they earn. The student's responses showed that 20(2.9%) were strongly disagreed, 23(3.3%) were disagreed, 48(6.9%) were undecided, 211(30.1%) and 398(56.8%). The result revealed that the majority of respondents of the students while they are working with groups, they are registered what they planned at the beginning of the semester.

Students were asked on item number 2 regarding when the students learn in a group, there have chances to express their opinions. The students indicated that 29(4.1%) were strongly disagreed, 22 (3.1%) were disagreed, 41(5.9%) were undecided, 215(30.7%) and 393(56.1%). The majority of respondents were responded that while they working in group, they can get chances to present their own idea on the given academic issues.

Similarly, the students were asked on number 3 regarding the all-group members benefit us to communicate and get tutor from classmates. The students responded that 18(2.6%) were strongly disagreed, 29(4.1%) were disagreed, 34(4.9%) were undecided, 218(31.1%) and 401(57.2%). The majority of the respondents indicated that as a member of the group they can communicate each other on their given tasks and share ideas, additionally instructing each student of a group members which are unclear issues on subject matter they are given tutors during free time (out of regular class) for each the classmate.

The students were asked on number 4 regarding the students help each other of a group member with what they are good on the topic the part of the task. The responses of the students disclosed that 18 (2.6%) were strongly disagreed, 16(2.3%) were disagreed, 45(6.4%) were undecided, 230(32.8%) and 391(55.8%). The majority of respondents responded that the group members are help each other what they are well on the topic under discussion share their idea on the issues raised.

The students were asked on item 5 regarding they have to work with other students who are not as smart as they are. The responses of the students disclosed that 24(3.4%) were strongly disagreed, 30 (4.3%) were disagreed, 52(7.4%) were undecided, 212(30.2%) and 382(54.5%). The results of the respondents showed that students are willingly participating with different academic achievement level students present in their class.

The students were asked on number 6 regarding they are forced to work with students as they have better academic achievement. The responses of the students revealed that 30(4.3%) were strongly disagreed, 25(3.6%) were disagreed, 39(5.6%) were undecided, 220(31.4%) and 386(55.1%). The majority of respondents responded they are assigned and working within less academic achievers' students.

As indicated above table 9. the mean scores of all items were rest between rating scale 4.21-5.00 which means strongly agree. The results of the data revealed that cooperative learning method was help to improve academic benefit for the students.

4.1.1.3. Concerning implementation of CL perception of grade 9 and grade 10 Students

The following tables depict the result of mean and independent sample t-test that run to check if there is any significance difference between groups of respondents in terms of their grade level. In other words, independent t-test was used to check whether grade 9 and grade 10 students statistically significantly differ in the mean scores on cooperative learning implementation.

To determine perceptions of grade 9 and grade 10 students on the benefits of CL in secondary schools of Hawassa City Administration, five-point Likert scale (1 = strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 = strongly Agree) questions were distributed. Hereunder the tables (4.9, 4.10, 4.11, and 4.12) presents the summary of it.

Table 11: Independent samples test results towards social benefit of CL in grade level

Item	Description/Indicator	Respondents	N	Mean ±SD	p
1	I willingly participate in cooperative learning activities.	Grade 9	366	4.32 ±1.01	0.798
		Grade 10	334	4.33 ± 0.94	
2	When I work with other students, I achieve more than when I work alone.	Grade 9	366	4.33 ± 0.95	0.341
		Grade 10	334	4.26 ±0.99	
3	Cooperative learning can improve my attitude towards work.	Grade 9	366	4.36 ±0.90	0.653
		Grade 10	334	4.38 ± 0.85	
4	Cooperative learning helps me to socialize more.	Grade 9	366	4.33 ± 0.87	0.006*
		Grade 10	334	4.19 ±1.09	
5	Cooperative learning enhances good working relationships among students.	Grade 9	366	4.35 ±0.89	0.320
		Grade 10	334	4.31 ± 0.96	
6	Cooperative learning enhances class participation.	Grade 9	366	4.41 ± 0.79	0.016*
		Grade 10	334	4.33 ±0.96	

Key: N = number of respondents, SD = standard deviation, p = ≤ 0.05, * significance. (Scales: 1.00 - 1.80= strongly disagree, 1.81- 2.60 =disagree, 2.61 – 3.40 = undecided, 3.41 – 4.20 =agree, 4.21 – 5.00 = strongly agree)

Source: Survey data, 2023

The table 10. shows the implementation of CL to improve social benefits for the students, the mean score of both grades 9 and grade 10 student's respondents were responded for item number 1, 2, 3, 5 and 6 lie between rating scale 4.21 and 5.00 which indicated that students were strongly agree the implementation of CL help them to develop social benefits. These shows us that both grade levels of respondents was strongly agreed that the CLM help students to improve their social benefits while they engage in physical education classes such as: They were willingly participating in cooperative learning activities, while they work with other students, they were achieving more comparing to work alone, cooperative learning were improving their attitude towards work, cooperative learning enhances good working relationships of students each other, and cooperative learning enhances their class participation than earlier respectively. In addition, for item number 4 grade 9 students responded that the scaling rate between 4.21 and 5.00 which indicated that strongly agree this means CLM implementation help them to improve their socialization. On the other hand, grade 10 students responded that the scaling rate between 3.41 and 4.20 which rest on agree this means similarly a little bit less agreement level as CLM implementation help them to improve their socialization.

As shown in table 10., independent-samples t-test was conducted to compare the social benefit of grade 9 and grade 10 students about the implementation of CL. Item number 1, 2, 3, and 5 the Levine's test (F=.065, .908, .203 and,.991) is greater than 0.05, which means that the variance for the two groups grade 9 and grade 10 mean scores were not significant different. They were willingly participating in cooperative learning activities, while they work with other students, they were achieving more comparing to work alone, cooperative learning was improving their attitude towards work and cooperative learning enhances good working relationships within each student the same for grades 9 and 10. The result shows that there was no significant difference in mean scores for grade 9 (M = 4.32, SD = 1.01), (M = 4.33, SD = 0.95), (M = 4.36, SD = 0.90), and (M = 4.35, SD=0.89) with grade 10 (M = 4.33, SD = 0.94), (M = 4.26, SD = 0.99), (M = 4.38, SD = 0.85), (M = 4.31, SD = 0.96) respectively.

Item number 4 and 6 the Levine's test (F=7.544 and 5.806) was less than 0.05, which means that the variance for the two groups grade 9 and grade 10 mean scores were significantly different, thus the students working with their classmate collaboratively during cooperative learning were different. The result shows that there was significant difference in mean scores for grade 9 (M = 4.33, SD = 0.87) and (M = 4.41, SD = 0.79) with grade 10 (M = 4.29, SD = 1.09) and (M = 4.33, SD=0.96) respectively.

Table 12: Independent samples test results towards CL to enhance creativity in grade level

Item	Description/Indicator	Respondents	N	Mean ±SD	p
1	Creativity is facilitated in the group setting	Grade 9	366	4.28 ± 1.00	0.055
		Grade 10	334	4.14 ± 1.13	
2	Group activities make the learning experience easier.	Grade 9	366	4.37 ± 0.96	0.045*
		Grade 10	334	4.19 ±1.11	
3	I learn to work with students who are different from me.	Grade 9	366	4.36 ±0.92	0.235
		Grade 10	334	4.29 ± 0.99	
4	I enjoy the material more when I work with other students.	Grade 9	366	4.40 ± 0.79	0.074
		Grade 10	334	4.31 ± 0.86	
5	My work is better organized when I am in a group.	Grade 9	366	4.42 ±0.81	0.012*
		Grade 10	334	4.26 ± 0.99	
6	I prefer that my teachers use more group activities / assignments	Grade 9	366	4.33 ± 0.94	0.030*
		Grade 10	334	4.21 ±1.11	

Key: N = number of respondents, SD = standard deviation, p = ≤ 0.05, *significance. (Scales: 1.00 - 1.80= strongly disagree, 1.81- 2.60 =disagree, 2.61 – 3.40 = undecided, 3.41 – 4.20 =agree, 4.21 – 5.00 = strongly agree)

Source: Survey data, 2023

Table 11. shows the implementation of CL to enhance creativity for the students, the mean score of both grades 9 and grade 10 student's respondents were for item number 3, 4, 5 and 6 lie between rating scale 4.21 and 5.00 which is indicate the implementation of CL strongly agree respectively enhance creativity. These shows us that both grade levels of respondents were strongly agreed that the CLM help students to improve their enhance creativity while they engage in physical education classes such as: they were learning to work with students who are different from them, they enjoy the material more when they work with other students, their work is better organized when they are in a group and they prefer that their teachers use more group activities/assignments respectively.

