

COMPARATIVE STUDY ON THE EFFECTIVENESS OF USAID AND
GOVERNMENT SUPPORTED CLUSTER-BASED TEACHERS'
CONTINUOUS PROFESSIONAL DEVELOPMENT IN ANGOLELANA
TERRA WOREDA

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List of Acronyms and Abbreviations

- AED- Academy for Educational Development
- ARSEB- Amhara Regional State Education Bureau
- BESO I (1995-2002) - Basic Education System Overhaul
- BESO II (2002-2007) - Basic Education Strategic Objective Program
- CPD- Continuous Professional Development
- CRC- Cluster Resource Center
- ERDW- Educational Research in the Developing World
- ESDP - Education Sector Development Program
- ITCPD- In-service Teachers Continuous Professional Development
- ITPD- In-service Teachers Professional Development
- MOE- Ministry of Education
- SNNPR- Southern Nations Nationalities and Peoples Region
- TEI- Teacher Education Institutes
- TESO- Teacher Education System Overhaul
- TPD- Teachers Professional Development
- TCPD- Teachers Continuous Professional Development
- UNICEF- United Nations Children's Fund
- USAID/BEP (Early 2006) - United State Agency for International
Development/Basic Education Program

ABSTRACT

The main purpose of this study was to investigate the effectiveness of USAID and government supported cluster-based in-service teachers' professional development programs of Anogelana Terra Woreda of North Shewa Zone. To this end, this comparative study was conducted in Charcha and Kottu clusters. To get data from the two clusters, 80 teachers' (40 from each) were selected from USAID and government supported clusters. Then, both qualitative and quantitative data were collected through questionnaire, interview and observation instruments or techniques. The data obtained by questionnaire were analyzed mainly by using percentage, mean, chi square and t-test. On the other hand thematic analysis was used for data obtained by interview and observation.

According to the results of the study, there is no significance difference among the two clusters with regard to teachers' achievements in active learning, lesson planning and continuous assessment ($P < 0.05$). But, there is significance difference in the use of teaching aids, the practice of action research and experience sharing among teachers between USAID supported and government supported cluster ($P < 0.05$). Furthermore, many problems were identified as having negative influences on cluster based teachers professional development. Some of them are lack of material support, lack of incentives, lack of budget and long distance between the cluster center and the satellite schools. Finally, recommendations that can improve the existing conditions were forwarded based on the findings and conclusions of the study.

CHAPTER ONE

INTRODUCTION

The main purpose of this study was to investigate the effectiveness of USAID and government supported cluster-based in-service teachers' professional development programs of Angolelana Terra Woreda of North Shewa Zone. To this effect, the study was conducted in USAID supported (Chacha) and government supported (Kottu) clusters. This Chapter deals with background of the study, statement of the problem, objective of the study, research questions, delimitation and operational definitions.

1.1. Background of the Study

Professionals and concerned organizations in the field defined Continuous Professional Development (CPD) differently. As indicated in the Ministry Of Education document (2007:4) "teachers' continuous professional development is the continuous improvement of teachers' skills and knowledge by in-service training." It is a life long process that can help teachers to maintain and develop their skills or knowledge through training (Day, 1999:2). Similarly, Guest (2005) defined CPD as the systematic maintenance and improvement of knowledge, skills and competence and the enhancement of learning, undertaken throughout an individual's working life.

According to Day and Sachs (2004:1-2) continuous professional development is used to describe all the activities in which teachers participate during the course of their careers which are planned to enhance their work.

As Neil suggested:

Teacher education institutions have been shown little impact on teachers learning or subsequent classroom instruction. In response to this challenge many countries have developed cluster based in-service teachers' professional development program (Neil, 2004:2-3).

According to Neil (2004:7) "teachers' professional development is conceptually and practically divided in to pre-service and in-service teachers training." In-service teachers' professional development can take place in network and interschool collaboration. In this model, teachers share experiences and resources with each other within and amongst schools and this model is used by school clusters.

Teachers' continuous professional development can be established at a school or group of schools (cluster) level. As Cummings and associates (2005:3) pointed out "a cluster is a group of schools that work together to share experiences, resources and trainings in order to create opportunities for continuous professional development." That means professional development of teachers through school clustering is a strategy to provide low cost supplementary training to complement the pre-service training of teachers (Neil, 2004). Regarding this, Amare and his colleagues (2006:12) described that "clusters most of which are made up of cluster- centers and satellite schools, are used as the primary structure for carrying out professional development activities and for facilitating a two way flow of information between the Education Bureau and schools." On the other hand, Ayalew (2004:19) stated that one of the major functions of the cluster school is to provide resources that can be shared by all the satellite schools in the clusters.

Cluster based teachers continuous professional development is used by some countries of the world. For instance, in Pakistan schools were clustered together in order to organize activities such as teacher education and community events (ERDW, 2004:1-4). The government of Haiti and Guinea also introduced cluster based in service teachers' professional development with the help of USAID. In these countries school clustering is used for teachers' professional development (Ibid).

As mentioned in the New Education and Training Policy of Ethiopia (TGE, 1994:2) the pre1994-education system of Ethiopia was entangled with complex problems of relevance and quality. So, to solve these problems the Ministry Of Education has revised all aspects of its teacher education system and introduced a Teacher Education System Overhaul (TESO). Based on this, pre- service courses were shaped in line with active learning and continuous assessment. In addition, as the teacher development program blue print pointed out elementary schoolteachers are required to develop their skills and knowledge by taking continuous training in their cluster school (MOE, 2007:18-19).

Regarding this, as AED/BESO II (2005:15) mentioned, in Ethiopia the idea of the cluster school program was introduced in 1995 by the BESO I project (1995-2002). Following this Tigray and Southern Nations, Nationalities and Peoples of Ethiopia (SNNPR) tried out cluster-based programs in small-scale. In Harari Region clustering of schools was began in 1999-2000. Following this, Amhara Region began cluster based in service teachers training (AED/BESO, 2005). Regarding this, Ayalew (2004:8) stated that the idea of cluster schools was introduced in some regions as early as 1997 through

UNICEF assistance and spread to the other regions. Similarly, Rumble (2003) mentioned that in Ethiopia school clustering has taken place with the assistance of the USAID/BESO project and UNICEF/Ethiopia.

The Ministry Of Education (2005:54) also described that “cluster based local in service training would be strengthened as this has a strong influence on improving the quality of learning.” The cluster school- based in service training was mainly focused on active learning, continuous assessment, action research, teaching aids preparation, resource sharing among schools, supervision and experience sharing (Cummings et al, 2005). That means, to improve the quality of education and students’ achievement elementary school teachers are expected to give emphasis for cluster based in-service teachers’ continuous professional development (MOE, 2007). Based on this, in Amhara region various cluster centers were established.

As the Amhara Regional State Education Bureau document (2005) pointed out, some of the characteristics of cluster-based teachers' professional development are the following:

- A. Helping teachers to share ideas, skills, and knowledge with their colleagues at cluster level.
- B. Cluster center schools serve as a center of continuous professional development.
- C. The supervisor and educational officials give support for clustered schools, so that CPD program will be effective.
- D. Teachers will take responsibility for their continuing professional development.
- E. Clustered schools can share resources and experiences and this make CPD program cost effective.

Cluster-based in-service teachers continuous professional development is onsite training program in which teachers get training not for qualifications but for continuously improving their practice in the class room (USAID/BEP, 2007:4). Based on this, the Amhara Regional State Education Bureau (2005:16) suggested that teachers' continuous professional development is one of the major tasks of cluster schools. Thus, teachers are expected to develop their skills and knowledge to conduct action research, to practice active learning and continuous assessment. Furthermore, teachers of the clustered schools can share resources and experiences among each other and all this activities can facilitate the implementation of curriculum. In line with this idea, Solomon (2007:25) mentioned that, "with in the school, qualities such as collegiality among teachers, mutual support and help are positive indicators of implementation success." On the other hand, curriculum implementation can be negatively affected by teachers' over load, and lack of incentives. Similarly, teachers may fail to practice their CPD due to lack of incentives, trainings or high teaching load (Kebede, 2006).

In North Shewa Zone of Amhara Regional State many cluster centers were established. Among these, BESO II project supported few clustered schools and the preponderance of the clustered school centers are government supported programs. As Yekunoamlak (2001:82-109) described NGOs like USAID can contribute a lot for the improvement of the education sector of the country. Based on this, USAID (BESO II project) provided financial and material support for Chacha cluster center. On the other hand, government provided support for Kottu cluster center. So, in this study the researcher made comparative analysis on the effectiveness of the two programs.

1.2. Statement of the Problem

Cluster (group of schools) based in-service teachers continuous professional development training has been given for elementary school teachers of North Shewa Zone of Amhara region. One of the main objectives of this training was to improve teachers' knowledge and skills of using action research, teaching aids preparation, experience sharing and supervision (Cummings et al, 2005:4-7). Clustering of schools can also help schools to share resources and experiences. As Neil (2004:3) suggested "cluster based in service teachers' professional development was cost effective, make better use of local resources, respond to teachers immediate needs and provide opportunities for reflection and practice." But, as AED/BESO (2005:18) attested "there is no budget assigned by the Amhara Regional State Education Bureau for cluster school center for the training that they plan or for any other activities that they perform in the cluster centers." On the other hand, Day (1999:140) asserted that the availability of budget is crucial for CPD. In addition to this, as Cummings and associates (2005) described cluster resource center might be very far from the satellite schools. Besides, key teachers may not have the capacity to transfer CPD contents for their peers. Furthermore, teachers who took training may fail to practice their professional development training due to lack of incentives, over load and distance from the cluster center. As Ayalew suggested, the fact of the matter was that:

At the beginning of the cluster program teachers were highly motivated. But later on teachers' motivation declined due to lack of incentives for good performance, lack of continuity in the training programs and lack of credit for training programs taken (Ayalew, 2004:30).

Similar to this, Kebede (2006:89) also argued that "cluster based TPD has no follow up strategies and teachers have also negative attitude towards it."

In Angolelana Terra Woreda of North Shewa Zone, there were BESO (USAID) and government-supported cluster school based in service CPD Programs. Chacha cluster center get financial and material support from USAID. On the other hand, government supports Kottu cluster center and has no budget for cluster-based teachers' professional development Programs (AREB, 2005). In addition to this, different researchers (Ayalew, 2004; Kebede, 2006) asserted that long distance between the cluster center and the satellite schools and lack of incentives characterized cluster-based teachers CPD. In view of the above problems, the effectiveness of cluster based CPD might be difficult. So, this study attempted to compare the effectiveness of USAID and government supported programs of Angolelana Terra Woreda.

1.3. Objectives of the Study

The specific objectives of this study were to:

1. Investigate the effectiveness of cluster based in-service teachers' continuous professional development of Angolelana Terra Woreda.
2. Examine the main differences between government and USAID supported clusters.
3. Explore the achievements of USAID and government supported cluster based CPD.
4. Investigate factors that affect the practice of Cluster-based teachers' professional development in Angolelana Terra Woreda.

1.4. Basic Research Questions.

The basic research questions of this study were:

1. To what extent are cluster based continuous professional development programs effectively practiced in Angoelana Terra Woreda?
2. Is there any significant difference between government and USAID supported programs?
3. What are the major achievements of USAID and government supported cluster based Continuous Professional Development (CPD) programs?
4. What are the major factors that affect the effectiveness of cluster based CPD programs?

1.5. Significance of the Study

The study can provide information to NGOs like BESO/USAID. It can also provide information for decision makers at primary schools including regional and woreda administration, supervisors, cluster coordinators, primary school teachers, etc.

The researcher also suggests that this study would have the following use:

- It can help BESO/USAID and government officials to identify the strengths and weakness of the cluster based in service TCPD.
- It can help elementary school teachers and cluster coordinators to know the strength and weakness of USAID and government supported programs
- It can help teacher education institutions which are involved in the elementary school teachers cluster based in service training.

- It may be used as a source of information for those who may conduct further research in the area.

1.6. Delimitation of the Study

The scope of this study was delimited to cluster school-based CPD of Angolelana Terra Woreda in North Shewa Zone. The investigator rational for selecting this Woreda as research setting was that the investigator has been working as a teacher in Debre Birhan College. As a result, the investigator has acquaintance with the directors, supervisors and teachers of the Woreda, and this can help the investigator to get valuable evidence.

In order to make comparative analysis on USAID and government supported cluster based ITPD, sample teachers were selected from all satellite schools under Chacha cluster (USAID support) and Kottu cluster (government support). Then, the two Clusters (Chacha and Kottu) teachers' continuous professional development were compared by using the following criteria.

- Teachers' involvement in action research.
- The use of active learning, continuous assessment, and teaching aids preparation.
- Supervisors' support.
- Resource and experience sharing among clustered schools.

1.7. Limitations of the study

This study has the following limitations:

1. Due to long distance and absence of transport, interview and observation was conducted at the cluster center.
2. The effectiveness of the two clusters teachers CPD were compared by using some criteria. But, other criteria's like mentoring, school community linkage, etc, were not included due to lack of time and financial problems.

1.8. Operational Definition of Related Terms

Effectiveness-In the context of this study, effectiveness is defined as teachers' use of teaching aids, active learning methods, action research, continuous assessment, supervision, experiences and resource sharing in their schools. To this end, teachers were required to rate the extent of effectiveness of cluster based CPD from the given alternatives- to a great extent (3), to some extent (2), and not at all (1). Hence, if teachers mean rating is above average (> 2) then the program is considered as effective.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter deals with the concepts of cluster-based teachers' continuous professional development. The first section of the chapter presents conceptual framework. The second section deals with cluster based continuous professional development and the third section presents experiences of some selected Countries and the fourth section presents USAID and government supported cluster based continuous professional development in Ethiopia.

2.1. Conceptual Frame work

Continuous professional development is a term used to describe all the activities in which teachers are engaged during the course of a career which are designed to enhance their work (Day and Sachs, 2004:1). As the Teachers' Development Program (TDP) asserted pre-service training of teachers alone cannot make teachers' effective for long periods of time (MOE, 2007:16-17). So teachers, supervisors, and directors should develop their proficiency or skills through summer courses, distance education, workshops, school and cluster based continuous professional development. Similar to this, Day (1999:2) pointed out that "continuous professional development is necessary for all teachers in order to develop and renew their own knowledge and skills for good teaching." From this, it is clear that elementary school teachers can maintain and improve the pre-service training through in-service cluster school based CPD. Based on this, elementary schools of Angolelana Terra woreda are grouped together in clusters, so that teachers can improve their skills, knowledge or proficiency by sharing

experiences among each other. Concerning this, Singhal and his colleagues pointed out that:

Professional development of staff was crucial to cope with the changing needs of the profession. Due to the emergence of new technologies and findings available on the basis of researches conducted from time to time, it is necessary to aware or to acquaint teachers with the latest techniques of teaching and learning (Singhal et al, 1996: 105).

