

**THE EFFECTIVENESS OF THE 10+3 LEVEL GRADUATE
TEACHERS IN IMPLEMENTING STUDENT- CENTERED
APPROACH IN SELECTED GOVERNMENT SECOND CYCLE
PRIMARY SCHOOLS OF ARSI ZONE**

BY

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ADDIS ABABA UNIVERSITY
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ABSTRACT

The main purpose of this study is to assess the extent which the 10+3 level graduate teachers implement student-centered approach and surveying factors that affect the effective implementation of this approach in selected second cycle primary schools of Arsi Zone. Both primary and secondary sources of data were employed in the study. The primary sources of data were eighty 10+3 level graduate teachers, ten school principals, ten educational supervisors and two hundred fifty five grade seven and eight students. The secondary sources of data were pertinent document and literature. Descriptive survey method was used and data gathering tools were questionnaire, interview and classroom observation checklist. The teachers were selected using availability sampling technique, whereas the school principals and educational supervisors were selected using purposive sampling technique. The grade seven and eight students were selected using stratified random sampling technique. Finally, data were analyzed using percentage and means. The findings of the study revealed that the 10+3 level graduate teachers were implementing the student-centered approach which they were trained to teach in the second cycle primary schools moderately(not as expected). Lack of instructional resources, the classroom conditions (traditional arrangements and the rigidity of desks and tables, large class size) were the most serious problems hindering the effective implementation of student-centered approach. In addition, , inadequacy of desks and tables, lack of adequate support and training, absence of continuous follow up, and tendency of students and teachers to traditional lecture method were found to be hindering factors. Finally, based on the major findings, conclusions were drawn and certain recommendations were forwarded.

Chapter One: The Problem and Its Approach

1.1. Background of the Study

Educational institutions are established with a view that they would to address the needs and demands of individuals and the society at large. Individual and societal needs demands are often reflected in the stated educational objectives of a given country. The realization of educational objectives needs effective teaching and learning, which is manifested by the effective implementations of different methods and techniques as well as mastering the knowledge of the subject matter. The traditional approach which emphasizes the knowledge transmission may not be suitable for the today's generation of the rapidly changing world, because it makes the students passive receivers of facts provided by the teacher through lecture, it also considers the teacher as the only source of knowledge and information.

To motivate the creative abilities of the students a methodology that concentrates on active learning, an approach that gives opportunities for active involvement and participation of students is required. Silberman (1996: 1) has described the need for active learning by the following statements:

"What I hear I forget"
"What I hear and see, I remember a little"
"What I hear, see, discuss and do, I understand"
"What I teach to another, I master"

Active learning/ Student – centered approach is based on constructivism learning model which gives emphasis on active input from students, analysis and interpretation not just memorization. It is concerned with how individuals learn, and places the learner as the active person in the process of thinking, learning and coming to know (Ornstein .A.C, 2004:116). Constructivist believes that it is the learner who interacts with objects and events there by gains an understanding of the futures held by such objects or events. In other word the learner constructs understanding from the inside not he or she receives from the external source as a gift. In line with this Taylor (1993) states that knowledge is not a thing that can be simply given by the teacher at the front of the room to students in their desks rather it is constructed by students themselves.

Constructivists view learning as an active knowledge construction process. They consider that students learn by fitting new information together with what they already know. In general constructivist learning theory is based on four pillars: knowledge is constructed not transmitted, prior knowledge effects the current learning process, initial knowledge is localized; building useful knowledge requires effort or purpose.

Student - centered method of teaching provides individuals with active learning opportunities; it involves whole persons with their opinions, attitudes, and cognitions, feelings and insights into the learning process (Rogers, 1983,). Thus, whole person learning is the goal of student-centered teaching. Moreover, this teaching style shifts the focus of activity from the teacher to students. In student -centered approach, students have the responsibility to learn. They use all of their sense organs and invents mental efforts or engage themselves in higher order thinking tasks, all with the common aim of constructing, further developing and consolidating knowledge, attitudes, and skills such as problem solving, decision making, in all these tasks the role of the teacher is to facilitate students' learning.

In schools throughout the world there is a movement away from learning through rote memorization that is from the traditional, teacher- centered approach to active learning /student – centered approach which emphasizes on active involvement of students in the teaching - learning process, understanding, making connection in the world around us, collection and use of information (Leu, 2000; 10).

In the Ethiopian context, the curriculum reform initiated in 1994 after adoption of a new educational and training policy had led the paradigm shift in approach of teaching and learning which involves the shift from passive learning to active learning and linear to integrated curricula Leu (1998:1). One of the goals of Ethiopian Education Policy is "To develop the physical and mental potential and problem solving skills of individuals by expanding education for all (TGE, 1994.7). Student- centered approach, which is the most appropriate methodology to achieve such educational goals, had become one highest priority educational issue in the country.

As Borich(1988) put it, a student – centered instruction is characterized by problem solving, students participatory and inquiry- oriented teaching and learning strategies. Student –centered instruction focuses on coaching the student towards the development of attitudes, skills and

behaviors as a learner, decision maker and community participant with success measured in terms of learner outcomes. From this point of view it can be said that student-centered approach has contributions in bringing about sustainable change in economic, social, cultural, and political standards of the nation because the proper implementation of student-centered approach help students to become a problem solver, a generation who take responsibilities and active participants in social activities at present and in the future.

In the Ethiopian context, in order to produce problem solver citizens by the application of student-centered approach in instructional processes a great focus is given to teachers training programs in general and to the training of prospective teachers those who will be prepared to teach in the second cycle of primary schools using student-centered approach after graduating by the 10 +3 education level (the new diploma) in particular. Hence the student-centered approach is expected to be implemented at various education levels of the country, particularly at the primary school level, because any problem and misunderstanding committed at this level affects the whole education system. Effective implementation of this approach depends largely on experiences of teachers in implementing student-centered practices and methods at various instructional processes who play pivotal role in the teaching-learning process. So the degree of implementation of student-centered approach by primary school teachers should be continuously assessed. It is with this rationale that the researcher became interested to conduct research on the effectiveness of the 10 +3 level graduate teachers (those who trained to teach in the second cycle of primary schools) in implementing student-centered approach in selected second cycle primary schools of Arsi zone, in Oromia Regional State.

1.2. Statement of the problem

The paradigm shift, from teacher-centered to student-centered approach had widely advocated through out the world. In Ethiopia the new education and Training Policy of Ethiopia (1994) under lined the importance of implementing student-centered approach to promote the development of problem-solving capacities and competencies of the learners. Even though student-centered wins the debate over the teacher-centered approach and the traditional approach become theoretically obsolete with rapid advancement in technological resources, educators have noted the existence of separation between theory and practice in real situation. Some research

studies were conducted on the implementation of student-centered approach in Ethiopia. The research finding of Sirak (2000) indicated that about 58% of class in teachers' training institutions was teacher - centered while 42% was identified as learner centered. The study conducted by Oli (2006) revealed that the status of active learning/ student-centered approach in teacher education colleges was also low. Wassihun (2006) conducted his research on the implementation of student-centered approach in selected secondary schools. However, the implementation of student-centered approach in second cycle primary schools in general and in Arsi zone in particular was not well studied. Hence, the researcher believes that this study would be helpful to fill in the existing gap.

To this end, the following four basic research questions were set:

1. To what extent is student-center approach implemented by the 10+3 level graduate teachers in second cycle primary schools of Arsi zone?
2. Have the 10 +3 level graduate teachers, principals and woredas' educational supervisors adequate training on the implementation of student-centered approach?
3. Do the school principals, woredas and zone educational offices provide adequate support to teachers and schools for the implementation of student-centered approach?
4. Are the classroom conditions conducive for the implementation of student-centered approach?

1.3. Objectives of the study

The general objective of this study is to asses the effectiveness of the 10+3 level graduate teachers in implementing student –centered approach and to identify the major problems that hinder the effective implementation of this approach. The specific objectives include:

- Examining the extent which the 10+3 level graduate teachers implement student- centered approach;
- Investigating whether the 10+3 level graduate teachers, primary school principals and woredas educational supervisors have got appropriate training on the implementation of student-centered approach or not;
- Examining whether the primary school principals, educational supervisors, woredas and zone educational offices provide adequate support required for the implementation of student-centered approach or not;

- Assessing whether the classroom conditions are conducive for the application of student-centered approach or not.

1.4. Significance of the study

Since the authorities at various levels of educational administration are responsible for implementing the policy, creating conducive working environment for the school practitioners in whom the quality of education can be maintained and for guiding as well as orienting practitioners, they too are benefited from findings of the present study. Therefore, the out come of this study would help Ministry of education, Regional education bureau, Woreda educational office, classroom teachers, students, school principals, and other concerned organs in the second cycle primary schools (grades 5 to 8) to design preventive, intervention and rehabilitative measures regarding the implementation of student-centered approach in second cycle primary schools of Arsi zone in Oromia Regional State.

Furthermore the researcher believes that this study has the following significances:

- ◆ it provides policy makers and educational officials at various levels with the information about the implementation of student- centered approach by 10+3 level graduate teachers,.
- ◆ it helps teachers to improve their methods of teaching;
- ◆ it helps school principals and woredas educational supervisors to make the necessary follow up with regard to the implementation of student -centered approach
- ◆ it also initiate, encourage and serve as a stepping- stone for further and more extensive research in the area of the implementation of student- centered approach.

1.5. Delimitation of the study

It would have been more useful if the study had included many zones of the region in order to get more comprehensive information about the implementation of student-centered approach. However, due to financial constraint, the scope of the study is delimited to second cycle primary schools only in Arsi Zone of Oromia Regional State.

Administratively, Oromia Region has 16 Zones. Out of these, Arsi Zone has 25 woredas. This study, however attempted to treat the effectiveness of the 10+3 level graduate teachers in implementing student-centered approach at ten second cycle primary schools selected from

five(1/5th) woredas of this Zone, Which totally contain 89 second cycle primary schools (grades 5-8).

1.6 Limitations of the study

The researcher faced shortage of relevant materials with respect to the topic under the study (the effectiveness of the 10+3 level graduate teachers), and inaccessibility of transportation to primary schools with the target population (the 10+3 level graduate teachers). Despite all these limitations the study was plainly managed and completed.

1.7. Operational definitions of related terms

The following key terms are defined in the sense they have been used in the study as follows:

The 10 +3 Level graduate teachers: teachers those who are trained in the new diploma program (upon the completion of grade 10 and in the case of the old curriculum, it refers to those who graduated from TTI, and upgraded themselves through training to a diploma level).

Second cycle of primary school: It includes grades 5 to 8

Student –centered Approach: it is the instructional process in line with the ideas of constructivism that gives importance to the activation of students' prior experiences, involvement of the students in the learning process.

Chapter Two: Review of the Related Literature

This part presents review of the related literature. It includes such topics as: constructivism as a philosophical base for student centered approach, classification of instructional approaches, importance of student -centered approach, the roles of teachers and students in student centered classroom, instructional strategies facilitating student - centered approach, and factors hindering the implementation of student - centered approach.

2.1. Constructivism as a philosophical basis for student-centered approach

Constructivist's roots can be traced all the way back through the history to Socrates. Educators trace the foundations on what would become constructivism from Emmanuel Kant who concerned him self with objective and subjective ways of knowledge. In the 20th century Jean Piaget, developmental psychologist noted as the individual who first picked up the constructivist baton. He viewed knowledge as some thing which an individual constructs and re-constructs for him or her self. Piaget contrasted this constructivist perspective of knowledge formation with annalist and empiricist view points which see knowledge as a factor of heredity or of one's experiences respectively. The constructivist batch was passed into the direction of cognitive psychologist Jerome Bruner and Ulric Neisser and in the direction of philosopher Nelson Goodman simultaneously.

Another contributor to the collective conceptualization of constructivism is the Russian psychologist Lev Vygotsky. His work usually known as social learning theory or social constructivism took place mainly in the 1930's but was wider known in the West 1960's many years after his death. Vygotsky's concept of proximal development laid the ground work for learners to utilize a social support system as a kind of tutoring process where by one can bridge the gulf (or zone) that exists because what one knows and what one needs to know (Brunner, 1996).

In short, constructivism, as perspective, is grounded mainly on the works of Piaget, John Dewey, and Vygotsky that emphasized the cognitive change take place when previous conception go through a process of disequilibrium with the new information(Slavin, 1994). It is an idea that is nearly 300 years literally thousands of research report to support its validity as to develop it as a useful theory of learning (Yager, 1995).

The term constructivism is defined differently by different authors based on their views and experiences. For instance Cabern (1996:304) defined constructivism as a model of learning that consider student as an active agent in the process of meaningful learning. Others consider constructivism as a theory about how learning occurs and an individual make sense of new information by connecting to pervious acquired understanding. Thus, it focuses on how the learners construct knowledge from experience, which is unique to an individual.

As stated by Taylor (1993) constructivism as a view of learning is based on belief that knowledge is not a thing that can be simply given by the teacher at the front of the room to students in their desks to memorize. Rather, knowledge is constructed by learners through active, mental process development that make them the builders and creators of meaning and knowledge. In this regard, constructivism is often in stark contrast to the behaviorist model of learning. Behaviorism defines learning as the acquisition of new behavior through conditioning. Behaviorism centers on students efforts to accumulate knowledge of the natural world on teachers' to transmit it. It consider children's mind as an empty vessel to be filled or as a mirror reflecting reality. Where as the other main stream of learning theory, cognitivism conceived learning as a procedure of information processing in the human brain with a close connection to artificial intelligence. The goal is concept learning and problem solving. Teachers are no longer strictly experts but act as tutors who accompany the learners during the learning process and support them in problem solving rather than recalling of factual knowledge. In this model, the cognitive aspects of the learner are considered, but his or her relationship to the world including other people is not issue. By contrast in constructivism learning is considered as a process in which the learner actively constructs or builds new ideas or concepts based on the knowledge already processed by the learner. Thus learning involves constructing ones knowledge from ones own experience, and it is an individual art.

Based on the definition of learning student-centered approach is categorized into the main stream constructivism because, it shares the constructivist view of knowledge, which claims that knowledge is constructed as a result of problem solving in authentic environment. Also, interaction is central to the process of problem solving that calls for understanding complex situation. Supporting this Garbinger (1996 in Lejeuene, 2001: 3) claims that student- centered approach is built up on three constructivist notions:

- (1) knowledge acquisition is an active process, where the learners make senses of the world rather than merely accumulating facts;
- (2) learner internalizes new knowledge in personal way by creating relationships to existing knowledge, thus enabling application;
- (3) knowledge, has a cultural aspect that relies on collaboration and social negotiation to give shared meanings.

A constructivist's classroom consist learner-centered and active instruction. In such classroom, the teacher is no longer the transmitter of knowledge, rather he or she facilitates, guides and monitors learning, provides students with experiences that allow them hypothesize, predict manipulate objects, pose questions, research, investigate, imagine, and invent, the teacher's role is to facilitate these processes. In other word, the teacher creates a conducive learning environment and the students actively participate in the learning process and they are responsible for their learning. In constructivist classroom controls comes from students' involvement in responsibility rather than external imposition, freeing to focus on students learning, this is profitable situation for both students and teachers. Actively and interactively involvement of students, redistribution of power, control and responsibility all contribute to a positive relationship between students and teachers that promotes a situation where learning thrives. Learners generally, through an active mental process on development consult knowledge. Thus learners are the builders and creators of meaning and knowledge.

Generally, a constructivist central idea is human learning is constructed; learners build new knowledge on the basis of their prior learning. As described by Hofstetter (2005) constructivist learning model requires active input from students and intellectual efforts and aids retention. The implication of these ideas is that there is no tabula- rasa on which new knowledge is etched; rather learners come to learning situations with knowledge gained from previous experience. Thus, in the constructivist perspective teaching is not viewed as a knowledge transmission process and teachers do not take the role of the "stage on" rather teachers as "guided on the sides" who provide students with opportunities to test the adequacy of their current understanding. In other words constructivist view of learning is sharply contracts with one in which learning is passive transmission of information from one individual to another. This view of learning focuses on students and teachers who engaged in a community in which learning is

the result of interactions, reflections and experience rather than on learning objectives.

2.2. Classification of instructional approaches

The terms “method”, “technique” and “approach” are commonly found in literatures of instruction. But, writers use them confusingly, with out clear demarcation. In this study, however, these terms are used with the following definitions given by ICDR:

Approach: a set of assumptions dealing with the nature of teaching and learning process.

Method: an over all plan for the systematic presentation of knowledge based up on a selected approach.

Techniques: specific activities manifesting in the classroom that are consistent with the method and therefore in harmony with the approach as well. These three terms are related in hierarchical manner, with approach being the most general and technique the most specific.

Different scholars used different types of classification when referring to instructional approaches. Thus some classifications can be confusing and hard to differentiate. According to ICDR (1999:68) the following are among the common classification of teaching /learning approaches: teacher-centered versus student-centered, direct instruction versus indirect instruction, conventional versus non-conventional methods, traditional versus modern méthodes.

All of them, however, have a common basis of classification that is the degree of students' involvement in the teaching-learning process. Out of the above classification the most popular and dominantly used by educators- teacher-centered versus student centered will be briefly discussed here under.

2.2.1. Teacher-Centered instructional approach

The traditional, teacher- centered approach is a methodology that gives the priority role and responsibility to the teacher. The teacher was placed at the center of instruction that is the teacher was thought to hold most of the knowledge necessary for students to be successful and he or she was assumed responsible for students learning (ICDR, 1999; Mutass and Wilss, 1995 and Eggen and Kauch ,1996). The teacher-centered instruction is academically oriented, teacher-directed classrooms using sequenced and structured materials. It refers to teaching activities where goals are clear to student, time allocate for instruction is sufficient and continuous, coverage of content is extensive, the performance of student is monitored and feed back to students is immediate. In

this method, teacher play a primary role in structuring and explaining the content (Roseshine, 1979 as cited in Eggen and Kuacha 1996:180).

As explained by Borich(1988) in teacher centered methodology skills are taught by the teacher's telling ' describing, demonstrating and explaining the technique step by step in their attempt to master the techniques via drills, practice and recitation. Thus, teacher-centered approach is passive, during the lectures, students just listen to the teacher and try to digest as much knowledge and information as they can. In the practical lessons, new skills are taught using demonstration, here the teacher monitors students closely ensuring that they are able to repeat the task that was demonstrated earlier.

According to ICDR (1999:68) in this traditional methodology the teacher used "Chalk and talk "or the methods of teaching in which the teacher was active and student passive. She or he either wrote notes on the black board, which the students passively copied in their exercise books or students memorized the information from their text books, the text and teacher are the source of authority. Further more, Lance (2001) concluded that in this approach the teacher transmits knowledge and information to students and students are passive receiver of knowledge .they are viewed as an empty vessel waiting to be filled with knowledge.

Generally, student in the teacher – centered environment receive knowledge from the teacher, internalize it and later during assessment reflect it back. The meaning making and personalization of knowledge to the previously acquired knowledge are left to the learner and not emphasized in the teaching process. The student teacher relationship is reception and disseminator respectively. In this methodology the teacher, usually follows a logical sequence of presentation which may include reviewing the previous lesson, presenting the daily lesson providing guided practice and set feedback and finally evaluating the students' performance. As summarized by Borich (1988) in teacher-centered approach the teacher is more active than students, he/she is active in explaining, monitoring and describing. On the other hand students listen passively while the teacher "pours knowledge into them thus, the main activity of student is perhaps listening and copying notes from chalkboard. In teacher-centered classroom the desks are arranged in straight rows and there is usually no group work.

He had also identified the two specific assumptions of the teacher-centered instructional method: there is a common body of knowledge that learners need to know and learners know about the same amount of materials as they enter the learning situations. But practically, the first assumption can be easily met, while the second is rare.