In addition, the mean score of grades 9 student's respondents were for item number 1 and 2 lie between rating scale 4.21 and 5.00 which indicate that implementation of CL strongly agrees enhance creativity, whereas grade 10 student's respondents were for item number 1 and 2 lie between rating scale 3.41 and 4.20 which indicate that implementation of CL agree enhance creativity. Grade 9

students are showed strongly agreements on all item numbers of questions asked for the respondents. On the other hand, grade 10 students revealed that strongly agreement as well as agreement on the questions asked for them.

As shown in table 11., independent-samples t-test was conducted to enhance creativity of grades 9 and grade 10 students' implementation of CL. Item number 1, 3, 4, and 6 the Levine's test (F=3.691, 1.388, 3.210 and ,4.716) is greater than 0.05, which means that the variance for the two groups (grade 9 and grade 10) are the same. The creativity was facilitated in the group setting, they learn to work with students who are different from others, they enjoy the material more when they work with other students., and they prefer that their teachers use more group activities/assignments within each student the same for grades 9 and 10. The result shows that there was no significant difference in mean and standard deviation scores for grade 9 (M = 4.28, SD = 1.00), (M = 4.36, SD = 0.92), (M = 4.40, SD = 0.79), and (M = 4.33, SD=0.94) and grade 10 (M = 4.14, SD = 1.13), (M = 4.29, SD = 0.99), (M = 4.31, SD = 0.86) and (M = 4.21, SD = 1.11) respectively.

Item number 2 and 5 the Levine's test (F=4.048 and 6.338) was less than 0.05, which means that the variance for the two groups (grade 9 and grade 10) are different. These were group activities make the learning experience easier and their work is better organized when they are in a group. Both grade levels were different. The result shows that there was significant difference in mean and standard deviation scores for grade 9 (M = 4.37, SD = 0.96) and (M = 4.42, SD = 0.81) and grade 10 (M = 4.19, SD = 1.11) and (M = 4.26, SD=0.99) respectively.

Table 13: Independent samples test results towards psychological benefit of CL in grade level

Item	Description/Indicator	Respondents	N	Mean ±SD	p
1	I enjoy the class more when I work with other students.	Grade 9	366	4.44 ± 0.85	0.002*
		Grade 10	334	4.23 ± 1.08	
2	When I work in a group, my work habits improve and impressed during the class	Grade 9	366	4.36 ± 0.89	0.185
		Grade 10	334	4.30 ±0.99	
3	When I work in a group, I do have better motivations in quality learning in the class	Grade 9	366	4.36 ±0.91	0.004*
		Grade 10	334	4.20 ± 1.10	
4	The work load is usually less when I work with other students	Grade 9	366	4.36 ± 0.88	0.012*
		Grade 10	334	4.27 ± 1.04	
5	I feel working in groups is a waste of time.	Grade 9	366	4.06 ±1.23	0.399
		Grade 10	334	4.09 ± 1.28	
6	My grades improve when I work with other students.	Grade 9	366	4.28 ± 1.04	0.710
		Grade 10	334	4.28 ± 1.06	

Key: N = number of respondents, SD = standard deviation, p = ≤ 0.05, *significance. Scales: 1.00 - 1.80= strongly disagree, 1.81- 2.60 =disagree, 2.61 – 3.40 = undecided, 3.41 – 4.20 =agree, 4.21 – 5.00 = strongly agree

Source: Survey data, 2023

Table 12. shows, the implementation of CL develops psychological benefit for the students, the mean and standard deviation score of grades 9 and 10 student's the respondents were gave responses for item number 1, 2, 5 and 6 lie between rating scale 4.21 and 5.00 which indicate the implementation of CL strongly agree respectively. These shows us that both grade levels respondents were strongly agreed that the CLM help students to improve their psychological benefit while they engage in physical education classes such as: they enjoy the class more when they work with other students., when they work in a group, their work habits improve and impressed during the class, they feel working in groups is a waste of time and their grades improve when they work with other students.

In addition, the mean score of grades 9 student's respondents were for item number 3 and 5 lie between rating scale 4.21 and 5.00 and 3.41 and 4.20 which indicate that implementation of CL

strongly agrees and agree to develop psychological benefit respectively, whereas grade 10 student's respondents were for item number 3 and 5 lie between rating scale 3.41 and 4.20 which indicate that implementation of CL agree to develop psychological benefit.

As shown in table 12., independent-samples t-test was conducted to develop psychological benefit of grades 9 and grade 10 students' the implementation of CL. Item number 2, 5, and 6 the Levine's test (F=1.761, .711, and .138) is greater than 0.05, which means that the variance for the two groups (grade 9 and grade 10) are the same. These are when they work in a group, their work habits improve and impressed during the class, they feel working in groups is a waste of time and their grades improve when they work with other students. The result shows that there was no significant difference in mean and standard deviation scores for grade 9 (M = 4.36, SD = 0.89), (M = 4.06, SD = 1.23), and (M = 4.28, SD = 1.04), and grade 10 (M = 4.30, SD = 0.99), (M = 4.09, SD = 1.28), and (M = 4.28, SD = 1.06) respectively.

Item number 1, 3 and 4 the Levine's test (F=9.432, 8.248 and 6.404) was less than 0.05, which means that the variance for the two groups (grade 9 and grade 10) are different. These are they enjoy the class more when they work with other students., when they work in a group, they do have better motivations in quality learning in the class and the work load is usually less when they work with other students. Both grade levels mean and standard deviation were different. The result shows that there was significant difference in mean and standard deviation scores for grade 9 (M = 4.44, SD = 0.85) and (M = 4.36, SD = 0.91) and (M = 4.36, SD = 0.88) grade 10 (M = 4.23, SD = 1.08), (M = 4.20, SD=1.10) and (M = 4.28, SD=1.06) respectively.

Table 14: Independent samples test results towards academic benefit of CL in grade level

Item	Description/Indicator	Respondents	N	Mean ±SD	p
1	When I learn in a group, I get the grade what I deserve	Grade 9	366	4.40 ± 0.88	0.090
		Grade 10	334	4.30 ± 1.03	
2	When I learn in a group, there are opportunities to express my opinions	Grade 9	366	4.34 ± 1.00	0.826
		Grade 10	334	4.29 ± 1.03	
3	My group members benefit me to communicate and get tutor from class mate	Grade 9	366	4.39 ±0.95	0.815
		Grade 10	334	4.34 ± 0.94	
4	I help my group members with what I am good at.	Grade 9	366	4.37 ± 0.85	0.272
		Grade 10	334	4.37 ± 0.95	
5	I have to work with other students who are not as smart as I am	Grade 9	366	4.32 ± 0.93	0.045*
		Grade 10	334	4.24 ± 1.09	
6	I am forced to work with students I have better academic achievement	Grade 9	366	4.27 ± 1.02	0.571
		Grade 10	334	4.32 ± 1.04	

Key: N = number of respondents, SD = standard deviation, p = ≤ 0.05, *significance. Scales: 1.00 - 1.80= strongly disagree, 1.81- **2.60** =disagree, 2.61 – 3.40 = undecided, 3.41 – 4.20 =agree, 4.21 – 5.00 = strongly agree

Source: Survey data, 2023

Table 13. shows the implementation of cooperative learning for academic benefit for the students, the mean and standard deviation score of grades 9 and 10 student's the respondents were gave responses for item number 1, 2,3,4, 5 and 6 lie between rating scale 4.21 and 5.00 which indicate the implementation of CL strongly agree respectively. These shows us that both grade levels respondents were strongly agreed that the CLM help students to improve their academic benefit while they engage in physical education classes such as: when they learn in a group, they get the grade what they deserve, when they learn in a group, there are opportunities to express their opinions, their group members benefit them to communicate and get tutor from class mate, they help their group members with what they good at., they have to work with other students who are not as smart as them and there are forced to work with students they have better academic achievement.

As shown in table 13., independent-samples t-test was conducted to improve academic benefit of grades 9 and grade 10 students' the implementation of CLM. Item number 1, 2, 3, 4, and 6 the Levine's test (F=2.891, .049, .055, 1.209 and .321) is greater than 0.05, which means that the variance for the two groups (grade 9 and grade 10) are the same. These are when they learn in a group, they get the grade what they deserve, when they learn in a group, there are opportunities to express their opinions, their group members benefit them to communicate and get tutor from class mate, they help their group members with what they good at. And they have to work with other students who are not as smart as them. The result shows that there was no significant difference in mean and standard deviation scores for grade 9 (M = 4.40, SD = 0.88), (M = 4.34, SD = 1.00), (M = 4.39, SD = 0.95), (M = 4.37, SD = 0.85), and (M = 4.27, SD = 1.02) and grade 10 (M = 4.30, SD = 1.03), (M = 4.29, SD = 1.03), and (M = 4.34, SD = 0.94), (M = 4.37, SD = 0.95) and (M = 4.32, SD = 1.04), respectively.

