THE IMPLEMENTATION OF GROUP- BASED COOPERATIVE LEARNING AS A METHOD OF INSTRUCTION IN TEACHER EDUCATION COLLEGES: THE CASE OF DESSIE COLLEGE OF TEACHER EDUCATION

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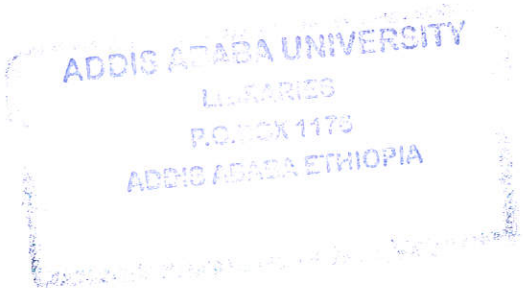

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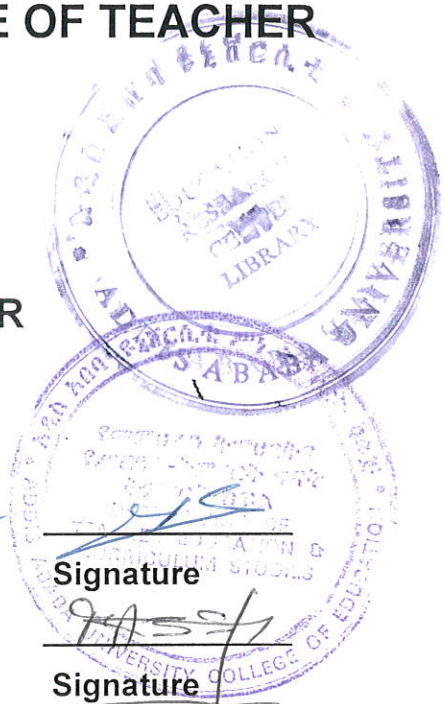

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List of Acronyms

TGE: Transitional Government of Ethiopia

MOE: Ministry of Education

TESO: Teacher Education System Overhaul.

GCL: Group-based Cooperative Learning.

ICDR: Institution for Curriculum Development and Research

TEIs: Teacher Education Institutes

CTE: College of Teacher Education

TTI: Teacher Training Institute.

TTC: Teacher Training College.

USAID/AED: United States Agency for International Development/ Academy for Educational Development

FGD: Focus Group Discussion.

ABSTRACT

The main purpose of this study was to assess the implementation of group-based cooperative learning in Dessie College of Teacher Education. To deal with the problem, five basic research questions were formulated. The research questions were focused on the extent to which group-based cooperative learning methods have been practiced, practical experiences of teacher educators in applying GCL methods, knowledge about group-based cooperative learning, attitudes toward GCL and factors inhibiting the implementation of GCL.

To conduct the study, descriptive survey method was employed. It was carried out in teacher's College of Amhara Region and the sample covered only Dessie College of Teacher Education. Purposive sampling was used in the selection of the college and the training program (10+3 third year student teachers). By using random sampling 28 teacher educators and 145 student teachers were selected. The main instrument of data collection was questionnaire. It was also substantiated with interview, focus group discussions and observations. Mean, standard deviation, frequency and percentage were used to analyze the closed ended data whereas qualitative data analysis was used with the data obtained through open-ended questionnaire, interview and observation.

The result of the study showed that the magnitude of practicing a variety of group based cooperative learning methods in Dessie CTE was low. Teacher educators found to have less experience on the necessary skills to practice a variety of GCL activities particularly, in preparing students to GCL, assigning students in appropriate groups, designing relevant tasks, monitoring and evaluating GCL activities. Though the knowledge of teacher educators on GCL is encouraging, student teachers do not have adequate knowledge as much as expected. The attitude of teacher educators and student teachers towards GCL is encouraging. The major factors perceived by the teacher educators and student teachers as impediments to the utilization of GCL were the tendency of teacher educators to the traditional lecture method, lack of well developed training modules, problem of evaluating each trainee fairly, shortage of time, lack of interdependent work among students and lack of adequate training were found to have negative effect for the effective implementation of GCL in DCTE.

Finally, the recommendations were given based on the major findings so as to minimize and if possible to solve the problems encountered in the effective implementation of group-based cooperative learning.

CHAPTER ONE

1. Introduction

1.1 Background of the Study

In the traditional approach to college teaching, most time is spent with the teacher lecturing and students are generally considered as passive learners and recipients of the educational content (Fleder and Brent, 1999). In this approach, the students are expected to work different activities individually and the mode of assessments of the student learning are based on their individual work such as quizzes, examinations and tests regardless of group cooperation (Johnson and Johnson, 1990). In this context, there is very little interaction among the students and they rarely have an opportunity to work together as a team or in group and cooperate in their learning process. Thus, such teacher-centered approach makes students rely mainly on the teacher, 'the knowledge expert', for their knowledge and information.

Group-based cooperative learning method, however, is an instructional method in which students are grouped in small learning teams and work in cooperation with each other to solve a common problem or to perform a task (Johnson and Johnson, 1990) They further stated that students learn content through group activities when they interact with each other, exchange information and knowledge, and work as a team to achieve the learning goals. This learning approach is student-centered which encourages students to cooperate and collaborate with each other in achieving their learning outcomes. According to Cohn (1994), terms that are synonymous with group learning include collaborative learning, cooperative learning, and group-work. Cohn (1994:4) added that these similar terms are used to describe "students working together in a group small enough that everyone can participate on a collective task that has been clearly assigned"

Currently, there are a number of institutions that carryout teacher education in Ethiopia. As indicated in the Ethiopian Education and Training Policy Document, the previous curriculum design and instructional process of teacher education colleges suffered from

old and traditional approach (TGE, 1994). In this old model of education, often called teacher-centered education, the teacher was the center of the teaching learning process. This implies that the teacher usually used "chalk and talk" or other methods of teaching in which the teacher is active and the students are passive. Hence, in trying to address the serious problems present in the education system, the Ethiopian Government has called for a complete Teacher Education System Overhaul (TESO). The changes involve the pre-service, in- service, teacher educators, selection of trainees and the education system (MOE, 2003). In this regard, "Teacher Education Institutes are in a central position to make changes and to spread new ideas or to change some of the harmful or out-dated ones within the institution as well as communities" (ibid:2). Active learning, as the basis of the teaching learning process, is one of the changes introduced in the Ethiopian Educational Institutions. One of the ways of encouraging active and student centered learning is to make the trainees to work cooperatively in groups. Cooperative group work takes many different shapes and forms. It can involve pairs of trainees working together or it can involve groups of 5 to 6 trainees working together, or it can also involve trainees who work individually and then come together in groups to compare and discuss the results of their work (Leu, 2000). It is, therefore, agreed that cooperative group work is one of the most important methods of learning in the teaching-learning process.

Cooperative group-work is introduced into the teaching-learning process with the purpose of exploring practical skills -- making the learning process more dynamic, active, more relevant, and more learner- centered and thereby avoiding the traditional seeing of learners as 'passive consumers' (Hopkins, 2002).

In ages when there is information explosion, it is unrealistic for one person to give all the skills, knowledge and attitudes to a class of learners and this is one of the main reasons for introducing group-based cooperative learning method in the teaching learning process.

Teaching and learning in small groups has a valuable part to play in the all round education of students. It allows them to develop the transferable skills such as organization, negotiation, delegation, teamwork, and cooperation and leadership. It also

enables them to express themselves in the language of the subject and also helps them to develop the skills of listening, presenting ideas and persuading (Aggarwal, 1998).

Colorado (2005: online), on the effects of cooperative group work, has to say the following:

> *"Such environments give to students: socio-emotional benefits from interpersonal relationships; added psychological health by learning to see the perspective of others, taking on more positive attitudes toward peers, and developing higher self-esteem; the ability to probe more deeply and critically into course material; and often greater academic success and attitudes more positive about learning."*

Recently, group-based cooperative learning seems to become one of active learning strategies and is an increasingly used component of student learning in Dessie College of Teachers Education and in other educational institutions. However, the implementation of group–based cooperative learning depends upon the knowledge and feeling of members of the institute (i.e., student teachers, teacher educators, and other external community at large). In line with this view, many teachers believe that they are implementing group–based cooperative learning when in fact they are missing the essence (Johnson and Johnson, 1990).

Putting students into groups is not the same thing as structuring cooperation among students. Cooperative group learning is indicated whenever appropriate groups are formed, relevant tasks are designed, group process and conflict are properly monitored and finally both the process and product of the group's learning goals are appropriately assessed (University of Technology Sydney (UTS) Institute for Interactive Media and Learning (IML) (2003) in Enhancing Experiences of Group work.

While many teacher educators would like to include cooperative group work in their teaching-learning process, there is often hesitation because of unfavorable experiences when groups quarrel and have failed to complete the tasks, left the task to one or a few students (Aggarwal, 1998). However, as it is stated by Fink (1999), most teacher educators want to move past passive learning where the students receive information from their teacher to active learning where the students become the main actors in the

teaching learning process and the teacher serves as the facilitator of the learning process.

On the other hand, Evan and Nation (1996) stressed that most student- teachers fall in to the old cultural trap and expect their instructors to lecture them in traditional classroom manner. Sometimes, even surprisingly, it is observed that student teachers may consider their instructors who initiated the trainees to participate in group–based cooperative learning as incompetent and not well planned (ibid). Hence, unless carefully managed, group-based cooperative learning's disadvantages outweigh its advantages and it may turn to be as boring as the traditional lecture mode. From the above discussion and the views of different scholars, one can easily understand that group–based cooperative learning is one aspects of active learning that plays a significant role so as to develop student teacher's knowledge, attitude and skills in the teaching–learning process. Therefore, the intention of this study is to examine the implementation of group–based cooperative learning method in Dessie College of Teacher Education.

1.2 Statement of the Problem

As it is indicated by Leu (2000), to make practical the new Ethiopian Training Policy Document, extensive changes have been made to reform the curriculum in different ladders of education, including teacher training institutes and colleges. The shift in the new teacher education curriculum emphasizes a change from a rote, passive learning to a more active, learner-focused education and the development of higher-order thinking skills as the basis of the teaching and learning process (MOE, 2003). In addition, the introduction of "Teacher Education System Overhaul program (T.E.S.O)" makes the TEIs to consider the practice of participatory, active learning in the pre-service program of teacher education (ibid).

Though one way to promote active learning approach in college classroom is to incorporate group-based cooperative learning method, educators have noted that there is a problem in teacher training programs because they failed to relate theory with practice. In this regard, Amare (2000) has explained that student teachers could get the exposure to new instructional perspectives but the problem is partly explained by the

conflict between what the student teachers are" told to do so" and by what their teacher educators "actually do". He further explains, in theory, teacher educator may advocate two-way communication, which is cooperative learning; whereas in practice he/she limits to one-way communication, which is teacher-dominated or passive learning.

By now, like other Ethiopian Teacher Education Institutes, Dessie College of Teacher Education is one of the Teacher Education Institutes found in the Amhara Region that is practicing different active learning strategies in both 10+1 and 10+3 training programs to produce effective teachers.
To promote active learning, teacher educators across the disciplines have incorporated cooperative group work into their teaching for the last few years.

However, the researcher of this study from his personal experiences as a teacher educator in one of the TECs found in Amhara Region has faced and observed some group work related problems during the implementation of cooperative group work. Particularly, lack of cooperation among student teachers and dissatisfaction of certain student teachers on their group work results were the major problems during the implementation of cooperative group work method in DCTE.

In relation to this method of instruction, USAID/AED (2006) reported that in Ethiopia the Ministry of Education is emphasizing active learning methods and more teacher educators are employing group activities and group projects. However, many teacher educators have stated that they are not satisfying with the way they are currently grading group projects. Teacher educators are particularly concerned that the grades given to individual students are invalid because some students do not participate properly in the group work and many do not learn the basic concepts and skills they are supposed to learn from the group activities.

Again, it is doubt of the researcher that whether one of the paradigm shifts of the education system of Ethiopia particularly active or cooperative learning method is well understood and properly implemented by the student teachers and teacher educators. Moreover, no studies have been conducted so far to assess the implementation of group-based cooperative learning method in the college. Therefore, the researcher of

this study was initiated to conduct a research on this topic so as to identify major problems and suggest possible solutions.

Thus, the main purpose of this study was to assess the implementation of GCL in Dessie C.T.E. Accordingly, in order to meet this purpose, the following basic research questions were raised to be answered in this study.

- To what extent are group-based cooperative learning methods practiced in Dessie CTE?
- Do teacher educators have the necessary practical experience in applying GCL?
- Do teacher educators and student teachers have the required knowledge about GCL?
- What are the attitudes of teacher educators and student teachers toward GCL?
- What are the major factors that inhibit the implementation of GCL?

1.3 Significance of the study

It is believed that effective teachers can be produced if they are trained through effective teaching methods. Hence, this study aims to assess the implementation of GCL in Dessie CTE. Accordingly, the finding of this study may have the following significances.

- It helps to reduce the most critical problems that inhibit the implementation of group- based cooperative learning method in the college.
- It will provide insights about the implementation of group-based cooperative learning method for Dessie CTE in particular and for other colleges of the Amhara Region in general
- It will also serve as a reference to those who conduct a research on the topic.

1.4 Delimitation of the study

Among the four governmental teacher education colleges found in Amhara Region; namely Debre Birhan, Dessie, Gonder and Debremarkos Colleges of Teacher Education, this study was delimited to Dessie College of Teacher Education. Dessie CTE was preferred as a study site because the researcher has worked as a teacher educator for some years in the college and it was believed that data could be easily available.

In Dessie CTE, group-based cooperative learning method is introduced in both 10+1 and 10+3 training programs. However, the study was delimited to 10+3 training program of third year student teachers. This was due to the fact that this group of student teachers has stayed for three semesters and could give reliable information on the implementation of group-based cooperative learning method in the college than first year student teachers who have experiences with the issue only for a semester. Second year student teachers were excluded from the study for they were out side the college for practicum throughout the year. Furthermore, the study was delimited to the implementation of group-based cooperative learning method among various instructional methods.

1.5 Limitation of the Study

In studying the practice of GCL method, the problem of literature was a challenging. Moreover unwillingness of some teacher educators to be observed in the classroom was another problem encountered in conducting this study. In spite of these, the researcher has attempted to make the study as complete as possible.

1.6 Operational Definition of the key terms

- Group-based cooperative learning: is used as a synonym for cooperative group learning and refers to an instructional method of teaching in which students at various performance levels work together in small groups to ward a common goal and the instructor serves as a facilitator in the group-based cooperative learning process (Cohn, 1994). Through out this paper, the term group-based cooperative learning and cooperative group work is used interchangeably, recognizing that cooperative learning is the goal of these two terms.
- Implementation: refers to how the teaching-learning activity put into practice in or out of a classroom by teacher educator and student teachers in the college.
- Practical experience: refers the skills of teacher educators in applying GCL methods.
- Teacher Education College: an institute that provides a pre-service teacher education program for three years to qualify in diploma level and assign them to teach in primary schools of second cycle (5-8 grades).
- Teacher educators: instructors who teach or train the student teachers in the teacher education college.
- Student teachers: the would be teachers or prospective teachers who are attending the training in the teacher education college.

CHAPTER TWO

2. Review of Related Literature

2.1 Philosophical Approaches of Positivism and Constructivism to Teaching and Learning

In order to effectively implement any instructional methods in the teaching-learning process, educational professionals in general have a responsibility to understand the philosophical assumptions (the philosophical paradigm) on which it is based (Leu, 2000). A comprehensive discussion of the underlying approaches is far beyond the confines of this study. However, it is imperative to orient one self in these matters so as to provide some insights about their implications to teaching-learning process in general and methods of teaching in particular.

Thus, this section will briefly present the major philosophical assumptions of positivism and constructivism including their implications for the teaching-learning process.

2.1.1 Positivism Approach to Teaching and Learning

Positivism has dominated the field of education for several years. In the positivist approach, knowledge is fixed, "out their," and the goal of teaching is to transmit such a commodity to students (Arseneau and Rodenburg, 1998). Knowledge is thus centered on the teacher, who transmits it to students, who passively consume it. Similarly Long (2000) says, within a positivistic tradition, the learner was, and still is, seen as relatively passive, simply absorbing or memorizing facts or information transmitted by a didactic teacher. He added that these pieces of information are usually taken from the academic disciplines, for the purpose of repeating them.

Arseneau and Rodenburg (1998) also stated positivist views as students learn what they hear and what they read. If a teacher explains abstract concepts well, students will learn those concepts. They further indicated that learning in positivist view is successful when students can repeat what was taught.

The task of curriculum developers for positivists is, therefore, to "design the curriculum and different curriculum materials that present in a straight-forward manner a large amount of information for the pupil to learn memorization" (Leu, 2000:4). In the same way the teacher's task is simply transmitting these prescribed pieces of information from the curriculum materials to the students as efficiently as possible (ibid). This means that methodology is perceived as being less important than grasping the subject manner. Thus, one can easily understand the positivist perspective as emphasizing on using pedagogy of rote learning or 'chalk and talk' method of teaching rather than on active or cooperative learning methods.

2.1.2 Constructivism Approach to Teaching and Learning

Constructivism is a fundamental departure in thought about the nature of knowing, hence of learning and thus teaching. For example, Sarantakos (1998) indicated that constructivists believe that "knowledge and truth are constructed by people and do not exist outside the human mind". Vygotisky (1978), one of the social constructivists, argues that knowledge is produced or made meaningful through interaction between the learner and the world around him/her. This interaction hence leads to interpretation and understanding, not just memorization. Within the constructivist paradigm, knowledge is seen as being holistic, unified, coherent and interrelated rather than made of a separate bits and pieces of information (Leu, 2000).

In relation to this view, Lave and Wanger (1991) describe learning as active process of integrating new experiences and information with existing concepts rather than memorizing facts. This means that instead of simply absorbing ideas, which is advocated in the positivist paradigm, students take those ideas and assimilate them with their pre-existing notions and experience to modify their knowledge and understand in a more complex, complete and refined way.

In this approach, the task of the students is to interact with the world around him/her, to understand, think critically, make linkage, interpret, analyze, draw conclusions and communicate about what he/she is learning, not just to absorb and accurately repeat information (Wool folk, 1993). In the same way the teacher's task is to use classroom

teaching methods that encourage students to be as active as possible by analyzing and interpreting knowledge through the use of problem-based learning, project-based learning, discovery learning and group-based cooperative/collaborative learning (Leu, 2000). Copley (1992), also stated that constructivism requires a teacher who acts as a facilitator whose main function is to help students become active participants in their learning and make meaning connections between prior knowledge, new knowledge and the processes involved in learning.

To sum up, the philosophical assumptions of constructivism are very different from the positivist assumption to teaching and learning. Constructivism focuses on the process of learning where the learners construct their own sets of meaning about the world as active constructors of knowledge. Positivism, however, emphasizes on passing knowledge from the teacher to the students, which may promote passive or rote learning. Thus, from the above discussions and views of different scholars one can easily understand that constructivism needs teaching students how to work together to solve problems through active learning strategies like group-based cooperative and collaborative learning methods. On the other hand, positivism stresses on the traditional transmission of knowledge from the teacher to the students which is usually called 'chalk and talk' or 'banking' method of teaching.

2.2 Basic Concepts of Group-Based Cooperative Learning

2.2.1 Definitions

As Paquette (1996) points out, it is difficult to produce a definition of group-based learning which will be acceptable to everyone. However, it is possible to provide some generally acceptable definitions. Group-based learning is used as the overarching principle, which refers to any grouping of learners to discuss, debate, and exchange ideas or to encourage and motivate each other. Within group-based learning, we may find collaborative and co-operative learning.

Collaborative and cooperative learning are so closely related that the two terms are often used interchangeably (Palmer, Peters, & Streetman, 2003). Of the two,

collaborative learning is the least structured. In collaborative learning activities, though learners aim at the same goal, the process is less clearly defined (i.e., members of the group discuss and negotiate the process). However, in co-operative learning the process is often recommended or imposed. In terms of relationship, collaborative learning seeks egalitarian interdependence (i.e., group members choose each other) while co-operative learning often imposes group structure i.e., it is decided by the teacher (Paquette, 1996).

Johnson and Johnson (1989) critically point out that cooperation, a form of collaboration, is working together to accomplish shared goals. Whereas collaboration happens in both small and large groups, cooperation refers primarily to small groups of students working together. They further indicate that many teachers and whole schools are adopting cooperation as the primary structure for classroom learning.

Thus, the term "group-based cooperative learning", which is the focus of this study will be used in this paper. Cuseo (1992) defines group-based cooperative learning as a learner centered instructional process in which small group of students work interdependently in a well-defined learning task; individual students are held accountable for their own performance and the instructor serves as a facilitator or consultant in the group learning process.

The concept of cooperative learning has been widely researched and advocated throughout the professional literature. According to Johnson and Johnson, and Holubec (1986), the term "cooperative group learning" refers to an instructional method in which students at various performance levels work together in small groups toward a common goal. The students are responsible for one another's learning as well as their own. Thus, the success of one student helps other students to be successful. Similarly, Panitz (1996) also defines as it is a teaching strategy which allows students to work together in small groups with individuals of various talents, abilities and backgrounds to accomplish a common goal. He added that each individual team member is responsible for learning the material and also for helping the other members of the team to learn. Students are, therefore, work until each group member successfully understands and completes the

task or assignment. Johnson, Johnson and Holubec (1986:184) state that:

> *"The main purpose of group-based cooperative learning is to actively involve students in the learning process; a level of student empowerment which is not possible in a lecture format. The underlying premise is founded in constructivist epistemology. It is a process, which requires knowledge to be discovered by students and transformed into concepts to which the students can relate. The knowledge is then reconstructed and expanded through new learning experiences. Learning takes place through dialog among students in a social setting".*

In relation to the above idea, Parkins (1999) explains that group-based cooperative learning, grounded in constructivist principles, represents a method of teaching that encourages students' active and engaged participation in their education. He also says constructivists such as Dewey and Vygotsky helped us understand the needs for 'hands-on' construction of knowledge for learners of all ages. This shows that group-based cooperative learning promotes constructivist approach in which students begin to create their knowledge based on their previous experiences and knowledge.