Some people agree that this instructional method, if properly handled by experienced teachers can give students the necessary knowledge. However, traditional learning system is ineffective when based on mistaken assumption, where people can't predictably transfer learning from one situation to another new situation and often have no opportunities to learn from experience. Besides this the teacher-controlled teaching assumes the teacher as a provider of knowledge and students passive recipients of knowledge, thus limiting the students' development of cognitive management skills which are crucial for effective learning. This may also create discipline and classroom control problems if students are not engaged in learning activities.

The teacher-centered approach emphasizes on theory rather than practice and the successful students are those who can display their knowledge of facts that have been fed in to them. In line with this Leu (2000:11) explained that in this method there is little time for practical activities, discussion, group work, experiments or other alternative methods. The most common teaching methods that can be included under this approach are lecture, demonstration and questioning and answering. Since the emphasis is on memorization of the maximum amount of information, there was no time for other activities, such as activities that lead students to discovery and connect the new information to the existing experience.

Teacher-centered method of instruction considers the product (learning output) more important than the process of arriving at it. Moreover teacher-centered instructional methodology focuses on content and learning objectives, knowing what students work as individuals and often in competition with other students are highly dependent on the teacher's activities and lecture is the dominant method of curriculum delivery. The teacher's role is that of an expert (Ellis 1995:219). Since this method fails to hold all verities it becomes boring and students also forget what they have learned that is retention of knowledge is low. In this approach there is no stimulus to drive them to acquire additional skills and knowledge on their own. In addition to its shortcomings mentioned above, critics of teacher-centered methodology claimed that this type of teaching does not address the need of the student in our ever-changing, information-rich, global society.

Hence, the currently propagated shift from teacher – centered to student – centered approach, that claims students should actively construct their own learning is critical to overcome these problems.

Derebssa (2005:8) had mentioned the reason for the need to shift from teacher – centered learning to student – centered learning. According to this educator use of active, student- centered learning techniques is vital, because of their powerful impact up on students' learning skills. Students – centered learning is most appropriate for life long learning skills needed in the work force of the information age. With rapid advancement in technological resources the traditional approaches, teachers leading and text books based learning become obsolete and student – centered instruction appears to be wining the debate over teacher centered instruction. However, the traditional approach is still dominated in Ethiopian schools.

2.2.2. Student - centered approach

The idea of student -centered approach is rooted in the works of such theorists like Jean-Jacques Rousseau, John Dewey and Lev Vygotsky. Later, it became popular in the early 1980s, when Jean Polmartin developed the concept systematically for the teaching of French as a foreign language and gave it a theoretical background in various proclamations. This approach is generally grown from constructivist methodology views of education in which the construction of knowledge is shared; learning is achieved through students' engagement with activities in which they are invested. Different authors use different terms for student - centered approach, such as, active learning, interactive-learning, inquiry learning, experimental learning, and learning by doing.

Different authors have defined the term student -centered approach in different ways. For instance, According to Leu (2000), a student- centered approach is a stream of constructivism that places the learner at the center of the learning process by shifting the emphasis of teaching from transmission of "facts" or information to teaching learners how to learn, and how to find information for themselves. Thus, this approach expects the learners to be active, responsible and participant in their learning process both in and out of the classroom. Student – centered instruction is a broad approach that includes such techniques as substituting active learning experiences for lectures, holding students responsible for material that has not been explicitly

discussed in class, assigning open – ended problems and problems requiring critical or creative thinking that can not be solved by following text examples, involving students in simulations and role – plays, assigning variety of unconventional writing exercises, and using nature – placed and/or cooperative learning .

It is a perspective that couples a focus on individual learners (their heredity, experiences, perspective, background, talents, interests, capacities and needs) with a focus on learning that promotes the level of motivation for learning and achievement for all learners (Mccomb *et.al*, 1997). It is a process in which individuals take the initiative to diagnose their learning needs, formulate learning goals, identify resources, select and implement learning strategies and evaluate learning out comes (Silkock and Brudert, 2001 as cited in Derebssa, 2005). Other educators defined students –centered learning as an approach to education focusing on the needs and interest of the students rather than those of others involved in the educational process, such as teachers and administrators. Thus this approach has many implications for designing curriculum.

Active learning, student- centered approach is derived from two basic assumptions: learning is by nature an active endeavor and different people learn in different ways (Chet *et. al.*, 1993). Many authors argued that in student -centered approach the teaching - learning process is oriented to ward's learner's activities rather than rote memorization; learners frequently interact among themselves and with their teacher; teaching is directed more towards class "divided in to groups"; learners initiated their learning and more responsible for their learning and the role of the teacher is more of facilitator and resource person in the teaching - learning process.

Generally, student – centered instructional methodology, focuses on students to play more active and dominant role in their learning, based on the constructivist perspective that knowledge is something that should be acquired, constructed and developed by learners themselves and not some thing that they imposed by others. This approach gives chance for students to learn through their own effort and take full responsibilities for their learning with the teacher as a facilitator. They develop knowledge, skills and attitudes by actively involving in varieties of independent learning experiences, that it is self- learn or self study activities. Thus students take part in planning organizing and presenting activities. In this approach the teaching process is more indirect, the teacher serves as a facilitator rather than as knowledge dispenser and controller, after

the instructions he or she leads students to the sources of information (books, experts, practically activities and discussion) to enable them to construct knowledge, to reflect on or apply what they have learned and solve problems. In these learning processes the teacher guides the students who are doing things, thinking critically about what they have learned. In general the teacher provides students useful learning experiences, he or she follows- up, guide, assist and evaluate (gives feed back) the student learning.

Silberman (1996: ix) also stated that when learning is active, student- centered students perform most of the activities or the works, use what they have learned in their daily life. He generalized that active learning, student centered learning is interactive, supportive, fun fast- paced and personally engaged to every learner and effective when employed. In learner- centered classroom students are actively involved in the learning process and their prior knowledge and experience is integral part of the process. Whether a given activity is student centered or not depends largely on who is in charge, which decides what, should be learned; who should learn it, on how the success of the effort should be measured. Thus, student – centered learning depends on the extent the students make these decisions and the involvement of the learner in the instructional process (Temechegn, 2002),

According to Ulmer (2002) student - centeredness fundamentally gives emphasis on: (a) good relationships between teacher and students; (b) being strategic about information transferred; (c) a congruence between objectives in a course and the evaluation mechanism; and (d) giving primacy to what the learners' needs rather than what the teacher wants to teach.

Furthermore, Elis (1995:291-2) stated that student – centered approach focuses on the process, how student know, work independently, in groups and in teams cooperatively. Teaching sessions are flexible and are not always classroom based in contrast to the traditional teacher – centered methodology students are active and responsible for their learning and the instruction is more interactive thus, the student – student and student – teacher interaction is an important element of the instruction. Students learn through active participation in the learning activities individually or collaboratively with other students through discussion role playing, cooperative and other student- centered methods. The teacher acts as a facilitator rather than guardian of knowledge. He or she designs instructions that lead students learn for understanding through debating, internegotating, discussion, creative explanation etc, and guides the learning process.

Generally, the student– centered teaching- learning model focuses on the learners' growth and development of the cognitive abilities. Hence, it focuses on the process of learning, to enable them actively, independently and critically create their own meanings from the given tasks. Educators had suggested that the tasks should have clear learning objectives and lead them to an out comes, such as solution to a problem. They also argued that the student - centered courses should focus on the learner than the teacher, on the other hand the content should be relevant and meaningful for them and the curriculum should be constructed based on the learners' interest and needs.

To sum up the focuses of student – centered methodology is the learner rather than the teacher. Students learn through active involvement in the learning process and through interaction with others. They are engaged in activities like dialogue, debate, writing, discussion and problem solving as well as higher order thinking as analysis, synthesis and evaluation.

2.3. Significance of student -centered approach

Student - centered approach has numerous importances in the teaching - learning process. Lejeune (2001) has identified the following advantages of this approach:

- it promotes deeper learning process, personal growth, social skills and a higher degree of flexibility;
- student's collaboration and peer instruction in its classroom provides continuous feedback to both students and the teacher. As the students interact with each other as well as the teacher they process the subject matter and learn, because they are involved in more than listening;
- students are involved in developing higher order thinking skills (analysis, synthesis, and evaluation);
- students are engaged in activities ;
- greater emphasis is placed on student's exploration of his or her own attitudes;
- it enhances self discovery and the development of responsibility.

Student - centered methodology provides opportunities to students for active involvement in educational process and responsibility for their learning. These enhance the student's ability to utilize the cognitive skills of objectivity, creative thinking, judgment, interpretation and problem

solving skills. The active engagement with the subject and learning process also improves the student's academic performance, this leads to increased participation in the instructional process, deeper understanding, positive attitude towards the subject to be taught and life long learning. In addition to this, Bonwell and Eisen 1991; Johnson –Johnson and Smith 1991; Meyers and Jons 1993 and Nardos 2000 have mentioned the following educational benefits of student – centered approach: (a) student – centered learning is intellectually more stimulating and thereby is more effective in eliciting and sustaining student motivation and interest in activities; (b) it is effective in fostering a number of important learning skills involved in the process of organizing their own work during individualized activities, and interaction and communication skills during co- operative activities and (c) it enhances self discovery and the development of sense of commitment and responsibility.

Kyrncou (1998:39) has also listed the following advantages of student – centered activities: they are effective in promoting learning skills, like organizing learning activities and communication skills involved during individualization and cooperative activities respectively; they are intellectually more stimulating and there by are more effective in eliciting and sustaining pupil motivation and interest in the activities; they are likely to be enjoyed, offer opportunity for progress, are less threatening than teacher talk and their by foster more positive attitudes in pupils towards themselves as learners and towards the subject. Furthermore student – centered techniques transform the teacher from imparter of knowledge to facilitator and co –learner and the students into collaborators. Students understand and retain materials much more effectively when they participate in the learning process. They learn to question and challenge information presented, develop creative solutions, work collaboratively, communicate their ideas, and effectively critique themselves and others. In addition to the above advantages the student – centered learning increases information retention, positive peer relationship, promotes higher level thinking skills, student persistence and higher esteem. Moreover the interactive nature of student –centered instruction promotes much needed social skills like decision making, conflict management and communication skills. The student – centered method of teaching focuses on practices and active methods of learning, hence, the skills and knowledge acquired through this method are helpful to function in society, in general, and to meet the realities of classroom, in particular (Callahan, 1988).

To sum up, the benefits of student - centered approach in teaching –learning process are enormous. The main one is that students’ active involvement in the learning process which leads to deep understanding of the subject matter and life long learning for their future lives. Even though educators have magnified the advantages of student – centered approach it has some disadvantages. Mutassa and Wills (1995) have identified the following limitations of active learning, student – centered approach: (a) it involves a lot of time, so that teachers find it difficult to cover the prescribed syllabus; (b) the implementation of student – centered approach requires very capable and well trained teachers, so as to provide effective guidance to students;(c) it may not be possible to use it in all situations; (d) it is not economic in terms of space. For instance, role play or group experimentation necessitates a large amount of space and (e) it is not also economical in that it is necessary to use many apparatus, resources or chemicals.

2.4. The roles of teachers and students in student- centered approach

In any instructional process there are teachers’ as well as students’ roles. In student –centered approach the teacher surrenders some of the control of the class as she/he becomes a facilitator, and the students take increased responsibility for not only what but also how they learn. Incorporating active learning in the classroom, then, requires students to act.

2.4.1. The role of the teacher

In student – centered approach the role of the teacher has changed from knowledge dispenser to a facilitator. He or she creates a learning environment which provides students opportunities to learn individually and from one another through active involvement in the process and to become responsible for their learning. Even though the learners become responsible for their learning, it is still the teacher who sets the sage and conducts and guide life in the student – centered classroom. Thus, the teacher designs instructional means, activities, materials, tasks etc in light of normative and moral criteria. He or she guides and manages the activities and make sure that all students are working productively on the activities and monitor their progress.

According to Plass (1998:312) there are many potions to the teacher in learner centered classroom in which the teacher takes on the role of manager, and of a facilitator of learning. The teacher can act as a monitor to ensure that students are proceeding in correct way and in the right direction, helping students to organize their learning, or perhaps participate as a group member if

the students are losing track of their objective. Supporting this idea, In student –centered method, the teacher moves at the back and around students in the classroom, guiding and following groups of pupils. He or she manages the activities and make sure that all pupils are working productively. Thus, the teacher is no less important than in the teacher – centered method (Leu 2000:12).

In general the roles of the teacher in a student -centered instructional process include: guiding and facilitating the students' learning rather than asserting towards targeted learning goals; involving in creating rich environment and activities for linking new information to prior knowledge, providing opportunities for collaborative work and problems solving and offering students a multiplicity of authentic learning tasks and real life problems to students and help them to discover their solutions; presenting instruction that help students to discover, debate, discuss, examine, explore, experiment, hypothesize, observe, pose question, solve problems and to take risk and responsibility. The teacher in student-centered classroom also serves as a model in involving critical thinking (sharing thoughts about something's), demonstrating (showing students the way how to do some thing step - by -step, to figure out an unfamiliar word, to represent and solve a problem, to organize a complicated information); acts like a coach, involves in giving hints or cues, providing feed back redirecting students' efforts helping them in using strategies. In doing so he or she provides the right amount of help when students need it and prepare students to be responsible as much as possible for their own learning. The facilitator is expected to act as a resourceful input, but not the only resource because input also be provided by the students, materials and tasks, that is to mean he or she should have a broad and deep knowledge in course to be taught or subject matter area in order to provide really effective support. The teacher is also responsible to assess the misconception of students and help them to improve it and to assess the limitation of the learner's choice of educational activities. He or she also encourages self-diplomacy functions of students.

2.4.2. The role of the student

In student- centered approach, the student is at the center of the teaching-learning process. It is the most important agent and plays active role in the process.

Generally, in learner - centered classroom, students have responsibility to learn. Thus, they are not only receiver of information from lecturers and book, they also rearrange information, discuss, compare, analyze draw conclusion and communicate. In addition to these activities they set goals for their learning and plan tasks, during learning they work together to accomplish task and monitor their progress and after accomplishing their task, they assess their performance and plan for the future learning.

2.5. Instructional methods facilitating student -centered instruction

Fraze, et.al., (1995) stated that long - term learning occurs through active involvement in variety of instructional methods that are thoughtfully and purposely planned by the teacher. As explained by Sguazzin and Grann, 1998 student -Centered instructional methods are very crucial to help learners involve in the learning process. Some of these methods that can be used to teach different subjects are, group work, drama and role - play, inquiry or problem solving etc.

Thus, in this part of the reviewed literature, some of the basic instructional methods used in student-centered classroom will be presented.

2.5.1. Inquiry

Inquiry is a method of teaching where active process of seeking of understanding occurs. It produces new ideas, which contribute to human civilization. Every person has the potential to create new ideas and the process of inquiry is both an individual and interpersonal adventure. Children are naturally curious and eagerly seek to understand the world around them. This is the essence of inquiry. The teachers' task is to create the situations in which each child can discover the power of ideas and generate concepts about the world. This method is designed to teach students how to investigate a questions or a problem through the systematic gathering of facts. The teacher has to guide the students to help them to work to wards a solution to a problem. Generally Eggen and Kauchak (1996:241) have identified the following roles for teachers in an inquiry method: develop lessons that develop students' abilities to recognize problems, suggest tentative answers identify and gather relevant facts and critically assess tentative solutions. There are skills of inquiry, and development of these skills is an explicit process when inquiry methods are used so if student play primary role in inviting an inquiry lesson, a teacher must facilitate the

Regarding students, in inquiry method, students begin their analysis by responding to open-ended questions, the questions that ask them to simply describe or compare and contrast and as a result, have variety of acceptable answers. It is also the learner that connects what is new

to him or her past experiences and knowledge. To increase student participation give time him or her time to think, while using inquiry these questions should remain longer (Eggen and Kauchak 1996:81).

The main aim of inquiry teaching is to stimulate or promote independent resourceful thinking. Involving students in inquiry method is one of the most effective ways to help them to develop their higher order critical thinking skills (Clark and Starr, 1988). For the young children inquiry involves learning through explanation and investigation. In inquiry experiences can take place in the classroom, the literary or out side in a field trip. While inquiry the child uses sight, smell, touch, and the kinesthetic sense to gain general and specific information that will help to form concepts, categories for making sense experiences. This method is implemented in the following steps: identifying a question or a problem, making hypothesis, gathering data, assessing hypothesis and generalizing, (Eggen and Kauchak 1996:239).

2.5.2. Problem solving

Problem solving is one of the most important student-centered methods that promote students' problem solving abilities. The problem solving ability enables the child to find out appropriate solution of the problems, which confront him or her (Callahan *et. al.*, 1988:87). It is a technique whereby the teacher and students attempt in a conscious, planned and purposeful effort to arrive at some explanation or solution to solve some educationally significant difficulty (Aggarwal, 1996). It is a process of producing or closing a perceived problem gap. This technique involves providing students with content related problems to find some answers or find reasons why the problem exists.

According to Clark and Starr (1988) in the problem solving approach, the following steps have to be implemented: defining and delimiting the problem; gathering evidence that may help to solve

According to Clark and Starr (1988) in the problem solving approach, the following steps have to be implemented: defining and delimiting the problem; gathering evidence that may help to solve the problem; formulating hypothesis solution to the problem; testing the hypothesis and solve the problem and restart if not solved.

In problem solving method, children often work in small groups to solve the problem with teacher's guidance and present their work to whole class for discussion. In the class discussion, the teacher often calls on children with less mature strategies first, challenging those with more mature strategies to think of alternative ways to solve the problem. In this method the teacher encourages the use of multiple solution strategies and emphasizes the importance of the children using a strategy that is most appropriate for them this provides students a chance to learn from their successes and failures. This method allows groups to work through a situation from beginning to end to solve the problem.

2.5.3. Discovery

Discovery learning is the opposite of reception or being told or being passive; rather in this method students seek out and discover knowledge (Callahan, 1988). It encourages students to ask questions and formulate their own tentative answers and to deduce general principles from particular examples or experience. It is commonly equated with inductive learning where it is arrived at generalization from specific task. . The discovery learning model requires that the student participate on making many of the decisions about: what, how and when something is to be learned. Instead of being told the content by the teacher, it is expected that the student will have to explore examples from them discovers the principles or concepts which are to be learned. Learning is more meaningful, more thorough and therefore more usable when pupils seek out and discover knowledge rather than just being receivers of it. In discovery learning instead of memorizing certain facts, the students discover them for themselves and they learn how to learn.

2.5.4. Role - playing

Role-playing is a method of stimulation in which students assume the roles of individuals or groups in a real-life situation. Here students are asked to "act out" a part. In doing so they get a better idea of the concept and theories being discussed. However, it is important to be sensitive to the fact that some students are very un- comfortable acting out. The teacher should be ready to

provide an alternative, like to have students write about their assigned role rather than act the role. . According to Silberman(1996:27), to be successful when conducting role playing however, it is important to know different ways to set up and lead it. The students should be given a general scenario and asked to fill the details. Also they have to be given well-prepared instructions that describe the facts that about the roles they are portraying and how they behave. Giving extensive background information about the situation and characters to be portrayed is very important.

In role playing, the students have the opportunity to experience and analyze the specific situations being studied (Frazee, *et. al.*, 1995). Thus this method allows students the opportunity to explore practice, skills, small group interaction and it enables them to see reality through eyes of others. Role – playing is useful for motivating and developing students feeling and attitudes. It is also enjoyably for learning about people, places, events and times.