Item number 5 the Levine's test (F=4.023) was less than 0.05, which means that the variance for the two groups (grade 9 and grade 10) are different. This is when they have to work with other students who are not as smart as they are. Both grade levels mean and standard deviation were different. The result shows that there was significant difference in mean and standard deviation scores for grade 9 (M = 4.32, SD = 0.93) and grade 10 (M = 4.24, SD = 1.09) respectively.

4.1.2. Qualitative Analysis

4.1.2.1. Open ended questions analysis of teachers

Eight (8) physical education teachers were the study participants purposively selected from five schools. Twenty-one (21) closed-ended questionnaires were distributed for PET which are focuses on perception of PET about CL, lesson evaluation of CL and appropriateness of school environment for CL, under closed-ended questionnaires five (5) open-ended questionnaires were prepared. The five open-ended questionnaires responses of PET data were analysed qualitatively narrate accordingly.

The first question focuses on the student's willingness to participate in CL approach, the teacher was responded that the interest and the participation of students in CL is going on well, but some students are not volunteer participate in CL.

The second question deals on the classification of student's criteria during CL based on students' interest or academic performance. If no, what kind of problems hinders you to do so. All respondents agreed the mechanism they are using during CL the group formation is by students' interest and

academic performance as well.

The third question of open-ended question is the teacher view regarding factors that hinder or promote the effective accomplishment of CLM in your school environment. The responses of the teachers were the time allocated for PE class one period it is obstacle to apply CL, the class size of students in one class is crowded it challenging to manage the CL, the availability of materials for each lesson topic is less, so that it is not easily applicable CL during theoretical as well as practical classes.

The fourth open-ended question was what possible solution did you provide for the problem facing you up on the successive implementation of CL approach. The PET mentioned that to minimize the problem of teaching and learning materials preparing locally available material/equipment to address the subject matter properly for the students during PE class and regarding huge class size the Government must apply the class size based on the Education policy of Ethiopia, in addition Ministry of Education of Ethiopia revise the and additionally time allocation for PE class.

The fifth question was providing your overall comments and suggestions on the relevance of CL regarding achievement level of student's academic performance. The teachers were responded the CL important for the students to develop social skill, positive interdependence, increase creativity for students as well as for teachers, share knowledge on the given activity, improve the communication of students.

Therefore, from the above data, it is possible to conclude that teachers were believe that CL is helpful way for teaching learning process, but to conduct CL some barriers that hinder them to apply properly such as one period allocated for PE subject, availability of materials/equipment's class size assigned in classroom. Some student's limitations towards participating in CL were the basic obstacles during using CL in the schools PE theoretical and practical classes.

4.1.2.2. Interview questions analysis of teachers

Five item structured interview questionnaires were prepared for eight (8) physical education teachers. The interviewees were selected from four Governmental secondary schools of Hawassa city administration as part of the study designed to collect data on the title, "Assessing the implementation of Cooperative Learning in teaching Physical education in the selected Governmental school secondary schools in Hawassa University City Administration, Sidama regional State".

The questions were raised one by one for selected each teacher individually/alone during interview for teachers.

The first question was what do you understand about the concept of cooperative learning (CL)? And how do you evaluate your school's teachers' and students' concept and attitude about CL? Interviewees teacher replied that all addressed the positive addition of student communication and socialization in the classroom that accompanied the implementation of cooperative learning method. From the remarks made during the interview process, this "student talk" can be defined as working together and sharing information in order to complete an assigned task. All of the teacher participants had some positive comment on the social aspect of the implementation of the cooperative learning in their classrooms. In fact, most addressed the fact that talking with their classmates is what they want to do, so the implementation just gave them the opportunity address this need in class.

The second request was do the students perceive that they are linked with group members in such a way that they cannot succeed unless their group members succeed? It appears that students perceive that they learn important things from each other, respect all opinions of members in the group, and they are more engaged and motivated when given the opportunity to share ideas with a partner or team. Active participation leads to engagement of the students, while motivation is based upon the amount of ambition and effort that is exerted by a student into a given task, one being learning the presented content, in the interest of achieving successful outcomes from the effort that is given.

The third question was do all students actively engage at the same time during theoretical & practical class? The teacher participants addressed student engagement during the course of the interview process. Defining student engagement involves looking and assessing the willingness of students to actively participate in routine class activities, including, but not limited to, taking an interest in and bringing to life the content presented. Teacher participants see this engagement as a way for students to become excited and energized about what is happening in the classroom. From statements that were made concerning student engagement, teachers saw this as a positive impact created by the implementation of cooperative learning.

The fourth question raised do the students build strong cooperation among group members on things like leadership, decision making, trust building, communication and conflict management skills? The positive outcomes of CL address are students being given the opportunity to teach each other and picking up ideas to help their learning from the cooperative talk, teacher taking the time to group students according to strengths and weaknesses of each student, thus paying off "dividends in the long run" , cementing a taught concept prior to formal assessments, students truly learning

how to ask a question when working with their peers, stress reduction for students since they have a partner that can assist with the learning, Known expectations by all students, thus saving valuable class time, helping all students learn by placing struggling students with those who understand, students receiving a new "platform" to assist their learning, students learning how to communicate with one another and how to give positive comments and new activities that can be used with the students.

The fifth question was what do you suggest to improve the implementation of CL?

It is important to assess the ongoing process of CL the research further revealed the inability of teachers to implement the CL as needed for continual growth of students to the workload and demands of new initiatives in the Hawassa City Administration and policymakers.

4.1.2.3. Observation checklist

In order to see what is going on in the classrooms, observation was conducted for teachers by using observation checklist format fourteen (14) items which has ''Yes'' or ''No'' alternatives. The observation checklist classified into four categories positive interdependence, individual and group accountability, social skills and face to face interaction were prepared for the purpose of the study.

Similarly, the classrooms observation was conducted for students by using observation checklist format fourteen (14) items which has ''Yes'' or ''No'' alternatives. The observation checklist classified into three categories activities of the students, group contains all the members and classroom condition (Practical & theoretical) were prepared for the purpose of the study.

The following tables are the summary of classroom observation that shows the observation activities and classroom conditions conducted in four secondary schools (two observations in each secondary school).

4.1.2.3.1. Observation checklist analysis of teachers

Table 15: Observation data results of teachers

No.	Instructional activities of teachers	Yes		No		Total	
		F	%	F	%	F	%
1	**Positive interdependence**						
1.1	Teacher divides a task in to jobs for students	8	100	-	-	8	100
1.2	Students learn a topic and then teaches it to the group	8	100	-	-	8	100
1.3	Teacher offers a reward if everyone in the group succeeds	6	75	2	25	8	100

Table 14. (Continued)

No.	Instructional activities of teachers	Yes		No		Total	
		F	%	F	%	F	%
2	**Individual and group accountability**						
2.1	Students do the work before bringing it to the group	8	100	-	-	8	100
2.2	One student is chosen at random and questioned on the material the group has studied	7	87.5	1	12.5	8	100
2.3	Students receive bonus points if all do well individually	8	100	-	-	8	100
2.4	Teacher observes students taking turns orally rehearsing information	8	100	-	-	8	100
3	**Social skills**						
3.1	Students listen to others	8	100	-	-	8	100
3.2	Everyone has the opportunity to speak	5	62.5	3	37.5	8	100
3.3	Everyone speaks freely	4	50	4	50	8	100
4	**Face to face interaction**						
4.1	Students explain orally how to solve a problem	7	87.5	1	12.5	8	100
4.2	Students discuss a concept with others	8	100	-	-	8	100
4.3	Students teach classmates about a topic	8	100	-	-	8	100
4.4	Students help each other connect present and past learning	8	100	-	-	8	100

Key: F: frequency

Source: Own survey data, 2023

The table 14. shows the observation teachers during theoretical and practical classes of physical education. The first item observation indicated that 1.1 and 1.2 items observations were 100% yes which indicated that all most they have positive interdependence the teachers were grouped the students with the role of each as well and the students learn and teach each other. On the other hand, for item 1.3 the observation was 75% yes and 25% no which indicate that positive interdependence of offering a reward while the group succeeds their tasks has its own gap or the motivational set-up was not well identified earlier by the students at the beginning of the lesson topic will be suspected or students may be forget the points given by their teachers.

