

**ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION
SCHOOL OF GRADUATE STUDIES**

**FACTORS AFFECTING THE EFFECTIVENESS OF CLUSTERING SCHOOL
PROGRAM IN TEACHING LEARNING PROCESS; THE CASE OF YEKI
WOREDA AND TEPPI TOWN CLUSTER SCHOOLS**

TESFAYE TEKALIGNE

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Acronyms/Abbreviations

AREB- Amahra Region Educational Bureau
BESO- Basic Education of Strategies Objectives
BTTC- Bonga Teacher Training College
CPD- Continuous Professional Development
CR- Cluster resource
CRC- Cluster Resources Center
CS- Cluster school
CSC- Cluster School Center
EQUIP- Educational Quality Improvement Program
GTZ-Deutsche Gesel Schaft fur Technische
HIV(AIDS)-Human Immune Virus(Acquired immune Deficiency Syndrome)
MOE- Ministry of Education
NGO- Non-Governmental Organization
PTAs – Parent Teacher Association
RAISON- Research and Information Services of Namibiya
RCC-Releasing confidence and Creativity
REB- Regional Educational Bureau
SNNPR- Southern Nation Nationality Peoples Region
TEI- Teachers Educational Institute
TESO- Teacher Education System Overhaul
TGE- Transitional Government of Ethiopia
USAID- United States Agency for International Development
WEOs- Woreda Educational Offices

Abstract

The purpose of this thesis was to evaluate factors affecting the effectiveness of clustering school program in teaching learning process the case of Teppi and Yeki woreda cluster primary school. The descriptive survey method was used to study the problem. The study was carried out in 10 cluster primary schools. The subjects included 130 teachers 21 directors, two resource center representative persons, 31 educational bureau experts from both woredas. Questionnaire was administered accordingly. In addition to questionnaire, interview and observation were also used. The data collected through questionnaire was analyzed using frequencies and percentages. Qualitative data, which were collected using interview and observation, were analyzed by direct interpretation. The findings of the study indicated that, the training programs held at cluster resource and cluster school centers were spontaneous, infrequent and not determined by need assessment. Experience sharing among cluster schools did not exist. The cluster school innovation was not successful in attaining, active learning, exam, sporting, question and answer, training, female student participation, improving students dropout rates, student promotion rates in the teaching learning process. On the other hand, lack of structuring cluster resource representative and attaching responsibility to innovate cluster school program affected the positive outcome of the intervention. Lack of monitoring and follow-up from the concerned officials also had its negative influence on the proper functioning of cluster resource center.

CHAPTER ONE

1. Introduction

1.1 Background of the Study

The contribution of education for children and society is very clear when it is relevant and has quality. So, the achievement of universal participation in education will be fundamentally depend upon the quality of education available. The attainment of quality education can depend on various factors. One of the major factors being the availability of professionally equipped and motivated teachers. The way teachers equip and enhance their ability development is by the use of continuous professional development (CPD), by using clustering school system.

The Ministry of Education has now made the school-based model of teacher in-service professional development a national policy. Regions are now able to design their own cluster programs according to their needs; and their geographic location, (Leo in Macklin, 2004: 2-3).

The major objective of clustering innovation in service teacher education component is to contribute to improving the quality of the teaching and student active learning.

Many countries including Ethiopia are trying their best to improve their education and training practice through clustering schools. To this effect BTTC within SNNPR is fully engaged in supporting primary cluster schools since 2008. However, no tangible study has been carried so far to ascertain the impact of clustering primary schools in enhancing the teaching learning process. Thus, the purpose of this study was to carry out factors affecting the implementation of exam, sporting, training, question and answer, CPD program within the context of clustering primary schools in teaching learning process; taking Sheka Zone Yeki Woreda and Teppu town cluster primary schools as a case study.

1.2 Statement of the Problem

The quality of students learning can be improved through many efforts, of which by use of creative and productive activities. The main objective of any educational system is to cultivate the individual's capacity for problem solving and adaptability to the environment by developing the necessary knowledge, ability, skill and attitude. The skills to be obtained will enable the individual to participate and play his/her role in the overall development of the society he/she lives in and the world community at large (MOE, 2004).

Clustering needs collaboration. Collaboration will benefit individuals, groups, organization and other elements. To benefit individually developing their skills in working with others, and know more about how to solve educational problem through sharing and learning clustering schools activate collaborative work among the teaching staff, through collaboration improve the quality of teaching learning, participating the community and bright show for management (Kebede, 2006).

Frame work of the elements of training, Examination, question and answer and sporting in cluster primary school designed based on the articulated problems of teachers profession. This can provide us with planned program package of cluster primary schools.

It is assumed that many teachers have taken part through the implementation process of cluster primary school in Sheka Zone. Therefore, it became necessary to examine the contribution of this training on teacher's performance. Besides, the establishments of the program have been aimed at upgrading teachers performance. Ministry of Education and BTTC have supported cluster primary school in Sheka Zone Yeki woreda and Teppi Town cluster schools program.

Many countries including Ethiopia are trying their best to improve their education and training practice through clustering schools. To this effect BTTC within SNNPR is fully engaged in supporting primary cluster schools since 2008. No tangible study has been carried so far to ascertain the impact of clustering primary schools enhancing the teaching learning process. Among these,

Yeki woreda and Teppi town educational units are the one. Both woredas were supported by governmental and BTTC, to implement cluster school program innovation to increase educational opportunities. BTTC supported cluster schools of Fide, Kubito and Teppi cluster school centers. In order to address these issues, the study has been guided by the following basic research questions and used as a framework for reference in the study.

- 1) How far do Cluster Resource Centers (CRCs) conduct training to promote in-service teachers professional development?
- 2) To what extent do cluster schools share experience and resources?
- 3) What are the achievement of cluster schools in terms of:
 - 3.1 Internal school supervision?
 - 3.2 Producing teaching aids?
 - 3.3 Sporting competition?
 - 3.4 Exam implementation, question and answer participation and group working ideas?
- 4) Were cluster based in-service programs important to the school management and other school activities?
- 5) What are the factors that affect the effective implementation of the cluster-based program?

1.3 Objective of the Study

1.3.1 General Objective

The main objective of the study has been to investigate, discuss and show factors affecting the effective implementation of clustering school program in Yeki woreda and Teppi town administration clustering schools.

1.3.2 Specific Objectives

The specific objectives of this study are to :

- 1) Analyze the clustering resource center and training in Yeki woreda and Teppi town administration cluster schools.
- 2) Assess program practices in clustered schools.
- 3) Identify factors affecting and effective benefit of cluster schools utilization.
- 4) Assess the improvement and innovation practice of clustering school programs.
- 5) Examine the practices related to supervision, producing teaching aids, sporting, exam and participation of students in question and answer activities.

1.4 Significance of the Study

In the educational system of Ethiopia the practice of school clustering is a recent innovation applied. Then it shows the current practice on the organization and activities of cluster schools in promoting learning in terms of collaborative activity, linkage, training and its reflection in the classroom activity. Therefore, the study will contribute in the following manner:

- 1) May help the concerned officials to pay due attention to reorganized CRC at different levels.

- 2) It may help the collaborative works between program practices in clustering schools.
- 3) The result may contribute to over-come the problems that negatively affect the practice of clusters schools.
- 4) It will encourage others who need to conduct further study.

1.5 Delimitation of the Study

There are three woredas and two towns' administration under Sheka zone. This study is delimited to one town administration (Teppi town Administration clustering School) and one woreda (Yeki woreda cluster school). The study considers only three cluster schools from Teppi cluster centers and seven cluster school from Yeki woreda cluster center that operate under close observation of BTTC. The study did not consider the non-governmental schools.

1.6 Limitation of the Study

This study has its own limitations. The followings were some of the major factors that contributed to the limitation of the study:

1. Most of the sample cluster schools which were found in two woredas are far apart and difficult for transportation. The results obtained could not be fully generalized to all cluster primary schools in the Sheka Zone.
2. Shortage of related research works and reference materials on the topic were the major impediments of the study.
3. Short of budget and time constraints.

1.7 Operational Definition of Basic Terms

Cluster School: a cluster is a group of schools that geographically are close and accessible to each other to enhance education provision (MoE, 2003).

Effectiveness: The word effectiveness is used to evaluate the disparity between expectation and performance.

Clustered Resource Center: The focal point of contact and coordination between the schools in the cluster.

Innovation: refers to any change in one component of the education system which is not made simply for the sake of change but with the intention of promoting improvements in the aspect concerned and having regard to the close interdependence of all such aspects-in the system as a whole (Nicholas, 1983: 3)

In-Service Teacher Training: refers to conducting training sessions for school heads and teachers to reinforce active learning using self study professional handbook, instructional kits, supplementary materials and continuous professional development courses (USAID, 2001)

Primary Education: primary education in Ethiopia takes 8 years' duration which comprises the first cycle (grades 1-4) and the second cycle (grade 5-8) MoE (1994).