2.5.5. Project method

According to Beswick (1987), the project method is one of the most valued modern methods of teaching and learning activity which is employed in a situation where the school, the curriculum and the contents of the studies are considered from the learner's points of view, his or her needs and interest in the context of real life situation. In this method there are attempts to connect activities in the school to child's needs and real life. It is a natural, life long learning activity - involving investigation and problem solving by an individual or small group. Ideally it should consist of task in which a student set out to attain some defined goals or real personal value (Clark and Stars, 1988: 256). Since it is based on a real life and results in problem solving, the students are engaged in it by fully being interested. They can select their own individual projects independently or in – group; however the teacher can play a significant role in presenting a list of alternative or selected projects for students. The teacher should also approve the projects of his student before they attempt to work. The project method stresses on developing problem solving, thinking and reasoning skills. It provides pupils the chance to seek out information for themselves and use initiatives in learning and the opportunity for information to be used rather than accumulated. The project method also encourages the gathering and use of different kinds of evidence and organizing information into a coherent comment Beswick (1987:35).

2.5.6. Collaborative learning /group work

Researchers reported that regardless of the subject matter, students working in small groups tend to learn more of what is taught and retain longer than when the same content is presented in other instructional format. Students who work in collaborative learning also appear more satisfied with their class. Although placing students in groups and giving them tasks in which they depend on each other to complete the work is a wonderful way to capitalize on the social needs of students. Students in collaborative learning tend to become more engaged in learning process, because they are doing it with their peers. In line with this Silberman (1996:6) puts that collaborative learning activities help to drive active learning. Thus, the ability to teach through small group co – operative activities will enable more to promote active learning in special way. Further more giving different assignments to different groups promotes students not only to learn together but also teach each other. What a student discusses with others and what a student teaches others enable him or her to acquire understanding and master learning. These importances of group work make it vital in student – centered classroom. As described by Melese(1999:20) group work suits almost all types of subject matter across the curriculum and fits into all kinds of learners. The proper implementation of this method enables students to acquire and develop knowledge, skills and attitudes.

2.5.7. Discussion

Discussion is a kind of teaching method that often involves solving problems that students have identified and chosen. It is tied with the discovery method, which requires students to find their own concepts, principles and solutions, not to adopt them from a teacher or the text book. In this method problems may also be presented by the teacher for the students to discuss quickly in small groups and report the results to whole class after a short while. While comparing this method with lecture on measures of retention, higher order thinking, attitudes and motivation tended to favor the discussion method (Mckeachie and Kulik, 1995: 288).

2.5.8. Brainstorming

Brainstorming is a method of collaborative problem solving in which all members of a group spontaneously contribute ideas, or a similar process under taken by an individual to solve a

problem by rapidly generating and recording a variety of possible solution. In this method student is given an exercise that allows creative thinking for new ideas.

To sum up, since not all students learn efficiently by the same method, not all methods interest student equally, no single method is better than others for all types of content, and not all methods provide attainment of a particular set of instructional objectives, teachers have to use a variety of method in teaching their students, to make important decisions on the type of instructional method needed for a particular instruction. Hence, teachers should have understanding on different teaching methods including the set of assumptions (approaches) which deal with nature of teaching and learning (ICDR, 1999:67).

2.6. Factors affecting the implementation of student - centered approach

A number of factors can be mentioned as related to facilitate or hinder the effective implementation of student -centered approach in classrooms. However, some of the main factors that can influence the applicability of the student- centered approach are related to, training of teachers, teachers', principals' and students' attitudes, lack of support, classroom conditions, the organization of the curricular material and shortage of instructional.

2.6.1 The Training of teachers

Squazzin and Grann (1998) have described that good and effective education in the classroom demands a well - prepared teacher, a competent teacher (both academically and pedagogically) and selection of teaching strategies, activities and materials appropriate to achieve the objectives of education at different levels. Thus a teacher should get adequate academic and pedagogical training to develop these teaching skills. The way teachers trained can strongly affect the whole educational process, particularly the implementation of the student- centered instructional method. This is because, educators argue, that 'teachers teach the way they were taught' (ICDR, 1999: 67). That is if teacher trainees learn mainly through the lecture method, this leads them to use this method in their own future teaching. Several studies indicated that "teachers should be taught by the same methods which will be expected to use in their future career" (Maunda, as cited in Ambaye, 1999:3). Thus, for the effective implementation of student-centered approach in schools teacher trainees should learn academic and professional courses by the instructional

methods that help them to implement this approach in their own teaching and get the necessary knowledge regarding student-centered methods through pre-service/in-service training.

However, scholars have mentioned that the trainers failed to relate theory with practice. In line with this Amare (2000:36) has explained that one could speculate (although this has to be confirmed through systematic investigation) a possible students exposure to the new perspectives in a teacher-training program. The discrepancy could, however, explained partly by the conflict between what perspective teachers are told to do and what their instructors actually do. This is to mean there is a gap between theory and practice. This indicates that lack of pre and in-service training; make many teachers not be aware of what may be done to change the learning environment.

Generally student –centered approach will be effectively implemented in different levels of educational institutions when teachers are acquainted with this methodology. Hence primary school teachers must get the required training on how to implement instructional methodologies in general and student-centered instructional methods in particular (Aspy, 1972).

2.6.2. Teachers' and principals' attitudes

Teacher's attitude is the basic ground in positive or negative way towards problems, ideas or events. Thus a successful innovation depends substantially, on teacher's attitude towards proposed curriculum alterations. Students which have positive attitude towards teaching, and the curriculum are found to be high level achievers in learning. Many educators have asserted that the attitude of teachers and school principals towards active learning, student- centered approach is a determinant variable in their effective implementation. Teachers and principals who strongly support positivist epistemology assume that knowledge exists separated from the learner fixed in the world and it is made up of discrete and irrefutable pieces of information or facts. The assumption is that teacher is the source of knowledge and knows best whereas pupils are "empty vessels" to be filled by the teacher (Plass, 1998). Thus, those teachers and principals who are in favor of positivist epistemology could have negative attitude towards student- centered learning. On the contrary, there are also teachers who view knowledge as it is produced through interaction between the learner and the world around him or her, constructivist epistemology. This interaction leads to interpretation and understanding, not just to memorization. Therefore, learners should be active participants and active learners and the teacher who takes in this model

is to use classroom methods that encourage the pupils to be active as much as possible through the use of higher order thinking skills like problem solving and communication methods (Leu, 2000:4). Hence, in light of this view, teacher who supports constructivist epistemology has positive attitude towards active learning. There may be many factors that contribute to low perception and negative attitude of teachers towards student-centered methodology. Few of these factors, as indicated by Temechgen Engida (2002: 40) are: in adequate teacher training; teachers' fear of their authority/control and teachers' resistance to change

Therefore, possession of a college degree is not in a way to ensure that teachers will be effective in their teaching, unless and other wise they have positive attitudes to the subjects and approach of teaching. Negative attitudes may harm or injure the whole process of teaching, such as during selection of content, methods, planning activities, mechanisms of evaluations and so on. Thus, teacher with positive attitude and the necessary theoretical and technical knowledge can demonstrate the ability to bring about the intended learning out comes.

2.6.3. Students' attitudes

The new instructional model, student-centered learning intends to produce active and motivated learners who can cope with the demands of the modern world. Active learning methods encourage student's autonomous learning and problem-solving skills. It provides pupil more interaction with peers, promotion of shared activities and team work, great opportunities to work with range of pupils and with great personal satisfaction, (Caple, *et. al.*, 1995: 230). Thus, unless students decide to act actively in the learning process by accepting their new roles, they will not be benefited from this new teaching –learning methodology which opposes the students' passiveness.

2.6.4. Support from school principal

The school principal can be considered as a prominent figure in the school system as far as he or she is the one who is assigned to lead all activities that go on in the school environment. He or she is responsible for both the academic and administrative affairs in the school and the implementation of educational programs is much dependent up on the effectiveness of the principal hence, he or she is expected to have dedication, commitment, positive attitude towards his or her profession and the necessary training.

According to Squazzin and Grann (1998), for the effective implementation of student centered learning the school principal and its management, department head and others need to understand that, active learning as a building block of long life learning. The school as a whole should do everything possible to facilitate active learning; this involves allocating funds for additional equipment, ordering books in sets to allow use by a small group. In addition to this, school managers are supposed to provide necessary induction and continuous professional support to teachers and should encourage the involvement of the teacher in the implementation of the instructional methods that promote student –centered approach. However, this needs extensive training of the school principal through both in pre and in-service programs. Provision of support to teachers in implementing educational policies and programs could be improved if the managers of the schools are properly trained.

To sum up, school principals should get appropriate and continuous training that enables him or her to be competent enough in the implementation of educational programs in general and student - centered instructional methodology in particular.

2.6.5. The roles of supervisor

Supervision is the service provided to school for the purpose of improving teaching and learning. Regarding the importance and role of supervision, Melese (1999:8) described that, the major focus of supervision is on the provision of technical assistance in order that organization or an individual will be improved and be able to accomplish necessary duties and responsibilities. The education systems provide services to schools to help them succeed. This include providing information and training regarding instructional training and instructional practices , monitoring and evaluating schools, teaching methodology and academic performances, assigning budget and qualified teachers etc. Such supports are given to schools based on the results of supervision. Supervision may be carried by the department heads, directors and related educational supervisors those who are intended to provide feedback, and professional assistance with the focus of solving problems and improving the teaching learning environment rather than fault finding. The effectiveness of supervision depends on the skills and competence of supervisors in working with the entire staff, classroom teachers, specialists and administrators. In line with this Smith, 1996: 403, forwarded that Supervision is a cooperative service designed to help teachers rather than report about them. Because, teachers may need necessary timely feed back related to

their performance that can facilitate the teaching and learning process, the supervisors should be professionally trained and actively think a head of time about the curriculum, methods of teaching and the school situation. Thus, the absence of trained and skilled supervisors retards school activities from positive progress.

Generally for the proper implementation of student –centered approach, the responsible bodies should supervise teaching methodology, coach teachers, evaluate, monitor instructional activities and give feedback to teachers.

2.6.6. The classroom condition

The classroom condition is one of the most important factors that should be considered in the teaching –learning process. Silberman (1996:6) point out that physical environment in classroom can make or break active learning. Thus to engage students in learning activities the classroom should be well equipped with furniture. There should be a movable desk for every pupil to use different lay outs in the classroom. Silberman (1996:10) has suggested ten different types of classroom lay outs, which facilitate active learning, student-centered approach these layouts include U- shape, team style, conference table, circle, group on group, work station breakout grouping, chevron arrangement traditional classroom, and auditorium. To use these layouts, condition of the classroom should be conducive.

Generally, in student - centered method of learning the act of the student is learning by doing; thus, it may be necessary for the students to move around the classroom, so the classroom set up should be conducive for learning, that it should stimulate learning and allow for aspect of problem solving and cooperative learning (Sguazzin and Grann, 1998). Accordingly, the arrangement of desks and tables should allow movement and communication and should be changed whenever necessary so that it is appropriate for the learning experiences that you have planned.

2.6.7. Class size

Class size refers to the number of pupils regularly scheduled to meet in the administrative and instructional unit, known as class or section, usually under the direct guidance and a single teacher. It has its own impact on the teaching –learning process. Hence the idea of class size is becoming a concern and an essential point of discussion among scholars. These scholars assumed that as the class size increases, students face any or all of the following problems: lack of clarity

of purpose; knowledge about progress; advice on improvement and lack of opportunity to discussion and inability to support independent study and inability to motivate students. According to Smith (1996), in the large class size individualization of instruction is limited; the frequently instructional method used is lecture ,with out group participation; oral communication with in the classroom from pupil to teachers is minimized; written work is assigned less frequently and when assigned, receives less teacher attention and pupils are also less known to teachers as individuals.

There are also scholars' arguments, which support the idea that, the class size by it self has nothing to affect teaching and learning if the teacher selects appropriate methods of teaching. Online with this idea Jarvis (2000), from his research findings suggested that class size by it self is not a significant factor in students' achievement. He founded out individual teachers did vary in their effectiveness in different class size. Some were more effective in large classes than in small ones, while others were less effective in large classes than in small ones. Other researchers have taken middle position. As stated by Ayalew (1991) whether a large or a small group is appropriate depends on the following factors, alone or integrated: learning objective that are to be realized; nature of the subject to be thought; and pupil attention and learning resources.

In Ethiopian schools, the average class size that is intended, by the Ministry of Education is to be 50 for the primary schools. However, as the existing statistics of the Ministry of Education indicates, the average class size of the country in the year 2002/2003 was 73 in the primary schools.

2.6.8. Organization of curricular materials

The contents of the curriculum materials (text book, teachers guide, syllabus) organization have impact on teachers' and students practices and roles played by them in the teaching-learning process .The textbook is only one of the many media through which teacher and pupil communicate with each other in an effort to carry forward the learning process and it is prepared by expertise with intention, to achieve the desired educational objectives. Hence textbook should be available, its availability for learners and teachers consumes, instructional time that is wasted while teachers and students copying note on and from the black board. As mentioned by Callahan, 1998: 447, active learning textbooks should contain plenty of exercise and sample to

work. They should also be flexible to learners to allow the chance to work at their own speed and by their own ways.

Teachers guide is addressed specifically to teachers describing the system and giving suggestions on how to use it. It has to be integrated with the text and the content, help the teacher in providing alternative methods of teaching, mechanisms for evaluation of students' performance and indicate the necessary supporting instructional materials that enhance teaching. Thus teachers guide is of great importance for the teacher to realize their activities. It is also essential to prepare and to make lessons applicable during the teaching - learning process. A well prepared teachers guide provides teachers variety instructional methods that promote student – centered learning corresponding to each topic.

2.6.9. Shortage of instructional material

Instructional materials, which are categorized in to visual aids, audio aids and audio - visual aids, are any materials used as media of communication by the teacher or pupil to advance learning, (Shores, 1960).They are instruments with which a teacher teaches and from which students learn. Hence teaching with out instructional materials boils down to teaching with out technology (Amare 1998:53). International experiences has shown that the modest teaching tools such as text book, libraries, laboratories equipments and classroom instructional materials are significant determinants of student achievement. Instructional materials enable learners to use more than one sense and to minimize the traditional method of teaching .They facilitate active learning; relate theory with practice; encourage creative thinking and effective student skill development and make learning more functional by increasing efficiency (Amare 1998).

In general the problem of instructional materials may involve a shortage of textbooks, teachers guide, pedagogical centers, libraries, laboratory equipments, reference books, audiovisuals etc. The presence or absence of these materials may facilitate or hinder the implementation of student –centered approach.

Chapter Three: Research Design and Methodology

3.1 Research Design/ Method of the study

As mentioned earlier the principal objective of the present study is to assess the effectiveness of the 10+3 level graduate teachers in implementing student-centered approach in government second cycle primary schools of Tiyo, Munesa, Hetosa, Loda Hetosa and Dodota woredas in Arsi Zone . Hence, to get reliable and adequate information the researcher employed descriptive survey method, because it is the most appropriate technique for collecting vast information and opinions from a large number of respondents. This method of study is also relevant to gather detailed descriptions of the existing conditions, current practices, concerns, or interests of some group of people (Gay, L.R. and Airasian, P 2000:11).

3.2 Sources of data

In this research study, there are both primary and secondary sources of data. The primary sources of data were the 10+3 level graduate teachers, primary school principals, students of grade 7 and 8, and woreda education office supervisors. The secondary sources were relevant documents and printed literature.

3.3 Sample population and sampling techniques

At present there are twenty five woredas in Arsi zone. Of these five (one fifth) namely, Tiyo, Munesa, Hetosa, Loda Hetosa and Dodota are selected on the basis of transport facility. According to the statistical data of the selected woredas' offices there are totally 89 second cycle primary schools (primary schools that have grades 5 to 8) in these woredas. Two schools from each woredas , those which have the 10+3 level graduate teachers were selected by purposive sampling technique. There are totally 80,10+3 level graduate teachers and 2555 students in the second cycle of the selected ten primary schools (in 11% Of the total schools) in this academic year, 2008/09.

The participants of this study were 80, 10+3 level graduate teachers (the target population), principals and supervisors of the sample second cycle primary schools (each 10) and 255(10% of the total) students. Availability, Purposive and stratified sampling techniques were respectively used to select these respondents as sample population. The number of sample male (130) and

female (125) students from each group that is from grade seven and eight of the sample second cycle primary schools were selected proportionally using the following steps:

Step1. A total of 2555 (1294 males and 1261females) grade seven and eight students of each sample second cycle primary school was taken from the schools principals.

Step2. The proportion for selection was determined by computing the ratio of the required sample (n) to the population of the study, Proportion, $n/N = 255/2555 = 0.09980$

Step3. The actual number of members in each stratum was multiplied by the proportion obtained in step “2”, to get the number of members from each sample school that was included in the study (See the following table for the details).

Table 1: Sample size of the Study Sites

No	Woreda	Total No. of 2 nd cycle prim. Schools	Sample Schools	Actual No of Students (Grade 7 and 8)			No of Sample Students			No of sample Teachers			No of sample Principals			No of sample Supervisors			Total sample		
				M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1	Tiyoo	19	1. Waj i bilalo	208	169	377	21	17	38	6	6	12	1	-	1	1	-	1	29	23	52
			2. Kulumsa	80	109	189	8	11	19	3	3	6	1	-	1	1	-	1	13	14	27
2.	Munasa	22	1. kersaKuir Anid	344	379	723	34	38	72	6	5	11	1	-	1	1	-	1	42	43	85
			2. Albeso	138	156	294	14	15	29	6	3	9	1	-	1	1	-	1	22	18	40
3.	Hetosa	24	1. Tedo	80	109	189	8	11	19	3	4	7	1	-	1	1	-	1	13	15	28
			2. Welarge	39	33	72	4	3	7	2	2	4	1	-	1	1	-	1	8	5	13
4.	Loda Hetosa	17	1. Ifa Lode	129	104	233	13	10	23	6	5	11	1	-	1	1	-	1	21	15	36
			2. She macha	89	61	150	9	6	15	3	3	6	1	-	1	1	-	1	14	9	23
5	Dodota	7	1. Lode Hada	80	68	148	8	7	15	3	3	6	1	-	1	1	-	1	13	10	23
			2Bika	107	73	180	11	7	18	4	4	8	1	-	1	1	-	1	17	11	28

3.4 Instruments of data collection

As it has been stated earlier, the principal objective of this research undertaking is to investigate the effectiveness of 10+3 level graduate teachers in implementing student-centered approach. Hence, in the present study three types of data collection tools namely, questionnaire, class room observation checklist and interview were employed.

Questionnaire: Four kinds of questionnaires (for teachers, principals, students and educational supervisors) were prepared to obtain pertinent information for the study. The questionnaires for all respondents consisted of items regarding their back ground, the degree of implementation of student-centered approach, the condition of the class room , about factors that may affect the implementation of student –centered approach, and about their pre-service and in-service training (teachers', principals' and supervisors'). The questionnaire prepared for the students was translated in to their native language (Oromo language) to obtain accurate data needed for the study.

Classroom observation checklist: According to Solomon, 2004:37 classrooms are the world of education, where all the hidden and manifested interaction and efforts of education occur. As described by Lewy (1977) classroom observation is useful to indicate how the lesson is divided in a variety of activities such as individuals' work group/ pair work/, whole class activity and others. From this it can be concluded that classroom observation is the central source of data, because it describe what was happening in the class during interactions. Hence class room observation checklist consists of many items which are included in the teachers' and students' questionnaires, for assessing the nature of the teaching -learning process (the extent which teachers implement student- centered practices, teachers and students roles) and the suitability of classroom condition to implement student – centered approach was developed.

Interview: The interview is the main road to reality, it permits the researcher to obtain important data that can not be obtained from observation (Gay, L.R. and Airasian, P 2000:219)..Much of what we can not observe for our selves has been or is being observed by others. Thus we use interview to fill the gap. Since interview are very useful instruments to understand reasons, why and how things happen and the way they happen. Hence, structured interview was designed for three types of informants: teachers, principals and supervisors. It includes questions about the

approach mostly used and extent which the 10+3 level graduate teachers implement student-centered approach in the second cycle of primary schools, the adequacy of support provided to schools and teachers, the classroom condition, and the major factors that hinder the effective implementation of student-centered approach. All the information gathered through the interview and observation checklist is used as supplementary information during the analysis of the data gathered through questionnaires.