The second observation on individual and group accountability those observation checklist items 2.1, 2.3, and 2.4 observations were 100% which means students they are working the given task

individually, then bring their idea for the group for discuss on it, students obtain bonus points if all do well individually and teacher lastly after students presented the given tasks for their classmate the teachers orally and practically rehearsing information. On the other hand, item 2.2 observation was 87.5% yes and 12.5% no which means all most all the student is chosen at random and questioned on the material the group has studied and one respondent was responded that the questioned not random way.

The third observation checklist focuses on social skills the observations item 3.1 and 3.3 were 100% yes which indicate that students were heard and speaks freely when the chance is given for them regarding on the given tasks, whereas item 3.2 observation was 62.5% yes and 37.5% no which means the students engagement has differences some shy students are not take part they seem like listener throughout the group activities why here the percentage is act like this.

The fourth observation focuses on face-to-face interaction the observation of item 4.1 was 87.5% yes and 12.5% no which indicate that some students are they are not volunteer to present the given activities for classmates orally. Observation checklist item 4.2, 4.3 and 4.4 observations were 100% yes, this confirm that all the student were students discuss a concept each other, students share their own knowledge for their classmates on the given task and the students help each other on connect present and past learning.

4.1.2.3.2. Observation checklist analysis of students

Table 16: Observation data results of students

No.	Instructional activities of teachers	Yes		No		Total	
		F	%	F	%	F	%
	Activities of the students						
1	The students were interested in the lesson	8	100	-	-	8	100
2	The students were freely participating in the activities	8	100	-	-	8	100
3	The students were doing task assignments in subject by their own initiations	8	100	-	-	8	100
4	The students were misbehaving in the classroom	5	62.5	3	37.5	8	100
5	The students were ready to do in their group	8	100	-	-	8	100

Table 15: (Continued)

No.	Instructional activities of teachers	Yes		No		Total	
		F	%	F	%	F	%
	Group contains all the members						
1	The group has time keeper	8	100	-	-	8	100
2	The group has resource manager	8	100	-	-	8	100
3	The group has scribe (Clerk)	8	100	-	-	8	100
4	The group has facilitator	8	100	-	-	8	100
5	The group has presenter	8	100	-	-	8	100
	Classroom condition (Practical & theoretical)						
1	The number of the students in the was moderate	8	100	-	-	8	100
2	The classroom has enough space for movement	8	100	-	-	8	100
3	The classroom has adequate chairs and disks /equipment's for practical activity	4	50	4	50	8	100
4	The disks are comfortable to do group work/the equipment's are comfortable	1	12.5	7	87.5	8	100

Key: F: frequency

Source: Own survey data,2023

As indicated in table 15. shows the observation of students during theoretical and practical physical education classes.

The first item of observation focuses on activities of the students from five item questions item number 1,2,3 and 5 observations were 100% yes, all students were participated interestingly without disruption freely engaged on the given task and they were ready to react in their groups, whereas item number 4 question observation were 62.5% yes which means most students were attentively participated in their group and 37.5% no some students misbehave during CL in their groups.

The second observation checklist were deals on group contains all the members all items under it were perfectly accomplished which means 100% yes, each CL groups have time keepers, recourse mangers, clerks, facilitators and presenters.

The third observation checklist were focuses on classroom condition item number 1 and 2 observations were 100% yes, the CL groups were moderate in each classroom and available space

were observed for movement of students as well as teachers to organize/facilitate the activities properly, the remaining observation item number 3 was 50% yes and 50% no which indicate us the classroom desks as well as for practical class available materials and equipment's scarcity were observed. In addition, item number 4 observation showed that 12.5% yes, this means in the classroom situation during theoretical class to conduct CL the desks were not comfortable and during practical of PE to conduct CL the materials and equipment's were sufficient as well as the equipment's are not comfortable for teaching and learning process.

4.2. Discussion

The purpose of this study was assessing the implementation of cooperative learning in Physical education classes in selected secondary schools of Hawassa City Administration, Sidama Region.

This mixed methods case study analyzed of descriptive statistics data results of the perceptions of teachers at Hawassa four selected schools concerning the impact of the implementation of cooperative learning on student learning and engagement in the theoretical and practical classes. classroom.

The data gathered by using questionnaires showed that the physical education teaches mentioned that the cooperative learning is important for the students as well as for the teachers to share the idea of the tasks and the student's creating collaboration within groups this may lead to the opportunity to develop the social benefit, the data collected from teachers by using interviews revealed that the students are developing social interaction while students are working in their groups in CL and similarly the data gathered from physical education teachers by using observation checklist the study participants perception were observed while helping their students facilitate and gave feedback to develop social skills, face to face interaction and share accountability in their groups. The result of this study is supported by previous studies of Veenman (2001) as cited in Wossen (2011), assessed teacher's perception and classroom practice of cooperative learning. The researcher also observed a positive attitude of teachers working in the groups and rated the benefits of cooperative learning relative to competitive or individualistic learning quite positively and in their classroom many teachers were effective in implementing cooperative learning. In addition, the PET perception of group classification was observed as gap during CL group classification the students are organize all most based on the students' need the PET were not consider the students' academic level of achievements were not considered. Tippawan (2008) has conducted a study on the perception of two Thai teachers towards cooperative learning. The study was conducted based on teachers' experience of teaching., the finding indicated that experience has its own impact on the implementation of cooperative learning. Nevertheless, both teachers accept the principle of cooperative learning for

better academic achievement and interaction. Similarly, Veenman et al. (2000) as cited in Hennessey (2013), state that "there is limited information regarding both teachers‟ and pupils‟ perceptions of cooperative learning as an effective method of learning". Almost all research works reported many teachers committed to using cooperative learning and they felt positive. According to Johnsen and Johnson (2009) the meaningful implementation of cooperative learning classroom instructions involves the accommodation and practice of various essential elements. Promotive interaction may be defined as individuals encouraging and facilitating each other's efforts to achieve, complete tasks, and produce in order to reach the group's goals.

The PET were asked on the questionnaires replied that one of the basic concerns is lesson evaluation by having this concept the teachers have been follow the design curriculum to meet the objective of the study. applied throughout as they were applied teaching learning process to meet the objectives of the lesson, so that every activity should be given equal attention for the success CLM. The PET always follow as a guide the designed curriculum which may leads how the allocate for cooperative learning depth of the lesson to achieve the objective with a given time it is better classify the lesson topic in small pieces it may help to accomplish the task with minimize time interval as well. Supporting this idea, Wondwosen (2008), stated the organizations of curriculum materials (syllabus, textbooks, teachers guide and other materials) have also great impact on the implementation of cooperative learning. Most of the curriculum materials prepared is overcrowded by information or contents with actually very few activities and exercises. On the other hand, few of the respondents were showed that they do not realize whether they have been allocating the appropriate depth of the lesson and dividing the lesson into suitable manner easily digestible pieces for cooperative learning. The study of this results is supported by Wondwosen (2008), indicated that, teachers will often skip the activities and go on to the next unit because they are pressed to get through the book to cover or present all the information contained in the book. Here one can understand that this greatly reduces the creativity of learners by their own and in turn hinders the implementation of cooperative learning.

The study participants were asked about availability of school environment for cooperative learning such as availability of classroom, the availability of classroom to manage the behaviour of students to follow up the given tasks and to check the misbehave during CL. The finding of the study revealed that the majority of teachers strongly agreed the school environment is conducive for CL. The finding of this study agrees with the study conducted by Gavteng department of education (1998) as cited in Bekele (2011), Brown (1994) a number of schools confirmed that the physical

environment (class room arrangement, furniture arrangements, classroom appearance and lay out) contribute a lot to promote cooperative learning, instructional materials play a vital role by giving opportunity to the learner to learn by themselves and enhance learners' participation through active engagement activities and well-kept room with appropriate resource helps to establish a positive expectation towards a lesson.

To assess the social benefit of CL for the students' six items' questionnaires were asked and the data collected the results revealed that the mean scores respondents rest between 4.21-5.00 which indicate the rating scale rest on strongly agree. The finding of this study showed that cooperative learning method is help for the students to develop social benefits. Regarding the student's social interaction while they are on the given the observation checklist was used to identify the students' connections. The observation showed that all CL group members have share accountabilities such as time keeper, resource manager, clerk, group facilitator and presenter, so that the students have been develop social benefit from the given assignment while participated in CL. In addition, to the above finding the researcher was try to identify the level of mean score differences of grade 9 and grade 10 CL to help the development social benefits. Independent-sample t-test data analysis was used to identify the mean differences between grade 9 and grade10 students. The finding showed that item number 1, 2, 3, and 5 the Levine's test (F=.065, .908, .203 and,.991) is greater than 0.05, which means that the variance for the two groups grade 9 and grade 10 the respondents of responses of the implementation of CL to improve social benefit mean scores were not significantly different and item number 4 and 6 the Levine's test (F=7.544 and 5.806) was less than 0.05, which means that the variance for the two groups grade 9 and grade 10 the respondents of responses of the implementation of CL to improve social benefit mean scores were significantly different.