From this, it is clear that CPD can acquaint teachers with different global issues, technologies or teaching methods. It can also have a positive effect on teachers' proficiency and improve the quality of learning. Furthermore, Day epigrammatically described professional development as:

"It consists of all natural learning experiences and planned activities, which are intended to be of direct or indirect benefit to the individual, or group and which contribute through these to the quality of education in the classroom (Day, 1999:4)."

As stated above, CPD can help professionals like teachers to maintain and improve their knowledge and skills required in their professional development. The professional development of teachers also may affect the actual organization; change particular conditions at the level of the organization and this effectively contribute to school development (Kelchtermans, 2004: 226). Based on this, the Ministry Of Education stated teachers' CPD as follows:

"The TESO strategy for CPD will provide a two year induction course for all newly deployed teachers to help them to build on that foundation and develop their teaching skills. Experienced teachers also need to update themselves with the expanding knowledge, technologies and new ideas for teaching and learning approach (MOE, 2004:1)."

The newly employed teachers can be acquainted with the school environment and active learning methods in the induction package. On the other hand, the CPD program is expected to develop the proficiency of experienced teachers by sharing resources

and experience among each other (MOE, 2007). As has been stated above, teachers are expected to develop their proficiency in the CPD program. But as Eraut (1995) asserted, effective teachers' professional development should be focused on the needs of teachers. That means, to improve teachers' skills or proficiency teachers' continuous professional development should motivate teachers, professional materials should be used, and avoid repetition and poor leadership (Spears, 1957:84-85). Besides, lack of fund can affect teachers' continuous professional development (Christie et al, 2004:170). Hence, to improve teachers' skills or proficiency, CPD should be well planned, financially supported and give emphasis for teachers. From this, it is clear that though cluster based CPD has many advantages, it is not easily practiced through out the country. One of the major reasons, which inhibit the program, is financial problem. In addition, lack of time also prohibits teachers from practicing their training. Regarding this, UNESCO (2003) suggested that:

A/Teachers must be given time and financial support to be active designers, implementers and participants of professional development activities.

B/ The professional development programs and activities also should respond to teachers' professional need and interest.

Concerning this, Sadker and Sadker (2003:558-575) pointed out that, in some districts of America teachers' salary increasement is connected to professional development or training hours offered by schools. In these schools the assumption is that effective professional development activities produce improved classroom performance and this determines salary increasement. Similar to this, the Ethiopian teachers' professional development program is associated or linked with teachers' career structure (MOE, 2007:17). That means teachers who are effectively practicing CPD will be benefited from teachers career structure.

But, as Wood (1981: 62-63) suggested, TCPD to be effective schools should get resources and trainings that are necessary for a staff to implement the new programs. Similar to this, Christie (2004:170) pointed out that, where there is lack of funding for basic education, CPD is more likely to be narrowly targeted. As some research findings (Zenebe, 2007:65 and Kebede, 2006) indicated in some cluster centers, teachers are not getting supports like finance, time and resources for their CPD. Similarly, in Angolelana Tarra Woreda of North Shewa Zone of Amhara Regional State, government support teachers' continuous professional development program has no budget (ARSEB, 2005). This condition, probably leads to a mismatch between the training objectives (expectations) and the out come.

The purpose of in service training is a way of learning for teachers to become more effective in their profession. Due to this, CPD of teachers should not be poorly organized (Gray, 2005). It should develop teachers' knowledge and skills by giving relevant information. Furthermore, CPD should not create displeasure among teachers. But, Ayalew (2004:30) finding attested that "teachers' commitment decreased from time to time due to lack of incentives and rewards." Similar to this, Kebede (2006) forwarded that "CPD at cluster level is not effective and teachers have negative attitude towards it." The findings of the two researchers indicated that the negative attitude of teachers in their in service training affects the effectiveness of cluster based teachers professional development. In contrast to the above idea, Teaching Expertise (2002) described that, "CPD has a very positive effect on teacher's knowledge, attitudes and skills."

As stated above, CPD should be well organized, financed and attractive to teachers. Financially supported CPD can improve teachers' knowledge and skills. Regarding this, Amare and his colleagues finding attested that:

Continuous Professional Development (CPD) had helped teachers to develop their skills in lesson planning, continuous assessment and action research. It also fostered a culture of co-operation among teachers, students, parents and the surrounding community. Well planned, CPD can improve teacher's skills, knowledge and attitude. But there are many challenges to implement CPD of teachers (Amare et al, 2006:39-41).

Cluster based in service teachers CPD can help teachers to share resources and experiences among each other. Besides, it can improve teachers feeling of being forgotten (Cummings, 2005: 4). Despite the growth of concern for CPD, researchers like Ayalew (2004:28) pointed out that "the main problems of teachers to implement their training are heavy teaching loads, lack of adequate materials, financial problems, lack of commitment and lack of sufficient skills." From this, it is clear that good quality CPD provision should give time, finance, training and other supports for teachers.

According to Sparks (2002:1-4), effective professional development focuses on developing teachers knowledge, skills, and it provides opportunities for research and founded on a sense of collaboration among teachers and sustained over time. On the other hand, ineffective CPD do not meet teachers' need and have no follow up strategies and it is neither sustained nor progressive.

2.2. Cluster-Based In-services Teachers Continuous Professional Development (ITCPD)

Continuous professional development of teachers can be school or cluster based. Cluster based ITCPD was began when teacher centered methodology was challenged and learner centered methodology was promoted (ARSEB, 2005:1). In addition, the Amhara Regional State Education Bureau pointed out that cluster is the grouping of three to five schools that are found within a short distance, so that they can share experiences and resources among each other. That means, grouping of schools can facilitate resources and experiences sharing among schools. The disadvantaged satellite schools can be benefitted from the well furnished schools.

According to Cummings and colleagues (2005:3) the advantages of the school cluster system are the following.

- A. by working together, schools have access to a great variety of skills and experience.
- B. by sharing resources, schools can have a great number of teaching aids and can learn to use and develop them more.
- C. *sharing* skills and resources are cost effective and use funds more efficiently.
- D. the cluster system creates a system of staff support that stops teachers from feeling isolated.
- E. teachers can control their own professional development.
- F. schools can work together to set up an effective, supportive supervision program.

2.3. Experience of Some Countries in Cluster Based Teachers Professional Development.

Countries that are found in Africa, Asia, Latin America, etc, are using clustered based in service teachers professional development.

As Neil (2004:2-3) pointed out:

Countries that are introducing the new paradigms of teaching and learning need cost effective means of ITPD. This cost effective site based ITPD is the clustering of schools. Cluster based TPD makes better use of local resources and respond to teachers immediate needs. It can also help teachers and schools to share experiences and resources (Neil, 2004:2-3).

From this, it is clear that clustering of schools can help teachers to share experience among each other. So, different research findings (Ayalew, 2004; Kebede, 2006) indicated that teachers could be encouraged and initiated to CPD program by incentives or rewards.

2.3.1. The Experience of Cambodia in Cluster Based Teachers

Professional Development.

UNICEF established school cluster system in Cambodia in 1993. The overall objective of school clustering was to avoid imbalance of schools by mixing strong schools with the disadvantaged ones (Dykstra and Kucita, 2007).

As Dykstra and Kucita (2007:3-10) indicated, the economic objective of cluster was that by furnishing one center with equipment and supplies it can help satellite school teachers to develop their skills or proficiency with out distant travel. Regarding this, Educational Research in the Developing World (2004) pointed out that, since 1994 in Cambodia USAID has worked closely with the Ministry Of Education to develop elementary school teachers' proficiency by in service training.

A cluster in Cambodia consists of 6 to 8 schools. Books and expensive supplies are circulated among the schools through the center. A resource center consists of three rooms, one used for a library, the other two rooms used for training and material production.

Teachers contribute a small amount of money each month and from which they can borrow when they needed. There was in service training every Thursday. The budget for cluster school improvement or activities was approved by Ministry Of Education. In Cambodia, there are about 631 school clusters. In some remote villages community members recruited their own teachers and pay rice or give them lands for farming.

2.3.2. The Experience of India

In India cluster resource center served around 40 teachers or from 6 to 10 schools located with in a few kilometers away from the center. A full time coordinator, who under takes support, visit schools, organizes monthly meetings and makes the center as an academic resource center for teachers, facilitates the cluster resource center (subirshukla, 2007).

The cluster resource center is facilitated by the block resource center (BRC). The BRC is a sub-district training center that provides in service training for teachers of the block as well as academic monitoring and supervision.

India used a cascade model. In this model key resource persons, trainees, master trainers, who intern trainee's trainers (subirshukla 2007).In India both CRC and BRC facilitates grass roots implementation of CPD by providing on site and on going

academic support to teachers .The funding agencies for cluster-based teacher training are world bank, UNICEF, UK and the government of India.

2.3.3. The Experiences of the Republic of Guinea

According to Educational Research in the Developing World (2004: 1-4), the Republic of Guinea with USAID support introduced cluster system in 1999. In Guinea schools within a cluster take turns to conduct the bimonthly meetings including providing a noonday meal for their visiting colleagues.

Principals or respected teachers leader from a cluster school was appointed to facilitate the session. The training held through round table discussions and peer observation. Twice a year they visit a cluster colleague's classrooms.

Generally, in Cambodia, India and Guinea teachers CPD had budget. In addition, teachers had been developing their proficiency by training and peer observation. Whereas, in Angolelana Terra worda government support clusters has no budget and this might affect teachers CPD.

2.4. USAID and Government Supported Cluster Based Continuous Professional Development in Ethiopia.

According to Neil (2004:7) teachers' professional development is divided in to pre-service and in-service teachers' training. In Ethiopia, regular pre-service teachers' education is offered at teacher training colleges and universities. Pre-service teacher education is also provided through extension or evening classes, and distance education.

The In-Service Training of Teachers (INSET) program began in 1950s by the University College of Addis Ababa and the Ministry Of Education (yalew, 1998:387-389). But it was more concerned to change teachers' qualification (Zenbe, 2007).

According to Rumble (2003) Continuing Professional Development has been a feature of teacher education in Ethiopia for many years. The term on-the-job training was used to designate activities aimed at teachers' professional development. Short-term training referred to training that takes place at Colleges of teachers' education from one week to a couple of months. On the other hand, CPD encompasses both possibilities and is provided for teachers at Cluster schools since 2003. Besides, Amare and his colleagues pointed out that:

Before the late 1990s, Ethiopia relied almost exclusively on cascade or multiplier models of professional development through which selected teachers and principals attend centralized workshops and returned to their schools to disseminate their new knowledge. Although centralized workshops are still used occasionally, national and regional state policies now call for continuous professional development as compulsory, comprehensive, and ongoing programs of professional development carried out predominantly at the school and cluster levels (Amare et al, 2006:9).

Similarly, the ARSEB introduced school cluster system in the region. Based on this, schools of North Shewa zone has been grouped together, so that teachers can share resources and experiences.

Regarding this, Teachers Development Program (MOE, 2007:16) pointed out that teachers could develop their profession and qualification through summer course, distance education or extension program. Teachers can also develop their profession or skills through school or cluster based trainings. That means, elementary school teachers are expected to develop their skills, knowledge and proficiency of using active learning, action research, continuous assessment, etc, in their cluster based in-service

training. As Farrant (1980:226) pointed out "in service training is a life long process in which a teacher is constantly learning and adapting to the new challenges of his job."

According to Brown (1998:13) USAID commitment to primary education led to the creation of the BESO program and project. BESO reflects the Ethiopian new education and training policy issued in 1994. Like many countries of the world, USAID financed BESO I project (1995-2002) and BESO II (2002-2007) supported teachers' professional development in Ethiopia. In Amhara Regional State, BESO II project has worked since 2002 to support cluster based CPD of teachers (Amare et.al, 2006:12).

From the different models of school cluster, the Amhara Regional state Education Bureau preferred the Hybrid model. Regarding this, Amhara Regional state Education Bureau (2005: 4) pointed out that the hybrid structure model is a combination of a vertical and horizontal model. In this model the central school (cluster resource center) acts as the center for administration, program management and communication between schools.

2.5. Organization of School Clusters

Urban Schools have a great number of teachers, so that 2-3 schools can be organized in one cluster. In rural areas 3-5 near by schools can be organized under one cluster center. The distance between each member schools and cluster center should not exceed 2 hours walk (AREB, 2005). Continuous professional development of teachers was held at cluster resource center. Due to this, teachers of member schools were required to travel to the center. In addition, a school can be elected as cluster center, if it has first and second cycle primary levels, qualified teachers, library and pedagogical

resource center, trained director and enough classrooms, and located at the center of member schools.

2.6. Cluster Centers and Teachers Professional Development

In Angolelana Terra Woreda of North Shewa, there were USAID (Chacha) and government supported (Kottu) cluster schools. Both of them are center of cluster based in service teacher's professional development. But, Chacha cluster center got material support from USAID funded BESO II project. Regarding this, Brown (1998) and Huddleston (2006) asserted that USAID funded BESO provided help for teachers' professional development of Ethiopia. According to Huddleston, BESO helped Ethiopian schools for the last ten years. Whereas, government supported clusters have no budget for training or for any other activities they perform. Besides, heavy teaching load, and lack of incentives might be the major impending factors that influence effectiveness of clusters. Regarding this, Educational Research in the Developing World (2004:1-4) pointed out that factors that influence cluster based professional development success are lack of materials support, the degree of system support and teachers incentives which may include covering teachers costs through payment of per diem and travel expenses.

The Amhara Regional state Education Bureau (2005) stated some of the good achievement indicators of the clustered schools as follows:

There will be organized system of experience sharing in teachers' continuous professional development. Besides, teachers should use action research, active learning, and continuous assessment. Furthermore, there should be equivalent between male and female students and students drop out rate should decrease.