2.2.2 Rationale for Using Group-Based Cooperative Learning

Group-based cooperative learning has been promoted in higher education and education in general, for a variety of reasons over many years (Tribe, 1994). Johnson and Johnson (1996) and Jaques (1985) stated that group-based cooperative learning is advocated by those who see it as preparing students for the world of work by introducing teamwork. They argue that the skills fostered by teamwork are often ignored in higher education; subsequently employers frequently complain of the lack of critical thinking or negotiating skills evident in recent graduates.

Similarly, Johnson, Johnson, and Smith (1998) also assert that cooperative learning is suitable for students of higher institutions. They found that students must learn to cooperate because today's students traditionally come from a background where cooperation within the family unit is not as important for survival. The corporate world

values cooperation, hence cooperative learning is a valuable group-based learning structure.

In line with the above idea, Thousand, Villa and Nevin (1994: online), reported that:

> *How students perceive each other and interact with one another is a neglected aspect of instruction. Much training time is devoted to helping teachers arrange appropriate interactions between students and materials (i.e., textbooks, curriculum programs) and some time is spent on how teachers should interact with students, but how students should interact with one another is relatively ignored.*

Mackernan (1996: 68-69) has also pointed out the following rationale for using small groups in the teaching-learning processes.

1. Pupils gain support from classmates through group activity - they are intimate, dynamic and cohesive units.
2. Small groups present a more efficient division of labor for tackling a range of inquires and problems.
3. Pupils receive evaluative feedback from group members as well as the teacher- in the whole group evaluation is isolated to the teacher.
4. Small groups enable the teacher to treat pupils more flexibly by opening up options.
5. Small groups provide social relationships and motivation for learning through the establishment of cooperative norms and sharing
6. Small groups allow pupils to continue an inquiry, at the personal level, which was initiated in the teacher -led whole group.
7. Small groups allow one to reflect upon work done in the whole group.

Hence, regardless of the subject matter, students working in small groups tend to learn more of what is taught and retain it longer than when the same content is presented in other instructional formats (Collier, 1980).

2.2.3 Elements of Group-Based Cooperative Learning

Johnson and Johnson (1990:15) explain that in order for group work to be cooperative, the following five basic elements are essential and need to be included.

- Positive interdependence - believe that students are linked with each other in a way that one cannot succeed unless the other member of the group succeeded (and vice versa). They should perceive that they 'sink or swim' together.
- Face-to-face interaction - when group members are close in proximity to each other and enter into a dialogue with each other in ways that promote continued progress; or when students explain orally to one another on how to solve a problem, the strategies to be used, when students help, encourage and support one another's effort to learn.
- Individual accountability - be aware that individual contribution will be assessed on behalf of the group's. Group members should know that they cannot 'hitchhike' on the work of others.
- Social skills - human interaction skills that enables groups to functions effectively (for example, taking turns, encouraging, listening, giving help, clarifying, checking, understanding, probing). Such skills enhance communication, trust, leadership, decision-making, and conflict management.
- Ensuring group process - how well they are achieving their goals maintaining effective working relationship among members.

Thus placing students in groups and telling them to work together does not result in cooperation. In order to effectively implement group-based cooperative learning, teachers should critically understand the above essential elements.

2.2.4 Benefits of Group-Based Cooperative Learning

Proponents of group-based cooperative learning claim that the active exchange of ideas within small groups not only increases interest among the participants but also promotes critical thinking. For example, Johnson and Johnson (1989) reported that there is

persuasive evidence that cooperative teams achieve at higher levels of thought and retain information longer than students who work quietly as individuals. They further indicated that cooperative group learning experiences promote more positive attitudes towards the instructional experience than competitive or individualistic methodologies.

When well planned, cooperative group work quickens and deepens learning and develops a wide range of cognitive abilities. In this regard *Hopkins (2002:114) states that*:

> "Cooperative group work *develops higher order thinking skills (e.g. the capacity to form and reform concepts);it develops the capacity to memorize, hold and recall information; it creates a context for learning that supports both able and less able students alike; it encourages positive feelings among members, reduces loneliness and alienation, builds relationships and provides affirmative views of other people".*

Similarly, Morrison and Ridley (1988:96) summarized the benefits of cooperative group work as follow:

- helps students to work cooperatively;
- enables students to learn from one another;
- encourages the involvement of all students;
- removes the stigma of failure from students;
- enables the teacher to circulate more easily round the class;
- enables students to work at their own pace;
- enables students to respect others' strengths and weaknesses;
- affords students access to scarce equipment;
- facilitates collaborative work;
- encourages joint decision-making;
- affords students the opportunity to exercise leadership;
- focuses on process as well as products;
- is particularly effective for problem solving activities;
- promotes mutual integration of students from all ethnic groups;
- encourages students to engage the problem of disagreement; and

- improves discussion and classroom talk.

2.2.5 Drawbacks of Group-Based Cooperative Learning

Even though various scholars and research findings conducted so far suggested that group-based cooperative learning could enhance learning of different subjects, there are some factors that inhibit its success and even create negative effects. For example, Randall (1999:58) reported that, the many benefits of cooperative group learning sometimes blind us to its drawbacks. She identifies the following practices as common weaknesses:

- Making members of the group responsible for each other's learning. This can place too great a burden on some students. In mixed-ability groups, the result is often that stronger students are left to teach weaker students and do most of the work.
- Encouraging only lower-level thinking and ignoring the strategies necessary for the inclusion of critical or higher-level thought. In small groups, there is sometimes only enough time to focus on the task at its most basic level.

On the other hand, Palmer, Peter and Streetman (2003) show that instructors who are unfamiliar with group-based cooperative learning may not initially accept this style of learning because they may feel they will lose control of their classroom, or they may be unsure of the techniques used or possibly even think that it is too time consuming. They added that since group-based cooperative learning is centered on group work, students might be concerned that other members of their group are going to bring their grades down. This is essentially true if students are grouped by mixed ability, requiring higher ability students to guide lower ability students.

One of the major drawbacks of cooperative group work is what is referred in the literature as 'social loafing' (Hare, 1994). Many literatures on the effects of social loafing revealed that struggling students leave group-work to the advanced students and in the

same way advanced students may expend less effort to avoid the sucker effort of doing all the work.

In relation to this, Latane, Williams and Harkins (1979:230) explain that:

> *"Social loafing" can be a serious problem in classrooms because it heavily constrains the interaction necessary for a productive learning environment. Further, if left unchecked, the conditions that produce social loafing can prevent the development of the social fabric that is necessary for effectively functioning learning groups."*

Giving students some rationale as to why the instructor is employing group-based cooperative learning may help to reduce these barriers.

The other major problem in the effectiveness of group-based learning is assessment of students' learning. Since students are working on a group task or assignment, it is difficult to assess students with a paper and pencil test (Palmer, Peter and Streetman, 2003). Thus instructors need to find other techniques like self-assessment, peer assessment, observation and the like to assess students work and progress effectively.

2.3 The Implementation of Group-Based Cooperative Learning

2.3.1 General Ideas

In order to effectively apply any instructional method in the institution, one needs to critically understand the basic ideas and strategies of that method which is being employed. For example, the University of New South Wales /UNSW/ (2006: online) list the following ideas for introducing and implementing group-based cooperative learning methods in the institution. These include:

- Teachers have to explain to students why it might be important for them to gain experience of working cooperatively with others. Emphasizing how group work will help them achieve the courses learning outcomes. Moreover, before introducing a group-based cooperative learning activity, find out whether students

have any prior experience of working in groups. This can help you to design group-work activities that are appropriate for all students in your course or class. Exploring students' prior experiences of group work might also help you to overcome any resistance associated with negative experiences.

- After deciding the optimum size of the groups, teachers should choose a method of group formation that is appropriate to the project or task that the group will be undertaking. Again, before students begin their group projects, give them time in class to get to know the members of their group and clarify expectations about the project with you. Also, better to give them some guidelines or training on how to work in groups.

- Teachers are also expected to monitor and support group-based learning activities – for example, ask students to provide regular updates or reports or meet with groups to check their progress and team processes. When conflict arises within the group, encourage the group members to negotiate a resolution themselves – step in only as a last resort.

- Prior to the utilization of different evaluation methods, give careful consideration to how you structure the marking scheme, weighting, and allocation of marks for cooperative group work. Make sure that you develop and communicate clear assessment criteria.

- Teachers should also give students an opportunity to reflect on their experience of group work, for example, through discussion, a journal, or a checklist. Sharing the final products of group work is also a good way to encourage reflection and critique. Similarly, you can use a group-work evaluation form to encourage students to identify the strengths and weaknesses of their group experiences.

2.3.2 Major Group-Based Learning Techniques

Even though there are a lot of techniques to be used in group-based learning in higher institutions, only the most common techniques are discussed below.

2.3.2.1 Buzz sessions and similar small-group activities

Buzz sessions are short participative sessions that are deliberately built into a lecture or larger group exercise in order to stimulate discussion and provide student feedback. In such sessions, small sub-groups of two or four persons spend a short period (generally no more than five minutes) intensively discussing a topic or topics suggested by the teacher. Each sub-group then reports back on its deliberations to the group as a whole, or sometimes combines with another sub-group in order to share their findings and discuss the implications (Ellington and Earl, 1996).

One variation of the buzz group approach is the snowball groups /pyramids technique. Here, students first work alone, then in pairs, then in fours, and so on. In most cases, after working in fours, students come together for a plenary session in which their conclusions or solutions are pooled. Provide a sequence of increasingly complex tasks so that students do not become bored with repeated discussion at multiple stages (Jaques, 2000). For example, have students record a few questions that relate to the class topic. In pairs, students try to answer one another's questions. Pairs join together to make fours and identify, depending on the topic, either unanswered questions or areas of controversy or relevant principles based on their previous discussions. Back in the large class group, one representative from each group reports the group's conclusions.

2.3.2.2 Think-pair-share

This strategy has three steps. First, students think individually about a particular question or scenario. Then they pair up to discuss and compare their ideas. Finally, they are given the chance to share their ideas in a large class discussion (Silberman, 1996).

2.3.2.3 Class discussions

Ellington and Earl (1996) describe class discussions as the form of a controlled discussion in which the teacher is at all times firmly in control of the situation, either allowing the class to ask questions and controlling the way in which these are discussed, or else guiding the class through a structured discussion of some sort by asking carefully-chosen stepped questions, providing appropriate prompts, and so on. Such discussions can be used in a variety of contexts, e.g., as a follow-up to an expository session such as a lecture or the viewing of a film or video, as a class revision session, as a debriefing session for a game, simulation or participative case study, or as a teaching method in their own right.

2.3.2.4 Jigsaw

This strategy involves students becoming "experts" on one aspect of a topic, and then sharing their expertise with others. Divide a topic into a few constitutive parts. Form subgroups of 3-5 and assign each subgroup a different "piece" of the topic (or, if the class is large, assign two or more subgroups to each subtopic). Each group's task is to develop expertise on its particular subtopic by brainstorming, developing ideas, and if time permits, researching. Once students have become experts on a particular subtopic, shuffle the groups so that the members of each new group have a different area of expertise. Students then take turns sharing their expertise with the other group members, thereby creating a completed "puzzle" of knowledge about the main topic (Silberman, 1996).

2.3.2.5 Seminars

According to Ellington and Earl (1996), seminars can take a number of forms, and are generally run on somewhat less-restricted lines than class discussions, with the group members themselves having much more control over the course and content of the discussion. One common method of running a seminar is to base it on an essay, paper or prepared talk presented by one of the students in the group, with the group then

discussing the presentation in depth. After a few weeks, the student who 'presented' the paper summarizes the discussion and circulates a revised paper to all concerned.

Another method is to run a seminar as a free group discussion of a particular topic, the group either being given broad guidelines on how the discussion should proceed or being left to decide this for themselves. Another variation of the seminar approach is the fishbowl technique. Here, some of the members of the class involved sit in an inner circle and conduct a discussion, while the remainder sit in an outer circle and act as non-participating observers; both sections of the group then combine for a general discussion of what occurred (ibid).

Yet another approach to the organization of a seminar is brainstorming. This involves group members in spontaneously noting down or suggesting a range of possible solutions to a problem or question posed by the teacher.

2.3.2.6 Group tutorials

Group tutorials can also take a variety of forms. One common form is the working tutorial, in which the class (or a section thereof) tackles course-related tasks set by the teacher, obtaining help or guidance if they experience difficulties. Another is the problem-raising tutorial, in which the members have the opportunity to ask their tutor about any matters relating to the course with which they are having problems (Ellington and Earl, 1996).

2.3.2.7 Games

In an educational or training context, games are exercises, which involve competition and have set rules. When playing a game in a group-learning situation, the participants, acting either individually or in cooperation with others, use their skills and knowledge to compete with one another in order to 'win' (Jaques, 2000).

2.3.2.8 Simulations

Silberman (1996) describes, simulations are exercises that involve an ongoing representation of some aspect(s) of a real situation of some sort. In many cases, they involve the members of a group in taking part in role-play, during which each member acts out the part of another person such as a lawyer, local councilor, trade union representative or conservationist.

2.3.2.9 Role Playing

Here students are asked to "act out" a part. In doing so, they get a better idea of the concepts and theories being discussed. Role-playing exercises can range from the simple to the complex (Jaques, 2000).

2.3.2.10 Panel Discussions

According to Jaques (2000), panel discussions are especially useful when students are asked to give class presentations or reports as a way of including the entire class in the presentation. A group of students are assigned a topic to research and asked to prepare presentations. Each panelist is then expected to make a very short presentation, before the floor is opened to questions from "the audience". The key to success is to choose topics carefully and to give students sufficient direction to ensure that they are well-prepared for their presentations. You might also want to prepare the "audience", by assigning them various roles.

2.3.2.11 Debates

Students are assigned to debate teams, given a position to defend, and then asked to present arguments in support of their position on the presentation day. The opposing team should be given an opportunity to rebut the argument(s) and, time permitting, the original presenters asked to respond to the rebuttal. This format is particularly useful in developing argumentation skills in addition to teaching content (Ellington and Earl, 1996).

2.3.2.12 Mediated-feedback sessions

Another important class of group-learning techniques includes all those that involve mediated feedback on and discussion of an activity of some sort. One well-known example is microteaching, which is widely used in the training of teachers. In microteaching, attention is focused on specific teaching skills, which the student teacher practices for short periods (from 5 to 20 minutes) with a small group of pupils (usually 4 to 7). The session is recorded, usually on videotape, and is then played back to the trainee teacher, normally in the presence of other trainees, in order to obtain immediate feedback and catalyze discussion of the performance (Ellington and Earl, 1996).

2.3.2.13 Fishbowl

This method involves one group observing another group. The first group forms a circle and either discusses an issue or topic, does a role-play, or performs a brief drama. The second group forms a circle around the inner group. Depending on the inner group's task and the context of your course, the outer group can look for themes, patterns, soundness of argument, etc., in the inner group's discussion, analyze the inner group's functioning as a group, or simply watch and comment on the role play. Debrief with both groups at the end in a plenary to capture their experiences (Jaques, 2000).

2.3.2.14 Group projects

One group-based learning technique that has become increasingly popular in recent years is the group project. Here, students carry out project work in small cooperative groups (generally containing between 3 and 6 people) rather than as individuals (Ellington and Earl, 1996). A typical method of organization is to divide the participants into groups of an appropriate size, set each group a task of some sort (either the same task or one of a related set of tasks), and then hold a plenary session in which the findings of the various groups are reported and discussed (ibid).

2.3.3 Phases/Stages of the Implementation of Group-Based Cooperative Learning

There are three phases of the implementation of group-based cooperative learning. It would be important to see each of them in detail.

2.3.3.1 Pre-Implementation

After deciding to implement group-based cooperative learning, the biggest challenge will be planning and making ready the classroom and students for group-based cooperative learning. According to Johnson, Johnson, and Smith (1991:165-169), there are several tasks that an instructor must accomplish before implementing group-based cooperative learning in the classroom. Some of these are presented as follow:

I. Specify Instructional Objectives of group-based cooperative learning-The instructor should explain why he/she is using cooperative group learning, describe its benefits, and the results typically found from using this method.

II. Determine Group Size and Assign Students to Groups- Group size can range from two to six students, depending on the cooperative learning task. These groups can be homogeneous or heterogeneous. Groups can be formed by putting students together who share common strengths, interests, etc, or they can be randomly assigned. Once the groups are assigned, though, they should not be changed too often; students need time to develop a cohesive group and work together for a while before moving to a different group.

III. Arrange room- Instructors should optimize the space in their classroom so that students/groups can interact and move about the room easily. It is essential that a group's seats face one another.

IV. Plan instructional materials to promote interdependence- The instructional methods and materials that an instructor chooses must allow each individual to contribute to the group's success in a unique and meaningful way.

V. Assign group roles- There is some debate about whether or not the instructor should play a role in this decision. Whether or not an instructor chooses to assign roles

within a group, they should make sure there is a distinct role for each student. Also, the instructor should choose or assist the students in choosing roles that use their strengths and improve their areas of weakness. Instructors should also oversee that students don't choose the same role over and over again. Some of the roles that could be chosen or assigned include facilitator, timekeeper, recorder, checker (for understanding), summarizer, elaborator (on prior knowledge or discussion points), research-runner (gets materials), and wild card (does anything else that needs to be done).

VI. Assign task- The cooperative learning group's task should be interesting, challenging, and motivating. It should also be a performance driven and authentic task. The instructor should clearly explain procedures for the task, provide structure (especially useful for inexperienced group-based cooperative learning students), and set a specific time frame for each part and the whole task. Finally, the instructor should question the students to check for understanding of the task and its procedures.

VII. Explain Criteria for Success- The instructor should communicate the group-work skills that will be evaluated. A rubric should also be created, possibly with the students' assistance, which will be used to evaluate the group-work skills as well as the assessment task.

VIII. Structure positive interdependence and accountability- Group size should be kept small so that each member participates and contributes uniquely to the group. Instructors should also "test" groups and individuals by asking questions of both. A group should be asked to collectively explain its results and individuals should be able to defend their own position as well as the group's as a whole.

IX. Specify desired behaviors- An essential part of cooperative learning's success is teaching students how to work in a group. To accomplish this, the instructor can conduct mini-lessons on ways to respect others (i.e. praise, taking turns, and shared decision making). Students also need to be trained in conflict-resolution. Finally, it would be wise to use icebreaker activities before beginning so that students find that they have something in common.

2.3.3.2. Implementation

After all the preparations, it is time to begin working. During the implementation phase of cooperative group learning, the students play the most important role. Some of their tasks at this stage include:

- Working together
- Listening to one another
- Questioning one another
- Keeping records of their work and progress
- Producing the assessment task (product)
- Assuming personal responsibility/ being involved in the group

Johnson, Johnson, and Smith (1991) list several roles that an instructor has during the implementation of group-based cooperative learning. These include:

I. Monitor behavior- during the implementation of group-based cooperative learning, the instructor should circulate throughout the classroom, visiting each group.

II. Intervene if needed- While circulating, if the instructor notices any group conflict or off-task behavior, he/she should intervene. Small-group conflict should be resolved as soon as possible, and students should be shown how to prevent problems in the future. The instructor might use a conflict resolution checklist to resolve the group's conflict. This checklist includes items such as explaining the importance of listening to everyone in the group, defining responsibilities, valuing each person's gifts, modeling excellence, and promoting humor. Having these listed on a handout for each group could prevent group discord and off-task behavior.

III. Assist with needs- While monitoring the groups' work, the instructor should assist groups with their needs. This might involve pointing out additional resources and/or points-of-view, and it also includes helping the students reflect on the work they have completed and their progress.

IV. Praise- Students need to know if they are completing the assignment in a satisfactory manner, especially if they are inexperienced at working in cooperative groups. For this reason, the instructor should let individual students and groups know when they do something right or well.

2.3.3.3 Post Implementation

After many hours are spent for planning group-based cooperative learning groups, the plan is then put into action. Johnson, Johnson, and Smith (1991) also give three jobs for the instructor to complete after the students have worked together to complete and submit the task.

I. Provide closure through summarization- The instructor should reconvene the entire group of students. At this point, the instructor can summarize the important points of the lesson/unit. Another suggestion is to have each group summarize their work and points that they think were important. This helps the instructor to know exactly in which knowledge level the groups are working.

II. Evaluate students' learning- The instructor should use a rubric to grade/ evaluate each group's assessment task. They should also be evaluated on their group work using a rubric. These rubrics should have been created during the pre-implementation phase of group-based cooperative learning, and the students might have had input into their content. After the instructor has completed the evaluations, it is important that they provide feedback to the students about their product and their group performance. Without this information, the students will not be able to improve their cooperative learning skills.

III. Reflect on what happened- Instructors should keep a record of what worked and why it worked each time they undertake a group-based cooperative learning lesson or unit. This information can and should be shared with their cooperative learning support group. The instructor should also adjust their lessons based on the reflection and feedback of the students. After completing the group work and assessment task, the student's job is to reflect on the work that was accomplished in their group. What worked and what did not work? What would they change or keep next time they work together? The students should also give feedback to their instructor. They should be able to tell the instructor what worked or what was good about this unit, and they should point out what did not work well. This information can be written down or informally discussed in class.

On the other hand, the University of Technology Sydney (UTS) Institute for interactive Media and Learning (IML) 2003) states that cooperative group work has four stages. They are:

1. preparing students for cooperative group work and forming effective groups
2. designing cooperative group tasks
3. monitoring cooperative group work and
4. assessing cooperative group work

1. Preparing Students for cooperative group work and Forming Effective groups

Many of the problems, which arise from cooperative group work stem from the formation process. For students to work effectively in-group work, preparation is essential. Most students are skeptical about cooperative group work and have little idea of the reasons they are made to work in-group. If students are informed about the basics, they are more likely to understand the rationale about cooperative group work in each subject. As a result, they will also be more likely to enter their group with positive attitudes, expectations and motivations necessary to engage at a high performance level. Informed and motivated students will also be much more willing to learn from their group experience (university of Technology Sydney (UTS) institute for interactive Media and Learning (IML), 2003).

There are some steps involved in preparing students for cooperative group work. The first step is providing students with written rationale. The second step is reinforcing the written rationale with a verbal presentation about cooperative group work. The third step is encouraging members' familiarity before group formation. As University of Technology Sydney (UTS) Institute for interactive Media and Learning (IML) (2003: online) stated the following things need to be made clear in the group formation stage:

- How members will be selected in to groups and why?