Satellite School : A school that is member of cluster school. A cluster school consists of 3-5 (In Ethiopia) schools within the catchment of 5-8 kilometers.(MOE, 2003)

CHAPTER TWO

2. Review of Literature

2.1 Conceptual Framework

2.1.1 The Meaning of Cluster-School

A cluster school is a grouping of primary schools for administrative and educational purposes. It is an organization of schools in the same vicinity or neighboring villages which are grouped together for the benefit of sharing available resources such as teaching and learning materials, facilities and staff so that the access for all children and the educational quality of schools within the cluster are improved. The model implies a degree of decentralization and also permits strongly local participation in decisions (Dykstna and Kucita 1997)

The concepts of school clustering are a major agency for transmitting mainly to children's knowledge, traditions and values of the society. Broadly speaking, schooling has been interpreted as providing a primary, secondary and higher education intended to provide intellectual, political and social leadership. Schools have both reflected their society and contributed to its dynamic (Silver, 1994: 1).

Yeki woreda and Teppi town administration educational bureau as firstly supported by AED/BESO project. But this project is raise the program. Now a day Bonga college supports both areas by giving resource, training and in service teacher profession training as a way of enhancing service delivery. It is believed that the clustering strategy employed, fits in well with the move to decentralization of educational services.

A review of literature concerning activities of school clustering in this paper has tried to reveal the conceptual basis and present conditions of school clustering in Ethiopian. Thus, this chapter presents the review of literature

by classifying in to two categories. The first one deals with the theoretical understanding of school clustering. The second category provides us with information of understanding school clustering in Ethiopia.

2.1.2 Theoretical Understanding of School Clustering

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The concept and models of school clustering system

As Cummings, et al (n.d;3) put "a cluster is a group of schools work together to share experiences, resources and training in order to create opportunities for continual professional development, necessary for acquiring and pertaining the teaching license." Thus, school clustering system is a kind of net working of schools and teachers working in those schools cooperatively. The net work is used as a practical means of enhancing teacher's professional development responding to the local class room-school needs. Leu (2004) considered school clustering. As localized in service teachers training forum.

In such kind of program teachers themselves take the responsibility to facilitate the activities. In addition, self reflection, collegial learning through active participation is vital to effectively realize the designed of clustering exam, sporting, questioning and answering, training, supervision and CPD activities. Leu (2004:3) reported that «At the heart of most programs [of cluster] are the ideas of reflective practice, communities of learning, and communal problem solving. » by continuing her argument she identified the focus on active learning and the use of higher order thinking skills are central in this program.

The demand for reflective activities need in school clustering is also confirmed by Cummings, et al (n, d, b).

Similarly AREB (1997E, C; 2). Stated that school clustering came in to existence, historically due to the increasing need of student centered teaching learning activities and new teaching methodologies. These demands can possibly by responded positively if the previously acquired pre-service knowledge and skills are updated through such

localized school clustering program. Hence, such clustering as a system has its own goals, objectives and also purposes.

After approbation of the importance of school clustering for in-service teacher professional development, various implementing models are presented. For instance; Mac Neil, (2004), suggested two models of school clustering. These are self organized school development model in which the school with its teacher is considered as provider of the training services; and model of net working and inter-school collaboration through which teachers share experiences and resources with each other with in a single school and amongst school.

Cummings, et al (n,d; s and 6); also provided us with five models school clustering. These are

2.1.3 Cluster-Schools Model

- a. Cluster Schools within 8 kms Model:** This model represents training given at cluster schools resource center. Teacher who are skilled give the training. Training needs are identified by cluster resource center management group.
- b. TEI Model:** Teacher educational institute/ model: This model requires primary schools to be cluster around near by one central school called school- cluster center: and each schools cluster center will create formal link with TEI. Here training needs are identified by schools and relayed to the TEI cluster coordinator. This training is given by qualified TEI staff, whereas, the training is given at cluster center level. And of course, around each school cluster center, there are cluster member schools.
- c. Out Reach Model:** competent and motivated primary teachers give the training at either in the individual school level or CRC. The out reach trainers give the training under the supervision of Teacher Educational Institutes (TEI's) or woreda Educational Office (WEO's). The training needs are identified by the schools and tutors.

- d. High School Model:** experienced, experts teachers, TEIs or REB experts give the training based on the needs of identified at the cluster level. Schools are relatively equal in resources. Training is rotated through different high schools, as distances are likely to be quite far. Regional education bureau (REB) monitors the schools.
- e. Isolated Schools Self Study Model:** training is given through identified key teachers or experienced teachers based on needs identified at the school level. The monitoring activities could be done by woreda education office (WEO). To be successful in this model, communication of good practice between other schools and clusters must be very efficient. Further more the access to simple training materials and modules to provide “new ideas” and training guides is very essential. It is also essential that finding is secured to enable some contact between schools (MOE, 2006).

2.1.4. Objective of Cluster Schools

Cluster school has various objectives to fulfill. Among these include: pedagogic objectives, administrative objectives, economic objective and school community objectives.

- a) Pedagogic Objectives:** improved student learning would be achieved through a variety of strategies to be carried out through clusters equalizing students access to teacher specialists and resources. Teachers had also the opportunity to pilot new curricular materials that the ministry with NGO support developed, along with academic competition and evaluation to motivate better performance.
- b) Administrative Objectives:** improved, administration was sought at all levels through simplifying paper work, authorization procedures and communication processes primarily by working through the cluster school heads for micro-planning, personnel management, and resource mobilization instead of trying to contact every head master. Authority to supervise and monitor teachers, goal achievement and other functions was developed to cluster heads.

c) Economic Objectives: a country could not afford basic equipment such as supplemental readers, science materials, or even silk screen supplies and paper for each school. Therefore, by furnishing one resource center with equipment and supplies that allowed teachers to make learning aids, several schools benefited. The clusters therefore had an economic objective sharing facilities and staff, and bulk ordering of materials such as stationary, chalk, paper and other supplies for the cluster conservation of supplies such as promoting system for the return of school books and better maintenance of schools were also more efficient within a cluster system resource center permit teachers to participate in on going in service training with out distant travel.

d) School-Community Objectives: community participation in schools, not only in construction but in many other aspects of school management and learning, was promoted by involving parent-teachers associations (PTAs) in localizing curriculum, monitoring school services, or mobilizing children to enroll at the correct age. Local policies for the use of the cluster schools as a learning center for adults and a delivery center for other services by development and community agencies were formulated by cluster commutes or PTAs (Dykstra and Pawan, 1997).

2.1.5 School Clustering Strategies and Practices

The main features of develop school cluster capacity strategy include: intensive training of trainers, awareness of head teachers and administrators of school; training of teachers from the established cluster resource centers and from satellite schools by the core trainers; supply to support materials; facilitating experience sharing supervisory support and effecting monitoring (BESO, 2002) Macniel, DJ (2004).

Preparation for life long learning as well as for the knowledge-society calls for a particular kind of educational practice. To cope these challenges the shift from teaching to learning gains importance. Reality educational institutions have to change from traditional ways of teaching and learning.

Again, teachers have to be trained in active learning and student-centered teaching queis (2004).

As (craing, Kratt and du plassis,1998:113) described that school clusters employed in Thailand and Philippines, and Srilanka, are very helpful in that they share scarce materials and human resources. Core schools tend to lost educational resource centers development and operated jointly in the cluster. The learning action cells in the Philippines exist at the school, district and regional level, and are used for school evaluations and staff development for both teachers and principals. Similarly organizational patterns operate in Nepal, in Singapore project in Indonesia, and in the school zones of Zambia. Small schools, in particular can benefit from clusters of schools teaming together.

2.1.6 Learning Models Which Enhance Students Performance in the Teaching Learning Process

In active learning model the students are required to undergo exploration activities that facilitate them to explore the concept or problems being learned from various relevant learning resources, In constructions learning requires self regulation and the building conceptual structure through reflection and abstraction (Von Glassers Feld, in Morphy; 1997, P.3). Collaborative and cooperative learning assign students to study in groups, either heterogeneous or homogenous groups , in achieving the same goal. Basically creative learning enable the students to be creative. For this one should have high commitments, hard working ability, enthusiasm, and confidence. In creative learning model, students challenge to creatively produce something based on their perception or understanding on the topic being studied (Borich,1996).

In Indonesian learning model approaches, active learning, constructivism, collaborative as well as cooperative learning and creative learning. Active learning requires optimal involvement of the students in learning where as

in constructivism learning should emphasize the construction of meaning by the students. Collaborative and cooperative learning enable students to work together in a group, to help each other, to share responsibility and to experience team competition. This model can be applied at all level of education, from elementary to higher education (Wardani 2004).

2.1.7 Cluster School Practices in Implementing Innovation

Element of planning, control, depiction and order effectively implies manage innovation (Nicholas, 1983). The growing demand for highly educated work force needs a change in the teaching learning process at school. Therefore, cluster school innovation as part and support of school practices in implementing classroom learning, considers the following dimension (Derbessa, 2004).

Planning: planning is a prerequisite for implementation which would address the needs, changes necessary and resources required for carrying out intended actions. It involves establishing and determining how to administer policy that will govern the planned action. Planning to causes on people, programs and organization.

Communication: a key to successful implementation is to discuss about a new program among teachers, principals and curriculum workers. If the new program is major change from the existing program, then the curriculum leader can profitable use such communication vehicles as workshops, meetings, role playing situations, demonstration sessions etc.