2.7. The Major Activities of Cluster Based CPD

At cluster school level teachers took trainings about active learning, continuous assessment, action research, teaching aids preparation, etc. In ARSEB, the main roles of cluster school activities are played by supervisors.

2.7.1. Supervision

The Amhara Regional State Education Bureau provided training for supervisors at its regional colleges since 2004. The intention of the Bureau was to develop teachers' skills or proficiency through supervisors support.

According to Cummings and colleagues (2005:15) supervision is "a support system. It is a means of educating teachers and schools performance for future improvement." In Amhara region, cluster based teachers professional development is the key task of supervisors. They are expected to create favorable environment for teachers' professional development and manage the whole cluster work. They also follow or evaluate the implementation of teachers training in the classroom.

According to singhal and his colleagues (1996: 96-104) "the supervisors are people in the middle. That is between employers on one side and upper management on the other." Moreover a good supervisor is one who is capable of communicating with his subordinates and can provide the necessary guidance and assistance to them for their professional development. But, as Haile (2006:65) attested the majority of the supervisors seem to fail to accomplish their responsibility.

As Carron and colleagues (1998) mentioned “in Korea there is one supervisor for every 4 to 5 schools, in Nepal a supervisor gives support for 33 schools and in Bangladesh for 20 schools. Besides, the majority of supervisors in many countries possess a Bachelor degree or a Master’s degree.” For instance in Korea 42%has MA and 35%BA. In Bangladesh 79 % has MA and 19 %has BA. From this, it is clear that supervisors of different countries educational qualification are BA and MA, so that they can provide trainings and other supports for teachers.

2.7.2. Active Learning

Active learning is a learning environment that makes the learner active participant. Learning facts by memorization cannot help students to solve problems or to change their environment. Students should be encouraged to investigate and analyze their environment. Regarding this, ICDR (1999) asserted that learning is effective when it is meaningful to students.

Students learn best, if teachers used active learning methods in their classroom. On the other hand, teacher center or lecture method is one-way communication and it makes students passive listener. Based on this, the education and training policy of Ethiopia (TGE, 1994) gives emphasis for active learning. Students should be free to discuss issues in the classroom so that they can solve problems they face and live a better life for the future. Due to this, cluster based teachers CPD gives emphasis for active learning. On the other hand, Horgan (2004:76) suggested that lectures are necessary for providing background information and ideas, basic concepts and methods required by students before they can learn and become effective participants in class room discussion.

2.7.3. Action Research

Educational action research is a self-reflective inquiry done by teachers. As Hitchcock and Hughes (2001:29) described "action research originally developed by Lewin and improved by Carr and Kemmis." Action research is a cyclical process that begins by the practitioner (teacher) reflection, and followed by planning, acting, observation reflecting and re- planning. The cycles of an action research project involves identification of a problem, collecting information, analyzing, planning action (intervention and implementing) and monitoring the outcomes.

Action research is highly concerned with solving immediate classroom problems. It is a useful method for immediate application. It is a type of applied research with high involvement of teachers in the action. Action research is useful for teachers to improve their practice.

According to Best and Kahn (1999:24) "action research is focused on immediate application, not on the development of theory or on general application. Its finding is to be evaluated in terms of local applicability."

Educational action research is a small-scale practice of teachers. The idea of action research is to solve classroom problems by the practitioner (teacher). By conducting action research, teachers can improve students' achievement. Based on their findings teachers can change their teaching methods, solve students' problems or improves student teacher relation. Furthermore, action research can help teachers to search answers for problems that he/she faces while teaching. But, as research findings (USAID, 2006) indicated teachers show less participation in doing action research.

Some of the reason for less participation is lack of support and recognition from the school, lack of facilities at schools, over workload, lack of incentives and lack of proper training (Ibid). Similar to this, Yalew (2000:249-260) asserted that the major stumbling blocks of teachers to conduct research are lack of knowledge, lack of material supply, lack of interest and over workload.

2.7.4. Continuous Assessment

Continuous assessment is a continuous process of gathering information about learners' progress in a classroom. As USAID (2006:36) pointed out the three basic reasons for using continuous assessment are to "improve teaching, students learning and to be accurate and fair in students' evaluation."

Continuous assessment classified in to formative and summative. Formative assessment should be done before and during a teaching learning process. Summative assessment occurs at the end of the teaching learning process and used to evaluate students achievement (USAID, 2006:36-37).

2.7.5. Teaching Aids

Teaching aids are the different materials and equipments used by teachers to improve the teaching learning process (ICDR, 1997:4). Regarding this, Macharia and Wario (1994: 25) pointed out that teaching aids are any materials that are used to make the teaching learning process more effective. Teaching Aids are part of instructional materials used in the teaching learning process. As ICDR (1997) attested instructional materials are those materials which are manipulated, seen, heard and the instruments which facilitate instruction." Furthermore, Amare (1999:53-65) asserted "instructional materials as all forms of materials with which students and teachers interact for the purpose of learning and teaching".

According to Amare "teaching without instructional materials is tantamount to farming with the use of finger nails. Just like any activity the teaching learning process needs to use appropriate technology. But limited efforts are made to supply and prepare instructional materials" (Amare, 1998:297). In addition he stated that:

Elementary school teachers are not serious to prepared instructional materials. The main reasons are lacks of guideline for preparing and using teaching aids, lack of incentives, lack of budget for preparing materials, and teachers were not committed to use teaching aids (Amare, 1999:53-79).

On the other hand, Common Wealth Secretariat (1993:36-43) asserted that teaching aids could be prepared with out cost from matchboxes, pieces of wire, or rubbers. But teachers may lack training, creativity, work capacity and unable to develop and use low cost teaching aids.

To sum up, different researchers made study on cluster based CPD. For instance, Ayalew (2004) studied the performance of UNICEF supported school clusters in Ethiopia. According to him at the beginning of the cluster program teachers were highly motivated due to various reasons. Similarly, the investigation of Kebede (2006) asserted that long distance and lack of incentives characterizes clustered school based CPD. On the other hand, Amare and his colleagues' investigation indicated that cluster based continuous professional development has helped teachers to develop their skills in action research, continuous assessment and it also fostered a culture of cooperation among teachers. Dykstra and Kucita (2007) investigation also indicated as clusters can help satellite school teachers to develop their skills or proficiency without distant travel. But none of these studies compared the effectiveness of cluster schools that have been supported by NGO'S with that of local government. So, this study will fill the gap by comparing USAID and government supported clusters.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

In this study the investigator used quantitative method as the main method of study. As a researcher, the investigator spent some time with reading books and previous studies about the topic. This helped the investigator to understand what has been already carried out and what has not. After this, the investigator decided to use questionnaire as one of the data gathering tools.

The investigator used quantitative method to collect data from teachers' of the USAID supported cluster (Chacha) and government supported cluster (Kottu). That means, data about teachers' opinion or attitudes on the effectiveness of the two programs, teachers' achievement in cluster based training, and factors that influence cluster based CPD were collected from participants by using questionnaire.

Interview and observation techniques were also used to cross check the data obtained by questionnaire. To this end, the investigator went to the two clusters to understand the effectiveness of teachers cluster based CPD of the two cluster centers (Chacha and Kottu). Besides, supervisors, directors, key teachers, and woreda education office workers were purposely selected and interviewed.

Data collected by questionnaire were analyzed quantitatively by using percentage, mean, chi Square and t-test. On the other hand, data collected by using interview and observation techniques were analyzed by theme.

3.1. Design of the Study

This study is a comparative study, in which government and USAID supported clusters were compared with a view to find similarities and differences and to express them in relation to the effectiveness of cluster based CPD in Angolelana Terra Woreda.

Survey study was used to compare the effectiveness of USAID (Chacha) and government support (Kottu) cluster-based teachers' professional development. As Best and Kahn (1999:193) described in case study, data can be gathered by questionnaire, observation, and interview. Based on this, to compare the effectiveness of USAID and government support cluster based continuous professional development the researcher took samples from the two clusters. That means, within the two cases (USAID and government supported clusters) there are satellite schools and the investigator tried to get information from these schools by selecting samples. On the other hand, directors and key teachers with long years of experiences, concerned Woreda Education Office workers and supervisors were purposefully selected and interviewed.

3.2. Sources of Data

In this study, the researcher used primary sources of data. Primary sources of data were collected from USAID and government supported clusters of Angolelana Terra Woreda of North Shewa Zone.

In Angolelana Terra Woreda elementary school teachers of Chacha (USAID support) and kottu (government support) school clusters were the sources of information or evidences for this study. Primary information was obtained from these clustered school

teachers through questionnaire. In addition, information was obtained from supervisors, key teachers and directors of the two clustered schools, classrooms, and cluster centers through interview and observation techniques.

3.3. Population and Sampling Technique

The population of this study was 80 teachers in Chacha (USAID support) and 79 teachers in Kottu (government support), supervisors, key teachers, and directors of Kottu and Chacha clusters at Angolelana Terra Woreda, which is situated some 100 kilometers north of Addis Ababa.

In Chacha and Kottu the following schools were clustered or grouped together.

Table 1: Chacha Cluster Satellite Schools.

School Name	No of Teachers	Distance from the Cluster Center
Chacha	47	Cluster center
Sertie	8	30 minutes walk
Boren	11	1 hour walk
Sanka	7	45 minutes walk
Totosie	7	1 hour walk

Table 2: Kottu Cluster Satellite Schools.

School Name	No of teachers	Distance from the cluster center
Kottu	34	Cluster center
Wuhamedda	20	3 hours walk
Ellani	10	1 hour walk
Yenagur	6	4: 30 hours walk
Genetmaryam	2	1 hour walk
Godamarech	2	1:30'walk
Ambatsiga	1	2 hours walk
Yelemnna	4	1 hour walk

The population of the two clusters consisted of sub populations (satellite schools). That means, within the clusters there are satellite schools. So to get information or evidences from these schoolteachers the researcher used stratified random sampling technique. This technique was selected to get representatives from each school of the two cases. As Fraenkel and Wallen (2000:108) mentioned, stratified random sampling is a process in which certain sub groups or strata are selected for the sample in the same proportion, as they exist in the population. Hence, to increase the reliability of the research, the researcher used schools as strata and the sample size was proportionally allocated based on the strata size. Then, from Chacha cluster 40 teachers were selected based on the strata size. That means sample teachers were selected from all the satellite schools by using simple random sampling technique (lottery system). Similarly, 40 teachers were selected from Kottu cluster.

Table 3: Chacha Cluster Center Sample Size Based on Strata Size.

STRATA (CLUSTERED SCHOOLS)	STRATA SIZE	SAMPLE SIZE BY STRATA
Chacha	47	23
Sertie	8	4
Boren	11	5
Sanka	7	4
Totosie	7	4
Total	80	40

Table 4: Qottu Cluster Center Sample Size Based on Strata Size.

STRATA (CLUSTERED SCHOOLS)	STRATA SIZE	SAMPLE SIZE BY STRATA
Kottu	34	17
Wuhamedda	20	10
Ellani	10	5
Yenagur	6	3
Genetmaryam	2	1
Godamreach	2	1
Ambatsige	1	1
Yelemana	4	2
Total	79	40

3.4. Data Collection Instruments or Techniques

For this study information was acquired through questionnaire, observation and interview.

3.4.1. Questionnaire

Based on the literature and experience the questionnaire was developed. The investigator used questionnaire to get information from teachers of the two clusters. The questionnaire was originally developed in English language and translated in to the language of the respondents. Besides, the questionnaire consisted of both open and closed ended items. The first part of the questionnaire deals with general information regarding sex, educational qualification and experiences of the respondents. The second part of the questionnaire consisted of 41 items and used to compare the effectiveness of the two clusters. The third part consisted of open-ended questions. For the closed ended questions the respondents were requested to show their response by

putting a tick mark on their choice. On the other hand, open-ended items require respondents to point out the challenges of cluster based CPD, similarities and differences between USAID and government support clusters and possible solutions for cluster based CPD problems. After pilot test, the questionnaire were distributed to teachers of Kottu and Chacha and collected by the investigator.

3.4.2. Observation

Observation technique was used to get additional information about the use of active learning, continuous assessment, teaching aids preparation, and the effectiveness of the continuous professional development activities at cluster centers.

To aid the listing down of information gained through observation, the researcher used checklist. The observation checklist consisted of 12 items. Then, with the help of the check list the investigator observed randomly selected class rooms, cluster resource centers and pedagogical centers of the two clusters.

3.4.3. Interview

The researcher used semi-structured interview. The semi structured interview consisted of eight items. As Hitchcock and Hughes (2001:157) asserted semi-structured interview provides opportunities for both the interviewer and interviewee to discuss issues in depth.

In this study, interview was used to collect data from supervisors, directors and key teachers of Chacha and Kottu clusters. In addition, interview was used to get information from woreda education office. First, two directors and two key teachers with

long years of experiences were purposefully selected in the two clusters. Besides, supervisors of the two clusters and the concerned body at woreda education office were selected for interview. Then, before conducting the interview the respondents were informed about the objectives of the study. Besides, the investigator jots down the main points of the interview simultaneously with the interview.

3.5. Pilot Test

Before dispatching the questionnaire to gather information for the actual study the investigator pre- tested the questionnaire in the pilot study at Model No.2 Elementary School in Debre Birhan. Hence, the draft questionnaire was administered to twenty randomly selected teachers. Then, the responses of teachers were tallied and to know the reliability, the data were coded into the computer SPSS 14 programs and the reliability test result in Chron Bach's Alpha was 0.7. In addition, the validity of interview and observation techniques to the topic of my study was commented by my adviser and my friends at Debre Birhan Teachers Education and Vocational Training College. Finally, based on the result of the pre- test and comments from experienced staff members, some inaccurate and repeated items were discarded.

3.6. Data Analysis

The information gained with the help of the above data collection techniques was organized and this helped the researcher to compare the effectiveness of the USAID and government supported programs. The data collected by questionnaire were checked and reduced in to manageable proportion. Then, the two programs were compared by using quantitative method. The quantitative data were analyzed by using percentage, mean, chi-square and t-test.