- How group work will be assessed and why?
- How groups will be monitored and ensured equal participation by all members?
- How often members should be meeting to work on their assignment?
- How to deal with ethical issue associated with cooperative group work, for example, how one member's plagiarism or cheating may impact on the whole group (and their marks)?
- How group formation can vary depending on the nature of the tasks given and the resources available?

Johnson and Johnson (1990:55-57) have identified three main types of groups in cooperative group work: cooperative base groups, informal cooperative learning groups and formal cooperative learning groups.

I. Informal cooperative learning groups

Informal cooperative learning groups are temporary, ad hoc groups that last from a few minutes to one class period. They are used to focus students' attention on the material to be learned, set a mood conducive to learning, help organize in advance the material to be covered in a class session, ensure that students cognitively process the material being taught, and provide closure to a class session. They are often organized so that students engage in focused discussions before and after a lecture and interspersing turn-to-your-partner discussions throughout a lecture. The one-period long group work activity designed for conducting any laboratory work in small group (usually of 3-4 students) is an example of an informal cooperative learning group

II. Formal Cooperative learning groups

A formal cooperative learning group is when students work together for one or several class sessions to achieve shared learning goals and jointly complete specific tasks and assignments. These groups provide the foundation for all other cooperative learning procedures. They are structured through pre-instructional decisions, setting the task and the cooperative structure, monitoring the groups while they work, intervening to improve task-work and teamwork, evaluating student learning, and processing group functioning.

III. Cooperative base groups

Base groups are long-term, heterogeneous cooperative learning groups with stable membership whose primary responsibility is to provide each student the support, encouragement, and assistance he or she needs to make academic progress. Base groups personalize the work required and the course learning experiences. These base groups stay the same during the entire course and longer if possible.

2. Designing Group Tasks

The task set for group work is one of the most crucial aspects of cooperative group work. University of Technology Sydney (UTS) Institute for Interactive Media and Learning (IML) (2003) suggests that there are four important factors which students look for in cooperative group work task. Tasks designed to cooperative group work need to be easily divisible to subtasks, meaningful, relevant to learning tasks and achievable. When group tasks fail to fulfill these criteria, students will lack motivation to work collectively on the task and as a result there will be many group related problems such as increased group conflict, withdrawal of effort, decreased output quality and finally poor learning.

Cooperative group work tasks need to be meaningful. Students are not motivated only by the marks they get. If students can see the tangible benefits of the group work, they will work collaboratively. Hence, tasks need to be designed in line with the subject's objectives- the skill, knowledge, and attitudes that need to be achieved (ibid).

Because of the short time available and the number of group tasks given by different teachers, students always divide up group tasks and allocate different sections to each member even if the teacher does not want the task to be broken up. In principle students believe that group work tasks should lend themselves to division of labor. Students argue that this is the only strategy they have as they have to do a number of group tasks, even sometimes as members of different groups. Unfortunately, many groups waste valuable time when they struggle to divide up a task that has not been designed to be broken up. Of course most teachers want most group tasks to be completed collectively. The rationale behind this strategy is students are likely to learn more if they work together on every aspect of the task. However, this is unrealistic when groups have

to do a lot of tasks in different groups in a short period of time. Knowing that students divide up their group tasks, many teachers design divisible group tasks. In such tasks each group member is required to do a piece of work. These pieces of work are then combined together to form a completed group product. These types of assignments motivate students because:

- they are less dependent on each other
- they do not have to make shared decisions on every issue
- there are fewer disagreements
- they have the opportunity to 'shine' as well to contribute to the group.

Teachers also benefit greatly from the task design because in such tasks there are:

- fewer complaints about free - riding
- greater enthusiasm for cooperative group work
- less conflict in cooperative group work
- greater peer support

3. Monitoring cooperative group work

After ensuring that the learners are clear about the task, it is important for the teacher to monitor progress of the group (Reece and Walker, 2003). They said that when joining each group in turn, sitting at the same level facilitates discussion to continue rather than standing over the group.

In relation to monitoring, Reece and Walker (2003:127) stated:

> *"Listen to the students. If they are progressing well, give some encouragement and positive feedback. If the students are having problems make a few suggestions and before the reporting - back stage, ensure all groups have something good to contribute even if it is really your own thoughts. Remind students about the time: when to start summarizing: when to start writing and so on. "*

Concerning monitoring issues, Evertson and Harris (1992:68) cited in Hopkins (2002) identified the following points based on research. These include:

- Use time effectively

- Implement group strategies with high levels of involvement and low levels of behavior
- Choose lesson formats and academic tasks conducive to high student engagement.
- Communicate clearly rules of participation
- Prevent problems by implementing a system at the beginning of the school year.

Moreover, groups should be made to have regular and productive meetings. To ensure this is happening, it is important that meetings are closely monitored. Teachers can do this, for example; by advising students to keep minutes, to present oral or written report of each progress of the total task (Hopkins, 2002). Apart from monitoring meetings, group's progress should be also monitored. An effective way of resolving conflict is intervening to them as they appear promptly.

The number of group members can also affect the monitoring of the group. According to Reece and Walker (2003) groups with small members are better than large groups for the reasons that the ability of the weaker students may be swallowed in larger groups. They say that some teachers even do not like a group having three members since one student will often do less than the other two. However, Mckernan (1996) said that there is no exact number, but good results can be obtained if the group number is between four and six pupils. Reece and Walker (2003), on the other hand, suggest a group having four members as an ideal size.

Effective cooperative group work, as Hopkins (2002) stated, involves an agreed set of group rules that are based on self - respect for individuals and directed at creating efficient working conditions. The ground rules need to be negotiated as an introductory all class session and refined by each group later to fit to the group's particular needs. Further, understanding students' expectations is important in designing achievable tasks and also students are likely to do best when they are told how their task are going to be assessed. This leads us to the next section.

4. Assessing Cooperative group work

According to Reece and Walker (2003), the problems, which are arisen as a result of assessing cooperative group work, can be resolved by allocating different marks to the different members of a group that may be commensurate to their relative contributions to the task. This can be achieved, as Gibbs et al (1986) cited in Reece and Walker (2003) through:

a) shared group grade, or

b) peer assessment

In the shared cooperative group mark, the students are invited to share the teacher's group mark among themselves. To Borow, Reece and Walker's (2003:327) example, " if a group of four students were awarded 60% for a piece of work, they would be given 4 x 60 = 240 marks to distribute amongst themselves". The question that maybe relevant to be raised here is "how the students distribute this mark among themselves"? Gibbs in Reece and walker (2003:327) suggest three methods that the distribution might be achieved.

i) Groups agree at the start of the work that all marks will be equally shared. This tends to motivate members into sharing the work equally.

ii) Groups can agree the basis upon which marks can be divided. This might include creativity, some value of workload, leadership, communication and so on.

iii) Groups can decide at the outset of the work who will do which part of the work. This gives all members a specific task and, if this relates to the criteria for assessment can also lead to equitable distribution of the marks.

In the peer assessment method of assessing cooperative group work, each group member is asked to rate every other member using rating sheet that contains the main aspects of their contribution to the group's work. Then, the average rating for an individual is deducted from the group mark and given to that individual.

Getting assessment right is critical in group-based cooperative learning teaching. Despite appearing easy, assessing group cooperative work can be extremely difficult. No matter how one derives each member's mark, there will always be complaints from group members. This is because some members feel they have been disadvantaged by the efforts of their fellow group members and hence believe that it is not fair to reward every one equally up on completion of group project.

Developing explicit criteria and outcomes at the beginning saves students and teachers from wasting valuable time by thinking about what skills, knowledge and attitude students want to learn and teachers need to teach and evaluate. Criteria are developed by analyzing learning outcomes and identifying the specific characteristics that contribute to the overall assignment. (University of Technology Sydney (UTS) Institute for Interactive Media and Learning (IML) (2003).

Developing multidimensional objectives and corresponding criteria help learners to discover potentials. Therefore, teachers need to ask the following question every day so that they are flexible: 'How many of the objectives and criteria I set are irrelevant or unimportant areas? (ibid).

Moreover, the choice of assessment strategies must depend on the learning outcomes set for group work exercises. In assessment what to assess -cooperative group work product, group work process, or both-should be made clear. Where cooperative group work is marked solely on the bases of product and not process, there can be inequality of individual grading that is unfair and unacceptable (Palmer, Peters and Streetman. 2003).

In order to properly and fairly assess cooperative group work , students need to be involved in setting the criteria. The advantage of this is that it helps students develop a sense of ownership over the task, and helps all participants better understand the nature of the assessment task.

2.4 Attitudes of Teachers and Students toward Group-Based Cooperative Learning

The past decade has been an exposition of interest among college faculty in the teaching methods variously grouped under the terms "active learning" and "cooperative group learning" (Smith, 1996). However, even with this interest, there remains much misunderstanding of and mistrust of the pedagogical movement behind the words.

2.4.1 Attitudes of Teachers toward Group-Based Cooperative Learning

Johnson and Johnson (1989) reported that group based cooperative learning develops positive student-teacher attitudes. They argue that teachers learn about student behaviors since students have many opportunities to explain their actions and thoughts to the teacher. Accordingly, the lines of communication are opened and encouraged. They concluded that the empowerment created by the many interpersonal interaction leads a very positive attitude by all participants involved. However, many educators believe that teachers say they are using cooperative learning where they are missing its essence. For instance Johnson, Johnson and Smith, 1991 reported that many teachers perceive cooperative group work as having students sit side by side at the same table to talk with each other as they do their individual assignments. Thus, cooperation is not assigning a report to a group of students where one student does all the work and the others put their names on the product.

As indicated by Palmers, Peters and Streetman (2003), instructors may resist using group-based cooperative learning techniques in their classroom because they are afraid they may lose control of teaching routine. They also stated that, for some instructors showing their expertise in a subject area is important. Hence, giving up the opportunity to show off this expertise may deter instructors from using cooperative group work in their classroom.

On the other hand, instructors have frequently perceived some common problems that greatly reduce the effectiveness of small group-based learning activities. For example, according to Michaelsen, Fink and Knight (1997), probably the most common problem is that one or two vocal individuals often dominate the discussions to the point that quieter members' ideas are either unexpressed or largely ignored.

Therefore, in order to minimize and if possible avoid group-based cooperative learning problems, the best advice is to explain the rationale, design well-structured meaningful task, give students clear directions, set expectations for how group members are to contribute and interact, and invite students to try it (Cooper and Associates, 1990).

2.4.2 Attitudes of Students toward Group-Based Cooperative Learning

Davis (1993) states that some students like instructors initially express skepticism about the value of cooperative group work, or feel that class time is best spent hearing from the instructor (who's the authority) rather than working with students who, they believe, know as little as themselves. Similarly, Christon (1990) explains that most students who come to college classes expecting the conventional classroom arrangement, with the instructor in front of the class and students in straight rows listening and watching the teacher, they will be confused and hesitated when these expectations are not met.

On the other hand, based on their past experience with school, many students perceive that they are in competition with the classmates and students may also object, in part because their education has been based on individual effort, and they may feel uncomfortable helping others or seeking help (Cooper and Associates, 1990). This shows that many students enter higher education having developed independent study habits and are strongly oriented towards their own personal achievement. Thus, these students may perceive little value for their own learning in group activities, or may be frustrated by the need to negotiate.

In addition, students may simply not engage in group-based cooperative learning session because they feel that it will be a waste of time or are afraid of taking part. In other cases, they may be reluctant to make the very real personal commitment that many group-based cooperative learning exercises require, because they do not feel that they have the necessary skills and do not want to ' show themselves up' in front of their peers (Cohen, 1994).

Students can also perceive cooperative group work as a management tool used by instructors primarily to reduce their assessment load and of little or no benefits to students (Christon, 1990). To this end, one of the strongest concerns that students have about group-based cooperative learning is the possibility that group assessment practices may not fairly assess individual contributions.

2.5 Curriculum Materials and Group-Based Cooperative Learning

Curriculum is the means through which education is realized and in order to apply this there is a need for some curriculum materials through which the curriculum conveys its message, meaning and values. These curriculum materials involve syllabus, textbooks, teachers' guide, manuals, modules etc. (ICDR, 1999).

At the beginning of this section, the paper tries to discuss the basic philosophical assumptions of positivism and constructivism. And with regard to curriculum, positivist model views curriculum as the collection of different subjects and each subject is overcrowded with the presentation of facts and information (Leu, 2000). Textbooks tend to be long and contain many pages of information followed by questions that ask students to recall or repeat the information. In this case, methodology and activities are seen as being less important than grasp the subject matter.

On the contrary, in the constructivist model the curriculum developer is responsible to design the curriculum and develop materials in such a way that provides opportunity for students to understand, think critically, make linkage, interpret, analyze, draw conclusions and communicate about what he/she is learning, not to just to observe and accurately repeat information (Lave and Wanger, 1991). In this model, curriculum

materials usually have fewer pages of facts and information rather different activities and variety of active learning methods like cooperative group work, problem solving, project method etc. are designed in order to encourage students to interact with information from the world around them.

Thus, since one way for curriculum developers to incorporate active learning in their curriculum materials is to structure opportunities for students to learn together in small groups, group-based cooperative learning which promotes the constructivists' model to develop curriculum materials.

As indicated by Dougherty and Ellibee (1995: online), one of the factors that need to be considered when developing curriculum materials includes "can the instructional strategies in the material be adaptive to alternative forms such as group, team, or cooperative educational activities; class presentation; or data collecting through surveys of community members?". In relation to this idea, Cohen (1994) described that incorporating team or small groups, projects and cooperative learning activities within an instructional material lends a real-life touch to classroom experience and fosters greater learning for many students who learn best in that environment.

2.6 Factors Inhibiting the Implementation of GCL

2.6.1 From Teachers' Side

Lack of training

Currently most teachers are not trained during their certification processes in cooperative methods and those that are often receive incomplete training. If teachers are taught by the lecture method while at teachers' college, then it is hardly surprising that this will be the method of choice when their turn arrives to take over the classroom (Panitz, 1996). This shows that in order to effectively any instructional methods in the

TTIs relevant and adequate training is very crucial. In relation to this view, Copley (1992) said that:

> *There is no task that can be done without knowledge; the knowledge or skill could be gained from formal training or experience sharing. To implement, lack of clarity about the task leads to poor quality, or no implementation. Lack of knowledge could be one of the factors not to implement teaching methods.*

Loss of control in the classroom

Gregory and Thorley, (1994) argue that the biggest inhibiting factor to implement cooperative group work lies in the fact that many teachers feel they give up control of the class if they give more responsibility to the students for their learning. When a teacher lectures she/he gets the feeling that the content is being covered, because it has been presented to the students in an orderly fashion.

Fear of the loss of content coverage

Teachers fear a loss in content when they use cooperative group work methods because group interactions often take longer than simple lectures. Students need time to accumulate enough information in order to be able to use it within their groups. They need time to work together to reach a consensus (Gregory and Thorley, 1994). Since the major function of cooperative learning involves teaching students how to work together effectively, teachers need not focus on how much they teach rather how much students are actively involved in the material.

Lack of prepared materials for use in class

The use of group-based cooperative learning techniques requires teachers to build a set of teaching materials, which create interdependence among students, and provides a basis and reason for their working together. Current textbooks generally offer a set of questions at the end of each chapter, which are usually answered by students individually (Irwin et al, 1985). Therefore, in order to appropriately utilize GCL, the

curriculum materials should be developed in such away that students are actively involved in the material and develop the necessary knowledge, skill and attitude.

Lack of familiarity with alternate assessment techniques

Panitz (1996) pointed out that assessment is a major concern frequently expressed by teachers who are unfamiliar with group-based cooperative learning methods. They presume that individual accountability will be lost or that one student will dominate the group or do all the work for the group.

They are unfamiliar with how to assess group efforts and assign grades to groups. Often they assume that only one process is appropriate for assessing student performance.

He further suggests techniques available for assessing groups. These include teacher observations during group work; group grading for projects; students grading each other or evaluating the level of contribution made by each member to a team project; extra credit given when groups exceed their previous average or when individuals within a group exceed their previous performance by a specified amount; use of a mastery approach whereby students may retake tests after receiving extra help from their groups or the teacher; and the use of individual quizzes, exams or assignments.

2.6.2 From Students' Side

Students' views on Group-based Cooperative Learning

Students feel that the lecture method is "easier" because they are passive during the class while apparently receiving the necessary information. In contrast, interactive classes are very intense. The responsibility for learning is shifted to the student, thus raising the level of critical thinking by each student. This situation is both mentally and physically challenging. The students initially respond by complaining and desiring for a return to the good old lecture days (Gregory and Thorley, 1994).

Also, students may perceive the teacher as not doing his/her job. However, collaborative classrooms are student centered whereas in typical classes' teacher performance is seen as central to the class (Irwin et al 1985). In order to address this concern, teachers

need to make clear to the students why they use a particular technique and what the outcomes will be from the activity. Another way for teachers to overcome this perception is to spend time with the groups or with individuals during the class.

Lack of knowledge

A major problem in implementing cooperative group work arises because students lack an understanding of the underlying philosophies of cooperative group-based learning. In relation to this idea, Panitz, (1996) says that our current system encourages competition and individual responsibility and discourages student interaction.

The process of student centered discovery and construction of their own knowledge base is new to most students (Cohen, 1994). They feel much more comfortable hearing the teacher presents the important facts instead of having to sort out what is important. A common fear among students is that all the group members will be wrong, leading to failure (Gregory and Thorley, 1994).

2.7 Group-Based Cooperative Learning in the Ethiopian Context

The New Education and Training Policy of Ethiopia and the curriculum reform initiated in 1994 imply a shift in education paradigm that emphasizes a shift from rote, passive learning to a more active, learner centered education, the encouragement of higher-order thinking skills and the use of content more relevant to the learner's environment. This shows that there is a shift from positivist epistemology to constructivist epistemology i.e. a shift from learning through memorization or repeating of information to learning through discovery, analysis, evaluation, problem-solving etc. to create new knowledge and understanding (Leu, 2000).

One of the objectives of teacher education in Ethiopia is to prepare teachers who can confidently promote various active learning strategies like cooperative group work, project work, problem solving method etc. (MOE, 2003). Therefore, teachers who are qualified to implement these strategies are being prepared by Teacher Education Institutes so as to effectively implement different active learning strategies like group-

based cooperative learning methods and others in different levels of schools. In relation to this idea, in Teacher Education System Overhaul (TESO) document, among major programs one emphasizes on the implementation of participatory, cooperative and active learning approach in the pre-service and in-service programs of Teacher Education (MOE, 2003).

Moreover, , Leu, Livingston and Woods (2002) reported that though substantial changes and improvements have already been made, the Ethiopian curricula have not moved the teaching and learning process sufficiently away from rote learning of highly academic content. Based on their findings they recommend that the curriculum and the teaching-learning process must emphasize the use of higher -order thinking skills through the use of active and cooperative learning methods.

Hence, despite the Ethiopian New Education and training policy strongly criticizes the conventional teacher based approach in education; the teaching-leaning process in most teacher education colleges in Ethiopia has persisted to be teacher dominated. Most classes are characterized by a situation where students are made to listen to their teacher and copy notes from the blackboard. Learning by doing, problem solving, cooperative learning and group approaches are limited (Leu, 2000).

CHAPTER THREE

3. Research Design and Methodology

3.1 Method of the Study

The methodology of a research study commenced with the selection of a topic and based on the purpose of the study. As it has already mentioned in the introduction part, the main purpose of this study was to assess the implementation of GCL in Dessie CTE. Thus, the descriptive survey method was employed on the ground that it would help to show the general picture of the implementation of group-based cooperative learning method in the college. Descriptive survey method helps to have general understanding of the problem by studying the current status, nature of prevailing conditions, practices and trends through relevant and precise information (Koul, 1996). Moreover, the qualitative approach was used to supplement or to get in depth understanding of complex process especially related to human behavior that affect the implementation of GCL method.

3.2 The Sources of Data and Sampling Procedure

The sources of data for this study were student teachers and teacher educators of Dessie CTE. As sampling technique, purposive and simple random sampling techniques were employed in the study. In the Amhara Regional State, there are four governmental Colleges of Teacher Education. Among these, the sample of this study was Dessie CTE; the college was purposely selected based on the assumption that the researcher has got some years of experiences as a teacher educator and this would help the researcher to make the study easily manageable. In the college, there are five streams in the 10+3 training program. These are Language, Mathematics, Social science, Natural science and Aesthetics and Physical education. Thus, all streams were used in the study to collect reliable information.

By using purposive sampling, only third year student teachers in the 10+3 program were selected as the subject of the study because it was expected that third year student teachers have stayed for three semesters and could provide more reliable information on the implementation of group-based cooperative learning method in the college than first year student teachers. However, second year student teachers were not included in this study for they were placed in different primary placement schools out of the college for practicum throughout the year.

Among 429 third year student teachers in the college, 150 (35%) respondents were selected using simple random sampling for this study. Similarly, the total numbers of teacher educators who are teaching in the college were 86. Out of these, 30 (35%) were selected using simple random sampling to avoid subjectivity and bias. However, 5 student teachers and 2 teacher educators returned incomplete questionnaire. This reduced the sample size to 145 student teachers and 28 teacher educators.

3.3 Data Collection Instruments

3.3.1 Questionnaire

The common technique for gathering data for descriptive survey is the questionnaire (Leedy, 1993). Koul (1996) also says a questionnaire is widely used in educational research to obtain information about certain conditions and practices, and to inquire into opinions and attitudes of individuals or group. Based on these facts, in order to get appropriate information about the implementation of group-based cooperative learning method in Dessie CTE from student teachers and teacher educators, questionnaire was set in light of the literature review. Student teachers' questionnaires were prepared in Amharic so as to avoid problems emanated from inability to understand English language (see appendix-F).

Fourteen 5-point Likert-scale items were papered for both teacher educators and student teachers to see the extent to which teacher educators employ GCL methods (see appendices B and C). The scale ranges from "always" (5) to "not at all" (1) for both teacher educators and student teachers.

To assess the knowledge of the two groups of respondents and teacher educators' practical experiences on GCL, both close-ended and open-ended questions were used.