3.5. Pilot study

Copies of the questionnaires for students, teachers, principals and supervisors, were given for an expert (an instructor at Adama University). The expert was asked to give his reaction on each item of the questionnaire. The purpose was to get professional feedback about the instruments, including the order of the questions, and to make some modifications. Slight corrections were made using the comments and suggestion from the judge. Then pilot study was conducted in Gobyia second cycle primary school which is found in Lode Hetosa Woreda of Arsi Zone.

The purpose of pilot study/test was to examine the quality or appropriateness of the prepared instruments, particularly to check the clarity and validity of each item of the instruments, and to get a hint about the willingness of the respondents to cooperate. The main focus was on identifying ambiguity, and misunderstandings, the adequacy of time to manage or complete the instruments in the field, to assess the real characteristics of second cycle primary schools where the instruments were to be used, and to consider other unforeseen issues related to data collection procedures. The instruments were administered to 30 students (15 each grade 7 and 8), and 6 teachers, the principal and the supervisor of the school. The classroom observation and the teachers', principals' and supervisors' interviews were also tried to test the instruments.

In the pilot study, it was found that almost all items had adequate validity and clarity. A few items that have problems were corrected, certain sequences of the items in the instruments were rearranged and three questions were rejected from the instruments. Thus, the items in the instruments were corrected, refined and made ready for the final study.

3.6. Methods of data analysis

The major task in this section is to organize, present and interpret the collected data critically to answer the research questions. The data obtained through questionnaires and classroom observation checklists were statistically analyzed. Accordingly percentages and mean values for the frequencies of all items using the rating scales are calculated using the formula indicated below (for mean) and used for final interpretation. In addition, the data obtained through interview were analyzed qualitatively and used to compliment the quantitative data.

The formula for the mean:

$$\text{Mean} = \sum xf/N, \text{ where}$$

X is any score, \bar{X} - the mean of the scores, \sum - the sum of (add them up), v_x - the rating scale value for the score, f - frequency of a score and N - total number of subjects (Gay, L.R. and Airasian, P 2000:466).

Chapter Four: Presentation and Analysis of Data

The main purpose of this study was to examine the effectiveness of the 10+3 level graduate teachers in implementing student-centered approach in second cycle primary schools of Arsi Zone. Thus, the data used in this study were collected from 80 10+3 level graduate teachers, 255 students, 10 principals and 10 supervisors from the second cycle primary schools of Arsi Zone.

This part deals with the analysis of data obtained from questionnaires, observation and interviews. The analysis gives emphasis to the extent which the 10+3 level graduate teachers implement student – centered practices and methods, provide students with opportunities to involve in the teaching learning process, training of teachers, principals and supervisors, provision of support required for the implementation of student-centered approach, the classroom condition and major factors hindering the effective implementation of student-centered approach in the sample second cycle of primary schools

4.1. Characteristics of the respondents

The respondents of this study were teachers, students, principals and supervisors of the selected second cycle primary schools. The characteristics of the subjects are summarized in the following tables.

Table 2: Demographic and backgrounds of teachers, principals, and supervisors (sex, age, qualification and years of experience)

No.	Item		Teachers N=80		Principals N=10		Supervisors N=10	
			N	%	N	%	N	%
1	Sex	Male	42	52.5	10	100	10	100
		Female	38	47.5	-	-	-	-
2	Age	18-23	18	22.5	-	-	-	-
		24-29	28	35	3	30	-	-
		30-35	15	18.8	4	40	2	20
		36-40	12	15	-	-	5	50
		Above 40	7	8.8	3	30	3	30
3	Educational level/Qualification	TTI	-	-	-	-	-	-
		Diploma(10+3)	80	100	-	-	-	-
		Diploma(12+2)	-	-	7	70	9	90
		Degree	-	-	3	30	1	10
4	Years of experience in the current job.	0-5	38	47.5	-	-	2	20
		6-10	16	20	4	40	5	50
		11-15	7	8.8	-	-	-	-
		16-20	1	1.3	3	30	-	-
		Above 20	18	22.5	3	30	3	30

As indicated in table 2, 42 (52.5%) of the teacher respondents were males and 38(47.5%) were females. The number of female teachers in second cycle primary schools of sample woredas was almost equal. However all (100%) of the principals and supervisors were males. This shows that the participation of females as teachers in second cycle primary schools is high and appreciable but females' involvement in educational management was not seen in these schools. These data clearly implies that the need for some kind of strategies to promote females participation in the management of schools.

Table 2 shows that the majority (76.3%) of teachers and 70% of the school principals included in this study were between the age of 18 to 35, where as 8(80%) of the supervisors were above the age of 35. Qualification wise, all (100%) of the teachers and the principals were diploma holders, the 10+3 and the 12+2 level graduates, respectively. Of the supervisors included in this study the majority 9(90%) were also diploma holders, (the 12+2 level graduates). This implies that, the teacher respondents were graduates of the new teachers training program by the 10+3 level, which was designed by the new Ethiopian Education and Training Policy to produce the second cycle primary schools teachers (for those who completed grade 10 or TTI).

Concerning experience, the majority, 67.5% of the teachers have an experience that ranges between 0 to 10 years and 40% of the principals and 70% of the supervisors were served with in this range in their current jobs. The remaining 32.6% of teachers have experience above 10 years and 60% of the principals and 30% of the supervisors have an experience above 15 and 20 years respectively.

Table 3: Demographic and background of students (sex, age and average number of students in a class)

No.	Item		Students N=255		Average number of students
			N	%	
1	Sex	Male	130	51	62
		Female	125	49	
2	Age	11-15	204	80	
		16-20	49	19.2	
		Above 20	2	0.8	

As can be seen in table 3, 51% of the students included in the study were males where as 49% were females. This shows as there is a small gap between male and female students in enrollment. Regarding age the majority (80%) of the students were between ages 11-15. This age is a normal school age for grade 7 and 8. However; there were also averaged students (20%). The average number of students in a class is 62. This indicates that the class size in majority of sample schools is greater than the size designed by the Ministry of education (50). However, today the number of students in a class is much less than the previous years.

4.2. Presentation and analysis of data

4.2.1. student-centered practices in the teaching –learning process

In line with the purpose of the study, the researcher tried to find information regarding the implementation of student-centered practices in teaching -learning process in the selected primary schools.

Table 4: Responses of the 10+3 level graduate teachers to the instructional approach that they mostly employed

No.	Item	Alternatives	Responses	
			N	%
1	Which instructional approach do you mostly use in your classrooms?	Teacher -centered: lecturing or questioning and answering /demonstration	2	2.5
		Student-centered: discussion, problem solving, inquiry	78	97.5

As can be seen from table 4, concerning the question about the instructional approach, almost all (97%) of the 10+3 level graduate teachers replied that we are mostly employing student-centered approach. Regarding this issue, the researcher also conducted interview with the sample school principals (P1...P10) and supervisors (S1...S10) and one of my interviewees said:

The 10+3 level graduate teachers mostly employed student-centered approach b/c, they were trained through this approach. But today few of them have started to follow the trends of teachers' who are employing teacher – centered approach/

graduates of the old teachers training program (Principal10, March17/2009)

The other informants also asserted that 10+3 level graduate teachers mostly employed student-centered approach in the teaching-learning process. All this implies that most of 10+3 level graduate teachers are applying an approach through which they were trained, student-centered approach. The following tables therefore, present the analysis of data obtained from the respondents to assess the extent which this approach is implemented by these teachers.

Table 5: Responses of teachers to the extent of implementing student-centered practices at various instructional stages

No.	Lists of practices	Always (5)		Frequently(4)		Sometimes (3)		Rarely (2)		Not at all(1)		ΣVxf	ΣVf/N
		N	%	N	%	N	%	N	%	N	%		
1	Assess students' prior experiences and current knowledge before starting new topic.	15	18.8	39	48.8	26	32.5	-	-	-	-	309	3.86
2	Relate the lesson to the already taught/learned lessons?	44	55	21	26.3	11	13.8	2	2.5	2	2.5	343	4.29
3	Present instruction that help students to discuss, examine, discover, pose question, solve problem and to take responsibility	12	15	40	50	27	33.8	1	1.3	-	-	303	3.79
4	Provide information from which learners draw conclusion or generalization	18	22.5	32	40	29	36.3	1	1.3	-	-	307	3.84
5	Illustrate ideas, concepts or facts with the help of instructional resources like chart, diagram, laboratory equipments & chemicals.	6	7.5	17	21.3	43	53.8	8	10	6	7.5	245	3.06
6	Allow students to apply what they have learned	27	33.8	34	42.5	18	22.5	1	1.3	-	-	327	4.09
7	Involve students to decide on learning activities	-	-	10	12.5	20	25	2	2.5	48	60	152	1.90
8	Relate instructional activities or tasks to students' day-to-day life	19	23.8	38	47.5	20	25	3	3.8	-	-	313	4.16
9	Evaluate students on continuous basis (apply continuous assessments)	48	60	18	22.5	14	17.5	-	-	-	-	354	4.43
10	Asking open-ended questions	3	3.8	19	23.8	20	25	34	42.5	4	5	223	2.79
11	Asking close-ended questions	26	32.5	45	56.3	6	7.5	1	1.3	2	2.5	332	4.15
12	Give time for students to think on question before calling some one to answer (wait-time method)	-	-	19	23.8	51	63.8	9	11.3	1	1.3	248	3.10
13	Use varied methods like discussion, problem-solving, inquiry, role -paying etc.,	25	31.3	29	36.3	19	23.8	3	3.8	4	5	308	3.85
	Grand mean												3.64

The data of table 5 shows that below 50% of the teacher respondents applied most of the student-centered practices frequently while introducing and explaining new topics. For instance, 48.8% of the teachers assess students' prior experiences and current knowledge before starting new topic and 40% of them present instruction that help students to discuss, examine, discover, pose question, solve problem and to take responsibility frequently. The table also reveals that 42.5%, 47.5% and 36.3% of the teachers, frequently, allow students to apply what they have learned, relate instructional activities or tasks to students' day-to-day life and use varied methods like discussion, problem-solving, inquiry, role playing respectively. Regarding the frequency of using instructional resources and assessment techniques in the teaching-learning process, table 5 indicates that the majority, 53.8% of the teachers reported that, they illustrated ideas, concepts or facts with the help of instructional resources like, chart, diagram, laboratory, equipments and chemicals sometimes and 60% of them evaluated their students on continuous basis (apply continuous assessments) always. Concerning the frequency of asking different types of questions, the majority of the teachers, 42.5% ask open-end questions rarely and 56.3% ask close-ended question frequently. In both cases 63.8% of the teachers don't give time for their students to think on question before calling some one to answer (apply wait-time method) sometimes.

As can be seen, from the 2nd and 7th practices in the above table, the majority 55% of teachers relate the lesson to the already taught/learned lessons always, and 60% of teachers do not involve students to decide on learning activities respectively. In general the value of the grand mean (3.64) for the teachers' experiences in applying the practices is nearly equal to the value for frequently. This indicates that the majority of teachers implement most of the student-centered practices that are expected to be demonstrated at different stages of instructional process moderately.

The researcher also made classroom observation to examine teachers' practices regarding the implementation of student-centered practices practically. To fulfill the purposes of the observation, 20 randomly selected (2 from each sample school) teachers were observed. The observation result (the grand mean, 2.03 for the four categories see table 6) also showed that most of the 10+3 level graduate teachers are implementing student-centered practices at different

instructional (pre-assessment, introduction, explanation, and post assessment) stages moderately. The following table (6) presents the analysis of the data obtained through classroom observation.

Table 6: Frequency distribution and mean values of the observed teachers' practices in implementing student-centered practices

Category	Sub Category	Applied very well (3)		Applied moderately (2)		Not applied at all (1)		$\sum Vxf$	$\sum Vxf/N$	
		F	%	f	%	f	%			
1. Assessing Prior Experiences and Current Knowledge(pre-assessment test)	1.1.	5	25	8	40	7	35	38	1.90	
	1.2.	10	50	7	35	3	15	47	2.35	
Grand Mean									2.13	
2. The extent of Implementing Student-centered Practices while Introducing New Topics and Explanation	2.1.	9	45	3	15	8	40	41	2.05	
	2.2.	5	25	8	40	7	35	38	1.9	
	2.3.	-	-	-	-	20	100	20	1.00	
	2.4.	3	15	11	55	6	30	37	1.85	
	2.5.	-	-	-	-	20	100	20	1.00	
	2.6.	10	50	1	5	9	45	41	2.05	
	2.7.	5	25	8	40	7	35	38	1.90	
Grand Mean									1.68	
3. Provision of Opportunities to Students to Participate in the Teaching –Learning Process	3.1.	8	40	6	30	6	30	42	2.10	
	3.2.	9	45	4	20	7	35	42	2.10	
	3.3.	8	40	7	35	5	25	43	2.15	
	3.4.	4	20	9	45	7	35	37	1.85	
	3.5.	12	60	8	40	--	-	52	2.60	
	3.6.	4	20	10	50	6	30	44	2.20	
	3.7.	5	25	9	45	6	30	39	1.95	
	3.8.	12	60	8	40	-	-	52	2.60	
	3.9.	8	40	7	35	5	25	43	2.15	
Grand Mean									2.19	
4. The Extent of Implementing Student-Centered Approach While Assessment	4.1	6	30	10	50	4	20	42	2.10	
	4.2	2	10	8	40	10	50	46	2.30	
	4.3	13	65	7	35	--	-	53	2.65	
	4.4	1	5	7	35	12	60	29	1.45	
	Grand Mean									2.13
	4.5	6	30	10	50	4	20	42	2.10	
Grand Mean of the four categories									2.03	
5. Students Activities	5.1	8	40	6	30	6	30	42	2.10	
	5.2	11	55	6	30	3	15	48	2.40	
	5.3	5	25	7	35	8	40	37	1.85	
	5.4	3	15	9	45	8	40	35	1.75	
	5.5	10	50	7	35	3	15	47	2.35	
	Grand Mean									2.13

Category 1: Assessing prior experiences and current knowledge (pre-assessment test).

In table 6 above, the classroom observation results for category 1, this is about the activities of teachers which are expected to be demonstrated before introducing new topics are presented. The result of sub-category 1.1 shows that only 5(25%) of the observed teachers assessed students prior experiences and current knowledge very well before presenting new topics, 8(40%) of the observed teachers applied this sub-category moderately and the remaining 7(35%) teachers started the new topic without assessing students prior experiences and current knowledge about the topic that he/she is going to discuss. The observation result of sub-category 1.2. Shows that 50% of the observed teachers relate the new lesson with the already taught lessons very well, 35% moderately and 15% of the observed teachers don't relate the new lesson with the previous lessons at all. The mean values for assessing students' prior experiences and current knowledge (1.90) and relating the lesson with already taught lesson (2.35) show the application of these two student-centered practices almost moderately and moderately, respectively. The grand mean (2.13) shows that the 10+3 level graduate teachers assess students' prior experiences and current knowledge and relate the new lesson with the previous lessons moderately.

Category 2: The extent of implementing student-centered practices while introducing new topic and explanation.

Regarding the extent which the observed teachers implement student-centered practices at the introduction and explanation stages, (category 2) the observation results of the sub-categories show that most of the observed teachers apply many of the expected student-centered practices while introducing and explaining new topics almost moderately. For instance, the majority of the observed teachers applied sub-category 2.2, which is about providing information from which learners draw conclusion or generalization (40%), sub-category 2.4, allowing students to apply what they have learned (55%) and sub-category 2.7, which is about teachers use of varied methods like discussion, problem-solving inquiry, role-playing etc. (40%), almost moderately. But only 15% of the teachers allow their students to apply what they have learned and 25% provide information from which learners draw conclusion or generalization and use varied methods very well. The remaining teachers (6% and 7% respectively) didn't apply these student-centered practices at all. On the other hand about 48% of the observed teachers presented instruction that help students to discuss, examine, discover, pose question, solve problem and to

take responsibility (45%) and relate instructional activities or tasks to students' day-to-day life (50%) very well. Whereas 15% of the observed teachers didn't present instruction that help students to discuss, examine, discover, pose question, solve problems and to take responsibility and 5% of them relate instructional activities or tasks to students' day-to-day life. About 42.5% of the observed teachers didn't apply these two practices (sub-category 2.1 and 2.6) at all. Beside this all (100%) of the observed teaches didn't illustrate ideas, concepts or facts with the help of instructional resources like charts, diagram, laboratory equipments and chemical (sub-category 2.3) and didn't involve their students to decide on learning activities (sub-category 2.5) at all.

The mean values for many of the sub-categories (2.2, 2.4 and 2.7) which are about the practices of teachers to provide information from which learners draw conclusion or generalization (1.9), allow students to apply what they have learned (1.85) and use varied methods respectively are nearly equal to the value for moderately this also indicates that teachers implement these practices almost moderately. On the other hand the mean value 2.05 for sub-categories 2.1, and 2.5 also indicates that the observed teachers present instruction that help students to discuss, examine, discover, pose questions, solve problem and to take responsibility and relate instructional activities or tasks to students' day-to-day life moderately and the mean value 1 for sub-categories 2.3 and 2.5 implies that most of the observed teachers don't use instructional resources like chart, diagram, laboratory equipments and chemicals in most of the instructional processes.

In general, the grand mean, 1.68 for sub-categories of the second category indicates that most of the observed teachers implement student-centered practices which are expected to be applied at introduction and explanation stages almost moderately in most lessons.

Regarding teachers experiences in providing students opportunities to participate in the teaching-learning process (category 3), the observation results of the sub-categories show that the majority of the observed teachers applied more than half of the sub-categories very well for instance 40% of teachers arrange students into groups for different activities, 45% of them provide students group, pair and individual work, 40% motivate students to actively participate in teaching-learning process, 60% negotiate/discuss work with students and allow free student-teacher interaction very well and about 47.5% of the observed teachers praise and encourage students work (sub-category 3.4 to 4.5%), follow students participation/activities and provide constructive

moderately, and ask close-ended questions (2.65) almost very-well. Generally, the grand mean, 2.13 is almost equal to the value for moderate, this indicates that the 10+3 level graduate teachers implement student-centered practices while assessment almost moderately.

The grand mean for the four categories in the above table (2.03) indicates that most of the observed teachers implement student-centered practices at pre-assessment, introduction, explanation, and post assessment stages of instruction and in facilitating the participation of students moderately.

Category 5: Students activities

The observation results of the sub-categories in the fifth category of table 6, presents the activities/participation of students in the observed classrooms. In 70% of the observed classrooms students were working with group, pair or individually. But in 30% of the classrooms they were not participated in such student – centered activities, rather they attended teachers' lectures and participated in answering and asking questions. Regarding interactions, students interact with each other very well in only 5(25%) of the observed classrooms, during the teaching-learning process, specifically in group work. In 7(35%) of the observed classrooms the interaction between students is moderate, but in the remaining classroom 8(45%) students do not mostly get chance to interact with each other during the instructional processes. The mean values for student-student (1.85) and student-teacher (2.4) interaction is nearly equal to the value for moderate. This shows that the classroom interactions which should be given a great emphasis in student-centered classroom were moderate. Beside this in most classrooms where teachers use group work, the researcher observed that all students were not equally participated and engaged in meaningful work. In addition to this in all of the observed classrooms the groups were formed on each desk that is students from different groups were not mixed.