The investigator used chi square to compare the responses of the two cluster teachers. As Dunn suggested, chi square can indicate the presence of significance difference or similarity in the opinions of individuals. When the discrepancy between observed and expected observation is large, then significance difference is likely to be found between the two categories (Dunn, 2001:529-540). So in this study chi square used to differentiate the presence of significance difference between the responses of the two cluster teachers. The investigator also tried to compare the effectiveness of the two clusters CPD by using t-test. T-test was used for questions with scales. That means to check whether there is significant difference between the two clusters effectiveness or not, two tailed independent sample t-test was used. Hence, at the beginning the researcher used chi-square only. But, latter the investigator used t-test for questions with scales to infer or to give conclusion about the effectiveness of USAID and government supported programs. In addition, the data collected by interview and observation techniques were integrated with the quantitative data analysis and used for triangulation purpose.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

This chapter covers the analysis, interpretation and discussion of the data. The first section of the chapter deals with the profile of respondents. The second section presents the effectiveness of cluster based CPD. The last section deals with differences and achievements of the two clusters. Furthermore, data about the effectiveness of USAID and government support cluster based CPD were collected by using questionnaires. In addition, the investigator used interview and observation techniques to collect data from the two cluster centers for triangulation purpose. Information obtained by questionnaire was analyzed quantitatively by using percentage, mean, chi Square and t-test. The data obtained by interview and observation techniques were analyzed by theme.

4.1. Demographic Characteristics of the Respondents

In this study the investigator was able to get evidences from male and female teachers, diploma and certificate graduates and grade 12 completes by using questionnaire.

Table 5 presents the summary.

Table 5: Sex and Educational Qualifications of Respondents.

Profile		Cluster center			
		Chacha		Kottu	
		F	%	F	%
Sex	Male	18	45	24	60
	Female	22	55	16	40
	Total	40	100	40	100
Educational qualification	Diploma	24	60	24	60
	Certificate	13	32.5	12	30
	Grade 12 complete	3	7.5	4	10
	Total	40	100	40	100

As Table 5 above shows, both male and female teachers have been participated in the study. In addition, teachers with different qualifications (diploma, certificate and 12 completed) were part of the study.

Table 6: Experiences in Teaching and Weekly Load of Teachers.

Experiences and periods per week		Cluster center			
		Chacha		Kottu	
		F	%	F	%
Experience	0-10	6	15	10	25
	11-20	18	45	20	50
	21-30	16	40	8	20
	Above 31	-	-	2	5
	Total	40	100	40	100
Weekly teaching load	1-10	1	2.5	2	5
	11-20	10	25	6	15
	21-30	29	72.5	32	80
	Above 31	-	-	-	-
	Total	40	100	40	100

As shown in Table 6, in both Chacha and Kottu school clusters, the majority of teachers experience lie above eleven years and this might make the necessity of CPD crucial. On the other hand, 72.5% of Chacha and 80% of Kottu weekly teaching loads of teachers lie between 21 to 30 periods. Thus, it seems reasonable to suggest that most of teachers in the two clusters taught about five periods per day.

The investigator also collected evidences from the supervisors, directors, key teachers of the two clusters and woreda education office workers by interview and observation techniques.

4.2. The Practice of Cluster Based CPD

Teachers were asked to provide information about the criterion of content selection, and cluster based experience sharing. The following table indicates the responses of teachers.

Table 7: The Practice of Teachers CPD.

The criterion of content selection, and experience sharing	Responses			
	Chacha		Kottu	
	F	%	F	%
1. Which one is the criterion for selecting training contents of CPD?				
A. Teachers need assessment	14	26.9	10	21.8
B. Cluster coordinators need	28	53.9	19	41.3
C. Training coordinators need	10	19.2	17	36.9
Note: more than one response is allowed	-	-	-	-
2. How often have you shared experiences with your colleagues at cluster center?				
A) Always	20	50	2	5
B) Some times	15	37.5	22	55
C) Not at all	5	12.5	16	40
3. How do you evaluate your experiences in working with other schoolteachers in the cluster center?				
A) Very helpful	10	25	6	15
B) Helpful	26	65	20	50
C) Not helpful	2	5	10	25
D)Others	2	5	4	10

As Table 7 (page 38) shows, most of Chacha and Kottu teachers responses (53.9% and 41.3% respectively) indicated that the contents of CPD were selected based on cluster coordinators need.

In item No 2 of the same table the majority of the responses in Chacha (50%) indicated that teachers were sharing experiences with their colleagues. Where as, in Kottu most of teachers' responses (55%) asserted that they were sharing experiences sometimes. In addition, 40% of kottu cluster respondents attested that teachers were not sharing experiences with their colleagues at the cluster center. This implies that some of the teachers in Kottu were not attending cluster based CPD.

In item No.3 of the same Table, 65% of the responses in Chacha and 50% of the responses in Kottu indicated that experience sharing with other school teachers was helpful. The results obtained were remarkably uniform across the two cluster schools. There is no significant difference between the two clusters response. ($\chi^2=7.78$, $df=3$, critical value of $\chi^2=7.815$ at 0.05 level of significance).It seems that the two school cluster teachers consider clusters as useful for teachers CPD.

4.3. Effectiveness of Cluster Based CPD in Angolelana Terra Woreda.

Teachers of Kottu and Chacha clusters were asked in the questionnaire to provide information on the importance and effectiveness of cluster based CPD. The following table shows the responses of teachers for these questions.

Table 8: Effectiveness of Cluster Based CPD.

Effectiveness of clusters	Responses			
	Chacha		Kottu	
	F	%	F	%
1. How do you evaluate the importance of clusters for CPD?				
A) Very high	8	20	10	25
B) High	20	50	19	47.5
C) Moderate	10	25	6	15
D) Low	2	5	2	5
E) Very low	-	-	3	7.5
2. How do you rate the effectiveness of cluster based CPD?				
A) Very high	6	15	4	10
B) High	24	60	10	25
C) Low	10	25	20	50
D) Very low	-	-	6	15

As shown in Table 8, most of Chacha and Kottu teachers' response indicated that the importance of clusters for CPD was high. Although insignificant in number, some teachers' responses in the two clusters asserted that the importance of clusters for CPD was low. Concerning this, there is no significance difference between the responses of Kottu and Chacha teachers. ($X^2=4.246$, $df=4$, critical value of $x^2=9.488$ at 0.05 level of significance).

On the other hand, in item No.2 of the same table the majority of Kottu (50%) respondents rated the effectiveness of cluster based CPD as low. Whereas, 60% of Chacha cluster respondents rated the effectiveness of cluster based CPD as high. As can be seen in the table, there is significance difference between the two clusters in

relation to the effectiveness of the CPD program. ($X^2 = 15.5$, $df = 3$, critical value of $\chi^2 = 7.815$ at 0.05 level of significance).

Similarly, an interviewee from Chacha cluster school stated that BESO has provided tremendous amount of modules, type writer, duplicating machine, teaching aids, etc, for the cluster center. Whereas, respondents from Kottu indicated that the cluster center was not well furnished.

Thus, from these evidences it might be possible to deduce that in Chacha cluster based CPD is in a better level of performance due to the necessary support from USAID. In addition, the shortest distance between the cluster center and the satellite schools might contribute for Chacha cluster CPD effectiveness.

In the questionnaire teachers were also asked to rate the extent of effectiveness of cluster based CPD from the given alternatives. The alternatives were **to a great extent (3), to some extent (2), and not at all (1)**. Table 9 presents the summary.

Table 9: A 2 Tailed t-test on the Extent of Effectiveness of Cluster Based CPD

Teachers' opinions on the practice of cluster based activities.	Cluster	N	Mean	Std. Deviation	t-calculated	df
Active Learning	Chacha	40	2.4000	.59052	1.493	78
	Kottu	40	2.2000	.60764		
Continuous Assessment	Chacha	40	2.3250	.57233	.956	78
	Kottu	40	2.4500	.59700		
Action Research	Chacha	40	2.0250	.69752	4.325*	78
	Kottu	40	1.4000	.59052		
Teaching aids preparation	Chacha	40	2.3000	.64847	3.348*	78
	Kottu	40	1.8000	.68687		
Supervisor support	Chacha	40	2.0500	.67748	2.530*	78
	Kottu	40	1.6500	.73554		
Gender issues	Chacha	40	2.3250	.52563	.221	78
	Kottu	40	2.3500	.48305		
Resource sharing	Chacha	40	1.6500	.80224	.720	78
	Kottu	40	1.5250	.75064		
Lesson planning	Chacha	40	2.5750	.50064	3.510*	78
	Kottu	40	2.1500	.57957		
Experience sharing	Chacha	40	2.2500	.49355	2.759*	78
	Kottu	40	1.9000	.63246		

*Significant at an alpha level 0.05.

* 2-tailed independent sample t-test.

As table 9 reveals, in both Kottu and Chacha the mean values of continuous assessment, active learning, gender issues and lesson planning are above average (above to some extent). Thus, from the data it is possible to suggest that the two groups are in a better level of performance with the above issues. On the other hand, in Chacha cluster the mean values of action research, teaching aids preparation,

supervision service and experience sharing are above average (above to some extent). Whereas, in Kottu the mean values for the above issues are below average (see also appendix E). As can be seen from the table, there is mean differences between the two cluster schools.

But, concerning gender issues classroom observation in the two school clusters revealed that most of the classroom monitors and group leaders were males. This suggests that the two clusters have to do more in gender issues.

The t-test results on active learning, continuous assessment, and resource sharing indicated that there is no significance difference between the two clusters. On the other hand, the computed t-test results on the practice of action research, teaching aids preparation, supervisors support and experience sharing are greater than t-critical values and this shows the presence of a significant difference in effectiveness between government support and USAID support clusters at an $\alpha=0.05$ level. Based on this evidence, it might be possible to suggest that the practices of Chacha school cluster based CPD is effective than Kottu cluster.

Similar to this, in Kottou a respondent said that:

Teachers from the satellite schools traveled from 1 hour to 4 hours on foot to reach the cluster center. But, teachers had no per diem and transport cost. Due to this, trainings were conducted once a month and connected to teachers' salary payday. Besides, the training contents were unvarying and conducted for the purposes of a report.

On the other hand, a respondent in Chacha said that:

Teachers of the clustered schools conducted two hours of training each week. They share experiences among each other in their groups. The directors checked their portfolios. The supervisor also provided support for teachers of the clustered schools.

The discussion so far merely suggests that the BESO material and financial support and the shortest distance from the cluster center helped Chacha CPD program to be preeminent.

4.4. The similarities and differences in CPD between the two clusters

This section presents teachers' perception on the continuity of the CPD programs, the contributions of the supervisors and the differences and the similarities in effectiveness between the two school clusters.

Table 10: Teachers Perception on the Practice of Cluster Based CPD.

The practice of cluster based CPD	Responses			
	Chacha		Kottu	
	F	%	F	%
1. Which one is highly practiced in your cluster?				
A) Experience sharing among teachers.	16	16.7	4	8
B) Resource sharing among schools	4	4.2	2	4
C) Teachers decisions about CPD	12	12.5	4	8
D) Active learning	30	31.3	16	32
E) Continuous assessment	20	20.8	20	40
F) Teaching aids preparation	14	14.6	4	8
Note: more than one response is allowed				
2. How do you rate the continuity of cluster based CPD?				
A) Very high	2	5	2	5
B) High	20	50	4	10
C) Low	16	40	20	50
D) Very low	2	5	14	35
3. How do you rate the contributions of supervisors for your CPD?				
A) Very high	1	2.5	1	2.5
B) High	20	50	4	10
C) Low	12	30	20	50
D) Very low	7	17.5	15	37.5

According to the data in Table 10, in both Chacha and Kottu clusters the majority of the respondents attested that active learning and continuous assessment have been practiced in their clusters. Furthermore, it is found out that no difference was observed in resource sharing among the two clusters. This clarifies that the two clusters resource centers are not interested to share their resources that may become early damaged or lost.

Teachers responses also indicated that experience sharing and teaching aids preparation were better in Chacha than Kottu cluster. A big majority of teachers in Kottu also asserted that they had problems in experience sharing and teaching aids preparation. In these issues stark differences were observed in the responses of the two cluster teachers. The main reason for this seems differences in financial support, incentives, and distance between the satellite schools and the cluster center.

On item No.2 of the same table, most of the respondents of Chacha cluster (50%) rated the continuity of CPD as high. Whereas, in Kottu half of the respondents asserted that the continuity of cluster based CPD was low. From this, it is possible to suggest that in Kottu cluster based CPD has no continuity. As can be observed there is a significant difference between Kottu and Chacha cluster teachers responses in relation to the continuity of the CPD programs. ($\chi^2=20.04$, $df=3$, critical value of $\chi^2=7.815$ at 0.05 level of significance).

In item No.3 of the same table, 50% of Chacha respondents rated the contributions of supervisors for teachers CPD as high. Where as, in Kottu 50% of respondents rated as low. Some respondents in Chacha also asserted that the supervisors support was low.

But, as it was observed the problem was more critical in Kottu cluster. Thus, this evidence might indicate that teachers in Kottu have got less support from the supervisors for their CPD.

4.4.1. Supporters of the CPD Programs

In both Chacha and Kottu school clusters teachers were asked to rate the contributions of different institutions and organizations for the effectiveness of the CPD programs.

Table 11 presents the summary.

Table 11: Teachers Evaluation on the Contributions of Institutions and Organizations for CPD

TCPD supporters	School	N	Mean	Std. Deviation	t-calculated	df
BESO	Chacha	40	4.4000	.70892	17.556*	78
	Kottu	40	1.6250	.70484		
Amhara Regional State Education Bureau	Chacha	40	1.7500	.77625	.714	78
	Kottu	40	1.8750	.79057		
Woreda Education Office.	Chacha	40	1.8500	.86380	.376	78
	Kottu	40	1.7750	.91952		
Clustered School Support	Chacha	40	3.7500	.98058	4.103*	78
	Kottu	40	2.8250	1.03497		

*Significant at alpha level 0.05.

*2-tailed independent sample t-test.

To check whether there is balance of support system in both cluster centers or not, comparison was made by using t-test. As shown in Table 11, in Chacha cluster the mean value of BESO support has been above average. In both Chacha and Kottu the mean values indicated that the clustered schools contributions have been better than the Education Bureau and the Woreda Education Office. In Kottu the mean values reveal that the contribution of BESO, Woreda Education Office and the Education Bureau for teachers CPD have been low. As depicted in the Table, the contributions of the Education Bureau and the Woreda Education Office for Chacha cluster were also low.