In order to see the attitudes of teacher educators and student teachers toward GCL, a questionnaire consisting of ten items was adapted from Center for the Study of Learning and Performance (CSLP) (1998) [online]. The questionnaires had a 5-point scale ranging from "strongly agree" to "strongly disagree" (see appendices B and C).

Furthermore, to investigate the major factors that hinder the implementation of GCL, a questionnaire consisting of eight items was also adapted from Center for the Study of Learning Performance (CSLP) (1998) [online] and from the available literatures. The mode of the items were "strongly agree", "agree", "uncertain", "disagree" and "strongly disagree" (see appendices B and C).

3.3.2 Interview

According to Koul (1996), interviewing is necessary to get deep feeling, perceptions, and values or how people interpret the world around them, and past events that are impossible to replicate. With this idea in mind, the researcher initiated the interviewees with seven open-ended interview items, which are related to the implementation of GCL method (see appendix D). Hence, detailed interview was conducted with five voluntary teacher educators using semi-structured interview questions. Semi-structured interview questions are used because they are flexible, new questions can be brought up during the interview as the result of what the interviewee says, so the interview flows more like a conversation. In this study, interview was conducted to collect supplementary information about the implementation of GCL method in Dessie CTE. The process of interview was conducted in Amharic language and supported by audio-equipments (tape recorder) in order to minimize or avoid loses of information and to preserve the events in the fairly authentic manner.

3.3.3 Observation

The real classroom instructional processes are manifested while teachers teach and students learn. Therefore, classroom observation was one of the supplementary data

collecting instruments in this study to see the skills of teacher educators in implementing GCL method. Hence, the researcher made structured observations while student teachers were attending the training in the classroom. A structured observation is mainly rely on the predetermined criteria related to the people, events, practices, issues behaviors, actions, situations, and phenomena being observed (Leedy, 1993).

Observation checklist, which was adapted from Teaching, Learning and Assessment (TLA) center, University of Edinburgh [online], was used to collect the data. Averages of three classroom observations in 5 different classes (i.e. a total of 17 classroom observations) were made for gathering supplementary information. The observations were mainly focused on the practical application of GCL method and suitability of the classrooms for applying this method (see appendix-E). The classroom observations were made according to the checklist. Finally, the results of the classroom observations were analyzed to strengthen the data obtained through the questionnaire and interviews.

3.3.4 Focus group discussion

According to Wamahiu and Karugu (1995:122), "focus-group discussions are best suited for obtaining data on group attitude, opinions, and perceptions by imitating the participants." This technique was employed to strengthen the information that could be obtained using questionnaire. Thus, twelve student teachers were randomly selected and invited to discuss about the implementation of group-based learning method in their respective streams. The discussion was recorded, translated categorized and analyzed.

3.4 Procedures

In the first phase relevant literatures were reviewed so as to get adequate information on the topic. Then, basic research questions, which assisted to show the direction of the study, were formulated in the second phase. Thirdly, after developing data gathering instruments, the appropriate questions had been developed by referring to the basic research questions. Student teachers' questionnaire was also translated to Amharic in order to avoid problems caused by the inability to fully understand English, which could act against providing pertinent data. Prior to the actual administration of the instruments, in the fourth phase, a pilot study was conducted in Debre Birhan CTE. A pilot test was administered among 6 teacher educators and 15 student teachers in the college. The

purpose of this test was to make the necessary corrections based on the feedback obtained from the respondents. Accordingly, some vague statements were amended and two unnecessary items were rejected (i.e., two from the practical experience of teacher educators' in applying GCL and one from student teachers knowledge about GCL). Before administrating the questionnaires to teacher educators and student teachers, a short explanation was given on the purpose of the questionnaire. Then, the questionnaire was administered and collected by the researcher. Finally, five teacher educators and twelve student teachers were randomly selected and interviewed. The interview for teacher educators was conducted on individual base whereas FGD for students. Moreover, classroom observations were also made according to the checklist prepared.

3.5 Data Analysis

This survey study employed both quantitative and qualitative data analysis. To answer the basic research questions of the study, appropriate data analysis procedures were employed based on the essence of the data. Thus, the data obtained through closed-ended questionnaire were quantified using descriptive statistics; mainly mean, standard deviation and percentage were used as appropriate tools to analyze the data. In addition, the data gathered through open-ended questionnaire, interviews, observations and focus group discussions were analyzed using qualitative method. Based on the data analysis, interpretations were made to reach a certain findings. Finally, conclusions and possible solutions were recommended.

CHAPTER FOUR

4. RESULTS AND DISCUSSIONS

4.1 Profiles of Respondents

The major categories of participants involved in this study were teacher educators and student teachers in Dessie CTE. In the questionnaire, the two groups of respondents, who were considered to be relevant as main sources of information, were requested to provide information on their personal profiles (see appendices B and C). The details of their profiles are given in the following two tables (table 1 and 2)

Table 1: Profiles of Teacher Educators (N=28)

No	Items	Teacher Educators' Responses	
		No	%
1	Sex:		
	a) Male	25	89.3
	b) Female	3	10.7
2	Age:		
	a) 20-25	2	7.1
	b) 26-30	2	7.1
	c) 31-35	7	25
	d) 36-40	5	17.9
	e) 41 and above	12	42.9
3	Educational Level		
	a) Diploma	1	3.6
	b) Degree	13	46.4
	c) Master	14	50
	d) Any other	-	-
4	Teaching Load Per Week		
	a) 10 and below	16	57.2
	b) 11-15	10	35.7
	c) 16-20	2	7.1
	d) 21 and above	-	-
5	Teaching Experience outside the TTI/TTC		
	a) 5 years and below	11	39.3
	b) 6-10	3	10.7
	c) 11-15	6	21.4
	d) 16 and above	8	28.6
6	Teaching Experience inside the TTI/TTC		
	a) 5 years and below	17	60.7
	b) 6-10	8	28.6
	c) 11-15	2	7.1
	d) 16 and above	1	3.6

As shown in table 1, the number of teacher educators participated in the study was 25(89.3%) males and 3 (10.7%) females. This shows that the participation of females as teacher educators in Dessie CTE was very low.

The majority of teacher educators 12(42.9%) fall in the age category of 41 years and above. 7(25%) and 5(17.9%) were between the age group of 31-35 and 36-40 respectively. The remaining 2(7.1%) and 2(7.1%) of them were found in the age category of 20-25 and 26-30 respectively. The data indicate that a large percentage of the teacher educators who are teaching in the college are found in the adult age with long life experience and could have better experience in teaching in general and GCL method in particular.

In relation to their educational level, 14(50%), 13(46.4%) and only 1(3.6) teacher educators had master, degree and diploma respectively. This is an indication of a favorable condition for implementing GCL in the college.

Regarding their teaching load, the majority of teacher educators 16(57.2%) had periods bellow ten. Again, 10(35.7%) and 2(7.1%) had periods between 11-15 and 21 and above teaching load peer week respectively.

With respect to the teaching experience of teacher educators, 11(39.3%) had 5 years and below of teaching experience while 8(28.6%) of them had 16 and above years of teaching experience outside TTI/TTC. Again, 6(21.4%) and 3(10.7%) teacher educators were under the service category between 11-15years and 6-10 years respectively.

Teacher educators' experience inside the TTI/TTC shows that the majority of them 17(60.7%) had five years and less of teaching experiences. The other small proportion 8(28.6%) of them had teaching experiences between 6-10 years. The proportions of those teachers with long years of experience i.e. between 11-15 years and 16 and above were only 2(7.1%) and 1(3.6%) respectively. This indicates that a substantial number of teacher educators were recently assigned to the college as teacher educators. Hence, it would be possible to say that they may have some ideas about the

introduction of Teacher Education System Overhaul (TESO) in general and the implementation of active learning strategies like GCL in particular.

Table 2: Profile of Student Teachers (N=145)

NO	Items	Student Teachers' Responses			
		No		%	
1	Sex: a) Male b) Female	 60 85		 41.4 58.6	
2	Age: a) 18-20 b) 21-23 c) 24-26	 87 49 9		 60 33.8 6.2	
3	Secondary School Completed: a) Grade 10 b) Grade 12	 94 51		 64.8 35.2	
4	Department:	No		Total	%
		M	F		
	a) Language	20	28	48	33.1
	b) Mathematics	9	13	22	15.2
	c) Natural Science	12	17	29	20
	d) Social science	11	15	26	17.9
	e) Aesthetics and Physical Education	8	12	20	13.8
	Total	**60**	**85**	**145**	**100**

As indicated in the above table, the large proportion of student teachers 85(58.6%) were females while the remaining 60(41.4%) were males. This shows that there is an encouraging participation of female students as compared to male students. Hence, this

situation creates an inviting conducive environment for female students to engage in GCL activities with their peers.

Regarding their age, the majority of respondents 87(60%) were at the age between 18-20 years. This is an indication that they are mature enough to be involved in a variety of GCL activities.

Furthermore, a large number of student teachers 94(64.8%) completed their schooling at grade ten while the remaining 51(35.2%) students come from grade twelve.

4.2 The Practice of Group-Based Cooperative Learning Methods

In order to assess the extent to which group-based cooperative learning methods have been practiced in Dessie CTE, both teacher educators and student teachers were requested to provide information on how often teacher educators employed these methods in the college.

4.2.1 The Practice of GCL Methods (as rated by teacher educators)

Table 3 below presents the mean ($\overline{x}$) and standard deviation (SD) of the score to assess the extent to which GCL methods have been employed in Dessie CTE. To this end, if the mean is above 3, it shows a tendency of using that particular method and if the mean score is below 3, it indicates the tendency of employing that method to deliver their subject matter is low. Hence, the ideal mean and standard deviation are 3 and 0 respectively; higher standard deviation shows higher variation among teacher educators in practicing GCL methods.

Table 3: The extent to which GCL methods have been practiced in DCTE (N=28)

No	Instructional methods	Responses										Mean ($\overline{X}$)	Standard Deviation (SD)
		Always		Mostly		Sometimes		Rarely		Not at all			
		No	%	No	%	No	%	No	%	No	%		
1	Lecture /Explanation/	3	10.7	18	64.3	6	21.4	1	3.6	-	-	3.82	0.66
2	Demonstration	-	-	4	14.3	13	46.4	10	35.7	1	3.6	2.71	0.75
3	Question and answer	7	25	17	60.7	2	7.1	2	7.1	-	-	4.04	0.78
4	Brain Storming	4	14.3	10	35.7	11	39.3	3	10.7	-	-	3.54	0.87
5	Think-pair-share	1	3.6	10	35.7	9	32.1	7	25	1	3.6	3.11	0.94
6	Small group discussion	3	10.7	17	60.7	7	25	1	3.6	-	-	3.79	0.67
7	Pyramiding /Snowballing/	-	-	2	7.1	17	60.7	5	17.9	4	14.3	2.61	0.82
8	Jigsaw	-	-	1	3.6	6	21.4	15	53.6	6	21.4	2.07	0.75
9	Role playing	-	-	1	3.6	13	46.4	10	35.7	4	14.3	2.39	0.77
10	Debates	-	-	3	10.7	9	32.1	10	35.7	6	21.4	2.32	0.93
11	Panel discussion	-	-	1	3.6	7	25	5	17.9	15	53.5	1.79	0.94
12	Games	2	7.1	-	-	5	17.9	8	28.6	13	46.4	1.93	1.13
13	Group project	2	7.1	16	57.2	9	32.1	1	3.6	-	-	3.68	0.66
14	Seminars	-	-	-	-	2	7.1	8	28.6	18	64.3	1.43	0.62

In table 3 above, fourteen different instructional methods were provided as representatives of either traditional, teacher centered or active, GCL methods. Accordingly, the responses of teacher educators toward these methods of teaching were presented as follows.

The teacher centered methods provided for the respondents were lecture, demonstration and question and answer. As shown in the above table, the most frequently used teacher-centered methods of teaching were question and answer ($\overline{x}$=4.04) and lecture method ($\overline{x}$=3.82) with a variation of 0.78 and 0.66 among them respectively. Regarding demonstration method, as the third instructional method, teacher educators ($\overline{x}$=2.71) replied that they have practiced it occasionally.

In the same table, teacher educators were also requested to provide information on the extent to which they are practicing GCL methods in their teaching. As indicated in table 3, the most widely employed methods of GCL by teacher educators were small group discussion ($\overline{x}$=3.79), group project ($\overline{x}$=3.68) and brainstorming ($\overline{x}$=3.54) with a variation of 0.67, 0.66 and 0.87 among them respectively. To some extent think pair-share ($\overline{x}$=3.11) was also used in the college. This fact reveals that these four GCL methods are most predominantly practiced in Dessie CTE as compared to other methods.

The other instructional methods that were provided as GCL such as pyramiding, snowballing, Jigsaw, role playing, debates, panel discussion, games and seminar were not frequently employed as depicted in table 3. The table shows that pyramiding/snowballing ($\overline{x}$=2.61), role playing ($\overline{x}$=2.39), debates ($\overline{x}$=2.32), Jigsaw ($\overline{x}$=2.07), games ($\overline{x}$=1.93), panel discussion ($\overline{x}$=1.79) and seminar ($\overline{x}$=1.43) were used infrequently by teacher educators because the average value of the items was found to be below 3. The variation among teacher educators in using games is relatively high (SD=1.13) in comparison to others.

4.2.2 The Practice of GCL Methods (as rated by student teachers)

Table 4: The extent to which GCL methods have been practiced in Dessie CTE. (N=145)

No	Instructional methods	Responses										Mean ($\overline{X}$)	Standard Deviation (SD)
		Always		Mostly		Sometimes		Rarely		Not at all			
		No	%	No	%	No	No	%	No	%	No		
1	Lecture /Explanation	30	20.7	80	55.2	32	22	3	2.1	-	-	3.94	0.71
2	Demonstration	2	1.4	12	8.3	78	53.8	38	26.2	15	10.3	2.64	0.83
3	Question and answer	46	31.7	46	31.7	34	23.5	16	11	3	2.1	3.80	1.06
4	Brain Storming	4	2.8	23	15.9	60	41.4	45	31	13	8.9	2.72	0.93
5	Think-pair-share	18	12.4	45	31	60	41.4	19	13.1	3	2.1	3.39	0.94
6	Small group discussion	42	28.9	48	33.1	40	27.6	14	9.7	1	0.7	3.80	0.99
7	Pyramiding / Snowballing	12	8.3	36	24.8	39	26.9	42	29	16	11	2.90	1.14
8	Jigsaw	5	3.5	28	19.3	63	43.4	37	25.5	12	8.3	2.84	0.95
9	Role playing	3	2.1	8	5.5	21	14.5	59	40.7	54	37.2	1.94	0.96
10	Debates	-	-	4	2.8	29	20	59	40.7	53	36.5	1.89	0.81
11	Panel Discussion	1	0.7	7	4.8	22	15.2	46	31.7	69	47.6	1.79	0.92
12	Games	-	-	1	0.7	15	10.3	45	31.1	84	57.9	1.54	0.70
13	Group project	45	31	77	53.1	18	12.4	5	3.5	-	-	4.12	0.75
14	Seminars	1	0.7	1	0.7	15	10.3	36	24.8	92	63.5	1.50	0.76

Like teacher educators, student teachers were also asked to provide information on the extent to which their instructors have employed different GCL methods in DCTE. As indicated in table 4, fourteen different instructional methods that represent either teacher focused (i.e. lecture, demonstration and Question and answer methods) or student focused (i.e. group-based cooperative learning methods) were given for the

respondents. To this end, the views of respondents toward these methods were presented as follows.

The teacher-focused methods provided for the respondents were lecture, demonstration and question and answer methods. As table 4 depicts, the most frequently employed teacher focused methods of instruction were lecture ($\bar{X}$=3.94) and question and answer ($\bar{X}$=3.80) with a variation of 0.71 in employing lecture method and relatively high variation in using question and answer (SD=1.06). Student teachers rated demonstration ($\bar{X}$=2.64) as a rarely used teacher focused method with a variation of 0.85 in using it.

On the other hand, among common student focused group based cooperative learning methods presented in table 4 above, the two most frequently employed GCL methods were group project ($\bar{X}$=4.12) and small group discussion ($\bar{X}$=3.80) with relatively high variation in employing small group discussion (SD=0.99). Think pair-share was also employed to some extent with an average score of 3.39 as rated by student teachers.

Student teachers also rated pyramiding, Jigsaw and brainstorming as group based cooperative learning methods that were sometimes employed by their instructors with the average scores of 2.90, 2.84 and 2.72 respectively. How ever, the variation among teachers in employing pyramiding/ snowballing was relatively high (SD=1.14). Whereas, the remaining GCL methods such as role-playing, debate, panel discussion, games and seminars were employed very rarely with the average scores of 1.94, 1.89, 1.79, 1.54 and 1.50 respectively.

As can be seen from the above two tables (table 3 and 4), fourteen different instructional methods, which focused on both teacher centered and student centered, GCL methods were raised. Accordingly, teacher educators reported that among the three teacher-centered instructional methods (i.e., lecture, demonstration and question and answer), they employed question and answer and lecture to a great extent to deliver their courses. However, they rated demonstration method as it was rarely used in the college.

On the other hand, the majority of student teachers rated lecture and question and answer methods as used by their teachers to a great extent respectively. Like teacher

educators, student teachers also admitted that demonstration was rarely used in the college.

In general, the findings revealed that student teachers rated lecture as the first frequently employed teacher centered instructional method followed by question and answer while teacher educators claimed that they used question and answer followed by lecture method. Both groups of respondents rated demonstration as it was not widely used in the college.

In two of the observed classes in the college, the teachers were lecturing the daily lesson and occasionally asked oral questions related to the lesson. When five minutes or less remain for the period to end, opportunities was given to student teachers to ask any questions. Later in the interview, one of the teacher educators disclosed that:

> *I don't feel I am teaching if I am not dispensing information to student teachers using teacher-centered methods like lecture and question and answer methods.*

In relation to this, Leu (2000) states that despite the Ethiopian New Education and Training Policy strongly criticizes the conventional teacher based approach in education, the teaching learning process in most teacher education colleges in Ethiopia has persisted to be teacher dominated. Most classes are characterized by a situation where students are made to listen to their instructors and copy notes from the blackboard. She further indicated that learning by doing, problem solving and cooperative learning are limited.

Regarding the extent of practicing student-centered; that is, GCL methods in Dessie CTE, Small group discussion, group project, brain storming and think pair share were rated by teacher educators as widely employed respectively. Student teachers, on the other hand, reported that their teachers used group project, small group discussion and think-pair share most frequently to delver their courses respectively.

This shows that student teachers claimed that group project as the first choice and frequently employed GCL method followed by small group discussion while teacher

educators rated small group discussion as the first choice followed by group project when implementing GCL methods in the college. Again, teacher educators claimed brainstorming as the third frequently used GCL method while student teachers rated think pair-share as the third alternative method of GCL.

From the above descriptions, it can be said that group projects, small group discussion, think-pair-share and brainstorming were the most widely employed GCL methods in Dessie CTE. However, the other GCL methods such as pyramiding/snowballing, jigsaws, role-playing, debates, panel discussion, games and seminars were not widely employed in the college for the majority of respondents disclosed that these methods were not widely used.

In connection to this, Palmer, Peter and Streetman (2003) in their research showed that instructors who are unfamiliar with GCL may not initially accept this style of learning because they may feel they will lose of their classroom, or they may be unsure of the methods or techniques used or possibly even think that some GCL methods are too time consuming.

Teacher educator and student teachers in the interviews and in the FGD also admitted that group projects, small group discussion, think-pair-share and brainstorming were the most widely used GCL methods in the college. Commenting on the implementation of these methods, one of the interviewed teacher educators said that:

> *Theoretically, I know various GCL methods; however, I have frequently employed very limited GCL methods like small group discussion, project work and brainstorming. I also occasionally used think pair-share method. Because of time constraint to cover the content of the course, and additional responsibility in the college, I could not employ other GCL methods.*

Many student teachers in the FGD also stated that their teachers frequently gave different group projects in different courses. They mentioned that their teachers gave

these group projects for the purpose of assigning marks. They further stated that their teachers did not even return their project works back rather they told the total score of group project works. Besides to group project work, student teachers also reported that small group discussion was also one of GCL method frequently used by their teachers though one or two of group members completed the group task while the other member desired their names to be listed on the assignment paper as if they were actively participated on the discussion.

In this regard, Johnson, Johnson and Smith (1991) noted that cooperation is not assigning a report to a group of students where one or two students do all the work and the others put their names on the product. Thus, cooperation is much more than being physically near students, discussing materials with them, helping them or sharing materials among students although each is important in GCL.

In general, based on the position of teacher educators and student teachers and the interview, FGD and classroom observation made by the researcher it is possible to deduce that the degree of practicing a variety of GCL methods in Dessie CTE was low.

4.3 Teacher Educators' Practical Experiences in Implementing GCL

Teacher educators and student teachers were asked to provide information about the practical experiences of teacher educators on the implementation of GCL in Dessie CTE. To this end, different questions in relation to the preparation of students to GCL, group formation, designing group tasks, monitoring and evaluating students' cooperative group work were raised (see appendices B and C) and analyzed in the following consecutive tables (table 5-9).

Table 5: Experience of teacher educators in preparing students for GCL as Viewed by the Teacher educators and Student teachers.

No	Items	Teacher Educators N=28		Student teachers N=145	
		No	%	No	%
1	Do teacher educators inform students why they are made to participate in cooperative group work before starting the lesson?				
	A. Yes	27	96.4	116	80
	B. No	1	3.6	29	20
2	If your response to question 1 is " yes" which point was made clear to the students?				
	A. How members will be selected into groups and why?	2	7.1	10	6.9
	B. How cooperative group work will be assessed?	4	14.3	45	31
	C. How often groups should be met?	-	-	2	1.4
	D. A and B	18	64.3	85	58.6
	E. All	4	14.3	3	2.1

As indicated in table 5, 27(96.4%) teacher educators and 116(80%) student teachers responded that students have been informed about the basic rationale of using cooperative group work by their instructors before they were engaged in group work. On the other hand, 29(20%) student teachers and only-1 (3.6%) teacher educators responded to the opposite.