The finding of this study is agreed with (Jonassen, 1999; Goodman et al., 2005; Lopata et al., 2003; Slavin, 2004; Woods & Chen, 2010) stated that, the constructivist teaching paradigm emphasizes student activity and the ability to construct cognitions based on peer interaction and peer interactions in the constructivist learning context, are a frequent topic of educational research and through cooperative learning, students achieve common goals, provide encouragement to their group members, and help each other to learn. According to Stahl, (1994). Learners in cooperative learning tend to become tolerant of diverse view of points, to consider others‟ thoughts and feelings in depth, and seek more support and clarification of other‟ positions. Cooperative learning teams provide a safe, intimate atmosphere where social skills are modeled by other group members. It is a place where students can practice new skills (Johnson & Johnson, 2009). In contrast Johnson & Johnson, (2009) described that, the competitive approach in teaching, during which students achieve their goals without taking into account the goals

of other students and the individualistic approach that emphasizes the achievement of goals through individual work.

In this study to assess the benefit of implementing CL to enhance creativity for the students six items' questionnaires were asked and then the data were collected. The mean scores of all items (six items) were lie in between rating scale 4.21-5.00 which means strongly agree. The finding of this study data results revealed that the cooperative learning method is help to enhance creativity for the students.

In addition, to the above finding the researcher was try to identify the level of mean score differences of grade 9 and grade 10 CL to enhance creativity. To identify the mean difference between grade 9 and grade 10 students independent-sample t-test data analysis was used. The finding showed that item number 1, 3, 4, and 6 the Levine's test (F=3.691, 1.388, 3.210 and ,4.716) is greater than 0.05, which means that the variance for the two groups grade 9 and grade 10 the respondents of responses of the implementation of CL to enhance creativity mean scores were not significantly different and item number 2 and 5 the Levine's test (F=4.048 and 6.338) was less than 0.05, which means that the variance for the two groups grade 9 and grade 10 the respondents of responses of the implementation of CL to enhance creativity mean scores were significantly different.

The finding of this study is agreed with (Caroline et al., 2007; as cited in Fahad ,2009) confirmed that, on their study conducted on "perceptions of low ability students on cooperative learning." , the low ability students considered cooperative learning as a powerful teaching or learning method to improve their competence in interacting with others even though there are problematic organizational and instructional issues that have to be ironed out before students can profit fully from cooperative learning programs. In the actual implementation of cooperative learning, except in a few cases, students were effective.

Overall, in all levels of education systems students those are involved in cooperative situations achieved greater academic, social and psychological benefits (Johnson & Johnson, 2005) and Johnson and Johnson (2009) confirmed that on his study cooperative learning promotes creative thinking by increasing the number of ideas, quality of ideas, feelings of stimulation and enjoyment, and originality of expression in creative problem solving.

In this study to assess the benefit of implementing CL to improve the psychological benefit of students six items' questionnaires were asked, then the data were collected. The mean scores item number 1, 2, 3. 4 and 6 were lie between rating scale 4.21 - 5.00 which means strongly agree, in addition, item number 5 was lie between rating scale 3.41 – 4.20 which means agree. The finding of this study data results confirmed that the cooperative learning method is help to improve

psychological benefit for the students. In addition, the study was trying to identify the level of mean score differences between grade 9 and grade 10 CL to improve psychological benefit. To identify the mean difference between grade 9 and grade 10 students independent-sample t-test data analysis was used. The finding showed that item number 2, 5, and 6 the Levine's test (F=1.761, .711, and .138) is greater than 0.05, which means that the variance for the two groups grade 9 and grade 10 the respondents of responses on the implementation of CL to improve psychological benefit mean scores were not significantly different and item number 1, 3 and 4 the Levine's test (F=9.432, 8.248 and 6.404) was less than 0.05, which means that the variance for the two groups grade 9 and grade 10 the respondents of responses on the implementation of CL to improve psychological benefit mean scores were significantly different.

This study is agreed with other scholars those were conducted similar studies on cooperative learning. The use of cooperative learning in physical education has been heavily influenced by the Johnson brothers (Johnson and Johnson, 1975). Orlick (1978) drew on Johnson and Johnson's work to argue for a shift towards the use of cooperative games in physical education. While his focus was on cooperative games, he was the first in physical education to draw on Johnson and Johnson's work alongside Deutsch's (1949) social interdependence theory. He used Johnson and Johnson's ideas to argue that cooperative children were better able to identify the needs of others than competitively orientated children. Similarly, Gillies, (2016) cooperative learning has roots in the theories of social interdependence, cognitive development, and behavioral learning. Some research provides strong evidence that cooperative learning results in greater effort to achieve more positive interpersonal relationships and greater psychological health than competitive or individualistic learning efforts. Furthermore, Cooperative learning creates a safe, nurturing environment because solutions come from the group rather than from the individual. Errors are corrected in the group before they are presented to the class (Isaacs, 2008).

This study finding focuses on the benefit of implementing CL to improve academic benefit of students six items' questionnaires were distributed for study participants and asked, then the data were collected. the mean scores of item number 1, 2, 3. 4 and 6 were lie in between the rating scale 4.21 - 5.00 which means strongly agree, in addition, item number 5 was lie in between the rating scale 3.41 – 4.20 which means agree. The finding of this study data results confirmed that the cooperative learning method is help to improve academic benefit for the students. In addition, the study was trying to identify the level of mean score differences between grade 9 and grade 10 CL to improve academic benefit.

To identify the mean difference between grade 9 and grade 10 students independent-sample t-test data analysis was used. The finding revealed that item number 1, 2, 3, 4, and 6 the Levine's test (F=2.891, .049, .055, 1.209 and .321) is greater than 0.05, which means that the variance for the two groups grade 9 and grade 10 the respondents on the implementation of CL to improve academic benefit mean scores were not significantly different and item number 5 the Levine's test (F=4.023) was less than 0.05, which means that the variance for the two groups grade 9 and grade 10 are different, which means that the variance for the two groups grade 9 and grade 10 the respondents on the implementation of CL to improve academic benefit mean scores were significantly different.

This study is agreed with other scholar's findings according to, Johnson and Johnson, (1989) and Slavin, (2012) cooperative learning has been shown to be more effective than individualistic learning or competitive. Students who participate in cooperative learning activities develop more positive relationships with peers including academically handicapped peers and have more positive attitudes toward subject matter and may gain academic achievement. Thus, cooperative learning method provides the students with: (a) the opportunity for reviewing or doing again what they have done as peer criticism aids them sharpening their knowledge and skill about academic achievement, (b) awareness of group formation systems and the elements of cooperative learning and (c) the chance of evaluating their own work.

Akhtar et al., (2012) indicated that, researchers and education specialists approve the view that student learning can be maximized, thus academic performance improved, by developing a sense of "it is all in the same boat together, a basic principle of cooperative learning.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary

The main purpose of this study was to assess the implementation of cooperative learning method in physical education class on selected secondary schools' students in Hawassa City Administration, Sidama region.

1. What is students' attitude towards cooperative learning method?
2. Is there the attitude differences in CL between female and male students during PE class?
3. Does cooperative learning method in physical education class improve social benefit of students?
4. Does cooperative learning method in physical education class impacts on psychological benefit of students?
5. Does cooperative learning method in physical education class effects on academic achievement of students?

To address the above basic research questions, related literature was reviewed; the data was collected by means of questionnaire, interviews and observation. The descriptive survey method was employed to conduct the study. The subjects of the study were teachers and students of the schools. The respondents were selected by using both simple random sampling and purposive sampling. The population of this study was categorized into two physical education teachers and students who teaching and learning in Adarie Millenium, Addis Ketema, Hawassa Tabor, and Misrak Chora secondary schools of Hawassa city administration respectively. In this regard, 708 participants (8 physical education teachers and 700 students) were involved in this study. A total of 7088 questionnaires (8 for teachers and 700 for students) were distributed after pilot test. The study participants of this study were eight (8) physical education teachers (4 male and 4 females) and 700 students of these 360 females and 340 males, the number of female and male students' respondents were nearly the same with 51.43% and 48.57% respectively. In terms of age category, PET 7 (87.50%) of them were under 40 years old and 1 (12.50%) were above 40 years old and 380 (54.29%) of the respondents were under 18 years old, 280 (40%) between 18-20 years old and 40 (5.71%) were above 21 years old. The study participants were selected from different educational level of study 334 (47.71%) were grade 9 and 366 (52.29%) were grade 10 and 5(62.50%). PET were first degree holders while 3(37.50%) were second degree holders.