Regarding this, the t-test results on the contributions of BESO for teachers CPD indicated that there is significant differences in effectiveness between the two clusters at an $\alpha=0.05$ level. The computed t-values of BESO and clustered schools support are greater than critical t-values. That means the contributions of BESO and satellite schools for Chacha cluster was high. On the other hand, the t-test result on the contributions of the Woreda Education Office and the Education Bureau indicated that there is no significant difference between the two clusters at an $\alpha=0.05$ level. This result clarifies that the contribution of government for teachers cluster based CPD has been insufficient.

Similar to this, in Kottu cluster a respondent said:

“There is no budget for cluster-based CPD. Some of the satellite schools are very far from the cluster center. But, teachers has no per diem and transport cost for trainings. In the contrary, other sectors provide per diem when there is training. Due to these stumbling blocks teachers’ interest towards cluster based CPD trend down wards from time to time.”

The responses of key teachers and directors in the interview also show similarity with the above analysis. From observations, the investigator also understands that in

Chacha cluster the pedagogical center, the cluster coordinator office and the model classes were well furnished and preeminent than Kottu cluster center.

4.5. Achievements of the two clusters from CPD trainings

Cluster based CPD is provided for teachers to maintain, improve and broaden their skills and knowledge. Based on this, teachers were asked about their achievements from the trainings. Table 12, indicates teachers responses.

Table 12: Teachers Achievements in Cluster-Based Trainings

Achievements of the two clusters from CPD	Responses			
	Chacha		Kottu	
	F	%	F	%
1. Which one is highly achieved in your cluster school?				
A) Production and use of teaching aids.	16	17.8	4	8.2
B) Students drop out rate decrease.	6	6.7	5	10.2
C) The use of active learning.	30	33.3	16	32.6
D) The use of continuous assessment.	20	22.2	20	40.8
E) Experience sharing among teachers	18	20.0	4	8.2
Note: multiple response is allowed				
2. What kind of teaching methods do you use in your classrooms?				
A) Group work, role-play, and question and answer methods.	18	40.91	16	38.1
B) Lecture method through out the period.	2	4.55	4	9.5
C) The combinations of the two	22	50	21	50
D) Others.	2	4.55	1	2.4
Note: multiple response is allowed				
3. Do you solve your classroom problems by using action research?				
A) Yes	26	65	12	30
B) No	14	35	28	70

Table 12 shows that in both Chacha and Kottu clusters teachers achievement in active learning and continuous assessment have been to some extent effective. On the other hand, the use of teaching aids and experience sharing among teachers have been better in Chacha than Kottu cluster. Regarding students dropout rate, the two clusters teachers' response indicated that the cluster schools achievement was insufficient.

In item No.2 of the same table, most of teachers' responses show that in both Chacha and Kottu the combinations of active learning and lecture method have been used. Although insignificant in number, some respondents in both Chacha and Kottu attested that teachers were using lecture method through out the period. As can be seen from the table, the results obtained were remarkably uniform across the two cluster schools. There is no significant difference between the two groups in relation to the use of teaching methods. ($\chi^2=1.2$, $df=3$, critical value of $\chi^2 = 7.815$ at 0.05 level of significance). Thus, based on this evidence it might be possible to suggest that most of the time the two clusters teachers have been using active learning methods in their classrooms.

Observation in the two clusters also revealed that students were discussing and presenting classroom activities in groups. Compared with the second cycle, the first cycle (1-4) teachers of the two clusters were better in practicing active learning and continuous assessment.

In item 3, most of teachers responses in Chacha (65%) indicated that teachers have been practicing action research. Where as, in Kottu more than half of the respondents (70%) attested that teachers were not conducting action research.

In both Chacha and Kottu supervisors, directors and key teachers were interviewed about the achievements of teachers from cluster based CPD. In Chacha cluster all the respondents said that teachers took training about active learning, continuous assessment, action research, science kit, lesson planning, gender issues, HIV/AIDS, self contained class rooms, integrated subjects and subject methodology. According to the respondents, cluster based CPD has helped teachers of Chacha to develop their skills in active learning, continuous assessment, lesson planning, model class organization and action research.

On the other hand, all respondents from Kottu said that teachers of the clustered schools took trainings about active learning, action research, continuous assessment, lesson planning, gender issues, self-contained classrooms and subject methodology. According to the respondents, the cluster has been in a better level of performance in active learning, lesson planning and continuous assessment.

4.6. Major Factors Affecting Teachers' CPD at Cluster School Level

In the questionnaire sample teachers from the two clusters were asked to provide information about the factors that hindered the practice of CPD. A detail of this analysis is given in Table 13 below.

Table 13: Problems of Cluster Based CPD.

Problems of clusters	Responses			
	Chacha		Kottu	
	F	%	F	%
1. Which one of the following is the main problem of cluster based teachers' professional development?				
A) Cluster coordinators provided a lower priority for cluster-based training.	10	13.5	14	19.4
B) Cluster resource centers are not sharing their resources.	12	16.2	2	2.8
C) Long distance from the cluster center	10	13.5	20	27.8
D) Lack of budget	20	27	20	27.8
E) Lack of incentives	18	24.3	14	19.4
F) Lack of teachers commitment	4	5.4	2	2.8
2. Which one hindered the preparation of teaching aids from locally available materials?				
A) Lack of incentives	14	17.95	12	16.2
B) Lack of budget	26	33.3	26	35.1
C) Lack of teachers commitment	12	15.4	16	21.6
D) Lack of training	26	33.3	20	27.1

*Note: Multiple responses is allowed

As indicated in table 13, most of the responses (27% and 24.3%) in Chacha attested that lack of budget and incentives were the main problems of cluster based CPD. On the other hand, the majority of the responses in Kottu indicated that lack of budget and long distance between the cluster center and the satellite schools were the main problems of Kottu cluster schools. From the data it becomes clear that absence of budget, lack of incentives and long distance from the cluster center were the main problems of cluster based CPD.

Similarly, a respondent in Kottu said that:

Teachers from the satellite schools wanted to finish the training before lunchtime. After training they had been expected to return back to their schools which took about 2 hours to 4 hours walk on foot.

On item No 2 of the same table, respondents in Chacha indicated that lack of budget and trainings were the main problems of teaching aids preparation. Similarly, most of the responses in Kottu indicated that lack of budget and lack of trainings were the main stumbling blocks for teaching aids preparation. As can be observed there is no significant difference between the two clusters responses. ($X^2 = 1.44$, $df = 3$, critical value of $(x^2) = 7.815$ at 0.05 level of significance).

In interview, a respondent in Chacha said that:

The BESO project assigned budget for CPD. The cluster center had budget and material support for teaching aids preparation. But now, the project phase out and the cluster has no budget and material supply. So the clustered schools have been contributing 5% for CPD program.

Table 14: Factors Affecting Cluster Based CPD in Chacha.

Factors that affect cluster based CPD	Degree of influence									
	Very low		Low		Average		High		Very high	
	F	%	F	%	F	%	F	%	F	%
Lack of material supply	1	2.5	2	5	7	17.5	10	25	20	50
Lack of incentives	-	-	1	2.5	8	20	8	20	23	57.5
Lack of supervision services	-	-	12	30	16	40	8	20	4	10
Lack of per diem and transport cost	5	12.5	5	12.5	4	10	6	15	20	50
Lack of teachers commitment	4	10	5	12.5	8	20	10	25	13	32.5
Distance from the cluster center	4	10	6	15	10	25	11	27.5	9	22.5
Teachers over work load	4	10	1	2.5	5	12.5	11	27.5	19	47.5
Lack of budget	-	-	-	-	7	17.5	10	25	23	57.5
Mean	2.25	5.6	4	10	8.1	20.3	9.25	23.1	16.4	40.9

Table 14 shows that, on the average 40.9% of the respondents rated the influence of the listed factors as very high. According to teachers response, in Chacha lack of budget, lack of incentives and material supply were the main problems of cluster based CPD. On the other hand, lack of supervision service and far distance between the cluster center and the satellite schools were not serious problems for Chacha cluster.

Table 15: Factors Affecting Cluster Based CPD in Kottu.

Factors that affect cluster based CPD	Degree of influence									
	Very low		Low		Average		High		Very high	
	F	%	F	%	F	%	F	%	F	%
Lack of material supply	-	-	9	22.5	7	17.5	8	20	16	40
Lack of incentives	-	-	5	12.5	1	2.5	19	47.5	15	37.5
Lack of supervision services	-	-	8	20	11	27.5	1	2.5	20	50
Lack of per diem and transport cost	-	-	-	-	10	25	11	27.5	19	47.5
Lack of teachers commitment	8	20	10	25	10	25	4	10	8	20
Distance from the cluster center	-	-	-	-	9	22.5	11	27.5	20	50
Teachers over work load	-	-	-	-	12	30	12	30	16	40
Lack of budget	4	10	-	-	-	-	15	37.5	21	52.5
Mean	1.5	3.75	4	10	7.5	18.75	10.1	25.25	16.9	42.25

Table 14 shows that on the average 40.9% of the respondents rated the influence of the listed factors as very high. Similar to this, Table 15 depicted that on the average 42.3% of respondents rated the influences of the listed factors as very high.

In Kottu teachers responses attested that the main factors that influences cluster based CPD were lack of budget, lack of supervision and distance from the cluster center.

In both Chacha and Kottu very small portion of the respondents (5.6% and 3.8% respectively) rated the influences of the listed factors as very low.

Similar to this, an interviewee from Woreda Education Office said:

“The CPD program is not a flaw less program. Some of the satellite schools are very far and take about seven hours walk. Due to this, some teachers are disinterested to attend the CPD program.”

As can be seen from the table, one of the surprising results of this study was that in Kottu lack of teachers' commitment was considered as a less serious problem and this might be for irrational reasons. Thus, teachers might not want to be perceived as not committed.

4.7. Teachers Attitude Towards cluster Based CPD

Teachers' negative attitude towards cluster school based CPD influenced the effectiveness of the program. For this reason teachers were requested to indicate their attitude towards cluster school trainings by rating Strongly Agree (5), Agree (4), Undecided(3), Disagree(2),and Strongly Disagree(1).

The responses of both Chacha and Kottu teachers (see appendix-F) indicated that government support for clusters was not sufficient. In Kottu cluster supervisors support, action research practice and key teachers' efficiency rated by the respondents as below average. The data (Appendix-F) also shows that teaching aids preparation has been better in Chacha than Kottu. In addition, Chi Square test for goodness of fit also revealed that in both Kottu and Chacha teachers felt, as they were not using tests for evaluation purposes. ($\chi^2=12$ and 23.2 , $df= 4$, $p < 0.05$). We may therefore say that the opinion expressed by teachers differ significantly from those obtained by Chance.

In Chacha most of the respondents, 27.4 (68.5%) show their agreement by rating above average. Whereas, in kottu the majority of the respondents or 21.5 (53.8%) show their disagreement by rating below average. Thus, from these evidences, it might possible to deduce that Chacha cluster school teachers have positive attitude towards cluster based CPD than Kottu cluster school teachers.

4.8. Discussions

As Neil (2004) suggested cluster based teachers professional development was cost effective and respond to teachers' immediate needs. On the other hand, Christie (2004) and Wood (1981) argued that lack of fund and resources can affect teachers CPD. Similarly, different researchers (Ayalew, 2004; Kebede, 2006) pointed out that lack of incentives and long distance between the cluster and the satellite schools as the problems of cluster-based teachers CPD. Furthermore, Eraut (1995) suggested that when teachers' professional development is based on the needs of teachers it is likely to be effective.

1. Effectiveness of cluster based CPD

The result of this study showed that, in both Chacha and Kottu the contents of CPD were selected based on cluster coordinators' need. It seems little emphasis was given to teachers need assessment. But, as it was mentioned in the review of literature, professional development that focuses on the needs of teachers' is likely to be effective (Eraut, 1995). Similarly, UNESCO (2003) suggested that the professional development programs and activities should respond to teachers' professional need and interest.

Teachers of the two clusters were also asked about experience sharing. The majority of Kottu cluster teachers response indicated that they have been sharing experiences sometimes. Moreover, some of kottu cluster teachers' responses indicated that teachers were not sharing experiences with their colleagues at the cluster center. This seems to imply that some of the teachers in Kottu were not attending cluster based CPD. But, different researchers like Ayalew (2004: 26) and Cummings (2005:4) attested that experience sharing is one of the main activities of cluster schools.

Teachers of the two clusters were asked about the effectiveness of cluster based CPD. As teachers responses indicated, the effectiveness of Chacha cluster CPD was high. Whereas, in Kottu the effectiveness of cluster based CPD was low. The chi square result indicated that there is a significance difference between the two clusters in relation to the effectiveness of the CPD program. Thus, from this evidence it might be possible to suggest that in Chacha cluster based CPD is in a better level of performance due to the necessary support from USAID and short distance between the satellite schools and the cluster center. Similarly, Wood (1981: 62-63) asserted that schools that get resources and trainings can implement CPD programs successfully.

The mean comparison with the two school clusters, reveal that in Chacha the practice of action research, teaching aids preparation and experience sharing have been high (to a great extent). But, in Kottu there were problems in the above issues. The computed t-test results on the practice of action research, teaching aids preparation, supervisors support and experience sharing are greater than t-critical values and this show the presence of a significant differences between government support and USAID support clusters at an $\alpha=0.05$ level. The responses of key teachers and directors in the interview also show similarity with the above analysis. Based on this evidence, it might be possible to suggest that the practices of Chacha school cluster based CPD is effective than Kottu cluster. Similar to this finding, Sparks (2002:1-4) stated that effective professional development focuses on improving teachers' knowledge and skills and provide opportunities for research and founded on a sense of collaboration among teachers. Hence, this result may not be surprising as teachers' at Kottu lacks financial and material supply for CPD.

2. Similarities and differences between the two clusters

The result of this study indicated that, in Chacha the continuity of cluster based CPD was high. Whereas, in Kottu the continuity of cluster based CPD was low. As can be observed there is a significant difference between Kottu and Chacha cluster teachers' response in relation to the continuity of the CPD programs. But, as Farrant (1980:226) pointed out school or cluster based in- service training is a lifelong process in which a teacher is constantly learning and adapting to the new challenges of his job.