Respondents were also asked to provide information on the point that was made clear by the teacher educators before involving students in GCL. As table 5 shows, it seems that the information given by both group of respondents are similar and focus on how members will be selected and how cooperative group work will be assessed. Because, the majority of teacher educators 18(64.3%) and many student teachers 85(58.6%) selected item A and B. However, how often student teachers should be met for employing their group work was usually not informed by teacher educators.

The literature on the preparation of students for GCL presented in this paper indicates that after deciding to implement GCL, the biggest challenge will be planning and making ready the classroom and students for GCL. Thus, for students to work effectively in cooperative group work, preparation is essential.

In this regard, the University of Technology of Sydney (UTS) Institute for Interactive media and Learning (IML) (2003) in Enhancing Experiences of Cooperative Group work stated that if students are informed about the basics of GCL, they are more likely to understand the rationale about GCL in each subject /course/. As a result, they will also be more likely to enter their group with positive attitudes, expectations and motivations necessary to engage at a higher performance level.

Hence, the information from teacher educators and student teachers revealed that before starting a GCL activity, student teachers were informed about the rationale of using GCL methods by their teachers. Responses from both groups of respondents also showed that the most frequently employed methods of preparing students for GCL were informing students how cooperative group work will be assessed and how group members will be selected into group. However, how often student teachers should meet to work their group assignments were often ignored by teacher educators.

Furthermore, during classroom observations conducted in the college, the researcher witnessed that most of the observed teacher educators were teaching using the conventional, lecture method for 15-20 minutes on certain topic. Then, student teachers were asked to be sitting in their previous groups and given similar group work activities with out having any direction on how and why they are going to carry out the group activities. Hence, if student teachers don't know why they are being asked to work in groups or have little idea about the learning objectives of the activity, their attention, motivation, and productivity will suffer. Therefore, teacher educators in their courses should pay special attention to providing directions and rationale for employing cooperative group work.

Table 6: Teacher Educators' Practical Experiences on group formation as Viewed by the Teacher educators and Student teachers.

No	Items	Teacher educators (N=28)		Student teachers (N=145)	
		No.	%	No.	%
1	The method of assigning students in groups widely used to implement GCL is:				
	A. Teacher assignment	5	17.9	20	13.8
	B. Random Assignment	18	64.2	32	22.1
	C. Students self selection	5	17.9	93	64. 1
	D. If any other specify----------				
2	Which type of GCL group is most familiar in your class?				
	A. Informal groups	3	10.7	15	10.3
	B. Formal groups	5	17.9	49	33.8
	C. Base groups	20	71.4	81	55.9
	D. If any other, specify----------				

With regard to the method of assigning groups to implement GCL, respondents did not possess similar position. The majority of teacher educators 18(64.2%) replied that the most widely employed method of group formation is random assignment. On the other hand, most student teachers 93(64.1%) responded that students self selection is the most widely used method of group formation during the implementation of GCL, and only 32 (22.1%) student teachers supported teacher educators' position.

Respondents were also requested to provide information about the type of GCL group employed in the college. In this aspect, both group of respondents show similar position; that is, from respondents of teacher educators, the majority 20 (71.4%) asserted that base group is the most frequently employed type of GCL group. In the same way among student teachers, 81(55.9%) possess similar position by supporting teachers' idea. However, 49(33.8%) of student teachers showed that formal group is also employed to some extent in addition to base group.

Johnson, Johnson and smith (1991) suggest that in order to effectively implement GCL in the college, instructors need to use the combination of informal, formal and

cooperative base groups. They further indicated that these learning groups provide an overall structure with variety for students.

The finding of this study; however, showed that teachers have frequently structured the class using cooperative base groups. It has been deduced from the fact that 20(71.4%) teacher educators and 81(55.9%) student teachers rated base groups as most frequently employed type of GCL group. This was again supported by classroom observations made by the researcher. Classroom observations revealed that almost all teacher educators were using fixed (cooperative base groups) throughout the observation process. Teacher educators did not form different types of groups based on the nature of tasks, time available and experience of students. This indicates that informal cooperative groups and formal cooperative groups were used rarely. In this regard, Smith (1996) suggests changing groups periodically is also advised to be used during the implementation of GCL.

As can be observed from the above data, the position of both groups of respondents on the methods of assigning students into groups was different. While the majority of student teachers 93(64.1%) rated students' self assignment as the most frequently employed method, 18(64.2%) teacher educators responded that random assignment was the most widely used method of group formation during the implementation of GCL.

Though deciding how groups should be formed is an important part for the application of GCL, there have been different views as to how groups should be formed in order for students to effectively work together and reach their maximum potential. For example, Smith (1996) noted that instructors should randomly assign students to groups to maximize their heterogeneity (i.e. a mix of males and females verbal and quite students, the cynical and the optimistic).

On the other hand, Cooper (1990) suggests that instructors should give the opportunity for students to choose their groups with whom they want to work although this runs the risk that groups will socialize too much and that students will self-segregate. Still others prefer to form the group themselves, taking into account students prior achievement, levels of preparation, work habits, ethnicity and gender (Connery, 1998).

Johnson, Johnson and Smith (1991) in their research findings, also reported that in order for GCL to be implemented successfully, group members should be formed by the instructor make sure that each group member consisted of a diversity of student talents, abilities and backgrounds.

Therefore, since there is no only one correct way of using groups, teacher educators need to use different types of group formation according to the nature of the group activities rather than employing the same type of group formation frequently because this gives students a chance to meet more of their peers and helps to gain skills.

Table 7: Teacher Educators' Practical Experiences in Designing GCL Activities as Viewed by the Teacher educators and Student teachers.

No	Items	Teacher Educators (N=28)		Student teachers (N=145)	
		No.	%	No.	%
1	To what extent do teacher educators design cooperative group work activities to ensure that all group members actively work together?				
	A. High	20	71.4	15	10.3
	B. Moderate	5	17.9	50	34.5
	C. Low	3	10.7	80	55.2

As can be observed in table 7, the position of the two groups of respondents on the extent of designing appropriate cooperative group work activities made by teacher educators is opposing one another. The majority of teacher educators, 20(71.4%) reacted as if they have been designing variety of cooperative group work activities to ensure that all group members actively work together. On the other hand, student teachers have shown different position, because most of them 80(55.2%) and 50(34.5%) rated the issue as 'low' and 'moderate' respectively.

In connection to this, the University of Technology of Sydney (UTS) Institute for Interactive Media and Learning (IML) (2003) in Enhancing Experience of Cooperative Group Work suggests that the task set for cooperative group work is one of the most

crucial aspects of active learning. Tasks design to GCL need to be easily divisible to subtasks, meaningful, relevant to learning tasks and achievable. When cooperative group work fails to fulfill these criteria, students will lack motivation to work collectively on the task and as the result there will be many group related problems.

In this respect, the data show that both groups of respondents gave different responses on the practical experience of teacher educators in designing GCL activities. While many of student teachers, 80(55.2%) claimed the practical experience of their teachers in designing GCL activities was low, the majority of teacher educators 20(71.4%) responded as if they were capable enough about the issue. Here, teacher educators' response is contradictory with their responses given in table 3, which indicates that the extent of practicing various GCL methods in Dessie CTE was low. Though group work was one of the methods of instruction widely practiced in the college, in almost all observed classrooms, there were no pre-planned tasks for students to perform different group work activities meaning that all teacher educators were teaching with out having daily lesson plan.

Moreover, many student teachers in the FGD felt that most group work tasks, which were designed and given by their teachers, were to be completed in short time frames and led them to conflicts rather than developing cooperativeness among them.

Table 8: Experiences of Teacher Educators in Monitoring Cooperative Group Work by the as Viewed by Teacher educators and Student teachers.

No	Items	Teacher Educators (N=28)		Student teachers (N=145)	
		No	%	No	%
1	How do teacher educators monitor the progress of students work while implementing GCL?				
	A. Visiting each group while students are working to check on progress and help when necessary	-	-	2	1.4
	B. Asking students to provide regular reports about their progress	-	-	-	-
	C. Asking students to provide final products of their group work	15	53.6	81	55.8
	D. Meeting with groups to check their progress	-	-	3	2.1
	E. A and C	10	35.7	50	34.5
	F. A, C and D	1	3.6	5	3.4
	G. All	2	7.1	4	2.8

When asked how teacher educators monitor the progress of students' work while they were implementing GCL, the majority of teacher educators, 15(53.6%) and student teachers, 81(55.8%) replied that the most widely employed mechanism of monitoring students' group work was asking students to provide final products of their group work. According to 10(35.7%) teacher educators and 50(34.5%) of student teachers, to some extent teacher educators were also visiting each group while students were working to check on their progress and help when necessary. However, teacher educators did not follow the progress of students' group work either by asking them to provide regular reports or by meeting them to check their progress.

Many student teachers in the FGD stated that due to lack of the necessary follow up by teacher educators, a few students usually did the group work assignment and the remaining members of the group had simply put their names on the assignment paper without active participation. They further indicated that this problem usually leads to conflict among group members. One of the respondents disclosed that:

> *Our instructors frequently gave different group work assignments in different courses. However, the teachers did not monitor how our group members were being involved in the group assignment. Rather, our teachers were asking each group to submit the final product of the assignment at the end of the day.*

Many teacher educators also shared this view. During interview most teacher educators explained that they did not strictly follow the participation of each student while working GCL activities. Time constraint and other extra- curricular responsibilities were the major reasons mentioned by them for not monitoring the process of GCL activities in Dessie CTE.

From the above descriptions, it can be said that teacher educators have given more emphasis to the product of cooperative group work and ignoring its process. Hence, teacher educators were found to have less experience of monitoring students' group work activities.

However, in contrary to teacher educators' mechanism of monitoring GCL, the literature in relation to this indicates that:

> *The teacher should monitor and support GCL activities- for example, ask students to provide regular updates or reports or meet with groups to check their progress and team processes. When conflict arises with the group, encourage the group members to negotiate a resolution themselves- step in only as a last result (the University of New South Wales / UNSW/ (2006: online).*

Table 9: Practical Experiences of Teacher Educators in Evaluating Students' Cooperative Group Work as Viewed by Teacher educators and Student teachers.

No	Items	Teacher Educators (N=28)		Student teachers (N=145)	
		No.	%	No.	%
1	In your experience of using cooperative group work methods, which part of the group task has been assessed widely?	2	7.1	29	20
	A. The process of group work	17	60.7	100	69
	B. The product of group work	9	32.2	16	11
	C. A and B				

Regarding the methods of assessment of cooperative group work, the majority of teacher educators 17(60.7%) and most student teachers 100(69%) reported that teacher educators have assessed the product of students' group work rather than the process and both the process and the product. 29(20%) of student teachers replied that their instructors assessed the process of group work and only 2 (7.1%) teacher educators claimed as they have assessed the process of group work widely. Furthermore, 9(32.2%) of teacher educators and 16(11%) of student teachers replied that both the process and the product of students' progress were assessed in the implementation of GCL.

From the above data, the majority of both groups of respondents admitted that the methods of evaluation of cooperative group work were mainly focused on the product of group work. In other words, the mechanisms of evaluation of cooperative group work focus on what the students do rather than how they do their group tasks. Again these results are complementing the results obtained in table 8. Moreover, the researcher confirmed the truthfulness of respondents' concerning the methods of assessment used by the teacher educators. In all observed classrooms, teacher educators did not assess the process of group work using different assessment techniques like self-assessment, group self-assessment and observation checklist. As it was verified by classroom

observation, student teachers in most classes were simply given certain time to perform group work tasks in their groups and asked to report back the product of group work to the whole class. At last, teacher educators were collecting student teachers' group work without assessing how well the process of group work has been carried out.

As mentioned earlier, students during FGD complained that teachers gave unfair grades that were not commensurate with each individual's effort and quality of work. One of the students said, "In GCL, some students who could perform well were disadvantaged while those who did not have the necessary abilities in the course were benefited unfairly."

Many teacher educators during interview also stated that they were forced to give equal marks for all members of the group even though there was no equal distribution of efforts in GCL activities. In connection to this, the University of Technology of Sydney (UTS), Institute for Interactive Media (IML) (2003) in enhancing experience of cooperative group work [online] suggests that though getting assessment right is critical in GCL, developing explicit criteria and outcomes at the beginning saves students and teachers from wasting valuable time by thinking about the skills, knowledge and attitude that students want to learn and teachers need to teach and evaluate.

Therefore, GCL will be effective if appropriate groups are formed, relevant tasks are designed, group process and conflict are properly monitored and finally both the process and product of the group's learning goals are appropriately assessed (ibid).

In general, this finding revealed that there was less effort made by teacher educators in preparing students to GCL, forming appropriate groups, designing relevant tasks, monitoring and evaluating GCL activities.

4.4 Knowledge about GCL

4.4.1 Teacher educators' Knowledge about GCL

In order to effectively implement instructional methods in any educational institutions, the necessary knowledge is required. In this regard Copley (1992) noted that:

> *There is no task that can be done without knowledge; the knowledge or skill could be gained from formal training or experience sharing. To implement, lack of clarity about the task leads to poor quality, or no implementation. Lack of knowledge could be one of the factors not to implement teaching methods.*

In the following table (Table-10), teacher educators were asked to provide information about their knowledge on GCL.

Table 10: Teacher Educators' Previous Learning Experience and their Trainings on GCL. (N=28)

No	Items	Responses	
		No	%
1	When you were a primary and secondary school student, the instructional methods widely used were		
	A. Active, student centered methods	-	-
	B. Traditional, teacher centered methods	27	96.4
	C. A and B	1	3.6
2	Have you ever trained on different active learning strategies like cooperative group work methods in your teacher-training program?		
	A. Yes	24	85.7
	B. No	4	14.3
3	If you response to question 2 is 'yes', the contributions of the training to practice GCL were.		
	A. High	10	41.7
	B. Moderate	13	54.1
	C. Low	1	4.2
4	Have you got any in-service training on how to utilize GCL in your teaching?		
	A. Yes	26	92.9
	B. No	2	7.1
5	To what extent the amount of training helped you effectively implement GCL methods in your teaching?		
	A. High	11	42.3
	B. Moderate	15	57.7
	C. Low		

In order to see teacher educators' previous learning experiences, the first question (item-1) attempts to remind teacher educators about the instructional methods widely used when they were a primary and secondary school students; i.e., before they were becoming a teacher. In this regard, the majority of respondents, 27(96.4%) responded that the traditional methods were the most widely used instructional methods in both schools. Only, a single respondent, 1(3.6%) reacted as both active learning and teacher-centered methods were used in the schools. This shows that teacher educators had no experience of cooperative group work in their primary and secondary education.

In connection to this, in the interview teacher educators were asked to provide information whether or not their previous learning experiences affect the current thinking and practice of GCL in the college. One of the interviewed teacher educators has said that "I often get satisfaction only when I'm well prepared on the daily lesson and provide adequate information to the students using lecture method."

According to Panitz (1996), if teachers are taught by the lecture method while in their schooling, then it is hardly surprising that this will be the method of choice when their turn arrives to take over the classroom. Besides, for some instructors showing their expertise in a subject is important. Hence, giving up the opportunity to show off this expertise may deter from using GCL in their classroom (Palmers, Peters and Streetman, 2003).

In the same table, teacher educators were also requested to provide information on whether or not they had trained on different active learning strategies like GCL methods in their pre-service training program. In this aspect, the majority of respondents 24(85.7%) assured as they had taken training while others 4(14.3%) did not take training. Moreover, from those who took training on the issue, 13(54.1%) reported that the training has helped them "moderately" to have adequate knowledge on GCL and less than half of respondents 10(41.7%) reacted as the contribution of the training was 'high'. Only 1(4.2%) reacted as the contribution of the training was low.

As mentioned earlier, GCL has been treated as important student-centered instructional method in this study. It is also mentioned that the practice of active learning methods in

general and GCL in particular is a recent practice in Ethiopian teacher education institutions. Thus, since training is considered as an important input to understand and practice the instructional process, teacher educators were asked to give information whether or not they had received pre-service training on GCL and its contributions.

From the above data, it could easily be understood that the majority of respondents had got training on the implementation of GCL methods in their pre-service program. However, in relation to the contribution of pre-service training, the figure indicates that there is no as such deep confidence developed as the result of training to have adequate knowledge about the implementation of GCL methods.

Regarding teacher educators' in-service training, the majority of respondents, 26 (93.9%) have got in-service training on the application of GCL methods. Only, 2 (7.1%) of them did not get any in-service training. Though the majority of them reacted as they have got in-service training, still they have not developed confidence on the contribution of the training to implement GCL because a large number of them, 15(57.7%) responded the contribution of the training as 'moderate' and others 11(42.3%) of them acknowledged the contribution of training as 'high'.

As indicated by MOE (2003) one of the objectives of teacher education in Ethiopia is to prepare teachers who can confidently promote various active learning strategies like project work, problem solving, cooperative learning methods and the like. Moreover, teacher educators are preparing teachers who are qualified to implement these active learning strategies. Hence, teacher educators must be well trained and should be ready to assume the responsibility of teaching through different active learning strategies.

Data from interviewed teacher educators also indicated that they have taken training about different active learning strategies including GCL methods during their higher diploma program. They further stated that the training has enhanced their understanding about various GCL methods. However, they evaluated the contribution of training as it has been remained in their mind rather than putting it into practice.

One of these teacher educators during interview stated that:

The higher diploma program helped me to understand various GCL methods in my course. However, I am confined to practice a few of them due to some reasons such as over crowdedness of contents in the course, additional responsibilities like observing student teachers who are out side the college for practicum and the like.

Table 11: Teacher Educators' Perceptions about GCL (N=28)

No	Items	Responses	
		No	%
1	How do you understand GCL?		
	A. It is having students sit side by side at the same table to talk each other.	-	-
	B. It is assigning a task to a group of students in which one or two group members do the work and others get equal credit.	-	-
	C. It is an instructional method in which students at various performance levels work together towards a common goal.	28	100
	D. A and B		
	E. If any, other specify _____		
2	In what way do you think GCL differs from the traditional group learning?		
	A. Group members are responsible for their own and others learning.	25	89.3
		-	-
	B. Group members take responsibility only for self	3	10.7
	C. Group members compete with each other and with hold information	-	-
	D. B and C	-	-
	E. If any other, specify_____		

As can be seen in table 11, teacher educators were asked to reflect their understanding about the basic concept of GCL and about the difference between GCL and traditional group learning. Regarding the basic concept of GCL, all teacher educators 28(100%) responded that GCL is an instructional method in which students at various performance levels work together towards a common goal. Also, the majority of respondents,

25(89.3%) responded as GCL differs from the traditional group learning in that group members are responsible for their own and others learning. In the open-ended questionnaire, one of the respondents perceives GCL as follows.

> *Cooperative group work demands common understanding, support and mutual achievement. However, the traditions in our country tend to be competitive. Students are neither interested for sharing ideas nor for working together.*

Another teacher also expressed his perception of GCL as:

> *It is one of the instructional methods in which students learn from their peers in order to get final product, but it needs follow up to check their progress.*

From the above data, it can be said that the majority of teacher educators have better awareness about the basic concept of GCL and its difference with the traditional group learning.

In general, though teacher educators' understanding about GCL was satisfactory, the efforts made to effectively implement different GCL methods in Dessie CTE were found to be low. In relation to this, Amare (2000) reported that student teachers could get the exposure to new instructional perspectives but the problem is partly explained by the conflict between what the student teachers 'told to do so' and by what their instructors "actually do". He further explained, in theory teacher educator may advocate two-way communication, which is cooperative learning, whereas in practice he/she limits to one-way communication, which is teacher-dominated or passive learning.

4.4.2. Student Teachers' Knowledge about GCL

To investigate the knowledge or understanding of student teachers about GCL, student teachers were requested to provide information on their previous and current learning experiences of GCL, whether or not they have got any orientation/training in the college on how to learn actively or cooperatively instead of passively listening instructor's explanation or lecture, and their perceptions on the basic concept of GCL. Results from the gathered information are provided in the following consecutive tables (table12-15).

Table 12 Student teachers' Previous Learning Experiences (N=145)

No	Item	Responses of Student teachers	
		No	%
1	When you were in schools, how could your teachers present the lesson of their subject matters?		
	A. Most of the time my teachers used to present the lesson by using lecture, demonstration and question and answer.	93	64.1
	B. Teachers usually made each student compete with his/her peers by giving individual tasks.	3	2.1
	C. Most teachers used to give an opportunity to work together as a team and motivated the group to perform different tasks cooperatively.	7	4.8
	D. A and B	42	29
	E. If any other specify _____		

The above table shows that the majority of student teachers 93(64.1%) replied that most of the time their schoolteachers were used to present the lesson by using lecture, demonstration and question and answer methods. According to 42(29%) student teachers, besides to using teacher-centered methods, their instructors were also usually made them compete with their peers by giving individual tasks rather than making them work in cooperation. Only 7(4.8%) respondents said that their schoolteachers were used to provide a chance to work together as a team and motivated the groups to perform different tasks cooperatively. This shows that the majority of student teachers were accustomed to the individualistic or competitive learning methods than cooperative learning methods when they were in primary and secondary schools.

Cooper and Associates (1990) explain that based on their past experience with school, many students perceive that they are in competition with the classmates and students may also object in part, because their education has been based on individual effort, and they may feel uncomfortable helping others or seeking help.

Table13: Student teachers' Current Learning Experiences (N=145)

	Items	Responses of Student teachers	
		No.	%
1	According to your observation in your college, teacher educators have given more emphasis to:		
	a. Competitive learning	69	47.6
	b. Individualistic learning	16	11
	c. Cooperative group learning	60	41. 4

As indicated in the above table, 69(47.6%) respondents perceived that their instructors have given more emphasis to competitive learning than cooperative group learning and individualistic learning. On the other hand, 60(41.4%) and 16(11%) of them perceived that their instructors have given great emphasis to cooperative group learning and individualistic learning respectively.

In connection to this, Christen (1990) explains that most students who come to college class expecting the conventional classroom arrangement, with the instructor in front of the class and students in straight rows listening and watching the instructor, they will be confused and hesitate when these expectations are not met. Many students enter higher education having developed independent study habits and are strongly oriented towards their personal achievement.

In general, tables 13 shows that much more emphasis should be given in terms of training student teachers for properly and effectively implement GCL in Dessie CTE.