The result of the sub category 5.4 shows that students in only 3(15%) of the observed classrooms were practiced on what they have learned very well. In the remaining classrooms, 17(85%), they practiced either moderately or didn't get chance to practice on what they have learned. On the other hand students in half (50%) of the observed classrooms tend to express their needs and feelings freely very well, in the 35% of the classrooms they express moderately. However in 15% of the classrooms students didn't tend to express their needs and interest, this was observed in classrooms where teachers don't apply student –centered approach properly.

The grand mean, 2.30 for the four categories in the above table shows that students in most of the observed classrooms were participated in some of student –centered activities moderately. However, this is not sufficient enough because students in student – centered approach play active role in the teaching – learning process. In addition to this at primary school level students should experience this practice very well to become participatory citizens in the future.

Table 7: Responses of the 10+3 level graduate teachers to the frequency of some student-centered methods employed

No	Methods	Always (5)		Frequently (4)		Sometime s (3)		Rarely (2)		Not at all(1)		$\sum Vxf$	$\sum Vxf/N$
		N	%	N	%	N	%	N	%	N	%		
1	Discussion	18	22.5	57	71.3	5	6.3	-	-	-	-	333	4.16
2	Inquiry	-	-	10	12.5	18	22.5	47	58.8	1	1.3	189	2.36
3	Problem solving	-	-	19	23.8	44	55	15	18.8	2	2.5	240	3.00
4	Discovery	-	-	7	8.8	18	22.5	51	63.8	4	5	188	2.35
5	Role playing	-	-	32	40	39	48.8	6	7.5	3	3.8	260	3.25
6	Group work	21	26.3	53	66.	6	7.5	-	-	-	-	335	4.19
7	Explanation/ Lecturing	9	11.3	13	16.5	57	71.3	1	1.3	-	-	270	3.38

As can be seen from table 7 above, six different instructional methods which promote student-centered approach (inquiry, problem-solving discovery, role playing, group work and discussion) were provided as representative of the methods that can be implemented at second cycle primary schools. The seventh method in the given list was lecture, which is a student-centered. Accordingly, the frequencies of these methods employed by teacher respondents were presented as follows. The teacher-centered method of teaching, lecture was used by most (71.3%) teachers sometimes. The mean value for lecture/explanation (3.38) is almost equal to the value for “sometimes”. This value also indicates that most teachers employed lecture method in their classrooms sometimes. On the other hand among common student-centered methods presented in the same table, group work and discussion were used by the majority (53/66.3% and 57/71.3% respectively) of teachers frequently. The mean values 4.19 and 4.16 for group work and

discussion respectively are also equal to the value for “frequently”. These values also show the frequent use of these two methods in the sample schools in comparison to the other student-centered methods. The researcher has also observed that as these two methods are employed by the majority of the observed teachers.

As shown in the same table, the other student-centered methods, which are believed to develop students’ critical thinking and higher order thinking skills, such as inquiry, problem solving and discovery methods, were not used “frequently”. Rather, they were used either “sometimes” or “rarely”. From these three methods, problem solving method was used “sometimes”, whereas both inquiry and discovery methods were employed “rarely” by the majority, 44(55%), 47(58.8%) and 51(63.8%) of the teachers respectively. The mean value for problem solving (3.00) is equal to the value for sometimes. This value also indicates that most teachers use this student-centered method sometimes. The mean values of the two methods, inquiry (2.36) and discovery (2.35) indicate that most teacher respondents employed these methods rarely. In addition to this the above table depicts that only few teachers, 10(12.5%), 19(23.8%) and 7(8.8%) used inquiry, problem solving and discovery methods frequently and there are teachers who do not employed the inquiry (1.3%), problem – Solving (2.5%) , discovery (5%) and role playing (3.8%) in their class-rooms. Regarding role playing, teachers used role-playing widely, next to group work and discussion methods. 32(42%) teachers employed this method frequently, where as 39(48.8%) of them used it sometimes. In general, the mean value of role playing (3.25) indicates that most teachers used this method sometimes.

To generalize the section the analysis of table 5, 6 and 7 above which are about the frequency of application of student-centered practices and methods, the findings show that the 10+3 level graduate teachers are implementing student-centered approach moderately.

4.2. 2. Factors affecting the implementation of student-centered approach in the sample primary schools of Arsi Zone

There are a number of factors that influence the implementation of student-centered approach in the schools. The major ones are dealt with her under.

4.2. 2.1. Providing opportunities for students to involve actively in the instructional process

The student-centered approach focuses on students to play more active and dominant role in their learning. Thus, it gives chance for students to learn through their own effort and take full responsibilities for their learning with the teacher as a facilitator. Hence, this part presents the analysis of data obtained from respondents in relation to the provision of opportunities to students to actively participate in the teaching learning process.

Code	List of Practices
A	Arrange students in to groups for different activities
B	Provide students group, pair and individual work
C	Motivate students to actively participate in teaching-learning process
D	Praise and encourage students work
E	Negotiate/discuss work {result, examples etc. } with students
F	Follow students participation/ activities and provide constructive feedback to their work
G	Allow students to interact with each other
H	Free student- teacher interaction

N.B: for the codes in the table 8 below, refer the above table.

Table 8: Percentages and mean values of teachers' responses to the extent of providing opportunities to students' participation

Respondents	Alternatives	Responses	Codes								
			A	B	C	D	E	F	G	H	
Teachers	Always (5)	N	36	34	48	47	51	43	34	40	
		%	45	42.5	60	58.8	63.8	53.8	42.5	50	
	Frequently (4)	N	30	21	18	20	15	20	28	27	
		%	37.5	26.5	22.5	25	18.5	25	35	33.8	
	Sometimes (3)	N	8	15	13	13	13	15	18	13	
		%	10	18.9	16.3	16.3	16.3	18.8	22.5	16.3	
	Rarely (2)	N	4	8	1	-	-	2	-	-	
		%	5	10	1.3	-	-	2.5	-	-	
	Not at all (1)	N	2	2	-	-	1	-	-	-	
		%	2.5	2.5	-	-	1.3	-	-	-	
	Mean	$\sum Vxf$		334	317	353	354	355	344	336	347
		$\sum Vf/N$		4.18	3.96	4.41	4.43	4.44	4.30	4.20	4.34
Grand Mean	4.28										

Table 8, presents the analysis of data obtained from teacher respondents on the frequency use of student-centered practices which facilitate students' participation in the teaching-learning process. As can be seen in this table, more than 50% of teachers apply the student-centered practices, which promote students participation either always or frequently. 82.5% of teachers responded that they arrange students in to groups for different activities, 69% provide group, pair and individual work to their students and 82.5% motivate their students to actively participate in teaching-learning process either always or frequently. The same table shows that the 10+3 level graduate teachers who praise and encourage students work, negotiate/discuss work with their students and follow students participation and provide them feedback either always or frequently were 67 (83.8%), 66(82.3%), 63(78.8%) respectively. Regarding interaction 62(77.5%) teachers responded that we allow students to interact with each other and 67(83.8%) replied that there is free student-teacher interaction in their classrooms. The remaining percents of teachers (17.5%, 33%, 17.5%, 16.2%, 17.3%, 21.2%, 22.5% and 16.2% respectively) do not experience these student-centered practices (A to G) frequently.

The mean values for teachers' responses for the use of the student-centered practices which facilitate students' participation are almost equal to the value for frequently. This indicates that most teaches arrange their students into groups and provide group, pair & individual work and motivate them to actively participate in the teaching-learning process, praise and encourage their work, negotiate/discuss work with students and follow students participation/activities and provide constrictive feedback to their work-frequently. Teachers also allow student-student & teacher-student interaction in their classrooms.

To generalize, the grand mean value 4.28 is much less than the value for always so, one can infer that the 10+3 level graduate teachers provide their students opportunities to participate actively in the teaching-learning process moderately. The observation result (the grand mean, 2.13 for category 5 which is about students' activities) regarding this issue also shows that the extent which the observed teachers employed student-centered practices that facilitate students' participation is moderate, see table 6.

Table 9: Mean values for principals' and supervisors' responses to the provision of opportunities to students' participation

Item	Alternatives	Responses			
		Principals		Supervisors	
		F	%	F	%
How often the 10+3 level graduate teachers Provide opportunities to students to actively participate in the teaching- learning process?	Always (5)	5	50	5	50
	Frequently (4)	4	40	4	40
	Sometimes(3)	1	10	1	10
	Rarely (2)	-	-	-	-
	Not at all (1)	-	-	-	-
		$\sum Vxf;42$	-	$\sum Vxf/N$	-
	Mean	4.2	-	4.3	-

As shown in table 8, the schools principals and supervisors were also asked how often the 10+3 level graduate teachers provide students opportunities to actively participate in the teaching-learning process. 50% of principals and supervisors reported that teachers implement this student-centered practice always where as 40% of principals and 30% of supervisors responded frequently and one principal (10%) and one supervisor (10%) replied sometimes. The grand mean values of both principals (4.2) and supervisors (4.3) are much less than the values for always this also indicate that the frequent application of the practice in the schools.

To sum up, the analysis of principals' and supervisors' responses also indicate that 10+3 level graduate teachers implement this main known practice of student-centered approach, the provision of students' opportunities to actively participate in the teaching-learning process moderately.

Table 10: Responses of students to their major roles

No.	Items	Alternatives	Responses	
			N	%
1	How often do your teachers arrange students in to groups for different activities	Always(5)	28	11
		Frequently(4)	146	57.3
		Sometimes(3)	54	21.2
		Rarely(2)	21	8.2
		Not at all(1)	6	2.4
	Mean	$\sum Vxf: 934$	-	-
		$\sum Vxf/N: 3.66$	-	-
2	How often do your teachers provide students group, pair and individual work	Always (5)	29	11.3
		Frequently(4)	139	54.5
		Sometimes(3)	59	23.1
		Rarely(2)	22	8.6
		Not at all(1)	6	2.4
	Mean	$\sum Vxf: 928$	-	-
		$\sum Vxf/N: 3.64$	-	-
3	How often do your teachers motivate students to actively participate in teaching-learning process	Always (5)	109	42.7
		Frequently(4)	85	33.3
		Sometimes(3)	40	15.7
		Rarely(2)	17	6.7
		Not at all(1)	4	1.6
	Mean	$\sum Vxf: 1043$	-	-
		$\sum Vxf/N: 4.09$	-	-
	Grand Mean	3.80	-	-
4	Regarding classroom interactions			
4.1	Is there a student - student interaction in teaching – learning processes?	Yes	184	72.2
		No	71	27.8
4.2	Is there free student- teacher interaction?	Yes	191	74.9
		No	65	25.5
5	Are the classroom procedures and teaching methods used by your teachers satisfied your needs and interests?	Yes	156	61.2
		No	99	38.8
6	Do your teachers' assessment techniques encourage you to actively involve in the teaching and learning process?	Yes	198	77.6
		No	57	22.4
7	What is your major role in the teaching- learning process?	a) Listening to the lecturing and taking note	79	31
		b)Participating and expressing our interests and needs	176	69

As indicated in table 10, students were asked how often teachers apply some student-centered practices to give chance to students to play the roles expected of them in student-centered classrooms. This table reveals that only 11% of students reported that teachers arrange their students in to groups for different activities and provide group, pair and individual work always. More than 50% of the students replied that teachers apply the two practices frequently and the remaining (31.8% and 34.1% for the two practices respectively) students responded not frequently. Regarding motivation of students the majority (42.7%) of students replied that teachers motivate students to actively participate in the teaching-learning process always. Where as 33.3% reported frequently and 24% of them responded not frequently.

The mean values for arranging students in to group for different activities (3.60), providing students group, pair and individual work (3.64) and motivating students to actively participate in the teaching learning process (4.09) are almost equal or equal to the value for frequently. This shows that teachers apply these three student-centered practices almost frequently. The grand mean (3.80) for the responses of students to the practices also indicates that teachers arrange students into groups and provide group, pair and individual work and motivate them to actively participate so as to play the expected roles in the teaching-learning process almost frequently.

Items 4 of the same table shows that the majority of students replied that there is student-student (72.9%) and free teacher-student (74.9%) interactions in the teaching-learning process. However, about 26% of students reported the absence of these interactions in their classrooms. Regarding the teaching and assessment methods, the majority of students reported that the class room procedures and teaching methods used by their teachers satisfied their needs and interests (61.2%) and 77.6% of them also responded that the teachers-assessment techniques encourage students to actively participate in the teaching-learning process. As indicated in item 7 of the same table the majority, 176(69%) of students responded that their major role is participating and expressing their interests and needs and the remaining, 79(31%) responded that the students major role is listening to the lecturing and taking note.

To generalize the analysis of this section, results in tables 6, 8, 9 and 10 above indicate that most of the 10+3 level graduate teachers provide students opportunities to participate in the teaching learning process. However, they implement this student-centered practice moderately.

4. 2.2.2. The pre-service and in-service training of teachers, principals and supervisors

For the effective implementation of student-centered approach of teaching and learning the training (pre-service and in-service) of teachers, school principals and educational officials is very important. Hence, trainees for the teaching profession should learn academic and professional courses by the instructional methods that help them to implement-student-centered approach effectively in their own teaching. Therefore, this part of the analysis presents the analysis of the data obtained from teachers, the school principals and supervisors to assess the adequacy of the training they have got on the implementation of student-centered approach.

Table 11: Responses of teachers to pre- service training

No.	Items	Alternatives	Responses	
			N	%
1	Have you taken pre-service training on how to teach using student- centered approach?	Yes	60	75
		No	20	25
2	If you had got the training what is your understanding on the methods (like problem solving, discovery, discussion etc) that promote student- centered approach?	High	18	30
		Moderate	38	63.3
		Low	4	6.7
	Mean	$\sum Vxf$ 134	-	-
		$\sum Vxf/N$ 2.23	-	-
3	If you had got the training what is the contribution of the training in applying the student- centered approach in the real world of teaching?	High	16	26.7
		Moderate	37	61.7
		Low	7	11.7
	Mean	$\sum Vxf$ 129	-	-
		$\sum Vxf/N$ 2.15	-	-
4	Did the pre- service training helped you to acquire knowledge and skill to use appropriate instructional materials that facilitate student-centered approach?	Yes	64	80
		No	16	20
5	In your pre-service training which instructional approach was mainly used by your trainers?	Teacher-centered	18	22.5
		Student centered	62	77.5

As can be seen in table 11 above, the majority 60(75%) of the 10+3 level graduate teachers have taken pre-service training on the implementation of student-centered approach but the remaining 20(25%) teachers didn't take this training. From those who had got the training, the majority, 38 (63.3%) teachers reported that the understandings they had got on the methods that promote student-centered approach, from the training was moderate, where as 21(35), 7(11.7%) teachers replied high and low respectively. The majority 32(53.3%) of teachers were also responded the contribution of the training in implementing the student-centered approach in their classrooms was moderate. Where as 21(35%), 7(11.7%) responded high and low respectively. The mean values for teachers understanding of the student-centered methods (2.23) and the contribution of the pre-service training (2.15) are almost equal to the value for moderate, this also indicate that teachers pre-service training provide moderate knowledge on student-centered methods so that its contribution in implementing student-centered approach in actual teaching was not adequate enough.

The same table shows that the majority, 64(80%) of the 10+3 level graduate teachers pre-service training helped them to acquire knowledge and skill to produce instructional materials that facilitate student-centered approach. The majority of teachers (77.5%) also reported that in the in-service training their trainers were mostly used student-centered approach. Where as 18(22.2%) teachers replied that the trainers mainly used the teacher-centered approach. From this result one can conclude that the traditional, teacher-centered approach was applied even at teachers training colleges. However, for student-centered approach to be implemented properly teacher trainees should be trained by the same approach practically.

Table 12: Responses of teachers, school principals and educational supervisors to in-service training (workshops or seminars)

No	Items	Alternatives	Responses					
			Teachers		Principals		Supervisors	
			N	%	N	%	N	%
1	Have you ever participated in in-service training (workshops and/ or seminars regarding the implementation of the student – centered approach?	Yes	49	61.3	8	80	9	90
		No	31	38.8	2	20	1	10
2	If your response to the above question is ‘Yes’ how do you rate its contribution to the implementation of student-centered approach/to provide support to teachers?	High	11	22.4	3	37.5	3	33.3
		Moderate	32	65.3	4	50	5	55.6
		Low	6	12.2	1	12.5	1	11.1
3	Who prepared the in- service training in which you participated?	The school	11	22.4	-	-	-	-
		Woreda Education office	19	38.8	5	62.5	6	66.7
		Zone education office	9	18.4	2	25	1	11.1
		Oromia education bureau	10	20.4	1	12.5	2	22.2

Table 12 above, indicates that the majority of the respondents (61.3% of teachers, 80% of and 90% of supervisors) had participated in in-service training on the implementation of student-centered approach and the remaining respondents (38.8% of teachers, 20% of principals and 10% of supervisors didn't take the in-service-training which help them to implement or to provide support for the implementation of the approach. From respondents who have taken the training the majority of teachers (65.3%), principals (50%) and supervisors (55.6%) responded that the contribution of the in-service training in implementing student-centered approach or in providing support to teachers was moderate. Where as 22.4% of teachers, 37.5% of principals and 33.3% of supervisors replied its contribution is high and the remaining, 12.2% of teachers, 12.5% principals and 11.1% supervisors responded low.

As can be seen from the result of item 3 of table 12, from the respondents who had taken the in-service training only 11(22.4%) teachers were participated in in-service training prepared by schools, the majority of respondents, 19(38.8%) teachers, 5(62.5%) principals and 6(66.7%) supervisors had participated in in-service training prepared by woreda education office. On the other hand zone education office and oromia education bureau had prepared the training regarding this issue and from the respondents 9(18.4%) teachers, 2(25% principals and 1(11.1%) were participated on the pre-service training prepared by former office and only 10(20.4%) teachers, 1(12.5) principals and 2(22.2%) supervisors were attended the pre-service training on the implementation of student-centered approach prepared by the latter office.

To generalize this section, teachers' training has a great effect on instructional activities. Especially, to implement student-centered approach, proper pre-service and in-service training programs are very important. From the results of analysis of teachers' responses it can be concluded that the majority of the 10+3 level graduate teachers had taken pre-service and in-service training on the implementation of student-centered approach. However the pre-service training didn't help them to master the student-centered methods and the ways of producing appropriate instructional materials. The contribution of the in-service training is also moderate to implement student-centered approach. All these with the presence of teachers who didn't trained contributed for the most 10+3 level graduate teachers to implement the student-centered approach moderately or to be not adequate enough as expected in implementing this approach.

4.2.2.3. Provision of support required for the implementation of student-centered approach

For the schools to be succeeded the education system should provide services. This includes providing information and training regarding instructional practices, monitoring and evaluating schools teaching methodology and academic performances, assigning budget and qualified teachers etc. Such supports are given to schools based on the results of supervision. Furthermore supervision can play a role in the teaching-learning process by providing professional assistance and guidance to classroom teachers. Generally, teachers and their schools perform better when the educational authorities in and out side school provide the necessary support for instructional practices.

Table 13: Principals and supervisors responses to training on educational planning and management / educational supervision

No	Items	Alternatives	Responses			
			Principals		Supervisors	
			N	%	N	%
1	Are you a graduate of educational planning and management/ educational supervision?	Yes	-	-	-	-
		No	10	100	10	100
2	If your response for question 1 is “No” did you taken in-service training on educational planning and management/on how to manage or supervise schools?	Yes	7	70	6	60
		No	3	30	4	40
3	If your response to the above question is “yes” what is the contribution of the training to manage/supervise schools effectively?	High	1	14.3	1	16.7
		Moderate	5	71.4	4	66.7
		Low	1	14.3	1	16.7

As shown in table 13 all (100%) of the schools principals and supervisors were not graduated in their current jobs. Rather 7(70%) principals and 6(60%) had taken in-service training on educational planning and management and educational supervision respectively but, the remaining, 3(30%) principals 4(40%) supervisors didn't take the training at all. From respondents who had taken the training only 1(14.30%) principal and 1(416.7%) supervisors reported that the contribution of the training to manage or supervise schools is either high or low. Where as the majority of principals, 5(71.4%) and supervise 4(66.7%) responded moderate. This indicates that school principals and supervisors didn't get adequate professional training that help them to manage or supervise schools and provide supports to schools and their teachers.