As the result of this study showed, in Chacha the contributions of supervisors for teachers CPD was high. Whereas, in Kottu supervisors support was low. Although insignificant in number, some respondents in Chacha asserted that the supervisors support was low. Thus, this evidence might indicate that teachers in Kottu got less support from the supervisors for their CPD. The responses of key teachers and directors in the interview also show similarity with the above analysis. This finding confirms with the finding of Haile (2006:65), which states that the majority of the supervisors fail to accomplish their responsibility. On the other hand, the ARSEB (2005:16) suggested that the main role for teacher CPD should be played by supervisors. But, the similarity of the findings in these two studies might suggest that supervisors support for clustered schools was inefficient.

The result of this study also reveals that, in both Chacha and Kottu clusters the practice of active learning and continuous assessment show similarity. But, in Chacha teaching aids preparation and experience sharing was effective than Kottu. The majority of responses in Kottu also indicated that teachers were not practicing action research. The main reasons for this seem to be lack of training, lack of material supply and incentives. In line with this, yalew (2000: 249-260) attested that the major stumbling blocks to

conduct research were lack of material supply, lack of knowledge, lack of motivation, and over load. Similarly, some research findings (USAID, 2006) indicated that teachers show less participation in doing action research due to lack of support from the school, and lack of incentives.

3. Achievements of Chacha and Kottu clusters

In both Chacha and Kottu clusters teachers' achievements in active learning and continuous assessment have been to some extent effective. Responses from teachers of the two clusters also indicated that cluster based CPD has helped teachers to improve lesson plan preparation and model class organization. Similarly, observation in the two clusters also revealed that students were discussing and presenting class room activities in groups. On the other hand, the information gained from teachers reveals that, Chacha cluster has been better than Kottu cluster in the practice of action research and teaching aids preparation. This might be due to USAID support and short distance between the satellite schools and the cluster center. Similarly, Spears (1957:84-85) attested that to improve teachers' skills or proficiency teachers' continuous professional development should be pre-planned, there should be material support, and avoid repetition and poor leadership (spears, 1957:84-85).

In addition to the quantitative data, interviews held with directors, supervisors and key teachers reveal that cluster based CPD has helped teachers of Chacha to develop their skills in active learning, continuous assessment, lesson planning, model class organization and action research. Whereas, in Kottu respondents pointed out that the cluster is in a better level of performance in the use of active learning methods, lesson planning and continuous assessment. Similarly, Amare and his colleagues finding

attested that Continuous Professional Development (CPD) has helped teachers to develop their skills in lesson planning, continuous assessment, active learning and action research.

4. Factors affecting cluster based CPD

As the result of this study indicated, in Chacha school cluster lack of budget and incentives were the main problems of cluster based CPD. On the other hand, in Kottu lack of budget and long distance from the cluster centers were the main problems of cluster based CPD. Alongside the factors mentioned above, in Kottu teachers pointed out that lack of per diem and supervision service affects the effectiveness of teachers CPD. Similarly, in interview respondents in Kottu reveal that most of the satellite schools are very far from the cluster center. Due to this, teachers of the satellite schools are forced to travel from 1 hour to 4 hours for training. This finding goes in harmony with that of Ayalew (2004: 30-38) which states that long distance from the center, lack of budget and incentives for good performing teachers were the main draw backs of the school cluster programs.

As the finding of this study indicated, in both Chacha and Kottu lack of budget and lack of trainings were the main problems of teaching aids use and preparation. As can be observed there is no significance difference between the two clusters response. Similar to this finding, Amare (1998: 297) pointed out that elementary school teachers fail to prepare instructional materials due to lack of financial and material support. Contrary to the above idea, commonwealth secretariat (1993:36-43) attested that teaching aids could be prepared without cost.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. SUMMARY

The main purpose of this study was to investigate the effectiveness of USAID and government supported cluster-based in-service teachers' professional development of Angolelana Terra Woreda of North Shewa Zone. To this end, the study was conducted in USAID supported (Chacha) and government supported (Kottu) cluster based CPD.

Based on this, the specific objectives of this study were to:

1. Investigate the effectiveness of cluster based in-service teachers continuous professional development of Angolelana Terra Woreda.
2. Examine the main differences between government and USAID supported clusters.
3. Explore the achievements of USAID and government supported cluster based CPD.
4. Investigate factors that affect the practice of cluster-based teachers' professional development in Angolelana Terra Woreda.

To achieve the above mentioned specific objectives the following basic research questions were raised:

1. To what extent are cluster based continuous professional development programs effectively practiced in Angoelana Terra Woreda?
2. Is there any significant difference between government and USAID supported programs?

3. What are the major achievements of USAID and government supported cluster based Continuous Professional Development (CPD) programs?
4. What are the major factors that affect the effectiveness of cluster based CPD programs?

To answer the above research questions the investigator used quantitative method as the main method of study. The investigator also used interview and observation techniques to cross check the data obtained by questionnaire.

The design of this study was a comparative case study in which government and USAID supported clusters were compared with a view to find similarities and differences and to express them in relation to the effectiveness of cluster based CPD in Angolelana Terra Woreda.

The target population of this study was 80 teachers in Chacha (USAID support) and 79 teachers in Kottu (government support), supervisors, key teachers, and directors of Kottu and Chacha clusters, which is situated some 100 kilometers north of Addis Ababa. To get more information from the satellite schoolteachers the researcher used stratified random sampling technique. First, the satellite schools were listed then by using simple random sampling method (lottery system) 40 teachers were selected from Chacha. Similarly, 40 teachers were selected from Kottu cluster.

Based on the literature and experiences questionnaire consisted of closed and open ended items were developed in English language. Then, the investigator translated the draft questionnaire in to the language which suits the respondents (Amharic) and edited by language teachers at Debre Birhan Teachers College.

Before dispatching the questionnaire for the actual study the investigator also pre-tested the questionnaire in a pilot study at Model No.2 Elementary School in Debre Birhan. After pilot test, the questionnaire was distributed to teachers of Kottu and Chacha clusters and collected by the investigator. Besides, observation technique was used to get additional information about the use of active learning, continuous assessment, teaching aids use and preparation, and experience sharing.

In this study, interview was also used to collect data from supervisors, directors, key teachers of Chacha and Kottu clusters and from Woreda Education Office. Directors and key teachers with long years of experiences and supervisors of the two clusters were purposefully selected for interview.

The information gained with the help of the above data collection techniques was organized and this helped the researcher to compare the effectiveness of the USAID and government supported programs. The quantitative data were analyzed by using percentages, mean, chi-square and t-test. On the other hand, information obtained by observation and interview were analyzed by theme.

The findings of this study are the following:

1. It has been shown by the majority of the respondents that in both Chacha and Kottu the contents of CPD were not selected on the basis of teachers need assessment.
2. It was found out that in Chacha supervisors support for teachers was high. Whereas, in Kottu supervisors support was low.
3. It has been shown by the majority of the respondents that, in Chacha the contribution of BESO for the effectiveness of the CPD was very good. Whereas, government support for cluster school was insufficient.
4. In both Chacha and Kottu clusters teachers' achievements in active learning, lesson planning and continuous assessment appeared to be good. In addition, I have noticed through my observational experience that the two cluster teachers were using active learning methods (mainly group work and role play). But, the use of teaching aids and experience sharing among teachers were better in Chacha than Kottu cluster. Alongside the differences mentioned above, in Chacha teachers have been conducting action research. Whereas, in Kottu teachers were not conducting action research due to lack of material support and training. Based on these evidences, the practices of Chacha school cluster based CPD was effective than Kottu cluster.
5. It has been shown by the majority of the respondents that, in both Chacha and Kottu clusters teachers continuous professional development was helpful for teachers. In spite of these results, evidences obtained from interview indicated that there are many obstacles to implement CPD of teachers at school or cluster level.

6. The mean values for cluster based training contents indicated that the extent of effectiveness of USAID support cluster was high (above to some extent). Whereas, the effectiveness of government support cluster based CPD was low. The t-test results on the practice of action research, teaching aids preparation, supervisors support and experience sharing show that there are significant differences in effectiveness between government support and USAID support clusters at an $\alpha=0.05$ level.
7. The majority of the respondents of Chacha and Kottu clusters also indicated that government budget was not allocated as a support for cluster based teachers' professional development. Similarly, the interviewee from the two clusters attested that there was no financial and material support for clusters from the side of the government.
8. In this study many problems were identified as having negative influences on cluster based teachers professional development. Some of the problems that make government support cluster under a jeopardy situation were absence of budget, lack of incentives and long distance between the cluster center and the satellite schools. In addition to this, interview made with supervisors, directors and key teachers showed that some of the clustered schools are very far from the cluster center and teachers were complaining for lack of per diem and transport cost.

5.2. CONCLUSIONS

Depending on the major findings of this study the following major conclusions were made for the specific USAID supported and government supported clusters at Angolelana Terra Woreda.

Continuous professional development has helped teachers of both USAID and government support programs to develop their skills in lesson planning, active learning and continuous assessment. Despite this, government support cluster has no budget for teachers CPD. In addition, the distance between the cluster center and the satellite schools was one hour to four hours walk. Besides, teachers complained for the absence of per diem and transport cover. Here, it needs to be mentioned that these impediments negatively affect teachers' participation in cluster based trainings. As a result, teachers of government support cluster fail to conduct action research. It is also essential to bear in mind that, experience sharing among teachers, teaching aids preparation and supervisors support were also insufficient in government support cluster. Furthermore, the collected evidences asserted that government support cluster center was not well furnished.

In conclusion it can be stated that USAID support cluster with the necessary material and financial support was in a better level of performance (to some extent effective) in action research, experience sharing, supervision, model class organization and teaching aids use and preparation than government support cluster. Whereas in government support clusters, teachers were prodigiously reluctant to conduct action research, to use and prepare teaching aids, and to share experiences. The main

reasons for this were lack of trainings, lack of financial and material support and far distance from the cluster center. In addition, supervisors help for government support cluster teachers was inadequate. However, in the two clusters resource sharing among schools was insufficient.

Finally, this study has identified four critical stumbling blocks of government support cluster based teachers CPD as stated below:

1. Absence of budget and material supply.
2. Lack of incentives including absence of per diem and transport cover.
3. Long distance from the cluster center.
4. Lack of follow up strategies.

5.3. Recommendations

Based on the findings of this study discussed so far, the following points are forwarded as possible actions:

- 1) In Kottu cluster long distance between the cluster center and the satellite schools has been indicated by the majority of the respondents as one of the major factors influencing teachers' participation in cluster based CPD. As the Amhara regional state education bureau document indicated the distance between the satellite schools and the cluster center should be below two hours walk. But as interview and observation techniques indicated clusters of Angolelana Terra woreda were not practicing it. So, if possible, very far satellite school should stand alone and its teachers should be trained by key teachers of the nearby cluster center.
- 2) It has been pointed out in this study that lack of material and financial support affects

the effectiveness of cluster based CPD. So, cluster member schools, the Woreda Education officers and other concerned bodies should allocate fund and other support for clustered schools.

4. Directors and other concerned bodies should encourage teachers of the cluster and the satellite schools to share experience and resources. In addition, supervisors should be qualified so that they can give the necessary support for teachers to conduct research, and to prepare and use teaching aids.
5. In order to make cluster based CPD effective training contents should be selected based on teachers need assessment. Besides, training should be rotated among schools and the CRC should not be the only location of interaction.
6. Further research of a wider scope needs to be made on the topic under study in the future in order to get in deep understanding of cluster based CPD effectiveness.

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APPENDIX-A

**Addis Ababa University
School of Graduate studies
College of Education**

**Department of Curriculum and Teachers' Professional Development
Studies.**

Questionnaire to be filled by those who took part in USAID and Government supported cluster- based teachers' professional development of Angolelana Tara Woreda.

The purpose of this questionnaire is to seek your free opinion about the effectiveness of cluster- based professional development programs. The study is part of a requirement for MA qualification at Addis Ababa University.

Dear respondents, the researcher wants your free and honest opinion. The information you share with the researcher will be secured with the utmost confidentiality and your personal identity will be kept anonymously. There are no known risks to you and discomfort associated with this study .So feel free and confidential when you give response. I assure you once again your responses will be kept secret.

General Directions

- Please put a tick mark “✓” for questions with options.
- Write brief responses for the questions, which require written answer.
- Do not write your name at any place in the questionnaire.

Thank you in advance for your cooperation.

III: Questions related to the achievements of cluster based teachers

Professional development

11. Evaluate the contributions of the following contents for the Improvement of teachers practice by using rating scale.

Table III- the improvement of teachers practice after training.

No	Contents	Teachers practice after training		
		Highly improved	Some what improved	Not improved
1	Use of continuous assessment			
2	Use of active learning			
3	Action research			
4	Teachers participation in teaching aids preparation			
5	Supervision service			
6	Experience sharing among teachers.			
7	Gender issues			
8	Resource sharing among schools			

12. How do you rate the contributions of supervisors for your

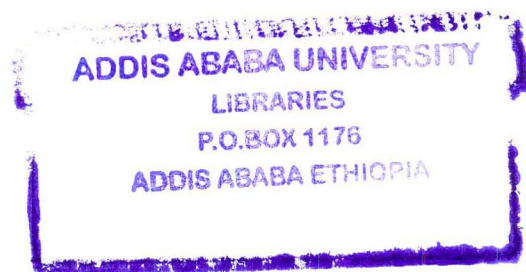
Professional development?

A) Very high ☐ B) High ☐ C) Low ☐ D) very low ☐

13. Do you solve your classroom problems by using action research?

A) Yes ☐ B) No ☐

Why? (Please give reasons for your response)



Part I: Personal Information

Direction I: Please write the necessary information and put a tick

Mark “✓” in the box for the following information.

1. School Name _____
2. Sex M ☐ F ☐
3. Educational qualification. Diploma ☐ certificate ☐
10/12 complete ☐
4. Experience in teaching
 - 4.1. 0-10 years ☐
 - 4.2. 11-20 years ☐
 - 4.3. 21-30 years ☐
 - 4.4. above 31 years ☐
5. Weekly teaching load
 - 5.1. 1-10 ☐
 - 5.2. 11-20 ☐
 - 5.3. 21-30 ☐
 - 5.4. above 31 years ☐

Part II: Questions about Cluster based CPD

Direction II: Please show your opinion for the closed ended questions by putting a tick mark “✓” in the box.

I: Questions related to the practice of cluster based CPD.