The data collection instrument of English version questionnaire was translated to Amharic version for the students. The data was collected by using questionnaire, interviews and observation were conducted with school PE teachers, students and selected classrooms of sampled schools respectively.

The data obtained from study participants were organized, tabulated and analyzed using different statistical tools such as frequency, percentage, mean scores, standard deviation and independent t-test. Based on the results of the data analysis, the following major findings were forwarded:

By analysis the perception of physical education teachers (PET) on cooperative learning they placed questions 1, 4. 6, 7 and 8 in the first position with mean score of 1.00 and 0.00 respectively. Thus, data implies that PET have awareness on cooperative learning which help students collaborate each other when they apply throughout teaching learning process. PET were believing on CL is helpful way for teaching learning process, but while conducting the CL some barriers hinder to apply properly such as one period allocated for PE subject, availability of materials/equipment's class size assigned in classroom. Some student's limitations towards participating in CL were the basic obstacles during using CL in the schools PE theoretical and practical classes.

The majority of physical education teachers have awareness about the lesson evaluation as basic tasks throughout teaching learning process to meet the objectives of the lesson, so that every activity has given equal attention during CL. The PET always follow as a guide the designed curriculum which direct them how to allocate students in groups for cooperative learning according to the depth of the lesson. While the lesson classified lesson topics in small pieces the objective of the study the possibility of accomplished the given tasks with possibility within intended time interval affordable.

The majority of PET were agreed that the schools are available environment to conduct cooperative learning methods, but few respondents were disagreed on issues of creating conducive environment for cooperative learning and conducting case study or action research about the effectiveness, factors, possible solution, and on school environment for cooperative learning activities have limitation during cooperative learning method in the schools.

The majority of students were agreed that while they participating in CL the develop social benefit.

Regarding cooperative learning enhance creativity of the students almost all agreed that the cooperative learning method was help to enhance creativity for the students.

The students mean scores of five items were lie in between the rating scale 4.21 - 5.00 which means strongly agree and one item was lie in between the rating scale 3.41 – 4.20 which means agree. The results of analysis of the data revealed that cooperative learning method was help to develop psychological benefit for the students.

The students mean scores of six items were lie in between the rating scale 4.21 - 5.00 which means strongly agree. The results of the data revealed that cooperative learning method was help to improve academic benefit for the students.

The independent-samples t-test results of data analysis were revealed that the social benefit of grade 9 and grade 10 students about the implementation of CL. Item number 1, 2, 3, and 5 the Levine's test (F=.065, .908, .203 and,.991) is greater than 0.05, which means that the variance for the two groups grade 9 and grade 10 mean scores were not significant different. The result confirmed that the mean scores for grade 9 (M = 4.32, SD = 1.01), (M = 4.33, SD = 0.95), (M = 4.36, SD = 0.90), and (M = 4.35, SD=0.89) with grade 10 (M = 4.33, SD = 0.94), (M = 4.26, SD = 0.99), (M = 4.38, SD = 0.85), (M = 4.31, SD = 0.96) respectively. Contrary, item number 4 and 6 the Levine's test (F=7.544 and 5.806) were less than 0.05, which means that the variance for the two groups grade 9 and grade 10 mean scores were significantly different, thus the students working with their classmate collaboratively during cooperative learning were different. The result indicated that there was significant difference in mean scores for grade 9 (M = 4.33, SD = 0.87) and (M = 4.41, SD = 0.79) with grade 10 (M = 4.29, SD = 1.09) and (M = 4.33, SD=0.96) respectively.

Regarding the implementation of CL to enhance creativity of item number 1, 3, 4, and 6 the Levine's test (F=3.691, 1.388, 3.210 and ,4.716) were greater than 0.05, which means that the variance for the two groups are the same and item number 2 and 5 the Levine's test (F=4.048 and 6.338) was less than 0.05, which means that the variance for the two groups were different.

Finding of the implementation of CL to develop psychological benefit of item number 2, 5, and 6 the Levine's test (F=1.761, .711, and .138) were greater than 0.05, which means that the variance for the two groups is the same and item number 1, 3 and 4 the Levine's test (F=9.432, 8.248 and 6.404) were less than 0.05, which means that the variance for the two groups were different.

Analysis of data on the implementation of CL to academic benefit for item number 1, 2, 3, 4, and 6 the Levine's test (F=2.891, .049, .055, 1.209 and .321) were greater than 0.05, which means that the variance of two groups were the same and item number 5 the Levine's test (F=4.023) was less

than 0.05, which indicate the variance of two groups was different.

5.2. Conclusions

From the summary of the major findings of the study, the following conclusions were made:

i. The perception of physical education teachers (PET) has awareness on cooperative learning which help students collaborate each other when they apply throughout teaching learning process, but some factors were exiting to conduct CL properly as intended such as period allocated for PE class, availability of materials/equipment's class size and number of students in one classroom assigned and some student's limitations towards participating in CL were the basic obstacles during using CL in the schools PE theoretical and practical classes.

ii. The PET based on existing PE curriculum follow as the as a guidance the student textbook and teacher's guide which direct them how to allocate students in groups for cooperative learning according to the depth of the lesson. While the lesson classified lesson topics in small pieces the objective of the study the possibility of accomplished the given tasks with possibility within intended time interval affordable.

iii. The PET were agreed that the schools were available environment to conduct cooperative learning methods, but few respondents were disagreed on issues of creating conducive environment for cooperative learning and conducting case study or action research about the effectiveness, factors, possible solution, and on school environment for cooperative learning method in the schools.

iv. The majority of study participants were agreed that while they participating in CL group it helps them to develop social benefit within their group.

v. The students while they involve with different types of activities during CL they can share skills, knowledge and attitudes from the given tasks almost all agreed that the cooperative learning method was help to enhance creativity.

vi. The mean scores of item number 1, 2, 3. 4 and 6 were lie in between the rating scale 4.21 - 5.00 which means strongly agree. In addition, item number 5 was lie in between the rating scale 3.41 – 4.20 which means agree. The results of the data revealed that cooperative learning method is help to develop psychological benefits for the students.

vii. The mean scores of all item number were rest between rating scale 4.21-5.00 which means strongly agree. The results of the data revealed that cooperative learning method is help to improve academic benefit for the students.

viii. The social benefit of CL between grade 9 and grade 10 students were not significant different the Levine's test is greater than 0.05 with data collection instrument questions of item number 1, 2, 3, and 5 of mean scores were the same. Contrary, item number 4 and 6 the Levine's test were less than 0.05, which means that the variance for the two groups grade 9 and grade 10 mean scores were significantly different, thus the degrees of students working with their classmate collaborative manner was different during cooperative learning.

ix. The view of grade 9 and grade 10 students regarding the cooperative learning to enhance creativity were on item number 1, 3, 4, and 6 the Levine's test greater than 0.05, which indicate us the variance for the two groups are the same. Contrary, item number 2 and 5 the Levine's test was less than 0.05, which means that the variance for the two groups were different.

x. The psychological benefit of CL between grade 9 and grade 10 students were not significant different the Levine's test is greater than 0.05 with data collection instrument questions of item number 2, 5, and 6 the Levine's test were greater than 0.05, which means that the variance for the two groups is the same, Contrary, item number 1, 3 and 4 the Levine's test were less than 0.05, which means that the variance for the two groups were different.

xi. The academic benefit of CL between grade 9 and grade 10 students were not significant different the Levine's test is greater than 0.05 with data collection instrument questions of item number 1, 2, 3, 4, and 6 the Levine's test were greater than 0.05, which means that the variance two groups were the same. Contrary, item number 5 the Levine's test (F=4.023) was less than 0.05, which means that the variance for the two groups was different.

5.3 Recommendations

Based on the above major findings, the following recommendations have been forward:

i. Teachers should be encouraging students to participate and engage in cooperative learning to be identify it as part their teaching and learning time.

ii. To implement cooperative learning requires attractive classrooms with enough space for making proper seating arrangement. But this study revealed that conducive of the classrooms found to be poor.

iii. The schools should be placed the students based on standard number of students in each classroom and available materials/equipment's for PE classes to manage the teaching learning process as well as CL class smoothly.

iv. Federal Democratic Government of Ethiopia Minister of Education (Policy maker) period allotment for PE should be considered the CL with incorporate contents in the curriculum.

v. Finally, the researcher strongly recommended that, the schools and the teachers should work together to improve the school environment so as to create conducive cooperative learning for implementation of quality of education.