Table 14: Teachers and principals responses to support provided to teachers

No.	Item	Alternatives	Responses			
			Teachers		Principals	
			N	%	N	%
1	Does the school principal provide support to teachers to implement student-centered approach?	Yes	70	87.5	8	80
		No	10	12.5	2	20
2	If your response to question 1 is “yes” how do you evaluate his/her/your contribution in the implementation of student-centered approach?	High	19	27.1	4	40
		Moderate	45	64.3	6	60
		Low	6	8.6	-	-

As indicated in table 14, the majority, 8(80%) of the school principals responded that we provided support to teachers to implement student centered approach. This response was supported by the majority, 70(87.5%) of teachers. However, the majority, 45(64.3%) of teachers and 5(62.5%) of principals responded that the contribution of the support to implement student-centered approach was moderate. The remaining 25(35.7%) teachers and 3(37.5%) school principals replied either high or low. This result indicates that the 10+3 level graduate teachers didn't get adequate support from schools principals to implement student-centered approach effectively.

Table 15: Responses of teachers and principals to some expected activities of primary schools' principals

No.	Activities	Alter nativ es	Responses			
			Teachers		Principals	
			N	%	N	%
1	Planning and arranging workshop or seminars or in-staff training for teaching staff concerning the implementation of student- centered approach?	Yes	52	65	8	80
		No	28	35	2	20
2	Offering incentives to those teachers who are efficient in implementing student-centered approach?	Yes	51	63.8	7	70
		No	29	36.3	3	30
3	Making necessary effort to allocate sufficient budget needed for the implementation of student-centered approach?	Yes	35	43.8	3	30
		No	45	56.3	7	70
4	Assessing teachers' problems in implementing student-centered approach and provide immediate solutions?	Yes	54	67.5	8	80
		No	26	32.5	2	20
5	Encouraging discussion on the implementation of student-centered approach among teaching staff?	Yes	16	20	3	30
		No	64	80	7	70
6	Evaluating the content and the organization of test or examination given in terms of student-centered approach	Yes	48	60	7	70
		No	32	40	3	30
7	Preparing flexible time table for teachers	Yes	31	38.8	1	10
		No	49	61.3	9	90
8	Have regular, reliable, timely assessment program concerning the teaching- learning process	Yes	33	41.3	4	40
		No	47	58.8	6	60

As can be seen in table 15 above, teachers and schools principals were asked to assess whether principals demonstrated some expected activities to provide support to the 10+3 level graduate teachers in implementing student-centered approach or not. The analysis of their responses show that principals of the majority sample schools performed only half of the expected activities to support teachers. For instance 80% of principals plan and arranged workshop or seminars or in-

staff training for teaching staff concerning the implementation of student-centered approach, 70% of principals offered incentives to those teachers who are efficient in implementing student-centered approach and evaluate the content and the organization of test or examination given in terms of student-centered approach. However 70% of the schools principals didn't make the necessary effort to allocate sufficient budget needed for the implementation of student-centered approach and encouraged discussion on the implementation of student-centered approach among teaching staff. Almost principals of all sample schools (90%) didn't prepare flexible time table for teachers and 60% of principals also didn't have regular, reliable, timely assessment program concerning the teaching learning program. Since all the listed activities of principals are very necessary for teachers to implement student-centered approach effectively, from the above result one can conclude that the support provided by the majority of the sample schools' principals was not adequate enough to implement student-centered approach effectively.

Table 16: Responses of principals and supervisors to the support of woreda/Zone offices to schools

No.	Item	Alter nativ es	Responses			
			Principals		Supervis ors	
			N	%	N	%
1	Does the woreda/Zone educational office assign adequate budget to the second cycle primary schools.	Yes	-	-	2	20
		No	10	100	8	80
2	Does the Woreda/Zone Educational Office provide short and long term training frequently on the implementation of student-centered approach to teachers?	Yes	2	20	3	30
		No	8	80	7	70

As indicated in the above table the respondents except 2 supervisors replied that woreda and zone education offices don't assign adequate budget to second cycle primary schools.

Regarding training the majority of principals (80%) and supervisors (70%) reported that woreda and zone education offices don't provide short and long term training to teachers frequently.

The researcher also conducted interview with sample school principals and supervisors (the above respondents) regarding provision of support for the implementation of student-centered approach by Woreda and Zone education offices and one of my interviewees replied:

Woreda and Zone education offices provide support to teachers in CRC in the form of training. However; the training is not provided continuously. He also said that these education offices do not provide budget to primary schools for the implementation of student-centered approach (principal4, February 20/2009).

The other informants also asserted that these two education offices don't provide adequate pre-service training to teachers and don't assign budget to primary schools for the implementation of student-centered approach. All These results indicate the presence of lack of adequate support from these education offices.

Table 17: Provision of feedback after supervision

No.	Items	Alternatives	Responses			
			Principals		Supervisors	
			N	%	N	%
1.	Do you provide relevant advice and feedback after classroom observation (supervision)?	Yes	7	70	8	80
		No	3	30	2	20
2.	Is there deference between the 12+2 and 10+3 level graduate teachers in implementing student-centered approach?	Yes	7	70	-	-
		No	3	30	-	-
3.	If your response to the above question is yes, what is the difference?	The 12+2 level graduate teachers implement the approach better than the 10+3 level graduates	2	28.6	-	-
		The 10+3 level graduate teachers implement the approach better than the 12+2 level graduates	5	71.4	-	-

Table 17 shows that the majority of school principals (70%) and supervisors (80%) provide teachers relevant advice and feedback after classroom observation (supervision). However 30%

of the principals and 20% of the supervisors don't provide teachers such important information that helps teachers to improve their teaching practices in general and the implementation of student-centered approach in particular.

As indicated in the above table the sample school principals were asked questions regarding the competency of teachers who are teaching in the second cycle of primary schools (the 10+3 level graduates and the 12+2 level graduates). Thus the majority of (70%) of principals responded that there is difference between teachers who are graduated from the old teachers training and the old training program, the 10+3 and 12+2 level graduates respectively in implementing student-centered approach. According to the majority of principals (71.4%) the 10+3 level graduate teachers (the product of the new teachers training program) implement student-centered approach better than the 12+2 level graduates (the product of the old teachers training program).

The researcher has also conducted interview with the sample school supervisors in relation to the second cycle primary school teachers' competency in implementing student-centered approach and their attitudes towards this approach and one of my interviewees said that:

Since the 10+3 level graduate teachers were trained through student-centered approach they are implementing better than the 12+2 level graduates and they are also interested to teach using this method than 12+2 level graduates. However, these teachers are not implementing the approach as expected (supervisor8, March10/2009).

Other informants (supervisors) also asserted that the 10+3 level graduate teachers implement the approach better than the 12+2 level graduates. From these results one can conclude that new teachers training system is better in implementing student-centered approach than the old one. This is because teachers teach in the way they were taught (ICDR, 1999:67).

Table 18: In- staff training on the implementation of student –centered approach

Item	Alternatives	Responses					
		Teachers		Principals		Supervisors	
		N	%	N	%	N	%
Does the primary school exercise in-staff training on the implementation of student-centered approach?	Yes	52	65	8	80	7	70
	No	28	35	2	20	3	30

Table 18 shows that 65% of teachers, 80% of schools principals and 70% of supervisor responded that there is in-staff training in their schools. But the remaining 35% teachers, 20%

principals and 30% supervisor replied there is no in-staff training. This indicates that the presence of in-staff training in the majority of the sample schools in the zone.

4.2.2.4. Classroom conditions

The condition of classroom (amount of space, arrangement of chairs and tables etc) is one of the important non-human factors which facilitate or hinder the instructional program in general and the implantation of student – centered approach in particular. The condition of the classrooms should be conducive for the teacher and students so as to implement the learner- centered approach. In this regard, teachers were asked so as to evaluate the condition of their classroom to implement active learning approach.

Table 19: Responses of teachers, principals and supervisors to the classroom condition

No	Items	Alternatives	Responses					
			Teachers		Principals		Supervisors	
			N	%	N	%	N	%
1	The conduciveness of the classroom to implement student-centered approach	Very high	-	-	-	-	-	-
		High	5	6.3	1	10	1	10
		Moderate	57	71.3	7	70	7	70
		Low	-	-	-	-	-	-
		Very low	18	22.5	2	20	2	20
2	Reasons for the conduciveness of the classroom to be very low: Large class size	Ranks:- First	5	27.8	-	-	2	100
		Second	10	55.6	1	50	-	-
		Third	3	16.7	1	50	-	-
	Traditional arrangements of furniture	First	12	66.7	2	100	-	-
		Second	5	27.8	-	-	1	50
		Third	1	5.6	-	-	1	50
	Absence of facilities such as Laboratory, library, pedagogical Center etc.	First	-	-	-	-	-	-
		Second	5	27.8	1	50	1	50
		Third	13	72.2	1	50	1	50

Table 19 depicted that the majority of the respondents, 71.3% of teachers, 70% of principals and supervisor replied that the classroom condition is on the average conducive to implement student-

centered approach. During interview with sample school principals, most of the informants asserted that the classroom condition is moderately conducive to implement-student-centered approach in their schools. As can be seen from table 19 above only 5% of teachers and 1% of principals and supervisors responded that the classroom condition in their schools is highly conducive. The same table shows that the presence of classrooms in the sample schools which their conduciveness is very low. From teachers (18), school principals (2) and supervisors (2) who said the conduciveness of the classroom condition is very low, 12(66.7%) teachers, and all principals reported that the first reason for the conduciveness to be very low is the traditional arrangement of furniture, 10(55.6%) teachers and 1(50%) principal replied the large class size is the second reason and according to 13 teachers and half of principals and supervisors absence of facilities is the third reason for the conduciveness of the classroom condition to be very low.

The researcher also conducted interview with sample school principals regarding the classroom condition for the implementation of student-centered approach and one of my interviewees also replied :-

The conduciveness of classroom condition for the implementation of student-centered approach is very poor for the implementation of student-centered approach. This is because the classroom size is small and the classrooms don't have even adequate sits for students (principal10, March 17/2009).

Table 20: Conditions of the observed classrooms

No.	Lists of observation	Yes		No	
		N	%	N	%
1	Are there enough desks and tables for every student?	13	65	7	35
2	Are the desks and tables easily moveable?	-	-	20	100
3	Is there adequate space for movement between desks?	14	70	6	30
4	Is classroom layout arranged in different way to facilitate student centered activity?	3	15	17	85
5	Is the number of students/ size appropriate to implement student-centered approach?	11	55	9	45

Table 20 above depicts the observation result regarding the classroom conditions, from the observed schools 13(65%) have desks and tables for every students but 7(35%) of them have no

sufficient desks and tables for students in the classrooms. Furthermore the desks and tables in all schools were heavy and were not easily movable. There is also free space for movement between desks only in 14(70%) classrooms and only 3(15%) of the observed classrooms layout are arranged in different way to facilitate student-centered activities. However in the majority 17(85%) of the classrooms, the desks and tables are arranged straight forward. Concerning the class size, the average number of students in most (55%) classrooms was (61), this is not convenient to implement student-centered approach

Generally the majority of the classrooms of the sample schools were not conducive enough (were moderately conducive) to implement student-centered approach effectively. The classrooms lack easily movable desks and tables, adequate free space for arranging different sitting arrangements that can facilitate student-centered methods of teaching and for students and teachers movement for instructional activities. The class size is also large.

Table 21: Responses of students to the classroom condition

No.	Items	Alternati ves	Responses	
			N	%
1	Do you get facilities such as desks and tables in your classroom?	Yes	164	64.3
		No	91	35.7
2	Are the desks and tables easily movable and arranged for different activities?	Yes	69	27.1
		No	18	72.9
3	Is your class size (number of students) conducive for the implementation of student-centered approach?	Yes	153	60
		No	102	40

As indicated in table 21, 64.3% of the students get facilities such as desks and tables, but 35.7% of them don't get these facilities. Regarding the desks and tables, the majority 72% of students reported that the desks and tables in their classrooms are not easily movable. Concerning the class size, 60% of the students replied that the class size is convenient to apply student-centered approach, whereas 40% of the students said it is not convenient.

Generally, from the above results of analysis of data obtained through different instruments it can be concluded that the class room conditions of the majority primary schools is moderately conducive for the implementation of student-centered approach. This is because there are no adequate desks and tables, the desks and tables are also not easily movable. The class size is moderately convenient to apply student-centered approach as reported by students the average number of students in a class is 62. This shows that the class size in most primary schools of Arsi zone has decreased compared to the previous academic years, which was more than 70. However, the class size is still much greater than the size designed by the ministry of education which is 50.

4.2.3. Factors hindering the effective implementation of student -centered approach in second cycle of primary schools

The implementation of student-centered approach can be positively or negatively influenced by various factors. Therefore, this part presents the data obtained from principals, teachers and supervisors regarding the major factors which hinder the effective implementation of student-centered approach in second cycle of primary schools.

Table 22: Teachers, principals and supervisors responses to major factors hindering the effective implementation of student –centered approach.

No.	Factors	Responses					
		Most serious (3)		Serious (2)		Not Serious (1)	
		N	%	N	%	N	%
1	Inadequacy of teacher’s training on student-centered approach	38	38	59	59	3	3
2	Shortage of time to practice student-centered approach	44	44	49	49	7	7
3	Lack of instructional materials (teaching aids, teachers guide , syllabus,)	56	56	39	39	5	5
4	In availability of instructional resources/ facilities such as laboratories, libraries etc	52	52	44	44	4	4
5	Students’ lack of interest	29	29	61	61	10	10
6	Teachers’ lack of interest	22	22	69	69	9	9
7	Lack of educational administrative (principals’, supervisors etc) support	26	26	67	67	7	7
8	The large classroom size (number of students in class)	79	79	19	19	2	2
9	Rigidity of time table	33	33	58	58	9	9
10	Students’ beliefs, perception and attitudes about student-centered approach	35	35	58	58	7	7
11	Teachers’ beliefs’ perception and attitudes about student-centered approach	31	31	40	40	29	29
12	Classroom condition (lack of free space to arrange desks, lack of light etc)	52	52	35	35	13	13
13	Diversity of student’s interest and ability	26	26	72	72	2	2
14	The curriculum materials (text book, teachers guide, syllabus) are not suitable for student-centered teaching	33	33	39	39	28	28
15	The difficult of student-centered approach in evaluating students success	26	26	52	52	22	22
16	The dominance of some students during group activities	35	35	51	51	14	14

The respondents were asked to rate the factors that hinder the effective implementation of student-centered in second cycle primary schools. As depicted in table 22 above half of the respondents rated, the large class size (79%), lack of instructional materials (teaching aids, teachers guide, syllabus (56%)), in availability of facilities such as laboratories and library and classroom condition (52%) as the most serious factors that hinder the proper implementation of student-centered approach in their schools. However literature also shows that these factors have

impact on the teaching-learning process in general and the implementation of student-centered approach in particular. For instance Smith (1996) described that if the class size increases students lack opportunities to discussion and to get advice from teachers. Teachers also phase problems to motivate students and assess their progress. As explained by Amare, 1998, instructional materials facilitate active-learning, relate theory with practice, encourage effective thinking etc. Regarding school facilities the presence of well organized library and laboratories equipped with modern laboratory equipments and classroom instructional materials are significant determinants of student achievement.

Literature shows that classroom condition plays an important role in the implementation of student-centered approach, for instance, Silberman (1996:16) has described that physical environment in classroom (classroom condition) can make or break active learning. With respect to this factor the respondents agreed that classroom condition (free space to arrange desks and for students' movement, heaviness of desks and tables to arrange in to different styles for student-centered activities) is also the most serious factor that negatively affect the effective the implementation of student-centered approach.

Factors such as inadequacy of teachers' training on the approach (59%), teachers' and students (61%) lack of interests and beliefs, perception and attitudes, lack of principals and educational officials supports (67%), rigidity of time table (58%) and shortage of time (49%) were also rated as the serious factors.

The researcher also conducted interview with principals, the observed 10+3 level graduate teachers and supervisors regarding factors hindering the effective implementation of student-centered approach. One of my interviewees said:

The school has no well equipped laboratory, library and pedagogical center, the students' desks and tables are also not easily movable. Furthermore, there is a great problem to get budget from the school board and the required cooperation from students' parents to fulfill such facilities (Principal 9, March13/2009).

The other informants also asserted that the in availabilities of facilities mentioned above are the major factors that hinder the effective implementation of student-centered approach in the schools.

Table 23: Views of students on instructional approaches

No.	Items	Alternatives	Responses	
			N	%
1	How do you compare and contrast teacher-centered and student-centered methods of teaching?	Teacher-centered is more attractive and involving	84	32.9
		Student- centered is more attractive and participatory	111	43.5
		Teacher-centered method is based on the interest of the teacher not on the interest of the learner	18	7.1
		Student-centered method is based on the interest of the learner	42	16.5
2	Which methods of teaching most likely do you prefer?	Lecturing	118	46.3
		Group work	30	11.8
		Discussion	95	37.3
		Role Playing	12	4.7
		Problem Solving	-	-

The effective implementation of student-centered approach can also be affected by views of students on instructional approaches. In relation to this, 2 items were presented to students to find out their views on student-centered approach. As indicated in table 22, 32.9% of the students believed that teacher-centered approach is more attractive and participatory but 7.1% of students said that this approach is based on the interest of the teacher not on the interest of the learner. However, the majority (43.5%) of the students believed that student-centered approach is more attractive and participatory. In addition to this 16.5% of them reported that student-centered method is based on the interest of the learner.

Regarding the teaching methods, as shown in item 2, the majority 53.8% of the students most likely prefer the student-centered methods and the remaining students the traditional, lecture method. From the student-centered methods, 37.3% of the students prefer discussion, 11.8%

group work and 4.7% role playing and all students are not interested to learn through problem-solving method. This shows that the presence of students who favored lecture, teacher-centered approach, in the sample schools.

Table 24: Students responses about their text books

No.	Items	Alternatives	Responses	
			N	%
1	Do your text books provide opportunity for group discussion?	Yes	194	76.1
		No	61	23.9
2	Do your text books provide opportunity for individual work?	Yes	215	84.3
		No	40	15.7

Concerning their text books, table 24 indicates that the majority of students reported that their text books provide opportunity to group discussion (84.3%) and individual work (76.1%).

To sum up, even though the student text books provide opportunity to group discussion and individual work the result in table 23 shows that there are students who favored teachers explanation (lecture) than learning by doing (student-centered approach). From this it can be deduced that the students' tendency towards the traditional, lecture method is the other serious factor that affect the proper implementation of student-centered approach in different sample-schools.

4.3. Discussion of results

In this part of the paper, an attempt is made to explain the results of the study with reference to the basic questions formulated under statement of the problem. The major ideas or themes of the discussion are:

- Frequency of implementation of student-centered practices
- Provision of opportunities to participate students in the teaching-learning process
- Training on student-centered approach, provision of support, the classroom condition
- Factors hindering the effective implementation of student-centered approach.

Frequency of implementation of student-centered practices by the 10+3 level graduate teachers

To assess the extent to which the student-centered approach has been practically implemented by the 10+3 level graduate teachers in second cycle primary schools, the respondents (teachers, principals and supervisors) were reacted either through questionnaire or the interview. To substantiate the data, structured observation was also made. The respondents were asked the approach which the 10+3 level graduate teachers mostly employed in second cycle primary schools through questionnaire and interview, to determine the frequency of using various student-centered practices at different instructional stages the related items were indicated in the teachers' questionnaires and observation checklist. These data indicate that the 10+3 level graduate teachers implemented student-centered practices at various stages of instructional process moderately.