Support: the new program and its practical aspects can be a necessary support activity to in service training program for teachers, administration, students and other personal acquainting them. In-service programs must reach the intended audiences and should be accessibly scheduled for curriculum implementers. Money is required for materials and equipment to institutionalize a new program and also to have human support for the implementation

effort. Educational institution will be autonomous in their internal administration and in the designing and implementing of education and training programs, with an overall coordination and democratic: leadership by boards or committees, consisting of members from the community, development and research institutions, teachers and students TGE (1994: 30).

Cooperation: cooperation between all persons who are to be involved with program implementation must occur if a change is to be successful and to become institutionalized. The teachers' full cooperation is required in practicing the new ideas and programs that will find expression in their classrooms. If teachers actively participate in curriculum development and implementation, it is likely that implementation would be effective.

2.2 Experiences of Other Countries

This part of the discussion focuses on how school clusters are managed for professional development purposes as a process to improve the quality of education, the basic principle underlying all these programs is that the change process starts at the school level.

Implementation of classroom instruction, clustering school innovation is practiced by build the capacities of teachers professional development in different parts of the world. Ethiopia is part of them. The main objective of clustering school is to improve classroom instruction; experience of practicing the innovation differs from one to the other. As there are similarities there are differences of implementation. Since clustering schools is a recent innovation one can share and learn from the experiences of others. (Assega, 2007)

The following countries Cambodia; Uganda, Malawi, and Haiti exercise cluster schools innovation to enhance, quality of education in primary schools. In most cases there are similarities in the objectives, activities and contents of training program where as there is a difference in system of

organization and provision of training. All are USAID support countries similarly AED/BESO project II support schools in Ethiopia.

2.2.1 Haiti's Experience

In Haiti, clusters consisted of groups of five or six schools in close geographical proximity to teach other. Education 2004 in Haiti was a USAID project implemented to help improve the quality of primary education from 1997-2002. The project provided direct training to the school terms of every school in a cluster. A school community advisor was assigned to cluster to live in the local community and support quality improvement at the schools of that cluster. Teachers in a classroom were given regular support as they incorporated new teaching methodologies Debasse and et al (2002).

2.2.2 Malawi's Experience

The Malawi institution of education, and communities for targeted at decentralization action down to the school level. The purpose of the project was to support teacher's professional development and provide for the establishment of a support network for teachers. Mentor teachers and primary education advisors are involved in the support network. The method that used in to class room instruction are grouping strategies, role playing, pair work, participatory approaches and integration of songs. In the program content included utilization of local materials for teaching and learning, teacher awareness of student participation and performance, continuous assessment, practical skills, teaching methodology and effective teacher supervision (Gashaw 2008).

2.2.3 Cambodian Experience

Cluster committees in Cambodian common functions are to set goals for access to education and reduction of wastage rates. Vertically work to assure that there is communication between levels and regular consultation to solve problems. Horizontally to provide training in concepts of cluster

management and supervision. They implement educational reform, each at an appropriate level and specialty monitor primary teachers colleges providing traditional campus –based pre-service teachers training and supported a network of five hundred and thirty –nine resource center schools. Schools served by outreach staff, coordinating center tutors or from the teacher training colleges. Then support class observation, refresher courses seminars, work shop, teaching methodology and community mobilization volunteers for school management committees and parent teacher association. USAID has been supporting the Ugandan primary education reform successfully due to the government commitment to making sure that reforms were implemented. Community and parents have become more involved in the education of their children contributing further to the sustainability of in –service activities Engel (2001).

To concisely describe the countries' experience Cambodian an in –service day appears every Thursday for weekly meeting of teachers to weigh the pros and cons of their cluster activity. Parents and community members of Uganda share the biggest responsibilities to involve in the school improvements. Direct training is provided to the school teams of every school in a cluster of Haiti. Decentralizing action down emphasizes to the school level in Malawi. All countries share the same experience in supporting teachers' professional development ,and experiences sharing among teachers, principals and communities schools in the mentioned countries are grouped in close geographical proximity.

The distribution of supplies and facilitate the construction and repair of school buildings. Cluster schools become nationalized skilful teachers or education officials at the provincial, district or cluster levels, who had gained adequate experience from the objects, became national trainers for new clusters in order to expand the model.

The cluster school head supervisors and all head masters sets the teacher-training scheduled with other members of the committee and assumes that materials from the resource centers and teachers are supplied equally to all .Schools in the cluster. Resource centers display data and graphs on wastage, and disseminate other information to educators and community members.

Cluster school technical committee establishes a training calendar for teachers and responsible for the improvement of teaching and learning

especially in support of the new curriculum. There are cluster wide training in resource center when new text books are introduced & every Thursday an in –service program. Because to prepare lesson plan ,develop teaching aids, class demonstration ,summary of weekly meeting and plan for next month. Traditionally parents and communities contribute to school construction and renovation .So parent teacher Association help the committee why children drop-out , not attend school .Then they set goals to remedy these problem Gashaw (2008).

2.2.4 Uganda's Experience

The Ugandan primary education system support the design and management of teacher and manage mental system development .This system are training teachers and head masters .giving refresh course, managing resource centers ,linking primary schools with teachers colleges, ministry of education , sports, communities and coordinating education reform initiatives .

It is widely accepted that the teaching learning process is not static. New concepts, research findings and current classroom approaches and methods have to be combined to take on new forms. Teachers have to assimilate and implement these new trends, and hence they need to acquire the necessary knowledge, skills, attitudes and professional competences continuing professional development must be seen as an integral part of the teaching profession. It is important that every teacher understands that shares the responsibility for his own professional development.

The Ugandan experience is be successful and sustainable, in –service and cluster programs must address the needs of the teachers. To generalization program to be sustainable and effective monitoring and evaluation by observation and reporting systems to match curriculum goals of the cluster should be under gone,

2.2.5 The Experience of Namibia

According to the study done by RAISON and GTZ (2002), schools in Namibia are grouped into about 260 clusters. The clusters have in turn been grouped into inspection circuits, usually with five, six or seven clusters to each circuit. This means that every school belongs first to a cluster and second to a circuit. The outer boundaries of all the clusters in a circuit form the borders of the circuit. In most regions of Namibia, inspectors have been moved away from the regional education office to places where they are much closer to the schools and clusters they serve.

Cluster management committees, made up of all principles in each cluster provide a platform to share and resolve problems, as do higher level circuit management committees, comprising the cluster center principals and the circuit inspector. The role of principles is thus broadened to include general management and education issues in their clusters. Inspectors can then concentrate more on the function of linking between clusters of schools and the regional education office, because they are less involved in local management issues. Thus, in Namibia, the cluster system provides a framework through which a more comprehensive and coordinated program of training can be delivered efficiently at each cluster centre. Training needs can also be assessed cluster by cluster, rather than having a uniform program for the whole region (RAISON and GTZ 2002:5).

2.2.6 The Experience of Pakistan

The releasing confidence and creativity (RCC) program is a USAID funded initiative in Pakistan implemented by the Agakhan foundation. The program seeks to build sound foundations for early learning through work with government schools, policy engagement, and networking in Pakistan. By training teachers and administrators mobilizing committee, and engaging local government officials, the program seeks to improve learning

environments and produce lessons that will lead the government to replicate its successes.

As per the report of EQUIP (2004:4), schools are clustered together in the program in order to organize activities, such as teacher education, informational sessions with local government leaders and community, events. The benefits of clustering schools have been seen in several aspects of the program. Clustering has facilitated resource mobilization for educational activities in program schools, as well as for near by schools, by targeting key local decision-makers in a given area.

According to this report, cluster-based training and regular exchange visits of professionals with in a cluster have helped to create support net works where successes and challenges can be shared and discussed. Implementing patterns have also found that clustered based activities facilitates their own monitoring and advocacy functions by encouraging more self assessment and promotion of program aims at the school level.

For teachers in particular the program has used a combine of lead teacher/mentor/teacher arrangements when trained professional travels through out a cluster to share experiences and provide feedback and support. This facilitates peer learning and effective monitoring. Moreover, key teachers resources are distributed on a cluster basis, so that program inputs are cost-effective and a community of learning among teachers is encouraged (EQUIP, 2004:4).

2.2.7 The Experience of USA

There are school cluster in the state of Georgia, USA .

According to Kasahun Asefa (2001:30), the purpose of school clusters is to bid for funds to implement in- school professional development, to conduct research, improve schools and student achievement on science. Schools better in facilities among cluster members are used as center or head schools (Rago 2007).

The clusters are organized and coordinated by an administrative councils. Moreover, predetermined evaluation criteria are set to assess the impact of professional development at school level. Content of the development activity varies from school to school.