Table 14: Orientation/training of Student teachers about GCL(N=145)

No	Items	Responses of student teachers	
		No.	%
1	Did you get any orientation /training in your college on how to learn actively/ cooperatively instead of passively listening instructors' explanation?		
	A. Yes	68	46.9
	B. No	77	53.1
2	If your response for the above question is yes, how do you evaluate the contribution of the orientation/training to understand the basic concept of GCL?		
	A. High	2	3
	B. Moderate	46	67.6
	C. Low	20	29.4

As it can be seen from table 14, a large numbers of respondents 77(53.1%) said that they had no any orientation/ training about GCL. On the other hand, 68(46.9%) responded that they had got orientation/ training on how to learn actively/cooperatively. In this aspect, the table shows that much more are desired to provide orientation/ training for student teachers on how to involve them in active learning strategies like cooperative learning.

In addition, student teachers were also asked to provide information on the extent to which the orientation/training they took has helped them to understand GCL. In this regard, 46(67.6%) of them reported that the contribution of orientation/training was 'moderate' and 20(29.4%) of them replied that the contribution of the orientation was 'low'. Only 2(3%) respondents rated, as the contribution of training was 'high'.

The University of New South Wales (UNSW) (2006) stresses that before introducing a group based cooperative learning activity; find out whether students have any prior experience of working in groups. This can help to design group work activities that are appropriate for all students in your course or class. Exploring students' prior experiences

of cooperative group work might also help instructors to overcome any resistance associated with negative experiences.

Hence, the data indicated that many student teachers 77(53.1%) reacted, as they did not get any orientation/training. However, a significant number of respondents 68(46.9%) reflected that they were given orientation to be active participant and cooperative in the teaching learning process by their instructors in the beginning of the course. Moreover, the majority of student teachers 46(67.6%) evaluated the contribution of training as moderate. This shows that the majority of student teachers did not get any conducive environment to know the basics of different instructional methods in general and GCL methods in particular that lay the foundation for the training programs.

Table 15: Student teachers' Perceptions about GCL. (N=145)

No	Items	Responses	
		No.	%
1	How do you understand GCL? A. It is having students sit side by side at the same table to talk to each other.	29	20
	B. It is assigning a task to a group in which one or two group members do the work and others get equal credit.	7	4.8
	C. It is an instructional method in which students at various performance levels work together towards a common goal	67	46.2
	D. A and B'	42	2.9
	E. If any other, specify----------		
2	In what way do you think GCL differs from the traditional group learning? A. Group members are responsible for their own and others learning.	84	58
	B. Group member take responsibility only for self	8	5.5
	C. Group member compete with each other and with hold information	33	22.7
	D. B and C	20	13.8
	E. If any other, specify_____		

Table 15 depicts that less than half of the respondents, 67(46.2%) successfully perceived the basic concept of GCL as indicated in the literature. However, many student teachers, 84(58%) responded satisfactorily about the main difference between GCL and traditional group learning.

As table 15 shows, much more is desired to provide adequate training for students in relation to GCL because the majority of them did not give the expected responce for item 1. Perhaps this misunderstanding could be emanated from the improper implementation of cooperative group work during the training process. Many of the respondents during FGD also frequently mentioned that teacher educators usually gave group assignments and assign the same grade to all members of the group irrespective of the effort of individuals.

In general, based on the information given by student teachers, it is possible to deduce that they did not get necessary knowledge. In this regard, Pantiz (1996) says that a major problem in implementing GCL arises because students lack an understanding of the underlying philosophies of GCL. He added that our current system encourages competition and individual responsibility and discourages student interaction.

4.5 Attitudes toward GCL

Table 16: Teacher educators' and Student teachers' Attitudes toward GCL as Viewed by Teacher educators and Student teachers

No	Items	Teacher educators (N=28)						Student teachers (N=145)					
		A		DA		U		A		DA		U	
		No	%	No	%	No	%	No	%	No	%	No	%
1	Cooperation helps to prepare students for their learning	20	71.4	5	17.9	3	10.7	68	46.9	58	40	19	13.1
2	Cooperative group work methods hold bright students back.	6	21.4	19	67.9	3	10.7	34	23.4	98	67.6	13	9
3	Using GCL is likely to create too many disciplinary problems among students	4	14.3	22	78.6	2	7.1	37	25.5	89	61.4	19	13.1
4	Peer interaction helps students obtain a deeper understanding of the material	23	82.2	2	7.1	3	10.7	128	88.3	11	7.6	6	4.1
5	If the instructors use cooperative group work, too many students expect other group members to do the work	17	60.7	6	21.4	5	17.9	97	66.9	7	18.6	21	14.5
6	I believe that instructors can implement GCL successfully.	17	60.7	2	7.1	9	32.2	26	18	107	73.7	12	8.3
7	Using GCL promotes friendships among students.	25	89.3	-	-	3	10.7	124	85.5	8	5.5	13	9
8	Most of the time students would like to work alone than to work in cooperative groups.	5	17.9	20	71.4	3	10.7	50	34.5	77	53.1	18	12.4
9	GCL is appropriate for my subject (s)	24	85.7	2	7.1	2	7.1	117	80.7	19	13.1	9	6.2
10	Instructors lack personal commitment to use GCL methods in the college	2	7.1	23	82.2	3	10.7	77	53.1	48	33.1	20	13.8

Key: A= Agree, DA= disagree, U=undecided

As shown in table 16, in order to assess the attitudes of teacher educators and student teachers toward GCL, ten items were raised. To this effect, in item 1, the majority of teacher educators, 20(71.4%) and nearly half of student teachers 68(46.9%) claimed that cooperation as the means to prepare students for their learning. However, 58(40%) of student teachers did not agree with the assumption.

In the same table, 19(67.9%) teacher educators and 98(67.6%) student teachers did not agree on the assumption that cooperative group holds bright students back (item.2).

Regarding item 3, 22(78%) teacher educators and 89(64.4%) student teachers did not agree on the assumption that GCL is likely to create many disciplinary problems among students. The majority of teacher educators, 23(82.2%) and most of the student teachers 128(88.3%) in item 4 agreed that peer interaction helps students obtain deeper understanding of the material.

However, many teacher educators, 17(60.7%) and a large proportion of student teachers 97(66.9%) felt that if instructors use GCL methods in the college, too many students expect other group members to do their work (item-5)

Respondents in item 6 were also asked to forward their opinions about teacher educators' skills of implementing GCL in the college. In this regard, the position of the two groups of respondents was different. While the majority of teacher educators, 17(60.7%) agreed that they have the skills necessary for implementing GCL methods, a great number of student teachers, 107(73.7%) opposed the assumptions of their teachers.

Item 7 that states "GCL promotes friendship among students" was also reacted by the two groups of respondents. In this aspect, the majority of teacher educators 25(89.3%) and many students' teachers, 124(85.5%) accepted the assumption. This reveals that the majority of respondents perceived the role of GCL in promoting cooperation and sharing of ideas among students.

Furthermore, the interest of student teachers towards GCL was also assessed in item 8. The position of the two groups of respondents on this item was also similar. Because, 20(71.4%) teacher educators and 77(53.1%) of student teachers claimed that most of the time student teachers would like to work in cooperative groups rather than to work alone. Also, a small number of student teachers, 50(34.5%) reflected that they would like to work alone rather than work in cooperative groups. Perhaps, the preference of these students could be resulted from the conflicts that have been created during their

group work. Many student teachers in the FGD also mentioned this problem as one of the factors that hinders the effective application of GCL in the college.

In relation to the appropriateness of GCL methods for their respective department, 24(85.7%) teacher educators and 117(80.7%) student teachers felt that GCL is appropriate for their subject stream. This is supported by Collier (1980), regardless of the subject matter students working in small groups tend to learn more of what is taught and retain it longer when the same content is presented in other instructional format.

Finally, with respect to instructors' commitment to use GCL methods in the college both groups of respondents in item 10 possess different position. While 77(53.1%) student teachers claimed that their instructors were not committed to employ GCL methods in the college, 23(82.2%) teacher educators did not accept this opinion.

The research findings of Smith (1991) show that the past decade has been an expositions of interest among college faculty in the teaching methods variously grouped under the terms "active learning" and "cooperative group learning". He further notes that, even with this interest, there are also misunderstanding and mistrust of the pedagogical movement behind the words.

Johnson and Johnson (1990), for instance, state that some teachers perceive cooperative group learning as having students sit side by side at the same table to talk with each other as they do their individual assignment. In the same way, Davis (1993) also states that some students like teachers feel that class time is best spent hearing from the instructors rather than working with students, who believe, know as little as themselves. In such situation, the starting point should be preparing students for GCL by orienting them to the skills and the activities.

On the other hand proponents of GCL claim that the active exchange of ideas with in groups not only increases interests among the participants but also promotes critical thinking. Moreover, GCL experiences promote more positive attitudes toward the instructional experience than competitive or individualistic methodologies (Johnson and Johnson, 1989).

The above descriptions show that there is a strong tie between teachers' and students' attitude and their effort to implement instructional methods in general and GCL methods in particular. Accordingly, teacher educators and student teachers need to develop positive attitudes toward GCL so as to effectively implement it.

In this regard, ten items were included in table 16 to assess their attitudes toward GCL. Hence, it appeared that in almost all of the items the majority of teacher educators and student teachers have favorable attitude towards GCL. However, in specific item (item-5) both group of respondents seem to disclose negative attitudes. Teacher educators and student teachers felt on item 5 that in the implementation of GCL too many students expect other group members to do the work.

Hara (1994) noticed that struggling students leave group tasks to the advanced students and in the same way advanced students may expend less effort to avoid the sucker effort of doing all the work. He suggests that telling students why it might be important for them to gain experience of working cooperatively with others or giving students some rational as to why the instructor is employing GCL may help to reduce these barriers.

Furthermore, in relation to teacher educators' skills and commitment to the utilization of GCL, both groups of respondents were requested to reflect their feeling in item 6 and 10 respectively. To this end, the finding demonstrated that respondents had different views about the issues. The majority of student teachers felt that their instructors lack skills and less commitment to implement GCL. On the other hand, teacher educators perceived themselves as they are capable enough and have personal commitment to employ different GCL methods in the college. This result, however, contradicts with the result found earlier, which shows the degree of practicing different GCL methods and the experience of teacher educators in implementing GCL were found to be low.

During the interview and FGD, many teacher educators and student teachers also reported that though GCL is one of the most important methods in the teaching learning process, it is not effectively and properly implemented in Dessie CTE. For example, one of the interviewed teacher educators has the following to say:

> *Though I know that cooperative group work benefits the students' learning, I rarely employ it due to many reasons. For instance, it is difficult to ensure the active participation of each student in GCL, especially when students are involved outside the classroom. As the result of this, every member of the group is assessed as one regardless of his/her input in the groups.*

Many student teachers seem to share the view expressed above in different words. For example, in the FGD they frequently explain that as the result of instructors' unfair assessment during the utilization of GCL, they wanted to work their group assignments individually.

In general, based on the information given by respondents, it is possible to say that though GCL has not been properly and efficiently practiced in the college, both group of respondents have favorable attitudes toward GCL.

4.6 Factors Inhibiting the Implementation of GCL

The following table shows factors perceived by the two groups of respondents as impediments to the implementation of GCL in Dessie CTE.

Table 17: Factors that Inhibit the Implementation of GCL as Viewed by Teacher educators and Student teachers

No	Items	Teacher educators (N=28)						Student teachers (N=145)					
		A		DA		U		A		DA		U	
		No	%	No	%	No	%	No	%	No	%	No	%
1	Instructors tendency to the traditional lecture method has affected the implementation of GCL	15	53.6	9	32.1	4	14.3	70	48.2	55	38	20	13.8
2	There are too many students in my class so that it is difficult to implement GCL effectively.	9	32.1	18	64.3	1	3.6	33	22.8	104	71.7	8	5.5
3	It is difficult to implement GCL effectively due to the lack of well-developed training modules.	12	42.9	13	46.4	3	10.7	127	87.6	15	10.3	3	2.1
4	Instructors do not evaluate each trainee fairly when using cooperative group work.	21	75	6	21.4	1	3.6	116	80	17	11.7	12	8.3
5	The implementation of cooperative group work takes too much time in my class	19	67.9	7	25	2	7.1	93	64.1	32	22.1	20	13.8
6	The physical set up of the class is an obstacle to apply GCL.	8	28.6	19	67.8	1	3.6	51	35.2	75	51.8	19	13
7	In cooperative group work bright students are doing all the work and slow students leave group work to the bright students.	18	64.3	7	25	3	10.7	104	71.7	26	18	15	10.3
8	I don't effectively implement GCL due to lack of adequate training	3	10.7	20	71.4	5	17.9	89	61.4	34	23.4	22	15.2

Key: A= Agree, DA= disagree, U=undecided

As can be seen in table 17, respondents agreed on the assumption that the tendency of teacher educators to the traditional lecture method has affected the implementation of GCL (item 1). In this aspect, 15(53.6%) teacher educators and 70(48.2%) student teachers agreed that instructors have widely employed traditional lecture method than different active learning methods like cooperative group work methods. However, this assumption was rejected by 9(32.1%) teacher educators and other significant number, 55(38%) student teachers.

This is also supported by student teachers during FGD. They explained that their instructors have usually provided information via a lecture and question and answer methods, though a few instructors were using both traditional, teacher focused and student centered GCL methods like small group discussion and group project work. Classroom observations were also confirmed these facts too. Again these findings complemented the results obtained in table 3 and 4.

According to Aggarwal (1998), while many teacher educators would like to include cooperative group work in their teaching learning process, there is often hesitation because of unfavorable experiences when groups quarrel and have failed to complete the tasks, left the task to one or a few students.

Gregory and Thorley (1994), on the other hand, stated that when a teacher lectures she/he gets the feeling that the content is being covered, because it has been presented to the students in an orderly fashion. They further reported that students also feel much more comfortable hearing the teacher presents the important facts instead of having to sort out what is important. A common fear among students is that all the group members will be wrong leading to failure. Hence,in such situation instructors should explain the rationale for using GCL, describe its benefits, and the results typically found from using this method before beginning their courses. In relation to the problem of large class size, most of the teacher educators 18(64.3%) and large proportion of student teachers 104(71.7%) claimed that large class size was not the serious problems that inhibit the implementation of GCL in Dessie CTE (item.2). This shows that the accommodation capacity of classrooms was not an inhibiting factor to implement GCL in the college. The researcher accepted the responses given by respondents, because during his

classroom observations the average number of student teachers in each class was between 35-45.

The other problem that is raised as an inhibiting factor for the implementation of GCL was lack of well-developed training modules in the college. While 13(46.4%) teacher educators refused to accept the assumption of lack of well-developed training modules, 12(42.9%) of them supported the impact of the problem on the implementation GCL in the college. When we see the views of student teachers, the majority of them 127(87.6%) claimed that the absence of well-developed training modules was one of the major impediments to the implementation of GCL in the college.

From the above data, it can be said that lack of well-developed training modules in different courses is one of the major problems that made using GCL methods in the college difficult. However, it is clear that different curriculum materials in the teachers' college should be developed in such a way that student teachers could actively involve in the lessons and practice in different GCL methods.

In relation to this, Irwin, et al (1985) noted that the use of GCL methods requires teachers to build a set of handouts, which create interdependence among students and provide a basis and reason for their working together.

The problem of evaluating the progress of each trainee while implementing GCL was the other factor reported in the questionnaire by 21(75%) teacher educators and 116(80%) student teachers as an obstacle to the utilization of GCL methods. This shows that teacher educators and student teachers are not satisfied with the way of evaluating students' group work.

During FGD, many student teachers also complained that their instructors gave unfair grades that were not commensurate with each individual's effort, contribution and quality of work. They further explained that they were only told the final grade; not how that grade was awarded. In addition to student teachers response, teacher educators, in the interview also reflected the problem of evaluating each trainee fairly when they employed GCL methods.

Reece and walker (2003) stated that getting assessment right is critical in GCL. They suggested that the problem, which arises as a result of assessing cooperative group work, could be resolved by developing criteria for doing assessment tasks and the criteria of marking as explicit as possible.

The other problem commonly supported by the two groups of respondents was that the implementation of cooperative group work takes too much time. In this aspect, 19(67.9%) teacher educators and 93(64.1%) student teachers agreed on this argument (item, 5). For Gregory and Thorley (1994) students need time to work together to reach a consensus and give opportunity for minority to be actively involved in the class. However, teachers fear a loss in content when they use GCL methods because group interactions often take longer time than simple lectures.

During interview many teacher educators admitted that mostly they gave group assignments that can be done outside the classroom by students in cooperative group; subsequently students frequently complained about the lack of adequate time to accomplish their group assignments.

Also, the availability of suitable classroom arrangement is the other possible factor that may facilitate or inhibit the application of GCL as mentioned in item 6. In this regard, the two groups of respondents did not consider the classroom environment as the major factor that hinders the implementation of GCL in the college. As shown in table 13 above, 19(67.8%) and 75(51.8%) teacher educators and student teachers respectively felt that the physical set up of the classroom was not an obstacle for the implementation of GCL methods.

Hence, according to the majority of respondents and the classroom observations made by the writer the classroom setting was not an obstacle for implementing GCL methods in the college. Because, the furniture of the classrooms were not difficult to move around and the teacher was also able to put his/her students in different groups and move around in the room to support or monitor the groups. The other argument for not effectively using GCL methods was the dependency of slow students on the bright students, which was supported by 18(64.3%) teacher educators and 104(71.7%) student

teachers. Many teacher educators in the interview indicated that due to students' lack of motivation and less commitment, many student teachers wanted their group assignments to be carried out by one or a few of competent and responsible students. They further explained that most student teachers were likely to remain silent when put for group discussions and prefer to listen to few group members who have believed to have necessary knowledge and courage to perform the group task. Hence, it can be said that the dependency of slow students on bright student is one of the inhibiting factors in the implementation of GCL in the college.

In connection to this, Fink, knight and Michaelsen (1997) indicated that probably the most common problem that greatly reduce the effectiveness of GCL activities is that one or two vocal individuals often dominate the discussions to the point that quitter members' idea are either unexpressed or largely ignored. Hence, in order to minimize and if possible avoid such problems in GCL, the best advice is to explain the rationale, design well-structured meaningful tasks, give students clear directions, set expectations for how group members are to contribute and interact, and invite students to try it (Cooper and Associates, 1990).

Furthermore, lack of adequate training as one of the possible factors that may hinder the effective implementation of GCL was also raised in item 8. Accordingly, the reactions of the two groups of respondents were different. The majority of teacher educators, 20(70.4%) refused to accept the lack of training on GCL as impediment to the implementation of GCL methods in the college while 89(61.4%) student teachers claimed that they did not get adequate training on the issue. Teacher educators, in fact, should model a variety of GCL methods for their trainees and skillfully apply them in the training program of the institute. Hence, the data given by student teachers signifies that students need to get adequate training and develop their skill on how to implement different GCL methods. As to Palmer, Peter and Streetman (2003), in order for GCL to be utilized in the classroom, instructors must receive training to be proficient in implementing the techniques, because maximum learning will only emerge if proper training is received by the instructor and then transferred to the students.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The education and training policy document as well as the Teacher Education System Overhaul (TESO) document stated that the earlier instructional process in most teacher education colleges of Ethiopia suffered from old and traditional approach. Hence, in trying to tackle this problem, these documents address active learning as the basis of teaching and learning process. One of the ways of encouraging active, student-centered approach is to make the trainees to work in cooperative groups. Therefore, the main purpose of this study was to assess the implementation of GCL in Dessie CTE. In order to meet this purpose, the following basic research questions were raised.

- To what extent are group-based cooperative learning methods practiced in Dessie CTE?
- Do teacher educators have the necessary practical experience in applying GCL?
- Do teacher educators and student teachers have the required knowledge about GCL?
- What are the attitudes of teacher educators and student teachers toward GCL?
- What are the major factors that inhibit the implementation of GCL?

In this study, descriptive survey method was applied to collect data from teacher educators and student teachers through questionnaires. Also, to substantiate the data gathered through questionnaires, interview, FGD and observation were made.

In order to collect data on the topic, Dessie CTE was purposively selected. Among 429 third year student teachers in the college, 150 (35%) respondents were selected using simple random sampling for this study. Similarly, the total numbers of teacher educators who were teaching in the college were 86. Out of these, 30 (35%) were selected using simple random sampling to avoid subjectivity and bias. However, 5 student teachers and 2 teacher educators returned incomplete questionnaire. This reduced the sample population to 145 student teachers and 28 teacher educators.

Questionnaires and interview schedules were used to gather data in line with the research questions. FGD and structured observations were also made to support the data obtained through questionnaire. The collected data from the closed-ended questionnaire were analyzed using mean, standard deviation, and percentage. The data gathered through open-ended questionnaire, interview and unstructured observations were analyzed qualitatively. Hence, based on the review of literature and analysis of the data, the following findings were obtained.

1. The magnitude of practicing GCL methods was found to be low.

The responses obtained from both teacher educators and student teachers revealed that the degree of practicing a variety of GCL methods in Dessie CTE was not adequate as much as expected. The subjects confirmed that teacher educators have employed a limited number of GCL methods. Group projects and small group discussion were found the two most predominantly practiced GCL methods in the college. However, these methods as discussed earlier were widely used for work reducing purpose, mainly for the purpose of collecting marks. Moreover, think-pair-share and brainstorming were the other GCL methods that have been used next to group project and small group discussion in the college.

The other common GCL methods, which were expected to be practiced in Teacher Education Institutes such as pyramiding, jigsaw, role-playing, debates, panel discussion, games, and seminars, were employed very rarely.

2. The practical experience of teacher educators in implementing GCL was not promising.

The findings of this study demonstrated that there were less efforts made by teacher educators in preparing students to GCL, assigning students in appropriate groups, designing relevant tasks, monitoring and evaluating GCL activities. Hence, teacher educators found to have less experience on the necessary skills to practice a variety of GCL activities. Particularly, the following findings were found in this study.

2.1 Regarding the practical experience of teacher educators in preparing student teachers for GCL, the result of the study showed that the most widely used methods of preparing students for GCL were informing students how GCL will be assessed and how members will be selected into groups. However, student teachers were not usually informed how often they should meet together to work their group assignments.