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APPENDIXES

Appendix- A

Hawassa University

College of Natural and Computational Sciences

Department of Sport Science

Questionnaires fulfilled by Physical Education Teachers

Dear Teacher,

My name is Tigist Mergia I am Master's program student in the Department of Sport Science Specialization in Teaching Physical Education in the area of teaching methods of Physical education. Our study is an assessment of the implementation of cooperative learning in teaching physical education in selected secondary schools of Hawassa city administration, Sidama region. The purpose of the study is to assess, interpret and compare the grade 9 and grade 10 cooperative leaning physical education classes. This study will not necessitate any type of intervention on teacher or students; it will simply involve observing them in their natural setting in order to interpret observed classes. The instrument used will describe the teacher's and students' behaviour during instruction. Finally, interviews will be used to elicit the teachers and student' perceptions of the cooperative learning program and achievement levels. Information collected will be confidential and anonymous. I hope that you will be willing to participate in this study so that we can work toward the further development of this innovative curriculum of cooperative learning in physical education.

Part I: Personal Information

Name of school _____

1. Age: A. 20-25 years ☐ B. 26-30 years □ C. 31-40 ☐ years D. >40 years ☐
2. Sex: A. Male ☐ B. Female ☐
3. Educational qualification: A. Diploma □ B. BA/BEd/BSc ☐ C. MA/MEd/MSc ☐
4. Year of services after graduation from College/University:

A. 1-5 ☐ B. 6-10 ☐ C. 11-15 ☐ D. >15 ☐

Part II: About the effectiveness of cooperative learning approaches

Put your judgment using a mark of "✓" under the indicators that correspond to the key characteristics

No.	Cooperative learning perception	Level of proficiency			
		Agree (1)	Disagree (2)	I do not realize (3)	Undecided (4)
1	Collaborating to work with each other in the school community				
2	Teaching the students cooperatively rather than conventional lecturing				
3	Implementing cooperative learning approaches on a regular basis				
4	Organizing the students to work on the basis of interest and academic achievement level				
5	Grouping students regarding achievement division (higher achievers organized alone, and middle and lower achievers distinctly)				
6	Surveying their levels and scaling up their achievement division after subsequent measurement through test or other mechanisms				
7	Sharing experience with peers on the consecutive execution of cooperative learning approaches				
8	Developing ways to enhance all-round participation of the students during cooperative learning approaches				
9	Providing appropriate reinforcement and initiation to do things in group				
Lesson evaluation					
10	Intending the annual plan in accordance with cooperative learning activity				
11	Integrating cooperative learning activities with the lesson objectives				
12	Allocating the appropriate depth of the lesson for cooperative learning in accordance with their achievement division				
13	Dividing the lesson into small and easily digestible pieces for the discussion (explain prerequisite facts and reteaching if necessary)				
14	Maintaining proper time for discussion and allowing them to reflect their ideas at the time of discussion				
15	Providing review or stabilizing the lesson following students' discussion				
16	Evaluating students' attitude and understanding frequently following the cooperative learning activities (by giving questions and group and individual works)				
School environment					
17	Arranging proper placement for the students during CL				
18	Creating conducive environment for cooperative learning				
19	Monitoring the behaviour of the students when in discussion and advising those disrupting the class				
20	Attending (controlling) the students regularly using various monitoring mechanisms during cooperative work				
21	Conducting case study or action research about the effectiveness, factors, possible solution, and on school environment for cooperative learning activities				

Part III: Open-ended questions

(1) How do you see the students' willingness to participate in the corporative learning (CL) approaches?

_____

_____

_____

(2) Have you grouped students based on their interests and academic performance? If no, what kind of problems hinders you to do so?

_____

_____

(3) In your view, what are the factors that hamper or promote the effective accomplishment of cooperative learning approaches in your school environment?

_____

_____

_____

_____

_____

(4) What possible solution did you provide for the problem facing you up on the successive implementation of cooperative learning approaches?

_____

_____

_____

_____

(5) Provide your overall comments and suggestions on the relevance of cooperative learning regarding achievement levels for students' academic performance.

_____

_____

_____

_____

Thank you for your cooperation in advance!!

Appendix- B

Hawassa University

College of Natural and Computational Sciences

Department of Sport Science

Questionnaires fulfilled by student (grade 9 and 10)

Dear respondent, this questionnaire is designed to investigate student's attitude toward Cooperative Learning. The researcher really appreciates your cooperation and participation.

Part one: Background information.

1. Name of the school _____

2. Age _____ 3. Sex _____ 4. Grade level _____

Part Two Instruction

To respond to this questionnaire, please put a check mark (✓) in the appropriate box to indicate your level of agreement or disagreement with the statements: -

1 (strongly disagree); 2 (disagree); 3 (neutral); 4 (agree); and 5 (strongly agree).

I. Social Benefit					
1. I willingly participate in cooperative learning activities.	1	2	3	4	5
2. When I work with other students, I achieve more than when I work alone.	1	2	3	4	5
3. Cooperative learning can improve my attitude towards work.	1	2	3	4	5
4. Cooperative learning helps me to socialize more.	1	2	3	4	5
5. Cooperative learning enhances good working relationships among students.	1	2	3	4	5
6. Cooperative learning enhances class participation.	1	2	3	4	5
II. Enhance Creativity					
1. Creativity is facilitated in the group setting	1	2	3	4	5
2. Group activities make the learning experience easier.	1	2	3	4	5
3. I learn to work with students who are different from me.	1	2	3	4	5
4. I enjoy the material more when I work with other students.	1	2	3	4	5
5. My work is better organized when I am in a group.	1	2	3	4	5
6. I prefer that my teachers use more group activities / assignments	1	2	3	4	5

III. Psychological benefit					
1. I enjoy the class more when I work with other students.	1	2	3	4	5
2. When I work in a group, my work habits improve and impressed during the class	1	2	3	4	5
3. When I work in a group, I do have better motivations in quality learning in the class	1	2	3	4	5
4. The work load is usually less when I work with other students	1	2	3	4	5
5. I feel working in groups is a waste of time. *(I do not feel working in groups is a waste of time.)	1	2	3	4	5
6. My grades improve when I work with other students.	1	2	3	4	5
IV. Academic Benefit					
1. When I learn in a group, I get the grade what I deserve	1	2	3	4	5
2. When I learn in a group, there are opportunities to express my opinions	1	2	3	4	5
3. My group members benefit me to communicate and get tutor from class mate	1	2	3	4	5
4. I help my group members with what I am good at.	1	2	3	4	5
5. I have to work with other students who are not as smart as I am	1	2	3	4	5
6. I am forced to work with students I to have better academic achievement	1	2	3	4	5

Appendix- C

ሀዋሳ ዩኒቨርሲቲ

የተፈጥሮና ቀመር ሣይንስ ኮሌጅ

የስፖርት ሣይንስ ትምህር ት ክፍል

በ9ኛ እና 10ኛ ክፍል ተማሪዎች የሚሞላ መጠይቅ

ክፍል 1፡- ግላዊ መረጃ

1. የት/ቤቱ ስም _____

2. ዕድሜ_____ 3. ጾታ_____ 4. የክፍል ደረጃ _____

ክፍል 1፡- *መመርያ*

ውድ ተማሪዎች ከዚህ በታች ያለውን መጠይቅ ምላሽ ለመስጠት ከመጠይቁ/ ከዐረፍተ ነገሩ ፊት ለፊት በተዘጋጀው ሣጥን/ሠንጠረዥ "✓" መስማማትህን/ሽን ወይንም ያለምስማማትህን/ሽን ደረጃ ፡-

ነ. በጣም አልስማማም 2. አልስማማም 3. ለመወሰን እቸገራለሁ 4. እስማማለሁ 5. በጣም እስማማለሁ

ውድ ተማሪዎች

ይህ መጠይቅ የተዘጋጀበት ዋና ዓላማ ተማሪዎች በቡድን (በጋራ) መማር ላይ ያላቸውን አመለካከት (ምልከታ) ለማጥናት አስፈላጊውን መረጃ ለመሰብሰብ ነው፡፡ መጠይቁ ውስጥ የሚገኙ ዝርዝሮች በቀጥታም ሆነ በተዘዋዋሪ የግለሰቧን (የግለሰቡን) በቡድን ወይም በጋራ መማር ተግባር ላይ ያላቸውን ስሜት ይዳስሳል፡፡