Similarly, in Philadelphia school district, teaching and learning network that consists of a coordinate or who will operate out of the cluster office has been established in each cluster. The network comprises the lead instructional personnel in the small learning communities with the cluster. This will include at least one network facilitator for every three learning communities and an instructional leader from each school K-12 in each of the areas for which standards are developed. Through the teaching and learning network, a cluster may also choose to establish a center for locating resources (e.g professional materials commercially produced instructional material, educational technology and for holding work shops and study groups. Each cluster devices whether a dedicated site for this center meets its needs or, if not show the needs can best be supported. Through each teaching and learning network, the coordinator, secretary, network facilitators, and instructional leaders will (Rago 2006)

Assist staff in small learning communities to identify, observe, practice and receive feedback on good teaching and learning practices

Be a resource for curriculum, instruction and assessment strategies

Support/facilitate/articulation between school levels for both instructional and student support issues and

Facilitate/coordinates/conduct teaching and learning network programs, services and activities (Kassahun 2001).

2.2.8 The Experience of England

School in England are clustered to conduct action research as part of teachers professional development. Teachers conduct action research on their school related issues. According to Kassahun Assefa (2001:30) researchers also identify as inter-learn research network or action research not work among schools with in a cluster group. The purpose of the network is to improve teaching methods and experiment new approaches.

Effectiveness: In the context of this study, effectiveness is defined as teachers' use of teaching aid, active learning methods, action research, continuous assessment, supervision, experience and resource sharing in their schools. To this end, teachers were required to rates the extent of effectiveness of cluster based CPD from the given countries experience were shown;

Haiti's experience: The project provided direct training to the school terms of every school in the cluster.(Debasse 2002)

Malawi's experience: Supported teacher's professional development and provide establishment of net-work for teachers and students participation and performance.(Gashaw 2008)

Cambodian experience: are to set goals for access to education and reduction of wastage rates.(Gashaw 2008)

Uganda's experience: The Ugandan primary education supported and managed new concepts research find, classroom approaches have tobe combined to take on new forms. (Assega 2207)

Namibian experience: Clusters have been grouped into inspection.
(Raison 2002)

Pakistan experience: were training teacher's circuits and administration mobilization committee and engaging local government of facials.(EQUiP)

USA experience: Clusters are organized to assess the impact of professional development at school level assist staff in small number communities.(Kassahun 2001)

England experience: Schools of England clustered to conduct action research on their school related issues.(kassahun 2001)

To conclude the above experience

Management application:

Cluster help to improve the management of education in several ways

Clusters work best when they are accompanied by as much decentralized and participatory decision making as possible.

Cluster management committees, made up of all principles in each cluster, provide a plate form to share and resolve problems.

Using participatory approach, cluster center principal's support, guide and supervise the satellite schools.

The positives example of cluster center that are well managed encourages satellite schools to improve their management practice.

The administration of schools improved through training which followed up at cluster management meetings.

Principals are encouraged to take more responsibility for staff supervision and accountability.

Schools are managed as network than as individual.

Improving of teaching and learning

Teachers get together to discuss and interpret syllabus, to draw up common schemes of work.

Exam papers are set, typed, duplicated, assessed and moderated as a group effort or similar levels of testing.

Teachers morale and confidence are boosted and their skills are developed as they work together to improve their teaching efforts within a supportive context.

Advisory teachers can channel their inputs more effectively through cluster-based subject groups to reach all teachers within a given cluster.

By working together, schools have access to great variety of skills and experiences.

By sharing resources, schools can have a great number of teaching aids can learn to use and develop more.

Sharing skills and resources are cost effective and use funds more efficiently.

Teachers can control their own professional development.

Schools can work together to set up effective, supportive supervision program.

To this effect, the MOE (2003:19) has set a program to improve the quality of teaching and learning in Ethiopian schools by means of low cost professional development through the cluster model as a general objective with the following specific objectives.

To promote and sustain professional development

To provide opportunities for teachers to keep up with changes in education (sustain competent in their profession)

To provide an opportunity to share professional experiences

To encourage and assist teachers to produce local teaching material,

To enable teachers to localize the curriculum,

To facilitate mentoring of the teachers and,

To motivate teachers to undertake action research MOE (2003:106).

According to RAISON and GTZ (2002:11-18), clustering schools has many purposes out of which the following are cited as major ones:

Improve the quality of teaching and learning

Help to improve the management of education

Empowers clustered schools

Improves the efficiency of schools

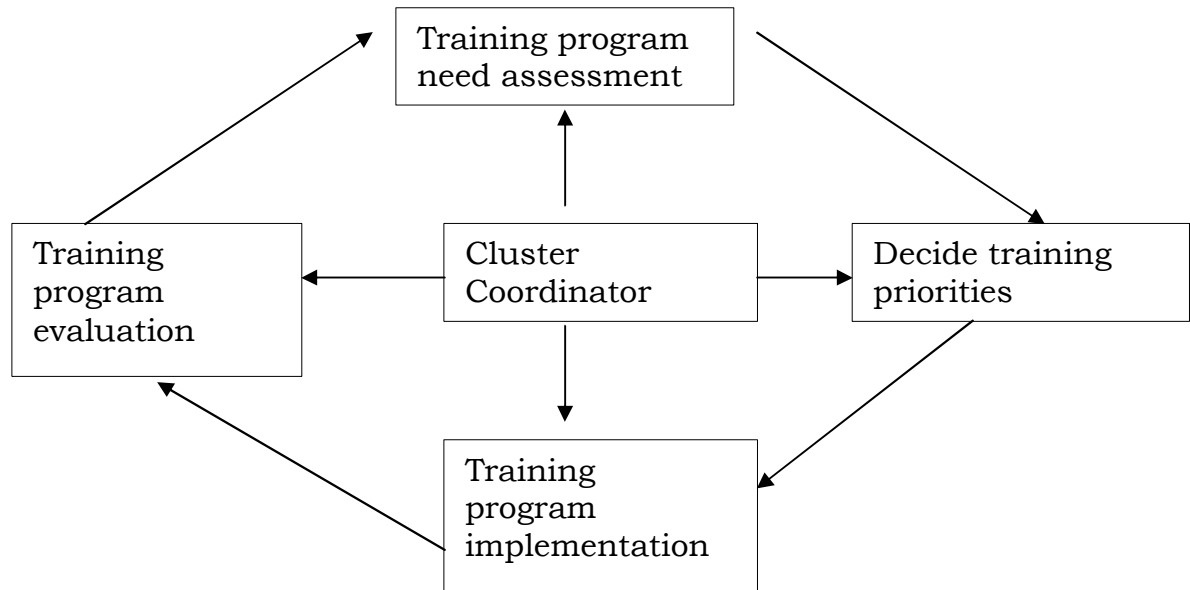
Enhance effective use of human resources within the schools and clusters

In summary, the experiences of the above countries show that, if the cluster model has been effectively implemented to support professional development can contribute to improve the quality of primary education through capacitating teachers to implement new teaching techniques.

According to MOE (2002) and Dittmer and Vivard (2002) to implement training the following steps and figure one should be considered by cluster-coordinators

1. Need analysis/training program need assessment
2. Deciding priorities/training program deciding development/
3. Training program implementation
4. Training program evaluation

Figure 1: School clustering in Ethiopia



Source: School clustering in Ethiopia (MOE,2002). The very important aspect of the cluster training is that, the topic where training has been given should be taken back to the individual schools and developed. This reflective practice must be encouraged at all times to transfer what they have learned to their own classrooms.