1. Which one is the criterion for selecting training contents of CPD?
 - A. Teachers need assessment ☐
 - B. Cluster coordinator need ☐
 - C. Training coordinators need ☐

Note: more than one response is allowed.
2. How often have you shared experiences with your colleagues' at cluster center?
 - A. always ☐
 - B. some times ☐
 - C. not at all ☐
3. How do you evaluate your experience in working with other schoolteachers in the cluster center?
 - A. Very helpful ☐
 - B. helpful ☐
 - B. not helpful ☐

D. Others, please specify _____

4. How do you rate the importance of clusters for teachers' professional development?

A. very high ☐

B. high ☐

C. moderate ☐

D. low ☐

E. very low ☐

5. From 5.1. to 5.8 cluster based training contents are listed. Then, evaluate the Extent of effectiveness of cluster based professional development by putting a tick mark "✓".

Table I-Cluster- based teachers' professional development training contents.

No	Training contents	To what extent the following cluster-based CPD activities are practiced in your school?		
		To a great extent	To some extent	Not at all
5.1.	Active learning			
5.2.	Continuous Assessment			
5.3.	Action research			
5.4.	Teaching aids preparation from locally available things			
5.5.	Supervisors support			
5.6.	Gender issues			
5.7	Resource sharing among schools			
5.8	Lesson planning			
5.9	Experience sharing among teachers.			

6. How do you rate the effectiveness of cluster based teachers professional development?

A. very high B. high C. low D. very low

7. Which one is highly practiced in your cluster center?

A) Experience sharing among teachers ☐

B) Resource sharing among schools ☐

C) Teachers decisions about their professional development ☐

D/ active learning☐ E/ continuous assessment ☐

F/teaching aids preparation☐. G) Others please specify _____.

N.B: more than one response is allowed.

8. How do rate the continuity of Cluster based CPD?

A/very high ☐ B/high ☐ C/low ☐ D/very low ☐

II: Questions related to the support made for cluster based CPD

Programs.

9. Do you think that there are differences between Government and USAID support cluster based CPD?

A) Yes ☐

B) No ☐

If your answer is yes, then what makes them different? _____

10. Supporters of cluster based CPD programs are listed. Then, by using a tick mark “✓” evaluate their contributions to the effectiveness of the program.

Table II-supporters of cluster –based CPD.

Name of supporters	V. Good	Good	Medium	Weak	Very weak
USAID/ BESO					
Amhara Regional State Education Bureau					
Woreda Education Office					
Clustered Schools					

14. Which one is highly achieved in your school?

- A) Production and use of teaching aids ☐
- B) Students drop out rate decrease ☐
- C) The use of active learning methods. ☐
- D) The use of continuous assessment. ☐
- E) Experience sharing among teachers' ☐

N.B: more than one response is allowed.

15. What kind of teaching method (s) do you use in your classroom?

- A. Group work, role play and question and answer methods ☐
- B. Lecture method through out the period ☐
- C. the combination of the two ☐ D/.Others, Please specify _____

N.B: more than one response is allowed

16. What does Continuous assessment mean?

- A/providing test continuously ☐ B/evaluating students ☐
- C/improving the teaching learning process and students achievement by giving feed back ☐
- D/others, please specify _____

N.B: more than one response is allowed.

IV) Questions related to the factors affecting cluster based CPD of Teachers.

17. Which one of the following highly affects the effectiveness of Cluster based CPD?

- A/lack of training modules ☐ B/lack of budget for training ☐
- C/ lack of time for training ☐ D/ teachers commitment ☐

N.B: more than one response is allowed.

18. Which one hindered the preparation of teaching aids from locally available materials?

- A/lack of incentives ☐ B/lack of budget ☐ C/lack of teachers commitment ☐
- D/lack of training ☐ E/others, please specify _____

N.B: more than one response is allowed.

19. Factors influencing cluster based teachers CPD are noted. Then, by using a five point

rating scale indicate your agreement in the appropriate place you choose.

Table IV-factors influencing cluster based CPD.

Factors affecting cluster based CPD	Degree of influence				
	Very low	Low	Average	High	V. High
• Lack of materials (resource) supply					
• Lack of incentives					
• Lack of supervision service					
• Lack of per diem and transport cost					
• Lack of teachers commitment					
• Distance form the cluster center					
• Teachers over work load					
• Lack of budget					

20. Which one of the following is the main problem of Cluster based teachers' Professional development?

Professional development?

- A) Cluster coordinators provided a lower priority for cluster-based training ☐
- B) Cluster resource centers are not interested to share their resources ☐
- C) Long distance form the cluster center ☐
- D) Lack of budget ☐
- E) Lack of incentives ☐
- F) Lack of teachers commitment ☐

N.B. multiple response is allowed.

V) Teachers Attitude Towards Cluster Based Teachers Professional Development.

Show your degree of agreement by putting a tick mark “✓”.

N.B. SA=Strongly Agree, AG=Agree, UN=Undecided, DA= Disagree, SD=Strongly Disagree.

Table V- Teachers Attitude towards Cluster- Based Professional Development

No	Items	SA	AG	UN	DA	SD
1	I like to participate in cluster based teachers professional development.					
2	My knowledge about action research helped me to solve classroom problems.					
3	I do not like to use tests for evaluation purposes.					
4	Key teachers are efficient to give training					
5	Supervisors helped me to improve the teaching learning process.					
6	Government support for clusters helped teachers to improve the teaching learning process.					
7	I prepared teaching aids from locally available materials.					

21. In your opinion what are the strength and shortcomings of USAID and Government support cluster based CPD of teachers?

A/ USAID support clusters strength and shortcomings _____

B/ Government support clusters strength and weakness

What do you propose as a remedy to overcome these shortcomings? _____

22. Do you think that there are differences between USAID and Government Supported programs? If yes, what are the major differences?

23. In your opinion what are the major problems that prohibit teachers
From practicing in cluster based training?

What do you propose as a solution to solve the problem?

24. What are the major achievements of teachers in the cluster based teachers' Professional development? _____

25. What are the major problems of your cluster center? _____

26. What are the major factors that hindered teachers from using active learning and continuous assessment methods? _____

ክፍል አንድ:- ግላዊ መረጃ

መመሪያ አንድ:- ለሚከተሉት ጥያቄዎች “✓” ምልክት በሳጥኑ ውስጥ በማስገባት ትክክለኛውን መረጃ ስጥ/ ስጭ::

1. የት/ቤት ስም _____

2. ፆታ ወንድ ☐ ሴት ☐

3. የት/ት ደረጃ

ዲፕሎማ ☐

ሠርተፊኬት ☐

10/12ኛ የጨረሰ ☐

4. የማስተማር የስራ ልምድ

4.1. 0-10 ዓመት ☐ 4.2. 11-20 ዓመት ☐ 4.3. 21- 30 ዓመት ☐

4.4. ከ31 ዓመት በላይ ☐

5. የሳምንት ክፍለ ጊዜ ብዛት

5.1. 1-10 ☐ 5.2. 11-20 ☐

5.3. 21-30 ☐ 5.4. ከ31 በላይ ☐

ክፍል ሁለት:- በጉድኝት ማእከል አማካኝነት የሚካሄደውን የመምህራን ሙያ

ልማት የሚመለከት ጥያቄ

መመሪያ ሁለት:- ከዚህ በታች ለቀረቡት ጥያቄዎች ትክክለኛውን መልስ በመምረጥ

“✓” ምልክት አስቀምጥ/ጭ/

1. ከሚከተሉት ውስጥ በጉድኝት ማእከል የመምህራን ሙያ ልማት የስልጠና ይዘት የመምረጫ መስፈረት የትኛው ነው?

ሀ. የመምህራንን ፍላጎት ☐ ለ. የጉድኝት አስተባባሪዎች ፍላጎት ☐

ሐ. የስልጠና አስተባባሪዎች ፍላጎት ☐

መ. ሌሎች ምክንያቶች _____ ::

ሌላ ምክንያት ካለ ይዘርዘር:: _____

ያስታውሱ :- ከአንድ በላይ መልስ መስጠት ይቻላል::

2. በጉድጅት ማእከል ከሰራ ባልደረባህ ጋር ለምን ያህል ጊዜ የልምድ ልውውጥ ታደርጋለህ/ሽ?

ሀ. ሁልጊዜ ☐ ለ. አንዳንድ ጊዜ ☐ ሐ. ምንም አላደርግም ☐

3. በጉድጅት ማእከል ከሌላ ት/ቤት መምህራን ጋር የምታደርገውን/ጊውን የልምድ ልውውጥ እንዴት ትገመግመዋለህ/ሽ?

ሀ. በጣም ጠቃሚ ነው ☐ ለ. ጠቃሚ ነው ☐

ሐ. ምንም ጥቅም የለውም ☐ መ. ሌሎች ምክንያቶች _____

ሌላ ምክንያት ካለ ይዘርዘር:: _____

4. የጉድጅት ማእከላት ለመምህራን መ.ያ ልማት ያላቸውን ጠቀሜታ እንዴት ትገመግመዋለህ/ሽ?

ሀ. በጣም ከፍተኛ ☐ ለ. ከፍተኛ ☐ ሐ. መካከለኛ ☐

መ. ዝቅተኛ ☐ ሠ. በጣም ዝቅተኛ ☐

5. ከ 5.1 እስከ 5.8 የጉድጅት ማእከላት የስልጠና ይዘቶች ተዘርዝረዋል:: በጉድጅት ማእከላት የሚሰጠውን የመምህራን መ.ያ ልማት ውጤታማነት “✓” ምልክት በማስቀመጥ ገምግም/ገምግሚ::

ተ.ቁ.	የስልጠና ርእሰ	በጉድገት ማእከላት የሚሰጠው የመምህራን መ.ያ ልማት በምን ያህል መጠን ውጤታማ ሆኖ በጉድገት ይተገበራል		
		በከፍተኛ መጠን	በተወሰነ መጠን	ምንም ዓይነትም አይተገበርም
5.1.	አሳታፊ የመማር ማስተማር ዘዴ			
5.2.	ተከታታይ ምዘና			
5.3.	ተግባራዊ ጥናትና ምርምር			
5.4.	የማስተማሪያ ቁጥቁሶችን ከአካባቢው ከሚገኙ ነገሮች ማዘጋጀት			
5.5.	የሱፐርቪዥን አገልግሎት			
5.6.	የፆታ ጉዳዮች			
5.7.	በት/ቤት መካከል የንብረት መዋዋስ			
5.8.	እቅድ አዘገጃጀት			
5.9.	በመምህራን መካከል የሚካሄደው የልምድ ልውውጥ			

6. በጉድገት ማእከላት የሚሰጠውን የመምህራን መ.ያ ልማት ስልጠና ውጤታማነት እንዴት ትገመግመዋለህ?

ሀ. በጣም ከፍተኛ ☐ ለ. ከፍተኛ ☐ ሐ. ዝቅተኛ ☐
 መ. በጣም ዝቅተኛ ☐

7. ከሚከተሉት ውስጥ በጉድገት ማእከልህ/ሽ በከፊተኛ ደረጃ የሚተገበረው የትኛው ነው?

ሀ. በመምህራን መካከል ያለው የልምድ ልውውጥ ☐
 ለ. በት/ት ቤቶች መካከል የሚካሄደው የንብረት መዋዋስ ☐
 ሐ. መምህራን ለመ.ያ ልማታቸው የሚያደርጉት ውሳኔ ☐

መ. አሳታፊ የማስተማር ዘዴ ☐

ሠ. ተከታታይ ምዝና ☐

ረ. ለማስተማሪያ አጋዥ መሳሪያዎች ማዘጋጀት ☐

ሰ. ሌሎች _____

ያስታውሱ:- ከአንድ በላይ መልስ መስጠት ይቻላል።

8. የመምህራን መ.ያ ልማት ተከታታይነትን እንዴት ትገመግመዋለህ/ሽ?

ሀ. በጣም ከፍተኛ ለ. ከፍተኛ ሐ. ዝቅተኛ መ. በጣም ዝቅተኛ

9. በመንግስትና በበሶ (BESO) የሚታገዙ የጉድኝት ማእከላት የመምህራን

መ.ያ ልማት ልዩነት አላቸው የሚል እምነት አለህ/ሽ?

ሀ. አዎ ☐ ለ. የለኝም ☐

* መልስህ/ሽ አዎ ከሆነ በምን እንደሚለያዩ ዘርዝር/ሪ፡፡

10. ከዚህ በታች በጉድኝት ማእከላት የሚካሄደውን የመምህራን መ.ያ ልማት

አጋገሮች ተዘርዝረዋል፡፡ “✓” ምልክት በመጠቀም ለመምህራን መ.ያ ልማት

ውጤታማነት የሚያደርጉትን አስተዋጾ ገምግም/ሚ፡፡

የአጋዥ ድርጅቶች ስም	በጣም ጥሩ	ጥሩ	መካከለኛ	ዝቅተኛ	በጣም ዝቅተኛ
በሶ/ BESO					
የአማራ ክልል ት/ቢሮ					
የወረዳ ት/ጽ/ቤት					
የተገዳዥ ት/ቤቶች					

11. ከዚህ በታች ለዘረዘሩት የመምህራን መ.ያ ልማት የስልጠና ይዘቶች

ከስልጠና በኋላ የመምህራንን ስራ ምን ያህል እንዳሻሻሉት “✓” በመጠቀም ገምግም/ሚ

ተ.ቁ.	ይዘቶች	ከስልጠና በኋላ የመምህራን አሰራር		
		በጣም ተሻሽሏል	በመጠኑ ተሻሽሏል	ምንም አልተሻሻለም
1	ተከታታይ ምዘና አጠቃቀም			
2	አሳታፊ የማስተማር ዘዴ			
3	ተግባራዊ ጥናትና ምርምር			
4	ለማስተማርያ አጋዥ ነገሮችን ከአካባቢ ቁሣቁሶች ማዘጋጀት			
5	ሱፐርቪዥን			
6	በመምህራን መካከል ያለው የልምድ ልውውጥ			
7	የፆታ ጉዳዮች			
8	በት/ት ቢቶች መካከል ያለው የንብረት መዋዋስ			

12. ሱፐርቪዘሮች ለመምህራን መ.ያ ልማት ያላቸውን አስተዋጽኦ እንዴት ትመገግመዋለህ/ሽ?

ሀ. በጣም ከፍተኛ ☐ ለ. ከፍተኛ ☐ ሐ. ዝቅተኛ ☐
መ. በጣም ዝቅተኛ ☐

13. ተግባራዊ ጥናትና ምርምር በማድረግ በክፍል የተፈጠረ ችግር ታቃልላለህ/ሽ ?