2.2 A great number of scholars have suggested that in order to effectively implement GCL, teachers should use the combination of informal, formal and cooperative base groups depending on the objective and nature of the group tasks. However, the result of this study revealed that the practical experience of teacher educators in structuring different types of learning groups depending on the objective and nature of cooperative group tasks was not satisfactory.

2.3 With regard to the practical experience of teacher educators in designing cooperative group work activities, the two groups of respondents possessed different positions. While the majority of student teachers reported that the skills of their instructors was 'low', the large number of teacher educators claimed that they have adequate practical experience in designing relevant GCL tasks. But, the views of teacher educator in this aspect were contradictory with the result found in table 3.

2.4 There was less effort made by teacher educators in monitoring students' group work. The results of the study elicited that teacher educators most frequently asked their students to submit the final product of the group assignment without any strict follow up.

2.5 In GCL classroom, both the process and product of the group's learning should be assessed. Whereas, the result of the analysis demonstrated that the mechanism of evaluation of cooperative group work was focused mainly on the product rather than on the process. This shows the methods of evaluation focused on what the students do rather than how they do their group tasks.

3. ***Though the knowledge of teacher educators on GCL has been encouraging, student teachers do not have adequate knowledge as much as expected.***

The findings of this study also revealed that the majority of teacher educators took training about active learning strategies like GCL during their pre-service and in-service training. However, they reported that the contribution of the training to the effect of GCL was minimal.

On the other hand, student teachers' knowledge about GCL has been affected by the previous and current learning experiences. The majority of student teachers reflected that when they were attending their education in schools, they had no any exposure to do group tasks collectively. Teacher educators in the college have also given more emphasis to competitive than cooperative learning. Furthermore, the effort made by the college to orient student teachers through workshop or training regarding the implementation of GCL was low.

4. ***The attitude of teacher educators and student teachers towards GCL is encouraging.***

The findings of the research showed that the majority of respondents have expressed a favorable attitude towards GCL for almost all the items given in table 16. However, the two groups of respondents reflected negative feelings in specific item (item 5), because during the implementation of GCL many less able students expected their group work to be done by the more able students. Moreover, the majority of student teachers felt that their instructors are not skillful and committed to implement GCL while a large number of teacher educators perceived themselves as if they are capable enough and have personal commitment to practice GCL.

5. ***Different inhibiting factors were encountered in the implementation of GCL in DCTE.***

The major factors perceived by the teacher educators and student teachers as impediments to the utilization of GCL were the tendency of teacher educators to the traditional lecture method, lack of well developed training modules, problem of

evaluating each trainee fairly, shortage of time, lack of interdependent work among students and lack of adequate training were found to have negative effect for the effective implementation of GCL in DCTE.

5.2 Conclusions

Based on the above major findings of the study, the following conclusions are made.

- Though the attempts done by teacher educators to practice GCL methods were encouraging, the findings of this study disclosed that the magnitude of practicing a variety of GCL methods in DCTE was found to be low. Because, teacher educators have been employing few methods among the many GCL methods that could commonly be used in different fields of study. Group projects, small group discussion, think-pair-share and pyramiding were the most widely practiced GCL methods in the college.
- As mentioned in the review of literature, GCL is effective if appropriate groups are formed, relevant tasks are designed, group process and conflicts are properly monitored and finally both the process and product of the group's learning goals are appropriately assessed. However, the result of the study revealed that the practical experience of teacher educators in applying these basic elements during the implementation of GCL was not promising. Thus, it can be said that the practical experience of teacher educators in implementing GCL was low.
- The result of the study showed that the majority of teacher educators have adequate knowledge about GCL. This is due to the fact that a vast number of teacher educators took both pre-service and in-service training on active learning in general and GCL in particular. However, the training did not develop teacher educators' competences to implement GCL effectively. On the contrary, student teachers have found to have inadequate knowledge about GCL. It was found that besides to their previous learning experience, which was largely based on teacher centered methods; their current learning experience has also a contribution for students to have inadequate knowledge on GCL. Lack of orientation/training was also the other constraints for the inadequacy of their knowledge.
- With regard to the attitudes of teacher educators and student teachers toward GCL, the results of the study confirmed that the majority of the two groups of respondents have reflected favorable attitudes toward GCL. However, the two

groups of respondents reflected negative feelings on the implementation of GCL, because many less able students expected their group work to be done by the more able students.

- The major factors inhibited the implementation of GCL were the tendency of teacher educators to the traditional lecture method, lack of well-developed training modules, unfair grading, shortage of time, lack of cooperation and lack of adequate training on the part of student teachers were the major impediments in the implementation of GCL in DCTE.

5.3 Recommendations

1. ***In order to properly and effectively apply GCL methods, teacher educators need to get continuous and intensive training on how to use a variety of GCL methods.***

The result of this study revealed that teacher educators took either pre-service or in-service training on active learning in general and GCL in particular. However, the trainings were mainly focused on the general concepts and principles of active learning or, GCL, which led them to practice a very limited number of GCL methods. Therefore, based on need assessment, the departments as well as the college need to arrange in-service training program in the form of workshop, seminars, or experience sharing to refresh and make teacher educators use a variety of GCL methods in their respective departments.

2. The practical experiences of teacher educators in implementing GCL need to be improved

As the findings of the study depicted, there was less effort made by teacher educators in preparing students to GCL, forming appropriate groups, designing relevant tasks, monitoring and evaluating GCL activities. These constraints attributed to teacher educators to have less experience in implementing a variety of GCL methods. Hence, in order to reduce or if possible to alleviate these problems:

- Teacher educators should make ready their students for GCL using different mechanisms like by explaining why they are using GCL, informing the results typically found from this method and encouraging them before starting the lesson. Thus, student teachers would actively involve in their group tasks and to have positive feelings to work in cooperative groups.
- Teacher educators of the college need to be dedicated to apply different types of group formation depending on the interest of students, the objectives and nature of the group tasks and the availability of resources.
- Teacher educators have to share their experiences and design cooperative group activities collectively /cooperatively in their respective department (especially those who teach the same course).

- Before asking students to submit the final product of their group work, teacher educators should devise different mechanisms for monitoring student teachers' group work. This will help student teachers to overcome problems and complains that are emanated from the process of the implementation of GCL. Therefore, teacher educators have to join each group while they are working their group work, ask them to provide regular reports (either in the form of written or oral) about their progress.
- Teacher educators should focus not only on the product of cooperative group work but also on the process of cooperative group work.

3. Student teachers knowledge about GCL needs to be enhanced by adequate training.

Student teachers' misunderstanding about GCL was one of the major problems that hinder the effective implementation of this method in the college. This is emanated from not only from student teachers themselves, but also from teacher educators and the college management. Hence, in order to equip student teachers about the basic concept and implementation of GCL, the administration of the college should arrange general orientation program to new entrants of student teachers about the introduction of Teacher Education System Overhaul (TESO) program in general and the nature and practice of instructional methods including how they are going to cooperatively work in groups in particular. Each subject teacher educators should also provide general pictures about the methods of teaching and assessment to their students at the beginning of the teaching learning process.

Moreover, teacher educators need to be models for their student teachers by selecting and applying a variety of relevant and appropriate GCL methods in their respective departments so as to equip their students with these methods.

4. In order to effectively implement GCL in the college, the willingness and positive feeling of teacher educators and student teachers need to be increased

Though GCL has not been properly and effectively practiced in the college, both teacher educators and student teachers have positive attitudes toward GCL. Therefore, in order

to cultivate this fertile ground to maximum level, all the conditions necessary for effective use of GCL activities should be fulfilled.

In this study one of the major problems, which was seriously condemned by the two groups of respondents and consequently contributed for the unfavorable attitude of teacher educators and student teachers towards GCL was that less able members leave cooperative group work assignments to the more able ones. Hence, the following recommendations are provided.

- Orientation or awareness on GCL i.e. its objectives, how it is done, its advantage disadvantage should be given to the student teachers early in the academic year to minimize the problem.
- In order for group members to be motivated and to make them take part in GCL, the group task needs to be divided into sub tasks (with each participant responsible only for his and her share), interesting and meaningful enough for students' learning.

5. Constraints that inhibit the effective implementation of GCL need to be reduced.

- To reduce the tendency of teacher educators to the traditional lecture methods, continuous and intensive training should be provided to teacher educators. Peer observations among teacher educators in their respective departments need to be arranged so as to minimize and shift their tendency from teacher-focused methods to active, GCL methods.
- The college as well as the Amhara Regional Education Bureau should strive to reduce lack of well-developed training modules in the college.
- Teacher educators should develop the criteria for doing group work assessment and communicate with student teachers on how they are going to grade the groups work at the beginning of training program.
- Teacher educators need to appropriately use the allotted time for the intended purposes.
- Teacher educators should make serious and continuous follow up to check whether or not each group member cooperatively work with his/her teammates.

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Appendix -A

Addis Ababa University

School of Graduate Studies

Department of Curriculum and Teacher Professional Development Studies

Dear respondents! The main purpose of this questionnaire is to gather relevant information regarding ***group-based cooperative learning applied in Dessie CTE*** and to suggest possible recommendations based on the findings. So, it is believed that this research becomes effective and meaningful to the extent that all the respondents show their cooperation to answer all the questions thoroughly and carefully based on their experiences. Thus, as a respondent, you are kindly requested to respond to all statements or questions based on the instruction given. Your information is used only for research purpose and; is therefore kept confidential.

Thank you for your cooperation!

Appendix -B

Part One: A Questionnaire to be filled by Teacher Educators

A. Background Information

Instruction I: Some profiles about teacher educators are listed below. Please, select the appropriate answer from the alternatives given and encircle it or fill in the blank space where necessary.

1. Sex a) Male b) Female
2. Age _____
3. Qualification a) Diploma b) Degree c) Master
   d) If any other, specify _____.
4. Area of study _____.
5. Teaching load per week _____.
6. Subject(s) you teach _____.
7. Teaching experience outside the TTI/TTC _____.
8. Teaching experience in the TTI/TTC_____.

B. Main Data

Instruction II: Different instructional methods/strategies that teacher educators employ to deliver their subject matter are listed below. Please, show how often you use in your teaching by putting (√) in one of the boxes in the response scale.

No.	Instructional methods/strategies	How often used				
		Always	Mostly	Sometimes	Rarely	Not at all
1	Lecture/Explanation					
2	Demonstration					
3	Question and Answer					
4	Brain storming					
5	Think-pair-share /Students 1st think individually, then pair up to discuss & compare their ideas. Finally, they share their responses with other pairs or the entire class. /					
6	Small group discussion					
7	Pyramiding /Snowballing / Students 1st work alone, then in pairs, then in fours, and so on. /					
8	Jigsaw / In small groups, each group member is assigned some unique material or topic to learn and then to teach his/her group members. /					
9	Role playing					
10	Debates					
11	Panel Discussion					
12	Games					
13	Group project					
14	Seminars					

Instruction III: Items related to your understanding and experiences on group-based cooperative learning are provided below. Please, circle the response that best corresponds to your position. In some of the items you can give more than one answer.

1. When you were a primary and secondary student, the instructional methods **widely** used were:

   A) Active-learning methods

   B) Traditional /lecture, demonstration and question and answer/ methods

   C) A and B

2. Have you ever-trained on different active learning strategies like cooperative group work methods in your teacher-training program?

   A) Yes B) No

3. If your response to question 2 is "Yes" the contributions of the training to understand the basic concepts of cooperative group work methods were:

   A) High B) Moderate C) Low

4. Have you got any in-service training on how to utilize group-based cooperative learning in your teaching?

   A) Yes B) No

5. To what extent the amount of training helped you effectively implement cooperative group work methods in your teaching?

   A) High B) Moderate C) Low

6. How do you understand group-based cooperative learning?

   A) It is having students sit side by side at the same table to talk each other.

   B) It is assigning a task to a group in which one or two group members do the work and others get equal credit.

   C) It is an instructional method in which students at various performance levels work together towards a common goal. D) A and B

   E) If any other, specify_____.

7. In what way do you think cooperative group learning differs from the traditional group learning?

A) Group members are responsible for their own and other's learning.

B) Group members take responsibility only for self.

C) Group members compete with each other and withhold information.

D) B and C E. If any other, specify_____.

8. Do you inform student teachers why they are made to participate in group-based cooperative learning before you start the lesson?

A) Yes B) No

9. If your response to question 8 is "Yes" which point was made clear to the student teachers?

A) How members will be selected into groups and why

B) How cooperative group work will be assessed

C) How often groups should be met

D) If any other, specify_____

10. The **most** frequently employed technique of group formation during the implementation of cooperative group learning method in your teaching-learning process is:

A) Teacher assignment

B) Random assignment C) Students self selection

D) If any other, specify_____

11. Which type of group-based cooperative learning group is **most** familiar with your classroom?

A) Informal groups (i.e. temporary groups that last from a few minutes to one class period.)

B) Formal groups (i.e. members of a group may last from one class period to several weeks to complete specific tasks and assignments)

C) Base groups (i.e. group members stay the entire course or semester)

D) If any other, specify_____

12. To what extent do you design cooperative group work activities to ensure that all group members actively work together?

    A. High

    B. Moderate

    C. Low

13. How do you monitor the progress of your students' work while you are implementing group-based cooperative learning methods?

    A) Visiting each group while they are working to check on progress and help where necessary

    B) Asking students to provide regular reports about their progress

    C) Asking students to provide final products of their group work

    D) Meeting with groups to check their progress

    E) If any other, specify_____

14. In your experience of using cooperative group work method, which part of the group task is assessed?

    A) The process of group work

    B) The product of group work

    C) A and B

15. Write (anything else you would like to say) about your understanding and experiences of cooperative group work.

_____

_____

_____

Instruction IV: Items related to your attitudes toward group-based cooperative learning are listed below. For each of the following statement, please indicate your agreement or disagreement by putting (√) in the box according to the following response scale: SA (strongly agree), A (agree), U (undecided), D(disagree), and SD(strongly disagree).

No	Items	SA	A	U	D	SD
1	Cooperation helps to prepare students for their learning					
2	Cooperative group work method holds bright students back					
3	Using group-based cooperative learning is likely to create too many disciplinary problems among students					
4	Peer interaction helps students obtain a deeper understanding of the material.					
5	If I use cooperative group work, too many students expect other group members to do the work.					
6	I believe that I can implement group-based cooperative learning successfully.					
7	Using group-based cooperative learning promotes friendship among students.					
8	My students are resistant to work in cooperative groups					
9	Group-based cooperative learning is appropriate for the subject I teach.					
10	I have personal commitment to use Group-based cooperative learning					

Instruction V: Factors that may inhibit the implementation of group-based cooperative learning are given below. Please, indicate your agreement or disagreement by putting (√) in the box according to the following response scale: SA (strongly agree), A (agree), U (undecided), D (disagree), and SD (strongly disagree).

No	Items	SA	A	U	D	SD
1	My tendency to the traditional lecture method has affected the implementation of group- based cooperative learning in my teaching.					
2	There are too many students in my class so that it is impossible to implement group-based cooperative learning effectively.					
3	It is difficult to implement group-based cooperative learning effectively due to the lack of well-developed training modules in my stream.					
4	It is difficult to evaluate students fairly when using cooperative group work.					
5	The implementation of cooperative group work takes too much time in my class.					
6	The physical set up of my class is an obstacle to use group-based cooperative learning.					
7	In cooperative group work bright learners are doing all the work and slow learners leave group work to them.					
8	I do not effectively implement group-based cooperative learning due to lack of adequate training,					

Appendix -C

Part Two: A Questionnaire to be filled by Student Teachers

A. Background Information of Student Teachers

Instruction: Some profiles of student teachers are listed below. Please, select the appropriate answer from the alternatives given and encircle it or fill in the blank space where necessary.

1. Sex: a) Male b) Female
2. Age: _____.
3. Area of study: _____.

B. Main Data

I. Instruction: Different instructional methods/strategies that your instructors employ to deliver their subject matter are listed below. Please, show how often your instructors use in your learning by putting (√) in one of the boxes in the response scale.

No.	Instructional methods/Strategies	How often your instructors employed				
		Always	Mostly	Sometimes	Rarely	Not at all
1	Lecture/Explanation					
2	Demonstration					
3	Question and Answer					
4	Brain storming					
5	Think-pair-share					
6	Small group discussion					
7	Pyramiding /Snowballing					
8	Jigsaw					
9	Role playing					
10	Debates					
11	Panel Discussion					
12	Games					
13	Group project					
14	Seminars					

II. Instruction: Items related to your understanding and experiences on group-based cooperative learning are provided below. Please, circle the response that best corresponds to your position. In some of the items you can give more than one answer.

1. When you were in primary and secondary schools, how could your teachers usually present the lessons of their subject matter ?
   A. Most of the time my teachers used to present the lesson by using lecture, demonstration and question and answer methods.
   B. Teachers usually made each student compute with his/her peers by giving individual tasks.
   C. Most of my teachers used to given an opportunity to work together as a team and motivated the group to perform different tasks cooperatively.
   D. A and B E. If any other, specify _____
2. According to your observation here in the college, your instructors have given more emphasis to:
   A. Competitive learning B. Individualistic learning
   C. Cooperative group learning D. If any other, specify _____
3. Did you get any orientations/ training in the college on how to learn actively/ cooperatively instead of passively listening instructors' explanations or lecture?
   A. Yes B. No
4. If your response to question 3 is "yes", the contributions of orientations/ training to understand the basic concept of active and cooperative learning were:
   A. High B. Moderate C. Low
5. How do you understand group-based cooperative learning?
   A) It is having students sit side by side at the same table to talk each other.
   B) It is assigning a task to a group in which one or two group members do the work and the other get equal credit.
   C) It is an instructional method in which students at various performances levels work together towards a common goal.
   D) A and B E) If any other, specify_____.

6. In what way do you think cooperative group learning differs from the traditional Group learning?

A) Group members are responsible for their own and other's learning.

B) Group members take responsibility only for self.

C) Group members compete with each other and withhold information.

D) B and C E. If any other, specify _____.

7. Were you informed about the basics of cooperative group work by the instructors before you are engaged in group work?

A. Yes B. No C. Uncertain

8. If your response to question 7 is "Yes" which point was made clear to your class?

A. How members will be selected into groups and why

B. How cooperative group work will be assessed

C. How often groups should be met

D. If any other, specify_____

9. According to your experiences in the college, the methods of assigning groups widely used in your class is:

A. Teacher assignment B. Random assignment

C. Students self assignment D. If any other, specify_____

10. Which type of group-based cooperative learning groups is familiar in your classroom?

A) Informal groups (i.e. temporary groups that last from a few minutes to one class period.

B) Formal groups (i.e. members of a group may last from one class period to several weeks to complete specific tasks and assignments)

C) Base groups (i.e. group members stay the entire course or semester)

D) If any other, specify_____

11. To what extent your teachers design cooperative group work activities to ensure that all your group members actively work together?

A. High B. Moderate C. Low

12. According to your experience, how could your instructors monitor your cooperative group work tasks?

A. Visiting my group while we are working the group task.

B. Asking my group members to submit regular reports about our progress

C. Asking my group members to provide final products of their group work

D. Meeting with my groups to check our progress

E. If any other, specify_____

13. Which part of cooperative group work needs to be assessed by your instructors?

A) The process of our group work B) The product of our group work

C) A and B

14. Write (anything else you would like to say) about your understanding and experiences of cooperative group work.

_____

_____

_____

III. Instruction: For each of the following statement, please indicate your agreement or disagreement by putting (√) in the box according to the following response scale: SA (strongly agree), A (agree), U (undecided), D (disagree), and SD (strongly disagree).

No	Items	SA	A	U	D	SD
1	Cooperation helps me to prepare for my learning.					
2	I feel that cooperative group work methods hold bright learners back in my class.					
3	Using cooperative group learning is likely to create too many disciplinary problems in my class.					
4	I believe that peer interaction helps me obtain a deeper understanding of the material.					
5	If the instructors use cooperative group work in my class, too many students expect other group members to do the work.					
6	I don't believe that my instructors can implement group-based cooperative learning successfully.					
7	I feel that using cooperative learning promotes friendship among us.					
8	Most of the time I would like to work alone than to work in cooperative groups.					
9	Group-based cooperative learning is inappropriate for the subject I am attending.					
10	I feel that my instructors lack personal commitment to use group-based cooperative learning in the college.					

IV. Instruction: Factors that may inhibit the implementation of group-based cooperative learning are given below. Please, indicate your agreement or disagreement by putting (√) in the box according to the following response scale: SA (strongly agree), A (agree), U (undecided), D (disagree), and SD (strongly disagree).

No	Items	SA	A	U	D	SD
1	My instructors' tendency to the traditional lecture method has affected the implementation of group- based cooperative learning in my learning.					
2	There are too many students in my class so that it is impossible to implement group-based cooperative learning effectively.					
3	Due to the lack of well-developed training modules in my stream, it is difficult to implement group-based cooperative learning effectively.					
4	My instructors do not evaluate each trainee fairly when using cooperative group work..					
5	The implementation of cooperative group work takes too much time in my class.					
6	The physical set up of my class is an obstacle to apply group-based cooperative learning methods.					
7	In cooperative group work bright students are doing all the work and slow students leave group work to the bright students.					
8	I don't effectively implement GCL due to lack of adequate training.					

Appendix -D

Part Three: Interviews to Teacher Educators

A. Basic Guiding Sample Interview Questions

1. Have you ever had any training on instructional methods? How long?
2. How do you understand the basic concepts of group-based cooperative learning?
3. How do you form group members, design tasks, monitor group members and evaluate the progress of students learning in group based cooperative learning?
4. What techniques of cooperative group learning are widely employed in your teaching?
5. How do you believe in implementing group-based cooperative learning in your teaching stream?
6. What are the major factors that inhibit the implementation of group-based cooperative learning in the college?
7. What do you recommend for future consideration?

Part Four: Initial Discussion questions to Student Teachers

1. What type of instructional method do your instructors mostly apply? Why?
2. How much are you familiar with cooperative group learning? What are the techniques of cooperative group work widely employed by your instructors?
3. How do your instructors form group members, design tasks, monitor your group members and evaluate your progress in-group based cooperative learning?
4. How do you feel about the implementation of group based cooperative learning in the college?
5. What major strengths and weaknesses have you observed in your instructors use of group based cooperative learning methods?
6. What solution(s) do you suggest for the improvement of the implementation of group based cooperative learning in the college?