2.3 School Clustering in Ethiopia

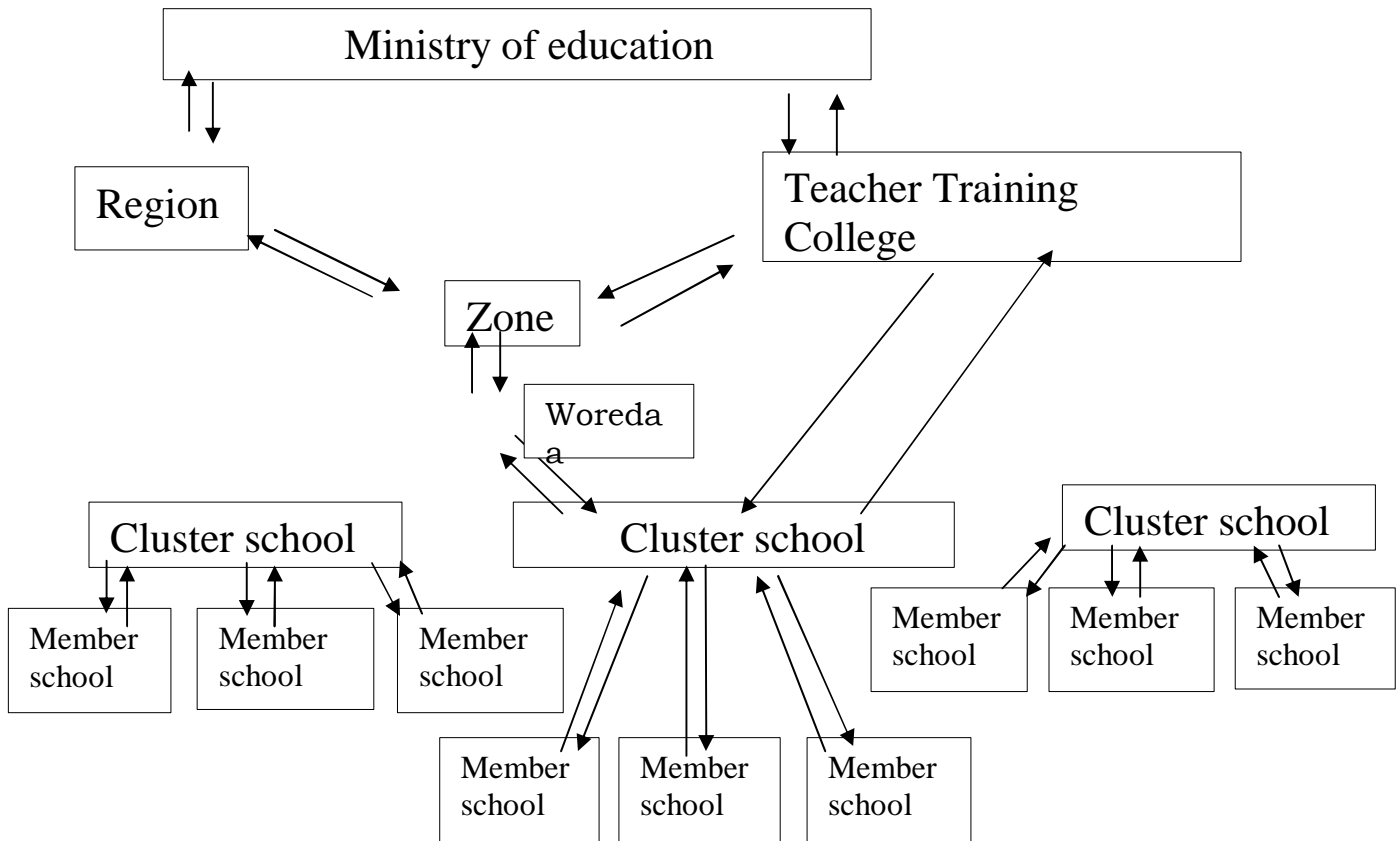
School Clustering, in the developed world country started before the last three and four tenth years to enhance professional competence of teachers in a direction of students centered teaching. In relations for this point. Assefa (2003:20) stated that; «the team school cluster was pioneered in 1960 in England where small rural and urban schools were in short of subject expertise. »Again as Bridges (1993:51) and Morrison (1993:126) indicated, 1980s was marked in UK as a time of shift from higher education based courses to school based in-service program.

Indeed, school clustering in Ethiopia is a very recent phenomenon. Ethiopian’s ministry of education adopted school and cluster-based teacher professional development as national policy in 2000 (Lev, 2004). The general objectives of teacher education in Ethiopia are to improve educational standards of the country.

In service program identified the possibility of implementing continuous professional development of teachers through school cluster based training activities (MOE 2003). Educational sector millennium development goals needs assessment draft report (MOE, 2004) considered school clustering as means of improving teaching condition by responding to the local needs around the school.

Recently school clustering system in Ethiopia has deserved a name cluster resource center (CRC). In this process, MOE has left the autonomy of choosing school clustering model to the respective regional educational bureaus.

Figure 2: Structure of cluster resource center



Content of Training in cluster resource center (CRC)

Content of training in CRC according to (MOE, 2002] include cluster school organization concept, student centered approach, developing using of teaching aids, continuous assessment, lesson planning, and usage continuous professional development , classroom management, school and community, action research, evaluation and measurement, HIV/AIDS mentoring etc (Assega 2007).

2.3.1. The Cluster Resource in Ethiopia

The dynamic nature of education and the incapability of the existing teachers to handle the growing needs of students and the society using the previously acquired educations and training demand teachers to be engaged in cluster school of life long training. In similar way, the curriculum change introduced as a result of new educational training policy of 1994 incorporated, implementation of new teaching methodologies and new ideas. This can be implemented by teachers who can reorient themselves in such a way. At this point school clustering becomes essay. In explaining the need for clustering in Ethiopia TESO in- service sub-committee (MOE 2003:14) document stated as:

It is widely accepted that the teaching learning process is not static. New concepts, research findings and current classroom approaches and methods have to be combined to take on new forms. Teachers have to assimilate and implement these new trends, and they therefore need to. Acquire the necessary knowledge, skills, attitudes and professional competencies. Continuing professional development must be seen as an integral part of the teaching profession.

Thus, the above continuous professional development can be realized, as it is suggested in the document, particularly with in a cluster of schools. Sharing this belief AREB 1997 E.C cluster guide line document asserted that school clustering is needed primarily to build the capacity of primary

school teachers continuously in the practical aspects of the profession which is expected from them Abraham (2007).

2.3.2 The Objectives of Cluster Resource Centers in Ethiopia.

At it is stated in TESO in-service sub-committee document (MOE, 2003), the purposes of schools cluster program are indicated under general objectives and specific objectives, these are:-

To improve the quality of teaching and learning in Ethiopian schools by means of low cost professional development through the cluster model.

Specific objects

To promote and sustain professional development.

To provide opportunities for teachers to keep up with change in education.

To encourage and assist teachers to produce local teaching materials.

To enable teachers to localize the curriculum to include their environment.

To facilitate mentoring of the teachers.

To motivate teachers to undertake action research.

Cognizant to the general and specific objective of MOE about CRCs, articulated the general objective as to create efficient citizen through keeping the quality of education being delivered. Besides its specific objectives are presented in four categories economic pedagogical, political, and administrative. To the interest of the paper the pedagogical objectives of cluster resource centers in Yeki Woreda and Teppa town administration are presented as follow ;

By acquainting teachers continually with up to date teaching methodologies, helping them to improve their profession and then upgrade quality of education.

To enrich the curriculum with the existing local conditions.

To enable teachers utilize modern class room organization; students centered teaching learning process, continuous assessment efficiently and through these activities attain the designed profile of student of each grade.

To create a forum that gives opportunity for teachers of regular schools so that they provide professional support for alternative basic education centers.

Based on the objectives, the purpose of cluster resource centers are oriented to attain the objectives stated. As it is stated, in Amhara region. However due to the interest of this paper we concentrate on the pedagogical purposes of cluster resource centers the contents covered by cluster resource centers have been, according to Leu (2004; 6) «active learning class room approaches, continuous assessment promoting the success of girls in school effective team building at the school level and effective school leadership- - subject – based improvement in teaching and learning -----» Besides, the use higher ---order thinking skills and connecting school learning activities with students own live has got important emphasis. Thus, according to the report of lev, the contents are suggested to be circulated around practical and realistic guidance of the teaching learning activities, support for development of curriculum and other aspects of classroom planning and management .This by it self encompassed so many sub contents . consistent of text books ,pedagogical skills ,academic knowledge of teachers themselves , especially ,English ,mathematics ,and Environmental studies are necessary to be addressed by CRCs This provide us the package of contents to be addressed in the training of CRCs, which serves as designed curriculum of school clustering program in Ethiopia.

In similar way, in studying related issues in Oromiya, Assefa (2003;56) listed down the training topics delivered by five regions –Amhara –Harari,

Oromiya , SNNPRS and Tigray By excluding the frequency of repetitiveness of the topics of each region, the total training topics include:

- Integrated lesson plan
- Teaching aid production
- English teaching methodology
- Science kit use
- Self contained classroom methodology
- Supervision guidance and counseling
- Lesson plan preparation
- School leader ship
- New curriculum
- Continuous assessment
- Girls participation and
- Music and drawing

The topics of trainings have said to be similar by Assefa (2003: 56). He argued that «Comparing training topics the selection is not decentralized as regional educational office managers profess. Most often cited training topics the selection are teaching and development, followed by guidance, science kits and use of new curriculum by teachers.» How ever, this might be due to the similarities of the problems faced in the Ethiopian schools.

Accordingly, Amhara Regional Educational Bureau (2005)has also confirmed that the pedagogical emphasis of CRCs to be modern methods of teaching related to student centered active learning methods, curriculum implementation in response to the local condition, modern class room management, continuous assessment, action research and the likes, the report of AED/BESO (2005:6-7) presented us with lists of training contents covered in CRCs in the year 1996 and 1997 EC in Amhara region (Abraham,2007.)

From the literature review appears in this paper important issues can be highlighted. These points can be represented as follows.

- A. School clustering is a means of disseminating new methods and skills of teaching that respond to the practical demand of classrooms. In this way, sharing experiences among teachers through a culture of reflection has got an important attention.
- B. Activities of school clustering are highly related with capacity building of the human resources of schools. Thus, it is highly connected with the various continues teacher professional development programs. Subsequently, school clustering is considered as a fruit of paradigm shift that concentrate from a highly centralized formal in-service teacher professional development to such decentralized, locally oriented form of teacher professional development. For this to happen, various models are suggested by scholars. Besides the activities perspectives professional development.
- C. School clustering is considered as key strategy of enhancing teachers competence through which better learning performance of teachers can be realized.
- D. Ministry of education, teachers' educational college and other stakeholders believed to improve quality of the education through increasing capability of teachers so that they perform well in the class room. They also believed that teachers professional competence can be enhanced through engaging teachers in continuous professional development like in cluster resources centers of schools. This strategy is taken as promising, it seems, based on the experience of other countries and suggestions of many scholars. Due to this, by new, the establishment and activities of school clustering has got conceptual, legal and morale basis in Yeki Woreda and Tepi Town administration cluster schools.