አንተ (አንቺ) ምን ያህል ከእያንዳንዱ ዝርዝር ጋር እንደምትስማማ (እንደምትስማሚ) ከተሰጡት ባለአምስት ደረጃ አማራጮች አንዱን በመምረጥ እና እንደምትስማማ (እንደምትስማሚ) አሳዩ፡፡ አምስት አማራጮች በጣም አልስማማም፤ አልስማማም፤ እርግጠኛ አይደለሁም፤ እስማማለሁ፤ በጣም አስማማለሁ ናቸው፡፡ ስሜትህን (ስሜትሽን) በተሻለ ይገልፅልኛ የምትለውን (የምትይውን) ምላሽ ''✓'' በማድረግ አመልክቱ፡፡ ትክክለኛ እና አስተማማኝ ምላሾ ለጥናቱ መሳካት ታላቅ አስተዋፅአ ያደርጋል፡፡

ስለተባበራችሁኝ አመሰግናለሁ ::

1) ማህበራዊ ጠቀሜታ	በጣም አልስማም	አልስማማም	ለመወሰን እቸገራለሁ	እስማማለሁ	በጣም እስማማለሁ
1. በጋራ ጥናት /ትምህርት ላይ በፈቃደኝነት እሳተፋለሁ፡፡	1	2	3	4	5
2. በግሌ ከመማር ይልቅ ከሌሎች ተማሪዎች ጋር በጋራ ስሰራ የበለጠ ውጤታማ እሆናለሁ፡፡	1	2	3	4	5
3. በቡድን /በጋራ መማር ለትምህርት ያለኝን ፍላጎት ይጨምራል፡፡	1	2	3	4	5
4. በቡድን /በጋራ መማር ማህበራዊ ህይወቴን አዳብሮልኛል፡፡	1	2	3	4	5
5. በቡድን /በጋራ መማር በተማሪዎች መካከል ያለውን ለትምህርት የመተጋገዝ ባህልን ያዳብራል፡፡	1	2	3	4	5

6. በቡድን /በጋራ መማር የክፍል ውስጥ ተሳትፎን ይጨምራል፡፡	1	2	3	4	5
2) ፈጠራን ማበረታት /መጨመር					
1. በቡድን /በጋራ መማር የፈጠራ ስራን ያዳብራል፡	1	2	3	4	5
2. በቡድን /በጋራ መማር የሚሰጡ የትምህርት መልመጃዎችን ቀላል ያደርጋል፡፡	1	2	3	4	5
3. የቡድን /የጋራ ትምህርት የተለያዬ ዕውቀትና ክህሎት ካላቸው ተማሪዎች ጋ እንዴት አብሬ መማር እንዳለብኝ እንዳውቅ አድርጎኛል፡፡	1	2	3	4	5
4. በቡድን /በጋራ እንድንሰራ የሚሰጡንን የተለያዩ መልመጃዎችን መስራት ያስደስተኛል፡፡	1	2	3	4	5
5. ስራዎቼ የበለጠ የሚቀናጁት ከቡድን ኣጋሮቼ ጋር በመተግበር ስሰራ ነው፡፡	1	2	3	4	5
6. ከግል ስራ ይልቅ መምህራኖቼ በጋራ የሚሰሩ መልመጃዎችን ቢሰጡ እመርጣለሁ፡፡	1	2	3	4	5
3) ሥነ-ልቦናዊ ጠቀሜታ					
1. ከሌሎች ተማሪዎች ጋር በጋራ ስሰራ ትምህርቱን የበለጠ እወደዋለሁ. ፡፡	1	2	3	4	5
2. ከቡድን ኣጋሮቼ ጋር በጋራ ስንሰራ ለመማር ያለኝ ልምድና ፍላጎት ይሻሻላል፡፡	1	2	3	4	5
3. በጋራ መስራት በክፍል ውስጥ የሚሰጠውን ትምህርት ጥራት ይጨምራል፡፡	1	2	3	4	5
4. ከቡድን ኣጋሮቼ ጋር በጋራ ስንሰራ የምንሰራው ስራ ጫና ይቀንሳል፡፡	1	2	3	4	5
5. በቡድን /በጋራ መስራት ጊዜ ያባክናል፡፡	1	2	3	4	5
6. ከሌሎች ተማሪዎች ጋር በጋራ ስሰራ የትምህርት ውጤቴ ይሻሻላል፡፡	1	2	3	4	5
4) የትምህርት ጥቅም					
1. በጋራ ስሰራ የምፈልገውን ውጤት አሰመዘግባለሁ፡፡	1	2	3	4	5
2. ከቡድን ኣጋሮቼ ጋር በጋራ ስንሰራ የእኔን ሃሳብ ለመግፅ ዕድል አገኛለሁ፡፡	1	2	3	4	5
3. የቡድን ኣጋሮቼ ከሌሎች ተማሪዎች ጋር በቀላለ እንድግባባ እና የተሻለ ውጤት እንዲኖረኝ ይረዱኛል፡፡	1	2	3	4	5
4. እኔ ውጤታማ የሆንኩበት ላይ የቡድን ኣጋሮቼን እረዳለሁ፡፡	1	2	3	4	5
5. ከእኔ በታች ውጤት ከሚያስመዘግቡ ተማሪዎች ጋር አብሬ መስራት እወዳለሁ፡፡	1	2	3	4	5
6. የተሻለ የትምህርት ስኬት /ውጤት እንዲኖረኝ ከሌሎች ተማሪዎች ጋር በጋራ መስራት ይኖርብኛል፡፡	1	2	3	4	5

Appendix- D

Hawassa University

College of Natural and Computational Sciences

Department of Sport Science

Interview questions for Physical education Teachers

Dear respondents,

This interview is part of the study designed to collect data on the title, "Assessing the implementation of Cooperative Learning in teaching Physical education in the selected Governmental school secondary schools in Hawassa University City Administration Sidama regional State". So, your responses for all parts of the interview would be kept confidential.

Part I. General Information

1. Sex_____
2. Age_____
3. Qualification _____
4. Current position_____

Part II: Question items

1. What do you understand about the concept of cooperative learning (CL)? And how do you evaluate your school's teachers' and students' concept and attitude about CL?
2. Do the students perceive that they are linked with group members in such a way that they cannot succeed unless their group members succeed?
3. Do all students actively engage at the same time during theoretical & practical class?
4. Do the students build strong cooperation among group members on things like leadership, decision making, trust building, communication and conflict management skills?
5. What do you suggest to improve the implementation of CL?

Appendix- E

Hawassa University

College of Natural and Computational Sciences

Department of Sport Science

Classroom observation checklist of teachers during practical and theoretical class

Teacher name _____ Date _____ Grade _____Section _____No. of Students _____ Period _____

Direction: Tick "Yes" if the appropriate activity is observed or "No" if it is not observed.

No	Instructional activity	Availability on the lesson	
		Yes	No
1	**Positive interdependence**		
1.1	Teacher divides a task in to jobs for students		
1.2	Students learn a topic and then teaches it to the group		
1.3	Teacher offers a reward if everyone in the group succeeds		
2	**Individual and group accountability**		
2.1.	Students do the work before bringing it to the group		
2.2	One student is chosen at random and questioned on the material the group has studied		
2.3	Students receive bonus points if all do well individually		
2.4	Teacher observes students taking turns orally rehearsing information		
3	**Social skills**		
3.1.	Students listen to others		
3.2.	Everyone has the opportunity to speak		
3.3.	Everyone speaks freely		
4	**Face to face interaction**		
4.1	Students explain orally how to solve a problem		
4.2	Students discuss a concept with others		
4.3	Students teach classmates about a topic		
4.4	Students help each other connect present and past learning		

Appendix- F

Hawassa University

College of Natural and Computational Sciences

Department of Sport Science

Class observational checklist for Students during practical and theoretical class

	I. Activities of the students	**Yes**	**No**
1	The students were interested in the lesson		
2	The students were freely participating in the activities		
3	The students were doing task assignments in subject by their own initiations		
4	The students were misbehaving in the classroom		
5	The students were ready to do in their group		
	II. Group contains all the members		
1	The group has time keeper		
2	The group has resource manager		
3	The group has scribe (Clerk)		
4	The group has facilitator		
5	The group has presenter		
	III. Classroom condition (Practical & theoretical)		
1	The number of the students in the was moderate		
2	The classroom has enough space for movement		
3	The classroom has adequate chairs and disks /equipment's for practical activity		
4	The disks are comfortable to do group work/the equipment's are comfortable		