Appendix -E

Part Five: Classroom Observation Checklist for Group-based Cooperative Learning

I. General

1. Subject (being observed): _____.
2. Number of student teachers in the class: _____Male _____Female_____
3. Sitting arrangement _____

II. Details in Classroom Instruction

Instruction: ***Tick Y (yes), if the appropriate activity is observed or demonstrated or tick N (no) if it is not observed***

Items	Y	N	Remark
I. Classroom Is the classroom: ➢ Suitable in terms of seating, heating, lighting etc?			
II. The Instructional process			
Does the instructor:			
➢ Make sure that students know what is expected of them by way of preparation?			
➢ Arrange the class in small groups?			
➢ Form groups based on the nature of task, time available, experience of students, or experience of teacher?			
➢ Use teacher-selected, student-selected, random, or interest-based group formation?			
➢ Select tasks appropriate to the objectives of the session?			
➢ Prepare the tasks in such a way that offer students a variety of learning experiences (e.g. the chance to draw on their own prior knowledge and experiences, but also to share with and learn with others)?			
➢ Encourage all students in the group to contribute, to talk to each other?			
➢ Intervene appropriately (e.g. to encourage the silent, to defuse conflict)?			
➢ Intervene in the students work when necessary?			

Appendix -F

አዲስ አበባ ዩኒቨርሲቲ
በድህረ ምረቃ ትምህርት ቤት
የሥርዓተ ትምህርትና የመምህራን ሙያ ማሻሻያ
ጥናት ትምህርት ክፍል

ክፍል ሁለት፡-በተማሪዎች የሚሞላ የጹሑፍ መጠየቅ

የዚህ መጠይቅ ዋና ዓላማ በደሴ መምህራን ትምህርት ኮሌጅ ቡድንን መሰረት በማድረግ በትብብር መማር (Group-based Cooperative Learning) አተገባበርን በተመለከተ ተገቢውን መረጃ ለመሰብሰብና ከጥናቱ ግኝት በመነሳት አስፈላጊውን አማራጭ የመፍትሔ ሃሳብ ለመጠቆም ታስቦ ነው። ስለዚህ ይህ ጥናት ስኬታማና ውጤታማ ሊሆን የሚችለው የእርስዎ መልካም የሆነ ትብብር ካልተለየና ሁሉንም ጥያቄዎች በጥሞናና በጥንቃቄ በማንበብ አስፈላጊውን ምላሽ ከሰጡ ብቻ ነው። በመሆኑም የሚሰጡት መረጃ ለጥናትና ምርምር ተግባር ብቻ እንደሚውል በመገንዘብ ሁሉንም ጥያቄዎች በተሰጡት መመሪያዎች መሰረት ምላሽ እንዲሰጡ በትህትና እጠይቃለሁ።

ስለ ትብብርዎ አመሰግናለሁ!

ሀ. የተማሪው/ዋ/ ሁኔታ መረጃ

መመሪያ አንድ፡- ከዚህ በታች የቀረቡት ነጥቦች ስለ ተማሪው/ዋ/ አጠቃላይ መረጃ ለመሰብሰብ ታስበው የተዘጋጁ ናቸው። ከቀረቡትም ጥያቄዎች ውስጥ የተወሰኑት በምርጫ መልክ የሚመለሱ በመሆናቸው ትክክለኛውን መልስ የያዘውን ሆሄ በማክበብ መልስ(ሺ)። በክፍት ቦታ መልክ ለቀረቡት ደግሞ አስፈላጊውን መረጃ በመሙላት መልስዎን ስጥ(ጭ)።

1. ፆታ ሀ. ወንድ ለ. ሴት
2. ዕድሜ_____.
3. ሁለተኛ ደረጃ ትምህርት ያጠናቀቅህበት/ያጠናቀቅሽበት/
   ሀ. 10ኛ ክፍል ለ.12ኛ ክፍል
4. የምትሰለጥንበት/የምትሰለጥኝበት/ የትምህርት ክፍል /Department/
   _____.

ለ. የጥናቱ መረጃ መሰብሰቢያ ዋና ክፍል

መመሪያ ሁለት፦ ከዚህ በታች የቀረቡት የተለያዩ የመማር-ማስተማር ዘዴዎች/ ስልቶች መምህራን የሚያስተምሩትን ትምህርት ለማቅረብ የሚያስችሉ ናቸው።ስለዚህ እነዚህን ዘዴዎች/ስልቶች በመማር-ማስተማር ሂደት መምህራን ምን ያህል እንደሚጠቀሙበት በተሰጠው በአንዱ የመልስ መስጫ ሳጥን ውስጥ የ (√) ምልክትን በማስቀመጥ አመልክቱ።

ተ.ቁ	የመማር-ማስተማር ዘዴዎች ወይም ስልቶች	ሁልጊዜ	በአብዛኛው	አንዳንድ ጊዜ	በጣም አልፎ አልፎ	ምንም ጊዜ
1	ገለፃ / Lecture /					
2	ትይንተ ገለፃ/ Demonstration /					
3	ጥያቄና መልስ/ Question and Answer/					
4	አዕምሮ እንዲያሰላስል ወይም የአዕምሮ ጨመቃ /Brain Storming/					
5	ተማሪዎች መጀመሪያ በግል፣ ከዚያ ጥንድ በመሆን እንዲወያዩና በመጨረሻም የደረሱበትን የጥንድ ሃሳብ ለክፍለ እንዲያቀርቡ ማድረግ/Think-Pair-Share/					
6	በትናንሽ ቡድኖችን የውይይት ዘዴ /Small group Discussion/					
7	ተማሪዎች መጀመሪያ በግል፣ ቀጥሎ በጥንድ፣ ከዚያም አራት ሆነው እንዲሰሩና በመጨረሻም ለአጠቃላይ ውይይት እንዲያቀርቡ ማድረግ/ Snowballing or Pyramiding/.					
8	ተማሪዎችን በትናንሽ ቡድን በመመደብ እያንዳንዱ የቡድን አባል በአንድ ርዕሰ ጉዳይ/Topic/ ላይ ተዘጋጅቶ የቡድኑን አባላት "እንዲያስተምር" ማድረግ። /Jigsaw/					
9	ሚና ጨዋታ/ Role Playing/					
10	ክርክር/Debates/					
11	የፓናል ውይይት/Panel Discussion/					
12	የጨዋታ ዘዴ/Games/					
13	የቡድን ፕሮጀክት ስራ/Group Project/					
14	ሰሚናር/Seminar/					

መመሪያ ሦስት፡- ከዚህ በታች የቀረቡት ዓ.ነገሮች ቡድንን መሰረት በማድረግ በትብብር መማርን /Group-based Cooperative Learning/ በተመለከተ ተማሪው/ዋ/ ካለው/ካላት/ግንዛቤና ልምድ ጋር ተያያዥነት ያላቸው ሃሳቦች ናቸው።በመሆኑም ለአንተ/ለአንች/ ይበልጥ ተስማሚ መልስ የያዘውን ሆሄ በማክበብ መልስ ስጥ(ጭ)። ከአንድ በላይ መልስ ለሚሹ ጥያቄዎች ከአንድ ጊዜ በላይ መምጥ ይቻላል።

1. *የመጀመሪያና የሁለተኛ ደረጃ ት/ቤት ተማሪ እያለህ (ሽ) መምህራን በአብዛኛው ጊዜ የሚያስተምሩትን ትምህርት እንዴት ያቀርቡ ነበር?*
   - *ሀ. አብዛኛውን ጊዜ መምህራን ትምህርቱን የሚያቀርቡት በገለጻ፣በትይንተ ገለጻና በጥያቄና መልስ ነበር።*
   - *ለ. መምህራን ብዙ ጊዜ የግል ስራ (ተግባር) በመስጠት የክፍሉ ተማሪዎች እርስ በእርስ እንድንወዳደር (አንድንፎካከር) ያደርጉ ነበር።*
   - *ሐ. ብዙዎቹ መምህራን ተማሪዎች በጋራ ተባብረን እንድንሰራ እድል ከመስጠታቸውም በተጨማሪ የምንሰራቸውን የተለያዩ ተግባራት በመተጋገዝና በመተባበር እንድናከናውን ያበረታቱን ነበር።*
   - *መ. ሀናለ ሠ.ሌላ ካለ ቢጠቀስ_____.*
2. *በዚህ ኮሌጅ ቆይታህ (ሽ) መምህራን ከፍተኛውን ትኩረት የሚሰጡት ከሚከተለው ለየትኛው የትምህርት አቀባበል ስልት ነው?*
   - *ሀ. እርስ በእርስ በወዳደር (በመፎካከር) መማር/ Competitive Learning/*
   - *ለ. እራስን ችሎ መማር/ Individualistic Learning/*
   - *ሐ. በመተባበር (በመተጋገዝ) መማር/ Cooperative Learning/*
   - *መ. ሌላ ካለ ቢጠቀስ_____.*
3. *በኮሌጅ ውስጥ ተማሪዎች ከመምህራን የሚቀረብላቸውን ትምህርት ያለ ንቁ ተሳትፎ የሚቀበሉበት ሂደት ሳይሆን እራሳቸው በንቃትና በመተባበር የሚማሩበት ሂደት መሆኑን በተመለከተ የትውውቅ መድረክ ወይም ስልጠና አግኝተሃል (ሻል)?*
   - *ሀ. አዎ ለ. የለም*
4. *ለጥያቄ ቁጥር 3 የሰጠኸው (ሽው) መልስ "አዎ" ከሆነ ትውውቁ ወይም ስልጠናው ስለ ገቢራዊ ትምህርት /Active Learning/ ወይም በመተባበር መማር/Cooperative Learning/ መሰረታዊ ጽንሰ ሃሳብን ለመረዳት ምን ያህል አስተዋጽኦ አበርክቷል?*
   - *ሀ. ከፍተኛ ለ. መካከለኛ ሐ. ዝቅተኛ*
5. *ቡድንን መሰረት በማድረግ በትብብር መማር/Group-based Cooperative Learning/ የሚለውን እንዴት ትረዳዋለህ (ትረጅዋለሽ)?*
   - *ሀ.ተማሪዎችን በጠረጴዛ ዙሪያ በማሰቀመጥ እርስ በእርስ እንዲነጋገሩ ማድረግ ነው።*
   - *ለ. ለየቡድኑ ተግባር በመስጠት (ተግባሩንም አንዱ ወይም የተወሰኑ የቡድኑ አባላት እንዲሰሩ በማድረግ) በመጨረሻም ለስራቸው ውጤት እኩል የሆነ ውጤት የመስጠት ሂደት ነው።*
   - *ሐ. የተለያየ የትምህርት ችሎታና ልምድ ያላቸው ተማሪዎች ለጋራ ግብ (ውጤት) የሚሰጣቸውን ተግባር በመተባበር የሚማሩበት አንዱ ስልት ነው።*
   - *መ. ሀናለ ሠ. ሌላ ካለ ቢጠቀስ_____.*

6. በመተባባር በቡድን መማር/Cooperative Group Learning/ ከተለምዷዊው በቡድን መማር / Traditional group Learning/ በምን የሚለይ ይመስልሃል (ሻል)?
   ሀ. በመተባባር በቡድን መማር ሲባል የየቡድኑ አባላት ለእራሳቸውም ይሁን ለጓደኞቻቸው የመማር ሁኔታ ሃላፊነት አለባቸው።
   ለ. በመተባባር በቡድን መማር ማለት እያንዳንዱ የቡድን አባል ሃላፊነት ለራሱ መማር ብቻ ነው።
   ሐ. በመተባባር በቡድን መማር ሲባል የቡድን አባላት ለተሻለ ውጤት እርሰ በእርስ የሚወዳደሩበትና የሚያገኙትንም ዕውቀት ለግል ጥቅም ለማዋል የሚያስችል ስልት ነው።
   መ. ለና ሐ ሠ. ሌላ ካለ ቢጠቀስ_____
7. የቡድን ስራ ላይ ከመሳተፍህ(ሽ) በፊት መምህራን በመተባበር በቡድን መስራት ያስፈለገበትን ዋና ምክንያት አስፈላጊውን ግንዛቤ ሰጥተው ያውቃሉ?
   ሀ. አዎ ለ. የለም
8. ለጥያቄ ቁጥር 7 የሰጠኸው (ሽው) መልስ "አዎ" ከሆነ የተሰጠው ግንዛቤ ምንን በተመለከተ ነበር?
   ሀ. የየቡድኑ አባላት እንዴት እንደሚመረጡና ለምን እንደሚመረጡ።
   ለ. የቡድን ስራ እንዴት እንደሚገመገም።
   ሐ. የየቡድኑ አባላት ለምን ያህል ጊዜ ስራቸውን ለማከናወን መገኘት እንዳለባቸው በመለከተ።
   መ. ሌላ ካለ ቢጠቀስ_____
9. በዚህ ኮሌጅ ቆይታህ (ሽ) በይበልጥ የሚተገበረው የቡድን አመሰራረት (አመዳደብ) ዘዴ የትኛው ነው?
   ሀ. በመምህሩ የሚከናወን ምደባ/ Teacher assignment/
   ለ. በአጋጣሚ የሚከናወን ምደባ /Random assignment/
   ሐ. በተማሪዎች ምርጫ የሚከናወን ምደባ/ Students assignment/
   መ. ሌላ ካለ ቢጠቀስ_____
10. በምትሰለጥንበት(ኝበት) የትምህርት ክፍል የቡድን ስራ ስትሰራ(ሪ) የተለመደው የቡድን ዓይነት የትኛው ነው?
   ሀ. ጊዚያዊ የቡድን አባላት ከጥቂት ደቂቃዎች እስከ አንድ የትምህርት ክፍለ ጊዜ የሚቆዩበት የቡድን ዓይነት/Informal groups/
   ለ. የቡድን አባላት ከአንድ የትምህርት ክፍለ ጊዜ እስከ ተወሰኑ ሳምንታት ማለትም የተሰጣቸውን ተግባር እስኪያጠናቅቁ ድረስ የሚቆዩበት ቡድን/Formal groups/
   ሐ. የቡድን አባላት ኮርሱ ወይም ሴሚስተሩ እስኪጠናቀቅ ድረስ አበረው የሚቆዩበት ቡድን /Base groups/
   መ. ሌላ ካለ ቢጠቀስ_____
11. ከቡድንህ(ሽ) አባላት ጋር በንቃት ና በመተባበር ለመስራት የሚያስችሉ ተግባራት በምን ያህል ደረጃ በመምህራን ይቀረጻሉ?
   ሀ. በከፍተኛ
   ለ. መካከለኛ
   ሐ. ዝቅተኛ

12. እንደ አንተ (ች) ግንዛቤ በመተባበር የቡድን ስራ ስትሰራ (ሪ) መምህራን የቡድናችሁን ስራ እንዴት ይከታተላሉ (ይቆጣጠራሉ)?
    ሀ. የቡድኔን አባላት ስራ በመጎብኘት።
    ለ. የቡድኔ አባላት የደረሰበትን የስራ ደረጃ ሪፖርት በየጊዜው እንዲቀርብ በማድረግ።
    ሐ. የቡኑን የመጨረሻ የስራ ውጤት እንድናስረክብ በማድረግ።
    መ. የቡድን ስራችንን በምንሰራበት ጊዜ በየጊዜው የጋራ ውይይት በማድረግ።
    ሠ. ሌላ ካለ ቢጠቀስ_____
13. የቡድን ስራ ስትሰራ(ሪ) የትኛው ክፍል በመምህራን ይገመገማል?
    ሀ. የቡድን ስራችን ሂደት
    ለ. የቡድን ስራችን ውጤት
    ሐ. ሀናለ
14. ቡድንን መሰረት በማድረግ በትብብር መማር/Group-based Cooperative Learning/ በተመለከተ ያለህን(ሽን) ግንዛቤና ልምድ መሰረት በማድረግ መጨመር የምትፈልገውን(ጊውን) ሃሳብ በተሰጠው ቦታ ጻፍ(ፊ)።

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መመሪያ አራት፦ ከዚህ በመቀጠል ቡድንን መሰረት በማድርግ በትብብር መማርን /Group-based Cooperative Learning/ በተመለከተ የተማሪውን(ዋን) አመለካከት የሚገልጹ ዓረፍተ ነገሮች ቀርበዋል። ስለዚህ እያንዳንዱን ዓረፍተ ነገር በትኩረት በማንበብ ሃሳቡን በምን ያህል ደረጃ እንደምተስማማበት(ሚበት) ወይም እንደማትስማማበት(ሚበት) በተሰጠው ሳጥን ውስጥ የ (√)ምልክትን በማስቀመጥ አመልክት(ች)።

ተ.ቁ	ዓረፍተ ነገር	በጣም እስማማለሁ	እስማማለሁ	መወሰን አልችልም	አልስማማም	ፈጽሞ አልስማማም
1	ከጓደኞቸ ጋር በመተባበር በቡድን ብማር በትምህርቴ ዝግጁ/ብቁ ሆኜ እንድገኝ ያስችለኛል					
2	በመተባበር የቡድን የመስራት ዘዴ በትምህርታቸው የተሻሉ ተማሪዎችን ወደ ኋላ እንደሚያስቀር ይሰማኛል።					
3	በመተባበር በቡድን መማርን መምህራን ቢጠቀሙ በርካታ የዲሲፒሊን ግድፈት ተማሪዎች ይፈጥራሉ።					
4	ከአቻ ጓደኛ ጋር በመተባበር መስራት ለምማረው ትምህርት ጥልቅ የሆነ ግንዛቤ ይረዳኛል ብዬ አምናለሁ።					
5	መምህራን በመተባበር የቡድን ስራ ዘዴን ከተጠቀሙ በርካታ ተማሪዎች የራሳቸውን ስራ ሌሎች የቡድን አባላት እንዲሰሩላቸው ይፈልጋሉ።					
6	መምህራን ቡድንን መሰረት በማድረግ በትብብር መማር ዘዴን ውጤታማ በሆነ ሁኔታ ይተገብራሉ የሚል እምነት የለኝም					
7	በትብብር የመማር ዘዴ በተማሪዎች መካከል ያለውን የጓደኝነት ስሜት እንደሚያዳብር ይሰማኛል።					
8	ብዙ ጊዜ ከጓደኞቸ ጋር በመተባበር ከምሰራ ይልቅ በግሌ ብሰራ እመርጣለሁ።					
9	ቡድንን መሰረት በማድረግ በትብብርመማር ለእኔ የትምህርት ክፍል ተገቢ አይደለም።					
10	መምህራን ቡድንን መሰረት በማድረግ በትብብር መማር ዘዴን ለመጠቀም የሚያሳዩት የግል ጥረት አናሳ ነው።					

መመሪያ አምስት፦ ከዚህ በመቀጠል ቡድንን መሰረት በማድረግ በትብብር መማር /Group-based Cooperative Learning/ አተገበባበር ላይ አሉታዊ ተጽዕኖ ሊያደርሱ የሚችሉ ሃሳቦች ቀርበዋል። በመሆኑም እያንዳንዱን ዓረፍተ ነገር በአግባቡ ከአነበብህ(ሽ) በኋላ ሃሳቡን በምን ያህል ደረጃ እንደምትስማማበት(ሚበት) ወይም እንደማትስማማበት(ሚበት) በተሰጠው ሳጥን ውስጥ የ (√) ምልክትን በማስቀመጥ አመልክት(ች)።

ተ.ቁ	ዓረፍተ ነገር	በጣም አስማማለሁ	እስማማለሁ	መወሰን አልችልም	አልስማማም	ፈጽሞ አልስማማም
1	የመምህራን ዝንባሌ ወደ ተለምዷዊው ማለትም ወደ ገለጻ የማስተማር ዘዴ መሆኑ ቡድንን መሰረት በማድረግ በትብብር መማርን ተግባራዊ ለማድረግ ተዕጽኖ ከማድረጉም በተጨማሪ በትምህርት አቀባበሉ ላይ ተጽዕኖ አድርሶብኛል።					
2	እኔ በምሰለጥንበት ክፍል ውስጥ ቁጥራቸው ቀላል የማይባል ተማሪዎች በመኖራቸው ምክንያት ቡድንን መሰረት በማድረግ በትብብር የመማር ስልቶችን ውጤታማ በሆነ ሁኔታ ሁኔታ ለመተግበር አስቸጋሪ ሆኗል።					
3	በተግቢው መንገድ የተዘጋጁ የማሰልጠኛ ሞጁዩሎች/Training Modules/ እጥረት በመኖሩ ምክንያት ቡድንን መሰረት በማድረግ በትብብር የመማር ስልቶችን ውጤታማ በሆነ ሁኔታ ለመተግበር አስቸጋሪ ሆኗል።					
4	ተማሪዎች በመተባበር የቡድን ስራ ሲሰሩ መምህራን እያንዳንዱን ተማሪ በአግባቡ መገምገም አልቻሉም።					
5	በመተባበር የቡድን ስራን ተግባራዊ ለማድረግ በጣም ሰፊ ጊዜ ያስፈልጋል።					
6	የመማሪያ ክፍሎች ሁኔታ ቡድንን መሰረት በማድረግ በትብብር የመማር ስልቶችን ተግባራዊ ለማድረግ ምቹ አይደሉም።					
7	መምህራን በመተባበር የቡድን ስራ እንድንሰራ ሲሰጡን ከቡድኑ አባላት በትምህርት ችሎታቸው የተሻሉ ተማሪዎች የቡድኑን ስራ ሲሰሩ ሌሎች የቡድን አባላት ደግሞ ምንም ዓይነት ተሳትፎ አያሳዩም።					
8	ቡድንን መሰረት በማድረግ በትብብር መማርን በተመለከተ በቂ ስልጠና ስላላገኘሁ ተግባራዊነቱ ውጤታማ አይደለም ።					

DECLARATION

This thesis is my original work and has not been presented for a degree in any other universities and that all source of materials used for the thesis have been fully acknowledged.

Gebeyaw Teshager

This thesis has been submitted for examination with my approval as a university advisor.

Messeret Assefa (Dr.)