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

Chapter three deals with the research design and methodology employed in this study.

The study is aimed at evaluating factors affecting the effectiveness of cluster school exam, training, sporting, question and answer activities in Tepi and Yeki woreda cluster primary schools in teaching and learning innovation. To fulfill this purpose, both qualitative and quantitative method were employed. In this chapter an attempt was made to provide adequate information about research design, subjects and sampling methods, data analysis and the instruments that were selected for the study.

3.2. Method of the Study

The method employed was mixed method which combines qualitative and quantitative approaches on the assumption that it is more appropriate together with variety of data related to the study.

Mixed method which enables to collect diverse types of data provides an understanding of research problems (Creswell, 2003:21). Therefore, the researcher believed that the method chosen describes the practice of cluster school innovation in the Yeki woreda and Teppi town cluster schools.

3.3 Sources of Data and Sampling Procedures

The sources of data are principals, department heads, and sport club facilitators, teachers, students, officers, supervisors, Woreda and town

educational office workers, unit leaders and representative of cluster resource center of BTTC are informants of the study.

Table 1: Sample population selected from the schools

Cluster school	Number of cluster schools			Number of teachers			Number of students		
	CR C only	Satellite school	Total	Male	Female	Total	Male	Female	Total
Bechi	1	4	5	12	1	13	10	2	12
Fidae	1	4	5	4	9	13	8	4	12
Shai	1	4	5	13	-	13	12	-	12
Korcha	1	4	5	9	4	13	8	4	12
Zinki	1	3	4	10	3	13	10	2	12
Kubito	1	5	6	10	3	13	8	4	12
Tiglefe	-	-	-	7	6	13	12	-	12
Teppi	1	2	3	7	6	13	7	5	12
Beko	-	-	-	6	7	13	5	7	12
Kutire 2	-	-	-	7	6	13	9	3	12
Total	7	26	33	85	45	130	89	31	120

3.4 Data Collection Instruments

Five different instruments were used to collect data for this research. These are questionnaire, interview, observation, document analysis and focus group discussion.

3.4.1 Questionnaire

The purpose of this questionnaire was to collect data about the opinion and experience of teachers in various teaching learning related issues, so, as to supplement the data collected using observation rating scale and then increase the reliability of information collected. The questionnaire presented to the teachers has two parts that concentrate on the basic personal information of the respondents and two parts of open and close end questioner type respond their opinion and experience on the implementation of clustering school on selected teaching methods and related activities.[Appendix 1]

3.4.2 Interview

As interview guide which is a list of question or issues that are to be used in the course of an interview was prepared. An interview guide was developed to collect data from staff development facilitators, principals, focal persons of woreda and town educational unit, focal person of Bonga teacher educational collage, (BTTC) representative of both area educational units and supervisors. The guide provides topic or subject areas about which the interviewer is free to explore, probe and ask questions that would elucidate and illuminate that particular subject. The element of this guide are presented on appendix 2.

3.4.3 Observation

The Observation method avoids the inaccuracy and bias of some self-report data. Questionnaires and interview methods rely on self-report by research participants; many individuals can balance the information. Hence

the alternative for such bias is to observe the behaviors and the environment being studied. So, observation method avoid the reported data bias (Borich and GD; 1996).[Appendix 4.]

By using this method the researcher used to observing sporting, exam, question and answer, group working and practicum availability of necessary supply of facilities, learning resources and supplementary materials at school clustering center and observe like football game, volleyball game, athletics and other programs by using recording materials to collect the data.

Table 1.1. Schedule for class observation

Schools	Class Observed	Subject	Period	Time	Date
Teppi	6 th and 7 th	English	5 th and 6 th	Morning	May 1,2012
Beko	4 th and 8 th	Science	5 th and 6 th	Morning	May 2,2012
Kutir 2	5 th and 8 th	Social	5 th and 6 th	Morning	May 3,2012
Fide	4 th and 8 th	Mathematics	3 rd and 4 th	Afternoon	May 7,2012
Bechi	5 th and 7 th	English	3 rd and 4 th	Afternoon	May 8,2012
Kubito	6 th and 8 th	Mathematics	3 rd and 4 th	Afternoon	May 9,2012

3.4.4 Focus group

The advantage of using participants, who know each other meant the friends or colleagues were able to related comments made in the focus group to events in their every day shared lives. A focus group is more than a group interview or discussion, because of interest shared by the group and the use of participants interaction as research data.

Laws (2003:300) reminded that focus groups do not produce statistics and data collected could be complex to analyze. In this study the researcher was guided by a checklist taken from (Laws, 2003:301). Participants are students of 5-8 grade from 10 cluster school centers. One group consists of

12 students in each CSC. Therefore, total of 10 groups are formed for the study.

Table 1.2. Date of Focus group discussion

Name of CRC	Date of contact	Woreda
Teppi	May 24,2012	Teppi Town
Bechi	May 26,2012	Yeki Woreda
Fide	May 26,2012	Yeki Woreda
Kubito	May 25,2012	Yeki Woreda

3.4.5 Document Analysis

Document enables a researcher to obtain the long usage and words of participants, represents data that are thoughtful in that participants have given attention to compiling Cres Well (2003:187). As Laws (2002:302) recommended that documentary research is useful when some research questions may be answered by existing data. Documents related to distribution of materials, cluster school report, file, minutes of meetings, plans, supplementary materials the activities of cluster school center examined.

Two document observation tools were being used in this research. The first one was designed to collect data that enable answer for the first basic question of this study. Hence, an attempt was made to get data, for the purese of comparing the designed and implemented curriculum regarding CRC based on training, through school cluster training and program innovation. To realize this purpose school cluster training and programming follow up records and reports at BTTC (Bonga Teacher Training College) and sample CRC were consulted.[Appendix 3.]

The second documents observation rating scale was designed to see recordable performance of teachers. This tool was prepared to extract information that could be difficult to collect directly using teaching performance observation rating scale. The document observation rating scale contained three main items dealing with quality of lesson plan, quality of continuous assessment, and elements of portfolio and other follow up documents. [Appendix 4.]

Table 1.3. Date of document analysis

Name of CRC	Date of contact	Woreda
Teppi	May 02,2012	Teppi Town
Bechi	May 03,2012	Yeki Woreda
Fide	May 03,2012	Yeki Woreda
Kubito	May 02,2012	Yeki Woreda

3.5 Data Collecting Strategies

In view of the basic question of the research, the following data collection strategies were employed. The first basic question demands to test the conformist of rendered trainings in CRC with that of the perceived short comings of teachers at the very beginning of school cluster system planning. Thus, document consultation at BTTC and each CR had been made at the beginning.

Each of these research tools were administered through contacting selected teachers from each sample school. In order the questionnaires to be filled by respondents, the selected teachers had been contracted face to face and briefed about the confidentiality of their response together with the nature of the items in the questionnaire. Similarly, they were also briefed about the administration of school clustering school center exam, sporting, classroom observation and observation of document found in the hands of the teachers and CSC. Then, the observation schedule plan was made with the teachers collectively. In the observation process, school clustering center observation was made to be proceeding by document observation so that better informed performance observation could be made.

3.6 Methods of Data Analysis

The methods of data analyzing strategies associated with the mixed methods approach, involve collecting and analyzing both forms of data in a single study. During this the researcher used sequential exploratory procedure among the mixed methods strategies to expand the finding of one

method with another method. The analysis began with a qualitative method for exploratory purposes and following up with a quantitative method.

Collecting quantitative data first helps to explore the topic with participants at sites. The great priority in the analysis is given to the qualitative approach. To analysis the researcher presented two phases. Phase one analysis qualitative data, and phase two quantitative data and analyzes. Based on the type of the instrument employed and the nature of questions set narration, direct interpretations and the percentage were used for analysis of data. Direct interpretation explains the data presented in the interview, document analysis, focus group and all program observation. Percentage was used to explain personal characteristics of respondents and the data in the questionnaire.

The rating form was presented with point of scale. “Yes, No, disagree, very disagree, strongly disagree, very agree, strongly agree, low, very low, medium, high very high”. On the other hand three types of checklist were prepared. The first one cluster school program observation, availability of materials and CRC participation.

3.7 Pilot Testing of the Data Collection Instrument

Before using the research instrument for data collection, the instruments were subjected to pilot testing among cluster school directors, head teachers and supervisors of teppi and Yeki Woreda. The purpose of this piloting was to get research instrument that enable to collect reasonable valid and reliable data. Then questionnaires were distributed for two town and woreda officers, three cluster school directors and three cluster school teachers to check language clarity and appropriateness of items in the content. The questionnaire was prepared in English language for teachers and CRC.

Chapter Four

4. Presentation, Analysis and Interpretation of Data

4.1 Introduction

Chapter four of this paper deals with the presentation, analysis and interpretation of the data collected using data collection tools stated in chapter three. It contained the issues of designed and implemented CRC training program items, about profile of sample teachers, students and teachers participation.

4.2 Respondents' Background Information

The major categories of participants involved in this study are teachers, principals, Woreda facilitators, supervisor, club representative, students, CRC head person and key teachers.