ሀ. አቃልላለሁ ☐ ለ. አላቃልልም ☐

ለምን? ለምትሰጠው/የው መልስ ማብራሪያ ስጥ/የው?

14. ከሚከተሉት ውስጥ ትምህርት ቤት/ሽ ቤት/ሽ በከፍተኛ ደረጃ ስኬት ያገኘበት /ውጤታማ የሆነበት/ የትኛውን ነው?

ሀ. የማስተማሪያ አጋዥ መሳሪያዎች በየወቅቱ በማዘጋጀት ☐

ለ. የሚያቋርጥ ተማሪ ቁጥር መቀነስ ☐

ሐ. አሳታፊ የማስተማር ዘዴ አጠቃቀም ☐

መ. ተከታታይ ምዘና አጠቃቀም ☐

ሠ. በመምህራን መካከል ያለው የልምድ ልውውጥ ☐

ረ. ሌሎች _____

* ከአንድ በላይ መልስ መስጠት ይቻላል፡፡

15. በምታስተምርበት ክፍል ውስጥ የምትጠቀመው /ሚው የማስተማሪያ ዘዴ የትኛው ነው ?

ሀ. የቡድን ውይይት፣ ሚና ጨዋታና ጥያቄና መልስ ☐

ለ. በሙሉ ክፍል ጊዜው ገለፃ ማድረግ ☐

ሐ. ሁለቱን በማደባለቅ ☐ መ. ሌሎች _____

ለሎች ካልክ/ሽ ይዘርዘሩ፡፡ _____

* ከአንድ በላይ መልስ መስጠት ይቻላል፡፡

16. ተከታታይ ምዘና ማለት ምን ማለት ነው?

ሀ. በተከታታይ ፈተና መስጠት ☐ ለ. ተማሪዎችን መገምገም ☐

ሐ. ከተማሪዎች የሚገኝን ምላሽ መሠረት በማድረግ የመማር ማስተማሩንና የተማሪዎችን ውጤታማነት በየጊዜው ማሻሻል ☐

መ. ሌሎች _____

17. ከሚከተሉት ውስጥ በጉድኝት ማእከል በሚሰጠው የመምህራን ሙያ ልማት ውጤታማነት ላይ ከፍተኛ ተጽእኖ የሚያደርገው

ሀ. የስልጠና ሞዴል አጥረት ☐ ለ. የበጀት አጥረት ☐

ሐ. የጊዜ አጥረት ☐ መ. የመምህራን ቁርጠኝነት አለመኖር ☐

ሠ. ሌሎች _____

• ከአንድ በላይ መልስ መስጠት ይቻላል፡፡

18. ከሚከተሉት ውስጥ መምህራን የማስተማሪያ አጋዥ ነገሮችን ክልካባቢው ከሚገኙ ነገሮች ለማዘጋጀት ክፍተኛ ተጽእኖ የሚያደርገው የትኛው ነው?

ሀ. ለመምህራን ማበረታቻ አለመሰጠቱ ☐

ለ. የበጀት እጥረት መኖሩ ☐

ሐ. የመምህራን ተነሳሽነት አለመኖሩ ☐

መ. የስልጠና ማነስ ☐

ሠ. ሌሎች ምክንያቶች _____ :: ምክንያቶቹ ይዘርዘሩ:: _____

አስታውሱ:- ክላሳው በላይ መልስ መስጠት ይቻላል::

19. በጉድጅት ማእከል ለሚሰጠው የመምህራን መ.ያ ልማት ተጽእኖ ያደርጋል ተብሎ የታሰቡ ነገሮች ተዘርዝረዋል:: በመምህራን መ.ያ ልማት ላይ ያላቸውን ተጽእኖ “✓” ምልክት በመጠቀም ገምግሙ::

በጉድጅት ማእከላት የሚሰጠውን የመምህራን መ.ያ ልማት ተጽእኖ የሚያደርጉ	የተጽእኖ መጠን				
	በጣም ዝቅተኛ	ዝቅተኛ	መካከለኛ	ከፍተኛ	በጣም ከፍተኛ
• የቁጣቁስ አለመሟላት					
• ማበረታቻ ለመምህራን አለመኖሩ					
• የሰርሲዥን አገልግሎት አለመኖሩ					
• የውሎ አበልና የትራንስፖርት ክፍያ አለመኖሩ					
• የመምህራን ተነሳሽነት አለመኖሩ					
• የጉድጅት ማእከላት ለት/ቤቶች መራቅ					
• የመ/ራን የስራ ጫና					
• የበጀት እጥረት					

ተ.ቁ	ተግባራት	በጣም	አስመላላ	አሳይ	አልወሰን	አልላም	በጣም
1	በጉድጅት ማእከላት በሚካሄደው የመምህራን መ.ያ ልማት መሳተፍ እፈልጋለሁ፡፡						
2	በጉድጅት ማእከላት ያገኘሁት ስልጠና ጥናት በማካሄድ በክፍል ውስጥ የተከሰቱት ችግሮችን እገድራለሁ፡፡						
3	ተማሪዎችን የምገምግማቸው በተደጋጋሚ ፈተና በመስጠት ነው፡፡						
4	የጉድጅት ማእከላት አሰልጣኞች ሥልጠና ለመስጠት ብቁ ናቸው፡፡						
5	ሱፐርቫይዘሮች የመማር ማስተማሩን ሲረጋገጡ አግዛውኛል፡፡						
6	መገንጠሉን ለጉድጅት ማእከላት ያደረገው ወረራገው፡፡						
7	አገዛ ለመ.ያ ልማት ህክቃት ማካተት ከፍተኛ አስተዋጾ አድርጓል፡፡						
	ለማስተማር እጋጅ ሳይሆን ከአካባቢው ካሉ ነገሮች አዘጋጅላለሁ፡፡						

ስምምነታችሁን ግለፁ፡፡

21. ከዚህ በታች የጉድጅት ማእከላት ተግባራት ጥበቃዎች ስለተዘረዘሩት በጣም አስማማለሁ፤ አስማማለሁ፤ አልወስንኩም፤ አልላም፤

* ከአንድ በላይ መልስ መስጠት ይቻላል፡፡

ረ. መምህራን ስልጠና ላይ ታችኛውን ስም መጠቀም ☐

መ. የበጀት አጥሪት ☐ ሆ. ለመምህራን ማበረታቻ አልመሰጠብኩም ☐

ሐ. ጉድጅት ማእከላት ከት/ሀ.ቶች መረቃቸው ☐

አልመፈለጋቸው ☐

ለ. የጉድጅት ማእከላት ያላቸውን ንብረት ለሌሎች ት/ሀ.ቶች ለማዋህድ ☐

ሀ. የጉድጅት አስተባባሪዎች ለሰላምናው ዝቅተኛ ግምት መስጠት ☐

ተግባር የትኛው ነው

22. በመንግስትና በበሶ (BESO) በሚታገዙ የጉድኝት ሰ ሕዝባት የሚሰጠውን የመምህራን መ.ያ ልማት ጠንካራና ደካማ ገፍቶችን ዘርዝር/ሪ::

ሀ. በበሶ (BESO) የሚታገዙ ጉድኝቶች የመምህራን መ.ያ ልማት ጠንካራና ደካማ ገፍ _____

ለ. በመንግስት ብቻ በሚታገዙ ጉድኝት የመምህራን የመ.ያ ልማት ማእከላት ያለው ጠንካራና ደካማ ገፍ _____

* ችግሮቹን ለማቃለል ምን የመፍትሔ ሃሳብ አለህ/ሽ? ይዘርዝሩት _____

23. በመንግስትና በበሶ (BESO) በሚታገዙ ጉድኝቶች መካከል ልዩነት አለ ወይ? ልዩነት ካለ ልዩነቱን ይዘርዝሩ _____

24. መምህራን በጉድኝት ማእከላት ያገኙትን ስልጠና ተግባራዊ የማያደርጉበት ምክንያት ምንድን ነው? _____

* ለዚህ ምን የመፍትሄ ሃሳብ አለዎት?

25. መምህራን በጉድኝት ማእከል ከሚሰጣቸው የመ.ያ ልማት መካከል ስኬታማ የሆኑባቸውን ይዘርዝሩ _____

26. የጉድኝት ማእከላት ዋና ዋና ችግሮች የሚሏቸውን ይዘርዝሩ _____

27. በሚያስተምሩበት ክፍል ውስጥ ተከታታይ ምዘናና አሳታፊ የመማር ማስተማር ዘዴ ለመጠቀም ተጽእኖ የሚያደርጉ ነገሮችን ይዘርዝሩ::

Appendix-C

INTERVIEW

Date _____

Cluster center _____

Name of the interviewee _____

Interview Questions

1. What are the major topics covered in your cluster center? To what extent are teachers practicing their training?
2. What are the similarities and differences between USAID and government supported clusters? Mention the similarities and the differences.
3. What are the major achievements of teachers in cluster based teachers' professional development?
4. How do you evaluate the contributions of cluster based training for the improvement of teachers practice in active learning, continuous assessment, action research, teaching aids preparation and supervision?
5. What factors affect the effectiveness of USAID and government supported clusters?
6. What are the main sources of teachers' dissatisfaction in cluster center teachers' professional development?
7. What are the strong and weak sides of supervisors, directors, training coordinators and teachers in cluster based training?
8. What measures should be taken to improve cluster-based teachers' professional development?

Observation Check List

A/Class Room Observation

1.He/She used active learning methods. Yes_____No_____

2.The types of active learning methods he/she used are _____

3.He/she used continuous assessment .Yes_____No_____

4.The techniques of continuous assessment he/ she used are _____

5.He/she used teaching aids Yes_____No _____

B/Check List for the Observation of School Facilities

Available

Not available

6.Pedagogical Center_____

7.Library_____

8.Type Writer_____

9.Duplicating Machine_____

10.Modules for CPD training_____

11.science Kit_____

12.Teaching Aids _____

A/maps

E/Real objects

B/Charts

C/Models

D/Graphs

APPENDIX-E

Table 1: Teachers responses on the extent of effectiveness of cluster based CPD

To what extent the following cluster based CPD activities are practiced in your cluster?	Responses														
	Chacha							Kottu							
	To a great extent		To some extent		Not at all		M.R	To a great extent		To some extent		Not at all		M.R	X ²
	F	%	F	%	F	%		F	%	F	%	F	%		
Active learning	18	45	20	50	2	5	2.4	12	30	24	60	4	10	2.2	2.22
Continuous assessment	15	37.5	23	57.5	2	5	2.3	20	50	18	45	2	5	2.45	1.32
Action research	10	25	21	52.5	9	22.5	2.0	2	5	12	30	26	65	1.4	16.02
Teaching aids preparation	16	40	20	50	4	10	2.3	6	15	20	50	14	35	1.8	10.1
Supervisors support	10	25	22	55	8	20	2.05	6	15	14	35	20	50	1.65	7.92
Gender issues	14	35	25	62.5	1	2.5	2.3	14	35	26	65	-	-	2.35	1.02
Resource sharing among schools	8	20	10	25	22	55	1.65	6	15	9	22.5	25	62.5	1.53	0.55
Lesson planning	24	60	16	40	-	-	2.6	10	25	26	65	4	10	2.15	12.2
Experience sharing among teachers	10	25	29	72.5	1	2.5	2.23	6	15	24	60	10	25	1.9	8.84
Mean	13.9	34.7	20.7	51.7	5.4	13.6	2.2	9.1	22.8	19.2	48.1	11.7	29.2	1.94	

*df=2, critical value of (χ^2) =5.991 at 0.05 level of significance). * MR=Mean Rating.

Appendix-F

Table2: Teachers attitude towards school cluster trainings.

Items	Responses													
	Chacha							Kottu						
	SA	AG	UN	DA	SD	MR	X ²	SA	AG	UN	DA	SD	MR	X ²
I like to participate in cluster based CPD	20	17	1	1	1	4.35	46.7	10	10	3	10	7	3.2	4.7
My knowledge about action research helped me to solve class room problems	10	21	4	5	-	3.9	32.7	6	9	9	10	6	2.9	1.76
I do not like to use tests for evaluation purposes	12	17	3	8	-	3.8	23.2	14	10	4	10	2	3.6	12.0
Key teachers are efficient to give training	7	11	5	10	7	3.0	3.02	-	10	4	14	12	2.3	17
Supervisors helped me to improve the teaching learning process.	11	21	7	-	1	4.0	36.4	3	5	2	24	6	2.4	41.2
Government support for cluster helped teachers to improve the teaching learning process	2	6	8	18	6	2.5	18	3	4	5	20	8	2.4	24.2
I prepared teaching aids from locally available materials.	11	26	2	1	-	4.2	60.2	4	10	4	18	4	2.8	19
Mean	10.4	17	4.3	6	2.2	3.7		5.7	8.3	4.4	15.1	6.4	2.8	

*df=4, and critical value of (x²)=9.488, at 0.05 level of significance, *MR=Mean rating

APPENDIX-G

Table 3: Teachers evaluation on the contributions of institutions and organization for CPD.

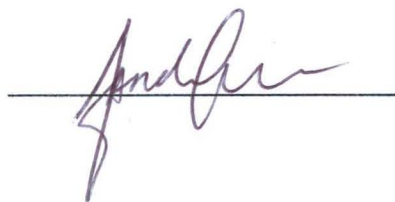
CPD Supporters	Responses																			
	Chacha										Kottu									
	Very good		Good		Moderate		Low		Very low		Very good		Good		Moderate		Low		Very low	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
BESO	20	50	15	37.5	5	12.5									5	12.5	15	37.5	20	50
Amhara Regional State Education Bureau			1	2.5	9	22.5	11	27.5	19	47.5					10	25	15	37.5	15	37.5
Woreda Education Office					8	20	16	40	16	40					15	37.5	5	12.5	20	50
Clustered Schools	10	25	15	37.5	10	25	5	12.5	-	-			12	30	15	37.5	7	17.5	6	15

DECLARATION

This thesis is my original work and has not been presented for a degree in any other Universities and all sources of evidences used for the thesis have been fully acknowledge.

Name- Andualem Molla

Signature



Date of Submission- 26 June, 2008.

This thesis has been submitted for examination with my approval.

Adviser's Name- Amare Asgedom (Dr.)

Signature _____

Date- 26 June, 2008.