The most frequently practiced student-centered methods were group work and discussion. These methods were the best ways which facilitate student-centered approach, as indicated in literature part of this paper students who work in groups retain longer what is taught and satisfied more in their class (Johnson - Johnson and Smith, 1991), However, group work and discussion can help only to develop lower level of cognitive domain. On the other hand, student-centered methods which foster critical thinking and problem solving capacity of students like problem solving, inquiry and discovery were not widely employed. The majority of teachers' respondents disclosed that these methods were employed either sometimes or rarely. In line with this Bonweel and Eison (2003:76) noticed that students must do more than just listen. They need to read, write, discuss or engage in problem solving activities. In real student-centered classrooms students are engaged in activities like dialogue, debate, writing, discussion and problem solving as well as higher order thinking as analysis, synthesis and evaluation.

Based on the position of teacher respondents and observation made by the researcher, it is possible to infer that the extent which the 10+3 level graduate teachers implement student-centered practices at different instructional stages is moderate.

Factors affecting the effective implementation of student-centered approach in the sample primary schools of Arsi Zone

Provision of opportunities to participate students in the teaching-learning process

To examine the extent which the 10+3 level graduate teachers provide students with opportunities to participate in the teaching-learning process, there by to apply student-centered approach the respondents' (teachers', principals', superiors' and students' responses in relation to this issue were obtained through questionnaires. To strengthen these data, the observation checklist also includes items related to the frequency for teachers' use of some student-centered practices which facilitate students' participation. These data show that the 10+3 level graduate teachers apply student-centered practices which facilitate students' participation in the teaching learning process moderately.

In real student-centered classroom students learn by their own effort. They develop knowledge, skills and attitudes by actively involving in various learning experiences. In student-centered approach the teaching process is indirect, the teacher serves as a facilitator rather than as knowledge dispenser and controller in general he/she provides students use full learning experiences, follows-up, guide, assist and evaluate the students learning and gives feedback. In line with this Plass (1998:310) has described that in student-centered classroom students are actively participated in the learning process. Based on the analysis results of the data obtained through teachers', students', principals' and supervisors' questionnaire and observation it is possible to deduce that the extent which the 10+3 level graduate teachers provide students opportunities to actively participate in the teaching-learning process is also moderate.

In general the data obtained from the respondents (teachers, students, principals and supervisors) and observation reveals that the extent which 10+3 level graduate teachers implement student-centered approach in second cycle primary school is moderate.

Training of teachers, principals and supervisors on the implementation of student-centered approach.

For the education to be successful, next to curriculum teachers' training is of special significance. Since teachers' training has a great effect on instructional activities, the primary school teachers

must get the required training on how to implement instructional methodologies in general and student-centered instructional methods in particular (ASPY, 1972).

The school principals should also get appropriate and continuous training that enables him to support teachers and evaluate the success of the educational program in general and student-centered approach in particular. Furthermore for the proper implementation of student-centered approach, supervisors and other concerned bodies should supervise the implementation of teaching methodology, coach teachers, evaluate and monitor instructional activities and give feedback to teachers, all these activities require principals' and supervisors' training on the student-centered approach.

In line with these views, the adequacy of teachers' principals' and supervisors' training on the implementation of student-centered approach was investigated in this study. As the findings revealed the majority (75%) of teachers had taken pre-service training on student-centered approach, however teachers' understandings of student-centered methods like problem solving, discovery, discussion etc, is moderate. 53.3% of the 10+3 level graduate teachers replied that the contribution of the pre-service training in implementing student-centered approach in their classrooms is also moderate. (61.3%), principals (80%) and supervisors (90%) had attended in service training on the approach. However, the contribution of the in-service training to implement or provide support for the implementation of student-centered approach is also moderate.

Provision of support for the implementation of student-centered approach

As indicated in literature part of this paper the education systems provide supports (training on instructional practices, budget, qualified teachers etc.) to schools to help them succeed based on the results of supervision. Melese (1999:8) described that the major focus of supervision is on the provision of technical assistance in order that organization or an individual will be improved and be able to accomplish necessary duties and responsibilities. So that for the proper implementation of student-centered approach, the responsible bodies (principals, educational supervisors, and educational officials) should supervise the teaching methodology employed by teachers, evaluate and monitor instructional activities and give feedback to teachers, and provide the necessary training and budget for the implementation of the approach.

In line with the above points, the adequacy of supports provided to teachers and their schools in implementing student-centered approach was assessed based on data obtained from respondents' responses to the questions included in their questionnaires in relation to this issue. Accordingly, the results of the major findings indicate that the support provided by the majority (60%) of primary schools principals to teachers in implementing student-centered approach is moderate. Moreover the woreda and zone education offices don't provide adequate budget to primary schools. Long and short term training were also not being provided frequently to teachers by these offices.

The classroom condition

As mentioned in the review literature part, the act of the student in student-centered instructional approach is learning by doing. So that to engage students in learning activities the classroom should be well equipped with furniture, thus there should be a movable desk for every pupil to use different layouts in the classroom. As described by Sguazzin and Grann, 1998, it may be necessary for the students to move around the classroom, so the classroom setup should be conducive for learning that is it should stimulate learning and allow for aspects of problem solving and cooperative learning. From this point of view we can say that the arrangement of desks and tables should allow movement and communication and the arrangement should be changed whenever necessary.

Based on the above ideas, this study has examined the classroom conditions of the sample schools. Accordingly, questions related to this issue have been raised in respondents' questionnaires and observation checklist. As reported by the majority of sample schools' principals (70%) the classroom condition is averagely conducive to implement student-centered approach. Its conduciveness is very low in minority of sample primary schools, because of traditional arrangement of furniture, large class size and lack of facilities such as adequate desks and tables to students. Thus 35.7% of students also reported that there is lack of adequate desks and tables in their classrooms. Furthermore majority (72.9%) of student respondents replied that the desks and tables are not easily movable. The researcher also observed as the desks and tables are heavy and as can not be easily moved and arranged to different student-centered activities. The class size and the space between desks are not also as such convenient to implement the approach effectively.

From the above results it can be inferred that the classroom condition in majority of the sample primary schools is not conducive as such that is the classroom condition is (moderately conducive) for the proper implementation of student-centered approach by the 10+3 level graduate teachers.

Factors hindering the effective implementation of student-centered approach

It is obvious that like any other issue in teaching-learning process the implementation of student-centered approach in the real classroom may be affected by various factors, of these 16 were listed in the respondents' (teachers' principals' and supervisors') questionnaires to be rated on their seriousness.

The findings concerning this issue show the majority of respondents rated that large class size(79%) and lack of instructional materials (teaching aids, teachers guide and syllabus, 56.7%) as the most serious factors that negatively influence the effective implementation of student-centered approach. It's known that in a large class size teachers face problems to provide students opportunities to learn by themselves and follow and evaluate individuals activities. The availability of instructional materials like teachers guide, syllabus, teaching aids, text books ... are also very important and determinants of the qualities of teaching and learning and students achievements.

In this study the unavailability of facilities such as laboratories, libraries, etc and classroom condition (problems of desks and tables, free space to arrange desks and for students movement, heaviness of desks and tables to arrange in to different styles for student-centered activities) are also identified by 52% of respondents as the most serious problem that hinder the effective implementation of student-centered approach.

The effective implementation of student-centered approach also requires training on the implementation of the approach, support from the concerned bodies and students and teachers interests. Regarding these factors, the majority of respondents (Teachers, principals and supervisors) agreed that the teachers pre-service and principals, supervisors and teachers in-service training and the support provided from educational administrative (principals, supervisors and others educational officials) were not adequate enough. In other word the inadequacy of teachers, principals and supervisors training on the implementation of the approach and support with teachers' and students' lack of interests are the other problems in the majority of the schools.

Chapter Five: Summary, Conclusion and Recommendations

The last chapter of this study presents the summary of the major findings, conclusions and recommendations.

5.1. Summary of the study

The main purposes of this study were to assess the effectiveness of the 10+3 level graduate teachers in implementing student-centered approach and to identify the major factors that hinder the implementation of this approach in government second cycle primary schools of Arsi Zone. In order to meet these purposes the following four basic questions were set:

1. To what extent is student-centered approach implemented by 10+3 level graduate teachers in second cycle primary schools of Arsi Zone?
2. Have the 10+3 level graduate teachers, primary school principals and woredas' educational supervisors adequate training on the implementation of student-centered approach?
3. Do the school principals, woredas and zone educational offices provide adequate support to teachers and schools for the implementation of student-centered approach?
4. Are the classroom conditions conducive for the implementation of student-centered approach?

To find solutions for these basic question, study was conducted on ten second cycle primary schools of five woredas in Arsi Zone. The data were collected from 355 respondents. The data were mainly gathered through questionnaire, observation and interview. The data obtained were analyzed using percentages, mean values and grand mean values.

Based on the analysis of the data collected through various instruments, the following major findings were obtained from the study:

1. The study revealed that, the grand means for 10+3 level graduate teachers' experiences in applying student-centered practices which are expected to be demonstrated at various (pre-assessment, introduction, explanation and post assessment) stages of instructional process(3.64) and practices which facilitate students' active participation in the teaching – learning process(4.28) showed that the extent which the 10+3 level graduate teachers of the

second cycle primary schools of Arsi Zone implement student-centered practices was moderate(that is not adequate).

2. It was also found that more than 45% 10+3 level graduate teachers asserted that the student-centered methods which promote learners' higher order thinking and problem solving capacities were employed either sometimes or rarely (that is not adequately). 55% of teachers employed problem-solving and 48.8%, role playing some times and the inquiry and discovery methods were used rarely by 58.8%, 63.5% of teachers respectively. On the other hand more than 60% of teachers replied that group-work (66.3%) and discussion (71.3%) were the only frequently student-centered methods used.
3. The research disclosed that more than 61% of the 10+3 level graduate teachers replied that the contribution of their pre-service and in-service trainings to the implementation of student-centered approach in the real world of teaching was moderate.
4. The study also indicated that 71.4% of second cycle primary school principals and 66.7% of supervisors believed that the contribution of their in-service training was moderate to supervise teachers' practices and provide the support required for the implementation of student-centered approach to teachers.
5. The study showed that 60% of the second cycle primary school principals and 70% of supervisors respectively asserted that the support provided by them to the 10+3 level graduate teachers and by woredas and Zone educational offices to primary schools in the form of budget for the implementation of student-centered approach were moderate (that is not adequate enough).
6. It was also found that 80% of school principals and 70% of supervisors reported that woreda and zone education offices didn't provide short and long term training for teachers frequently.
7. The study indicated that 71.3% of teachers and 70% of principals and supervisors replied that the classroom condition was moderately conducive for effective implementation of student-centered approach. Whereas 18 of the sample primary school teachers and 2 principals reported that the conduciveness of the classrooms in their schools was very low because of large class size, and lack of facilities such as laboratory, library, pedagogical center..

8. The study disclosed that 66.7% of respondent teachers and all principals (100%) regarded traditional arrangement of furniture as the major problem hindering the implementation of student-centered approach.
9. The study also revealed that 72.2% of teachers and 50% of principals and supervisors believed that the absence of facilities like desks and tables, laboratory, library and pedagogical center made the conduciveness of the classrooms in the primary schools very low.
10. The study indicated that 56.7% of the respondent teachers believed that lack of instructional resources such as teachers guide and syllabus greatly affected the implementation of student-centered approach.

5.2 Conclusions

Based on the major findings of the study the following conclusions were made.

1. The inadequate implementation of student-centered practices at pre-assessment, while explanation and post-assessment stages and in providing students with opportunities to actively participate in the instructional process among 10+3 level graduate teachers would negatively influence the quality of the teaching-learning process in the second cycle primary schools of Aris zone.
2. Inadequate use of the student-centered methods like problem-solving, inquiry, discovery and role-playing methods would hinder the development of high order thinking and problem solving capacities among students of the sample primary schools of Arsi Zone.
3. Inadequacy of training regarding student-centered approach among second cycle primary school principals and supervisors would negatively affect the effectiveness of the educational officers in supervising and providing support to teachers for the implementation of this approach in second cycle primary schools of Arsi Zone.
4. Inadequacy of support from principals would negatively influence the effectiveness of 10+3 level graduate teachers in implementing student-centered approach and shortage of budget hinder primary schools from fulfilling school facilities in general and classroom condition in

particular for effective implementation of student-centered approach in second cycle primary schools of Aris Zone.

5. Lack of short and long term training among 10+3 level graduate teachers implies that the possibility of improving the implementation of student-centered approach by the teachers remains questionable.
6. Lack of adequate desks, tables, library and pedagogical centers and traditional arrangement of furniture implies that the classroom conditions are not conducive for the implementation of student-centered approach.
7. Lack of instructional resources (teachers guide, syllabus and the like) implies that there was inadequate support to teachers for implementing student-centered approach in second cycle primary schools of Aris Zone.

5.3. Recommendations

It is difficult to realize the intended educational objectives and practices without considering various factors that could contribute to enhancing students learning at any level in one way or the other. This is because educational achievements are the outcomes of interwoven factors. The New Education and Training Policy of Ethiopia state that teachers with the 10+3 level should be trained in using student centered approach. However, these teachers could implement the student-centered approach only moderately. Hence, based on the major findings and the conclusions drawn, the researcher forwarded the following recommendations:

1. The woreda education offices in collaboration with other educational stakeholders should organize short-term trainings (workshops) for 10+3 level graduate teachers regarding the use of student-centered methods(problem solving, inquiry, discovery, role -playing methods) so as to promote the development of higher order thinking and problem solving capacities among their students.
2. The Oromia Regional Education Bureau has to assess the provision of the pre and in-service training provided by teacher education institutions

3. Woredas' education offices should organize short-term and long-term training for second cycle primary school principals and supervisors to enhance the support they provide for teachers regarding the implementation of student-centered approach..
4. The Zone Education Department and the Woreda Education Offices should work closely with the local communities and other stakeholders to provide the schools with adequate facilities.
5. The Oromia Zone Education Department should provide the second cycle primary schools with adequate teacher's guide, syllabus and other instructional materials by working closely REB as well as Woreda Education Offices.
6. The primary schools in Arsi Zone should replace the traditional arrangement of furniture in the classroom so as to make the classroom condition conducive for the implementation of student-centered approach.
7. The school principals and supervisors should encourage teachers to implement a variety of methods based on the objectives and contents of the lesson.

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Appendices
Appendix -A
Addis Ababa University
School of Graduate Studies
Department of Curriculum and Teacher
Professional Development Studies

A Questionnaire to be Filled by 10+3 Level Graduate Teachers

The aim of this questionnaire is to obtain relevant information for study on the effectiveness of the second cycle primary school (10+3 level graduate) teachers in implementing student-centered approach and factors that affect its implementation in selected primary schools of Arsi Zone.

Be confidential that the information gathered will be used only for the research purpose. Hence you are kindly requested to provide the necessary information which is very helpful to the quality of the research as well as to forward feasible recommendations to identified problems.

No need of writing your names

Thank you in advance for your cooperation

The researcher

Part One: Background Information

Instruction: Please mark “✓” in the boxes that correspond to your background

1. Name of school _____
2. Sex: Male Female
3. Age: 18-23 24-29 30-35 36-40 above 40
4. Qualification: Diploma (10+3) if any other specify _____
5. Teaching experience : 0-5 11-15 6-10 16-20 above 20
6. Average number of students in your class 31-40 51-60
41-50 61 and above

Part two: Main Data

Instruction: The following items are for assessing the extent you implement student- centered practices in your classroom. Please provide appropriate responses by using a tick mark “✓” to the corresponding items.

How often do you implement the following student- centered practices in your classroom?

No	List of Practice	Always 5	Frequent ly 4	Sometimes 3	Rarel y 2	Not at all 1
1.	Assess students' prior experiences and current knowledge before starting new topic.					
2.	Relate the lesson to the already taught/ learned lessons?					
3.	Present instruction that help students to discuss, examine, discover, pose question, solve problem and to take responsibility					
4.	Provide information from which learners draw conclusion or generalization					
5.	Illustrate ideas, concepts or facts with the help of instructional resources like chart, diagram, laboratory equipments & chemicals.					
6.	Allow students to apply what they have learned					
7.	Involve students to decide on learning activities					
8.	Relate instructional activities or tasks to students' day-to-day life					
9.	Evaluate students on continuous basis (apply continuous assessments)					
10.	Asking open- ended/ un structured questions					
11.	Asking close-ended/structured questions					
12.	Give time for students to think on question before calling some one to answer (wait-time method)					
13.	Use varied methods like discussion, problem-solving, inquiry, role –paying etc.,					
14.	Provision of opportunities to students participation					
14.1	Arrange students in to groups for different activities					
14.2	Provide students group, pair and individual work					
14.3	Motivate students to actively participate in teaching-learning process					
14.4	Praise and encourage students work					
14.5	Negotiate/discuss work {result, examples etc. } with students					
14.6	Follow students participation/ activities and provide constructive feedback to their work					
14.7	Allow students to interact with each other					
14.8	Free student- teacher interaction					

Instruction: Some instructional methods are listed below. Please, mark “✓” in the space provide in accordance to your application of the methods.

No	Methods	Always	Sometimes	Not at all
1	Discussion			
2	Inquiry			
3	Problem solving			
4	Discovery			
5	Role playing			
6	Group work			
7	Explanation/lecturing			

. Instruction: Items related to your training are provided below. Please, select the appropriate answer based on your experience and circle the letter of your choice

1. Have you taken pre-service training on how to teach using student- centered approach?
A. Yes B. No
 2. In your pre-service training which instructional approach was mainly used by your trainers?
A. Teacher- centered B.Student-centered
 3. If you had got the training what is your understanding on the methods (like problem solving, discovery, discussion et) that promote student- centered approach? A. High
B. Moderate C.Slow
 4. If you had got the training how do you rate the contribution of the training in applying the student- centered approach in the real world of teaching A. High B. Moderate C. Low
 5. Did the pre-service training help you to acquire knowledge and skills to produce appropriate instructional material that facilitates student-centered approach? A. Yes B. No
 6. Did the pre- service training help you to acquire knowledge and skill to use appropriate instructional materials that facilitate student- centered approach? A. Yes B. No
 7. Have you taken in-service training on how to implement student – centered approach?
A. Yes B. No
 8. If your response to the above question is “**yes**”, which type of training have you taken?
A. In-staff training B. Workshop C. Seminar D. Summer in-service training
 9. If you had got the training, what is its contribution in implementing student-centered approach? A. High B. Moderate C. Low
 11. If you had got one of the above training, who prepared it? A. The school B. Wereda education office C. Zone education department D. Oromiya education bureau
- If you have comments about the trainings (pre-service or in-service) on student- centered approach please specify
-

vi. Instruction: please indicate your choice by encircling one of the letters.