The researcher believes that the respondents have direct relationship with the matters under study and as a result they were considered to be relevant as main source of information for the study. The background information of participants were:

Table 2: Research participants

Item	Teppi Town	Yeki Woreda	Total
Supervisor	6	10	16
Officers	7	8	15
Principals	7	14	21
Teachers	39	91	130
Students	36	84	120
Total	95	207	302

Table 3. Participants Background Information

Items		Teachers		Principals		Woreda facilitators		Supervisor		Total	
		F	%	F	%	F	%	F	%	F	%
Male		N=	130	N	21	N	15	N	16	N	182
		85	65.38	20	95.23	15	100	11	68.75	131	71.93
Female		45	34.62	1	4.76	-	-	5	31.25	51	28.02
Work Experience	1-5	22	16.90	-	-	-	-	-	31.25	22	16.9
	6-10	36	27.69	-	-	2	13.33	5	-	43	23.61
	11-15	32	24.6	9	47.85	2	13.33	2	31.25	45	24.72
	16-20	22	16.93	10	47.61	-	-	4	12.5	36	19.78
	21-25	12	9.23	2	9.52	2	13.33	-	25	16	8.78
	26 and above	6	4.61	-	-	9	60	5	-	20	10.98
		130	100	-	-	-	-	-	-	-	-
Participation Year in the Cluster school	1-2	38	29.23	-	-	-	-	-	-	38	29.23
	1-4	92	70.71	-	-	-	-	-	-	92	70.77
Grade they taught	First cycle	-	-	-	-	-	-	-	-	-	-
	Second cycle	130	100	-	-	-	-	-	-	130	100
Academic qualification	Diploma	105	80.77	17	80.95	7	46.6	9	56.25	138	75.82
	First degree	25	19.23	4	19.04	8	53.4	7	43.75	44	24.18
Teaching load	10-15	-	-	-	-	-	-	-	-	-	-
	16-20	28	21.54	-	-	-	-	-	-	28	21.54
	21-25	50	38.46	-	-	-	-	-	-	50	38.46
	26-30	52	40	-	-	-	-	-	-	52	40
	Total	130		21		15		12		182	

F- Frequency

N-Total number of participants

According to Table 3 out of 130 total teachers, 85 (65.35%) of them was male, while 45 (34.62%) were female. Similarly, out of 21 total numbers of principals 20 (98.23%) were male, while 1 (4.76%) were female. All town and Woreda facilitators, 15 (100%) of them were male, but no female

participants. Out of 16 total numbers of supervisors 11 (68.75%) were male, 5 (31.25%) were female.

In the case of sex data of the participants shows total numbers of 180 respondents who has given information on their sex, 131 (71.98%) were male, while 51 (28.02%) were female. So that female participants were low at leadership position and key teachers.

Concerning teachers work experiences, 22 (16.93%) were below five years services, but no principal, facilitators and supervisors under five years work experience. 32 (24.61%) of teachers, 9 (42.83%) of director, 2 (13.33%) facilitators and 2 (12.5%) of supervisors have 11-15 service years, while 36 (27.69%) teachers, 2(13.33%) facilitators and 5 (31.25%) of supervisors have 6-10 service years 22 (16.93%) teachers, 10 (47.61%) directors , and 4 (25%) of supervisors have their service years are 16-20. 12 (9.23%) teachers, 2 (9.52%) principals and 2 (18.33%) facilitators have 21-25 service years. 6 (4.61%) of teachers, 9 (60%) Woreda officers and 5 (31.25%) supervisors' service years are above 26 years.

With respect to cluster school all program participation 38 (29.23%) teachers participated for 1-2 years, while 92 (70.77%) teachers participated for 3-4 years. This shows teachers which participated in the questionnaire have more experience in school clustering program.

Regarding teachers grade taught in cycle, all participants like 130 (100%) taught in second cycle (5-8 grade). As to the respondents teaching load, 28 (21.54%) of the teachers were their teaching load of 16-20, were 50 (38.46%) are 21-25 and 52 (40%) of their teaching loads are 26-30 periods.

Regarding the respondents academic qualification 105 (80.77%) of teachers were diploma, where as 25 (19.23%) were first degree holders. Similarly, school directors 17 (80.95%) were diploma and 4 (19.04%) were first degree. Town and Woreda officers, 7 (46.6%) of diploma and 8 (53.4%) were first degree. Schools and Woreda supervisors qualification were 9 (56.25%) of diploma and 7 (43.75%) were first degree holders. This implies that there is sufficient human resources with different level of education that can

implement school clustering model and teachers professional development program innovation. In addition to this, the experiences and qualification of these respondents enable the researcher to draw valid conclusion from the information they offered.

4.3 Data Analysis

Under this part, the data obtained through questionnaire, document analysis, observation and focus group discussions were analyzed to find answer for the basic research questions set for the study. In addition, the researcher employed likert scale to know respondents' agreement or disagreement on certain views. Likert scale is appropriate for measuring the degree to which people agree or disagree with a statement, usually on a point scale (Encarta Dictionary- Reference Library Premium ® 2007).

Table 4: Profiles of Students

		Students participants				Total	
		Teppi town		Yeki woreda		No	%
		No	36	No	84		
Sex	M	F	%	F	%	F	%
		23	63.9	52	61.9	75	62.5
	F	13	36.1	32	38.1	45	37.5
Grade	5th	9	25	21	25	30	25
	6th	9	25	21	25	30	25
	7th	9	25	21	25	30	25
	8th	9	25	21	25	30	25
Rank	1st	12	33.3	28	33.3	40	33.3
	2nd	12	33.3	28	33.3	40	33.3
	3rd	12	33.3	28	33.3	40	33.3
Years of participation	1-2	15	41.6	14	16.6	29	24.1
	3-4	21	58.3	70	83.3	91	75.8

F-Frequency , N-Total number of participants

Table-4 describes the general characteristics of the students respondents. Regarding the sex of students the majority of students respondent number were selected from Teppi Town and Yeki Woreda cluster schools. Then total numbers of 120 students, 75 (62.5%) are male, 45 (37.5%) are females, from all cluster schools.

Teppi town, male participants 23 (63.9%) and females are 13 (36.12%). Yeki Woreda male 52 (61.9%) and 32 (38.1%) are females. Table 4 describes students profile into four groups sex, grade, rank and participation year. All students participating in the questionnaire are from grade five, six, seven and eight classes. 9 (25%) are from Teppi town and 21 (25%) from Yeki Woreda. According to rank, students those selected for questionnaires are participated in school clustering programs are one-four years participated continuously in the sporting, question and answer program at their cluster schools. 40 (33.33%) students ranked first, second and third. One-two years participants are 29 (24.15), and 91 (75.83%) are three-four year participant in their school clustering program continuously. So they are experienced in all clustering program.

In general according to students participation in school clustering programs, 75.83% of the students are more familiar in participation. But in sex level participation were very low in both Teppi town administration and Yeki Woreda educational bureau.

Table 5. Teachers experience sharing in cluster school

Items	Teacher				Director				Expert			
	Yes		No		Yes		No		Yes		No	
	N	%	N	%	N	%	N	%	N	%	N	%
Did you have the chance to share your experience in the training center?	100	76.9	30	23.0	17	80.9	4	19.0	29	93.5	2	6.4
If your response for question 1 is “yes” at what level?												
a) At school level?	130	10.0	-	-	21	100	-	-	-	-	-	-
b) At cluster level?	120	92.3	10	7.6	21	100	-	-	-	-	-	-
c) at resource center ?	65	50	65	50	11	52.3	10	47.6	-	-	-	-
d) At town or woreda ?	100	76.9	30	23.0	21	100	-	-	31	100	-	-
e) Other area ?	-			-	-	-	-	-	29	93.5	2	6.4

N- Number of participants

It is indicated in the Table-5, the majority of principals and teachers and experts, 100 (76.92%) of teachers responded that they had the chance to share their experience at cluster school. 30 (27.07%) teachers replied, no chance to share their experiences 17 (80.95%) of teachers reported and 29 (93.54%) of experts reported that they have shared experiences at cluster school and town and Woreda educational bureau. This shows teachers professional development sharing experience were not strengthened and promoted at cluster schools.

In order to assess the area of trainings, which the respondents experienced, a number of topics were listed to be decided by informants, 130 (100%) of teachers shared the experiences at school level. 120 (92.31%) of teachers were at cluster

school sharing, 65 (50%) of teachers were at BTTC. 100 (76.83%) of teachers were shared their experience at town and Woreda educational bureau.