1. How often do you provide students with the opportunity to involve in the teaching-learning process? A. Always B. Frequently C. Sometimes D. Rarely E. Not at all
2. How the conduciveness of the classroom to implement student- centered practices?
A. Very conducive B. Moderately conducive C. Very low
3. If your response to question 3 above is “Very low” what do you think are he possible reasons?
4. List them according to their severity. Example put 1 for most serious problems, 2 for the second serious problem etc. A. Large class size B. Traditional arrangement of furniture
C. Absences of facilities such as electric supply, water supply etc

If there are others identify _____

5. Does the school principal support you to implement student-centered approach?
A. Yes B. No
6. If your answer to the above question is “Yes” how do you evaluate the contribution of the school principal in implementing student-centered approach?
A. High B. Moderate C. Low

7. Does the school principal perform the following activities? Does He/she

No	Activities	Yes	No
7.1	Plan and arrange workshop or seminars or in-staff training for teaching staff concerning the implementation of student- centered approach?		
7.2	Offer intensive to those teachers who are efficient in implementing student- centered approach?		
7.3	. Make necessary effort to allocate sufficient budget needed for the implementation of student-centered approach?		
7.4	. Assess teachers’ problems in implementing student-centered approach and provide immediate solutions?		
7.5	Encourage discussion on the implementation of student-centered approach among teaching staff?		
7.6	Evaluate the content and the organization of test or examination given in terms of student-centered approach?		
7.7	Prepare flexible time table for teachers		
7.8	Have regular, reliable, timely assessment program concerning the teaching- learning process		

v. Instruction: Factors that may hinder you from implementing student-centered approach effectively in the learning process are listed below. Please rate the following factors from “Most serious” to “Not serious” and give your response by ticking the mark “✓” to the corresponding factors.

No	Factors	Most serious (3)	Serious (2)	Not Serious (1)
1	In adequacy of teachers training on student-centered approach			
2.	Shortage of time to practice student-centered approach			
3.	Lack of instructional resources (Teaching aids, teachers guide syllabus laboratories, library)			
4.	In availability of facilities such as laboratories, libraries etc			
5.	Students' lack of interest			
6.	Teachers' lack of interest			
7.	Lack of educational administrative (principals' supervisors' etc) support			
8.	The large classroom size (number of students in class)			
9.	Rigidity of time table			
10.	Students' beliefs, perception and attitudes about student-centered approach			
11.	Teachers' beliefs' perception and attitudes about student-centered approach			
12.	Classroom condition (problem of free space to arrange desks, lack of light etc)			
13.	Diversity of student's interest and ability			
14.	The curriculum materials (text book, teachers guide, syllabus) are not suitable for student-centered teaching			
15.	The difficult of student-centered approach in evaluating students success			
16.	Some students dominance during group activities			
If you have any other factors please specify				

Appendix -B
Addis Ababa University
School of Graduate Studies
Department of Curriculum and Teacher
Professional Development Studies

A Questionnaire to be Filled by School Principal

The aim of this questioner is to obtain relevant information for study on the effective ness of the second cycle primary school (10+3 level graduate) teachers in implementing student- centered approach and factors that affect its implementation in selected primary schools of Arsi Zone. Be confidential that the information gathered will be used only for the research purpose. Hence you are kindly requested to provide the necessary information which is very helpful to the quality of the research as well as to forward feasible recommendations (solutions) to identified problems.

No need of writing your names

Thank you in advance for your cooperation

The researcher

Part I: Background information

Instruction: Please mark “✓” in the boxes that correspond to your background

Name of school _____

1. Sex: Male Female
2. Age: 18-32 24-29 30-35 36-40 above 40
3. Qualification: TTI Diploma
if any other specify _____
4. Teaching experience: 0-5 11-15 6-10 16-20 above 20
5. Work experience as school principal 0-5 6-10 11-15
16-20 above 20
6. Are you a graduate of educational planning and management? Yes No
7. If your response for question 6 is “No” did you take any training on education planning and management? Yes No

Part two: Main Data

Instruction: please indicate your choice regarding student-centered approach by marking “✓” in the space provided

1. Have ever taken training on student-centered approach? Yes No
2. If you had got training what is its contribution to you in helping to provide support to teachers?
High Moderate Low
3. If you participated on the training, who prepared it? A. The school B. Wereda education office
C. Zone education office D. Oromiya education bureau
4. Which instructional methods are mostly used by 10+3 level graduate teachers?
A. Teacher-centered: lecturing /questioning and answering/, demonstration
B. Student-centered: discussion, problem solving, inquiry
If any others, specify _____

5. Do you provide support to the 10+3 level graduate teachers to implement student-centered approach? Yes No
6. If your response to question number 5 is "yes" how do you evaluate your contribution in the implementation of student-centered approach by these teachers?
High Moderate Fair Low
7. Do you believe that the classroom size (number of students in a classroom) appropriate to implement student-centered approach? Yes No

8. Do you perform the following activity?

No	Activities	Yes	No
8.1	Do you Plan and arrange training for teaching staff concerning the implementation of student-centered approach?		
8.2.	Do you offer incentives to those teachers who are efficient in implementing student-centered approach?		
8.3	Do you Make necessary effort to allocate sufficient budget needed for the implementation of student-centered approach?		
8.4	Do you provide relevant advice and feedback after classroom observation or(su		
8.5	Do you asses teachers' problems in implementing student-centered approach?		
8.6	Do you encourage discussion on the implementation of student-centered approach among teaching staff?		
8.7	Do you evaluate the content and the organization of test or examination given in terms of student-centered approach?		
8.8	Do you prepare flexible time table for teachers?		
8.9	Do you have regular, reliable, timely assessment program concerning the teaching learning process?		

9. Is there deference in the extent teachers implement student-centered approach?

Yes No

10. If your response to the above question is **yes**, what is the difference?

a. The 12+2 level graduate teachers implement better than the 10+3 level graduates

b. The 10+3 level graduate teachers implement better than the 10+2 level graduates

If any other specify _____

11. Does the school exercise in-staff training? Yes No

12. Do educational offices assign adequate budget to your school? Yes No

13. Does the woreda/ Zone education office provide short and long term training on student-centered approach to teachers? A. Yes B. No

II. Instruction: Factors that may hinder the effective implementation of student-centered approach in the second cycle of primary school are listed below. Please rate the following factors from "Most serious" to "Not serious" and give your response by ticking the mark "✓" to the corresponding factors.

No	Factors	Most serious 3	Serious 2	Not Serious 1
1	In adequacy of teacher's training on student-centered approach			
2.	Shortage of time to practice student-centered approach			
3.	Lack of instructional materials (Teaching aids, laboratories, library)			
4.	In availability of facilities such as laboratories, libraries etc			
5.	Students' lack of interest			
6.	Teachers' lack of interest			
7.	Lack of educational administrative (principals' supervisors etc) support			
8.	The large classroom size (number of students in class)			
9.	Rigidity of time table			
10	Students' beliefs, perception and attitudes about student-centered approach			
11	Teachers' beliefs' perception and attitudes about student-centered approach			
12	Classroom condition problem of free (space to arrange desks, lack of light etc)			
13	Diversity of student's interest and ability			
14	The curriculum materials (text book, teachers guide, syllabus) are not suitable for student-centered teaching			
15	The difficulty of student-centered approach in evaluating students success			
16	Some students' dominance during group activities			
If you have any other factors please specify _____				

Appendix -C
Addis Ababa University
School of Graduate Studies
Department of Curriculum and Teacher
Professional Development Studies

A Questionnaire to be filled by Students

The aim of this questionnaire is to obtain relevant information for study on the effectiveness of the second cycle primary school (10+3 level graduate) teachers in implementing student-centered approach and factors that affect its implementation in selected primary schools of Arsi Zone. Be confidential that the information gathered will be used only for the research purpose. Hence you are kindly requested to provide the necessary information which is very helpful to the quality of the research as well as to forward feasible recommendations (solutions) to identified problems.

No need of writing your names

Thank you in advance for your cooperation

The researcher

Part One: Background Information

Instruction: Please Mark “✓” in the boxes that correspond to your background

1. Name of school _____
2. Sex: Male Female
3. Age : 11-15 16-20 above 20
4. Number of students in your class _____
5. Grade and section _____

Part two: Main Data

Instruction: Please provide your responses by ticking the mark “✓” to the following questions regarding the implementation of student-centered approach

1. How often do your teachers arrange students into groups for different activities?
 - a. Always Frequently Sometimes Rarely Not at all
2. How often do your teachers provide you group, pair and individual work to you?
 - i. Always Frequently Sometimes Rarely Not at all
3. How often do your teachers encourage the participation of students during the teaching-learning
4. process? Always Frequently Sometimes Rarely Not at all
5. Which methods of teaching do you prefer most likely? Lecturing Group work Discussion Problem solving
6. How do you compare and contrast lecture and student-centered methods of teaching?
 - a. Lecture is more attractive and involving
 - b. Student-centered is more attractive and participatory
 - c. Lecture method is based on the interest of the teacher not on the interest of the learner
 - d. Student-centered method is based on the interest of the learner
7. How often do your teachers encourage you to actively participate in the teaching and learning process? Always Frequently Sometimes

- b. Rarely Not at all
8. How often does your science teacher follow students' activities and give you feed back
a. on time? Always Frequently Sometimes Rarely
i. Not at all
9. What is your major role in learning?
a. Listening to the lecturing and taking note
b. Participating and expressing our interests and needs
i. If any other specify _____
10. Are the classroom procedures and teaching methods used by your teachers satisfied the
a. needs and interests of the student? Yes No
11. Do your science teacher's assessment techniques encourage you to actively involve in the
teaching and learning process? Yes No
12. To what extent do your text books provide opportunity to group discussion and individual
work? Very high High Moderate Low very low
13. Is your classroom attractive for the teaching- learning process? Yes No
14. Do you get facilities such as chairs and tables in your classroom? Yes No
15. Are the desks and chairs easily movable and arranged for different activities?
Yes No
16. Is your class size (number of students) conducive for the implementation of student-
centered approach? Yes No
17. How is the interaction in your classroom?
a. There is good and free student-teacher interaction
b. There is student-student interaction in the learning process
c. There is no free student- teacher interaction
d. There is student-teacher and student-student interaction in the learning process
e. There is no student –student interaction in the learning process

Appendix -D
Addis Ababa University
School of Graduate Studies
Department of Curriculum and Teacher
Professional Development Studies
A Questionnaire to be filled by Educational Supervisor

The aim of this questioner is to obtain relevant information for study on the effective ness of the second cycle primary school (10+3 level graduate) teachers in implementing student- centered approach and factors that affect its implementation in selected primary schools of Arsi Zone. Be confidential that the information gathered will be used only for the research purpose. Hence you are kindly requested to provide the necessary information which is very helpful to the quality of the research as well as to forward feasible recommendations (solutions) to identified problems.

No need of writing your names

Thank you in advance for your cooperation

The researcher

Part one: Background information

Instruction: Please Mark “✓” in the boxes that correspond to your background

Woreda _____

1. Sex: Male Female
2. Age: 18-32 24-29 30-35 36-40 above 40
3. Qualification: TTI Diploma
4. Total experience _____
5. Experience as a supervisor _____

Part two: Main data

Instruction: please give your appropriate response for the following questions by tucking the Mark “✓” to the corresponding items

1. Have you had training on how to supervise schools? Yes No
2. If your response to question 1 is “yes” what is the contribution of the training to supervise school effectively? High Moderate Low
3. Have you ever taken training on student-centered approach? Yes No
4. If you had got training, how do you evaluate the contribution of the training in supervising the practices of teachers in implementing student-centered approach? High Moderate Low
5. When schools are supervised, for which of the following items more emphasis is given; please rank the items on the basis the emphasis given from the 1st to 6th
 - a. Teacher’s discipline
 - b. Student discipline
 - c. The activities of the directors
 - d. Content coverage
 - e. Method of instruction
 - f. School resources management

6. Which instructional methods are mostly used by 10+3 level graduate science teachers?
 a. Teacher-centered: lecturing /questioning and answering/, demonstration
 b. Student-centered: discussion, problem solving, inquiry

If any others, specify _____

7. Is there difference in the extent teachers who are teaching from grade 5 to 8 implement student-centered approach? Yes No
 8. If your response to the above question is yes, what is the difference?
 a. The 12+2 level graduate teachers implement better than the 10+3 level graduates
 b. The 10+3 level graduate teachers implement better than the 10+2 level graduates

If any other specify _____

9. Do you provide relevant advice and feed back after supervision (classroom and school observation)? Yes No
 10. Do schools exercise in-stuff training? Yes No
 11. Does the woreda/zone education office provide short and long term training on student-centered approach to teachers? Yes No
 12. Do educational offices assign adequate budget to primary schools? Yes No
 13. Do schools exercise in-stuff training? Yes No

II Instruction: The effective implementation of student-centered approach in the second cycle of primary schools may be affected by different factors, Please rate the following factors from “Most serious” to “Not serious” and give your response by ticking the mark “✓” to the corresponding factors.

No	Factors	Most serious (3)	Serious (2)	Not Serious (1)
1	In adequacy of teachers training on student-centered approach			
2.	Shortage of time to practice student-centered approach			
3.	Lack of instructional resources (Teaching aids, teachers guide syllabus laboratories, library)			
4.	In availability of facilities such as laboratories, libraries etc			
5.	Students' lack of interest			
6.	Teachers' lack of interest			
7.	Lack of educational administrative (principals' supervisors' etc) support			
8.	The large classroom size (number of students in class)			
9.	Rigidity of time table			
10.	Students' beliefs, perception and attitudes about student-centered approach			
11.	Teachers' beliefs' perception and attitudes about student-centered approach			
12.	Classroom condition (problem of free space to arrange desks, lack of light etc)			
13.	Diversity of student's interest and ability			
14.	The curriculum materials (text book, teachers guide, syllabus) are not suitable for student-centered teaching			
15.	The difficult of student-centered approach in evaluating students success			
16.	Some students dominance during group activities			
If you have any other factors please specify _____				

Appendix -E
Interview to principals

Instruction: Below are questions, which focus on the effectiveness of the 10+3 level graduate teachers in the implementation of student- centered approach in your school. Therefore, please give your explanation in relation to this issue.

Thank you!

1. For how many years have you served as a school principal?
2. Would you please tell me where the 10+3 level graduate teachers implement student-centered approach in your school or not?
3. Is the schools environment conducive to apply student –centered approach?
4. Do you think that all teachers who are teaching grade 7 and 8 have adequate training and understanding on student-centered approach?
5. Do Woreda and Zone education offices give the required support for the implementation of student- centered approach in your school?
6. How do you judge the competency of teachers who are teaching from grade 5 to 8 (the 12 +2 and the 10+3 level graduates) in your school on their understandings, and attitudes to teach by the student-centered approach i.e. by actively involving students in the teaching - learning process?
7. In your view what are the major factors that affect the implementation of student -centered approach in your school?
8. What do you think should be done to improve the implementation of student-centered approach in your school?

Appendix -F
Interview to the observed 10+3 level graduate teachers

Instruction: Below are questions, which focus on the effectiveness of the 10+3 level graduate teachers in the implementation of student- centered approach in your school. Therefore, please give your explanation in relation to this issue.

Thank you!

1. Would you please tell me briefly the methods you most of the time use to teach, concepts, laws or specific contents in your lessons?
2. When you introduce your lesson, what common strategies do you use?
3. How do you usually arrange your students for different instructional activities?
4. Apart from giving tests or examinations, how do you check your students' understandings of the concepts, laws or specific contents you teach?
5. From your experiences what are the major factors that affect the implementation of student -centered approach in your school?
6. How do you think the teaching - learning process by student-centered approach in your school is improved?
7. Do you have any other comments to make about the student -centered approach?

Appendix -G

Interview to the educational supervisor

Instruction: Below are questions, which focus on the effectiveness of the 10 +3 level in the implementation of student- centered approach in schools you are supervising .Therefore, please give your explanation in relation to this issue.

Thank you!

1. For how many years have you served as a supervisor?
2. Would you please tell me where the 10+3 level graduate teachers implement student-centered approach in your school or not?
3. Is the schools environment conducive to apply student –centered approach?
4. Do you think that all teachers who are teaching grade 7 and 8 have adequate training and understanding on student-centered approach?
5. How do you judge the competency of teachers who are teaching from grade 5 to 8 (the 12+2 level and the 10+3 level graduates) in schools under your supervision on their understandings and attitudes to teach by the student-centered approach?
6. Do Woreda and Zone education offices give the required support for the implementation of student- centered approach in your school?
7. In your view what are the major factors that affect the implementation of student -centered approach in schools under your supervision?
8. Do you have any other comments to make about the student centered approach?

Appendix -H
Addis Ababa University
School of Graduate Studies
Department of Curriculum And Teacher
Professional Development Studies

Classroom Observation Check List

General information

1. Woreda _____
2. School _____
3. Grade _____
4. Subject being Observed _____
5. Number of students in the class: Male _____ Female _____ Total _____
6. The observed Teacher's:
 Qualification _____
 Teaching experience _____
 Sex _____

Instruction A Please a tick mark “✓” in the column that corresponds to the observed practice.

Category	Sub Categories	Applied very well (3)	Applied moderately (2)	Not applied at all (1)
1. Assessing Prior Experiences and Current Knowledge(pre-assessment test)	1.1 Assesses students' prior experiences and knowledge before starting new topic.			
	1.2. Relates the lesson to the already taught/ learned lessons?			
2. The extent of Implementing Student-centered Practices while Introducing New Topics and Explanation	2.1 Present instruction that help students to discuss, examine, discover, pose question, solve problem and to take responsibility			
	2.2 Provide information from which learners draw conclusion or generalization			
	2.3 Illustrate ideas, concepts or facts with the help of instructional resources like chart, diagram, laboratory equipments & chemicals.			
	2.4 Allow students to apply what they have learned			
	2.5 Involve students to decide on learning activities			
	2.6 Relate instructional activities or tasks to students' day-to-day life			
	2.7. Use varied methods like discussion, problem- solving, inquiry, role –paying etc.,			
3. Provision of Opportunities to Students to Participate in the Teaching –	3.1 Arrange students in to groups for different classroom activities			
	3.2 Provide students group, pair and individual work			
	3.3 Motivate students to actively participate in			

Learning Process	teaching-learning process			
	3.4 Praise and encourage students work			
	3.5 Negotiate/discuss work {result, examples etc.) with students			
	3.6 Follow students participation/ activities and provide constructive feedback to their work			
	3.7 Allow students to interact with each other			
	3.8 Free student- teacher interaction			
	3.9 Provide opportunities to students to actively participate in the teaching- learning process			
4. The Extent of Implementing Student-Centered Approach While Assessment	4.1 Evaluate students on continuous basis (apply continuous assessments)			
	4.2 Asking open- ended/ un structured questions			
	4.3 Asking close-ended/structured questions			
	4.4 Give time for students to think on question before calling some one to answer (wait-time method)			
5.Students Activities	Activities of students			
	5.1 Students are working with group, pair or individually			
	5.2 Students interaction with their teacher			
	5.3 Students interaction with each other			
	5.4 Students practice what they have learned			
	5.5 Students tend to express their need and feelings freely			

Instruction B: Please mark ‘Yes’ if the item is observed or ‘Not’ if the item is not observed in the classroom.

No	List of observation	Yes	No
1	Classroom condition		
1.1	Are there enough desks for every student?		
1.2	Are the desks and chairs easily moveable?		
1.3	Is there adequate space for moment between desks?		
1.4	Is classroom layout arranged in different way to facilitate student centered activity?		
1.5	Is the number of students/ size appropriate to implement student-centered approach?		

Appendix –I
Interview informants and their codes

No.	School	Teachers codes	Principals codes	Supervisors codes
1	Kersa kutranid	T1aandT1b	P1	S1
2	Albeso	T2a andT2b	P2	S2
3	Waji bilalo	T3a andT3b	P3	S3
4	Kulumsa	T4aandT4b	P4	S4
5	Welarga	T5aandT5b	P5	S5
6	Tedo	T6aandT6b	P6	S6
7	Loda Hada	T7aandT7b	P7	S7
8	Bika	T8aandT8b	P8	S8
9	Ifa Loda	T9aandT9b	P9	S9
10	Shemacha	T10aandT10b	P10	S10

DECLARATION

I confirm that this thesis is my original work and has not been presented for a degree in any other university, and that all sources of material used for the thesis have been duly acknowledged.

Name

Kibinesh Fikadu

Signature

[Signature]

Date of submission

July 08, 2009

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

Name

Dr. Dessu Mintu

Signature

[Signature]

Date of submission

July 08, 2009

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