Table 6. Implementation and Innovation Process of Training, Exam Sporting and Subject Competition

Item	Participant	Option												Total	
		Disagree		Very disagree		Strongly disagree		Neutral	Agree		Very agree		Strongly agree		
		N	%	N	%	N	%		-	N	%	N	%	N	%
Is cluster training programs attractive ?	Teacher	16	12.3	4	3.10	8	6.63	-	56	43.01	30	23.1	16	23	130
	Director							-	5	23.8	7	33.3	9	42.25	21
	Expert							-	4	12.90	8	25.8	9	29.03	31
Is school clustering exam preparation moderate?	Teacher	24	18.46	16	12.30	22	16.92	-	29	22.3	20	15.31	19	14.51	130
	Director	4	19.9	2	9.52	3	14.28	-	3	14.28	4	19.04	5	23.8	21
	Expert	4	12.9	5	16.12	2	6.5	-	5	16.12	7	22.6	8	25.8	31
Is Implementation of questing and answering program effective ?	Teacher	27	20.8	10	7.8	14	10.8	-	30	23.1	24	18.8	20	15.6	130
	Director	5	23.8	3	14.3	4	19.4	-	3	14.3	3	14.3	3	14.3	21
	Expert	3	9.7	2	6.5	2	6.5	-	9	29.03	5	16.12	10	32.3	31
How to Innovation cluster sport competition ?	Teacher	20	15.4	2	1.5	6	4.6	-	42	32.3	40	30.8	20	15.4	130
	Director	7	33.3	-	-	-	-	-	7	33.3	3	14.3	4	19.1	21
	Expert	3	9.7	-	-	-	-	--	9	29.03	7	22.6	12	38.7	31
Is there Coordination of clustering school?	Teacher	30	23.1	20	15.4	20	15.4	-	24	18.5	17	13.1	27	20.8	130
	Director	-	-	-	-	-	-	--	4	19.1	7	33.3	10	46.6	21
	Expert	-	-	-	-	-	-	-	-	-	10	32.8	21	67.7	31
Is Cluster-based supervision program effective ?	Teacher	42	32.3	40	30.8	26	20	-	10	4.7	7	5.4	5	3.8	130
	Director	5	23.8	2	9.5	-	-	-	6	25.6	3	14.3	5	23.8	21
	Expert	-	-	-	-	-	-	-	-	-	14	45.2	17	54.8	31
How is participants behavior during clustering program ?	Teacher	22	16.9	11	8.5	13	10	-	32	24.6	25	19.2	27	20.8	130
	Director	10	46.6	6	28.7	8	38.1	-	4	19.1	3	14.3	3	14.3	21
	Expert	7	22.6	-	-	-	-	-	6	19.4	4	12.9	4	12.9	31
How is Officers, directors and other routines managing activity?	Teacher	21	16.2	17	13.1	20	15.4	-	25	19.2	22	16.9	25	19.2	130
	Director	7	33.3	-	-	-	-	-	6	28.5	4	19.04	4	19.04	21
	Expert	-	-	-	-	-	-	-	-	-	-	-	31	100	31

N- Number of participants

As indicated in table five respondents were asked their participation on training at school and cluster center, techniques employed to select trainers, follow-up strategies, ways of cluster school selection and cluster resource center, innovation of sporting, exam, supervision and subject competition and participants behavior during the clustering program. They were given a chance to select “yes” or “no” alternative, disagree, agree, low, medium and high rating scales.

To investigate the practice of training, examining, sporting and subject competition by eight questions were raised in this table. To this effect cluster training program held at CRC and Woreda level. Accordingly, majority of the respondent (89.02% of teachers) reported that they participated in training programs at clusters school only. On the other hand, a few teachers 10.92% reacted as unit leader, department head and key teachers were participated in training program at regional, zonal, Woreda and cluster resource center like BTTC.

Regarding the types of training topics given in BTTC, a great number of respondents reported the major topics in the training program conducted including in the school and resource centers lesson plan preparation, continuous professional development, student-centered teaching approach, action research, preparing local teaching aids, HIV/AIDS and gender issues and continuous assessment programs. On the other hand significant number of directors, town and Woreda experts reported that they participated in the training of good school leadership, preparing long and short term plan continuous assessment, continuous professional development, quality of education, new educational policy and gender and HIV/AIDS program.

In addition to this, head teachers. Town and Woreda educational experts were interviewed on the types of training given to key teachers and staff development facilitators at BTTC and Woreda and town educational centers,

and the extent to which they transmitted the training to head teachers and teachers at cluster school and schools. The interviewed experts and directors suggested that key teachers and school facilitators who are supported by BTTC have taken training multiple times on student-centered approach, research methods, continuous assessment, continuous professional development, practicum, HIV/AIDS and classroom management. In the case of those cluster school centers not supported by BTTC, all key teachers and others have taken training spontaneously by Woreda level and at cluster school centers.

According to BTTC dean reported were interviewed, “now a days our college have goes to the cluster school, centers or satellite areas and given the training for all teachers.”

However, because of financial problem, lack of follow up from upper to the lower and lack of attention given to cluster school activities adequate trainings have not been given to school principals and teachers at schools or cluster levels by key teachers or school development facilitators. Most of the trainings were limited to key teachers, Woreda experts and directors.

Concerning the duration and continuity of the training programs, both respondents confirmed that the training sessions were too short and lack continuity to have a significant impact on the teaching competence of teachers and management competence of head teachers.

According to Dittinar (2002) training needs can also be assessed cluster by cluster, rather than having uniform program for the whole regions. For the training to be effective and purposeful some thought has to be given as to what topic to be delivered during the training. When planning for teachers, the trainers must have an understanding of the needs of the teachers and their expectations.

Head teachers and teachers were asked to identify whether the training needs assessment was done on the basis of the trainers and their respective school true needs. Most of the respondents agree that of the training obtained were selected through key teachers and cluster school principals with out need analysis from the already given training for key teachers. Only

Woreda level, cluster school and cluster resource center management committee discussed together and have selected the training topics, competition items, cluster facilitator, exam selection with duplication and all programs. These processes disagree with what the literature respondent indicates.

Follow-up is considered critical to effective implementation of cluster-school exam, questions and answer, sporting and training program in an extensive of the limited implementation of training in the classrooms in both developed and developing countries could be attributed to lack of follow-up support, without continuing encouragement and support. Therefore, this relative practice should be evaluated through intensive lesson observation and feedback, progress meetings, checklist, learner's assessment and school visits.

Directors, key teachers, town and Woreda education experts replied how they follow up the reflective practice of training programs at cluster school and classroom level. All participant agreed that there has been no new follow-up strategies used by them after the establishment of cluster resource centers. Still they are practicing the previous strategies like seasonal supervision and report of teachers directors and lower committee or group. Generally we can infer from the data and interview that majority of the respondents have participated in the training programs held at cluster resource centers. However, these training sessions have been too short and too infrequent. No needs assessment was conducted for the training topics and there has been no effective follow-up support to ensure the effective implementation of the training at school and classroom level. Lastly, the participated directors, key teachers, town and Woreda educational experts did not hide that teachers seem to feel negative about the problems of training programs going on; logistics, continuity of programs, shortage of reading materials, shortage of training time and credit for the training.

Regarding the loose linkage between BTTC, Teppi town administrative educational bureau and Yeki Woreda educational bureau, a researcher had a chance to communicate with representative of cluster unit at Bonga teachers teaching college. The person in charge of cluster unit told the

researcher that BTTC was not working collaboratively with Woreda, zonal and regional educational bureau with regard to cluster school implementation program.

Participants like educational expert, directors and BTTC representative. Show that both are not working collaboratively to support cluster school program of cluster training. Implementation of question and answering program, innovation of cluster sporting competition program, school clustering first and second semester final exam and cluster based supervision program. Furthermore, the report implies that the absence of cluster resource center structured at wordea level might have created loose linkage BTTC, which at the result cluster school in both areas could not get support from training centers.

In the process of cluster school practices, cooperation between all persons who are to be involved with program must occur if a change is to be successful and to become institutionalized. According to the view of the respondents (teacher, directors and experts) cooperation among clustered schools did not seem to appear. Lack of frequent discussion about cluster school among teachers, students, Woreda representative and cluster programming committee members is likely to hamper the implementation of the innovation. During program implementation, the behavior of all participants (students, teachers, directors, officers and program facilitators of cluster committee) were very challenge for cluster school committee. As Derbessa (2004) noted opportunities for teachers to work together, share ideas, jointly solve problems and cooperatively creating materials greatly enhance, the probability of successful curriculum implementation.

As it is stated in the policy MOE (2002), by clustering schools at a given locality, resource centers provide educational equipment, reference books, etc, in order to enhance teachers' capability in classroom instruction. In this regard as it is also witnessed by principals and officials, cluster resource's in Teppi and Yeki Woreda educational bureau teaching materials were provided by BTTC.

One of the objectives of clustering school is to redress any unbalance in education by grouping schools that are located near each other in a cluster,

mixing strong school and disadvantaged school in such a way that the latter benefit from the advantage of the former. However, according to the response of the respondents (teachers, directors, and experts) of the study, the advantageous groups (Teppi, Beko, Number two, fide and Kubito) were found to contradict the objective of cluster resource centers. Then documents showed that the innovation of clustering schools were practical and advantageous in other countries e.g Bangladesh, Namibia, America (Kebede, 2006). All the interview, focus group discussion and questionnaire participants in respective of collaborative work of clustered schools have marked that BTTC supported cluster schools had the opportunity to share their experience in different areas of training either in central venue or at their respective schools. This shows that teachers at clustered schools had a better exposure to modern approach of teaching than others not supported by BTTC.

Table 7. Cluster Resource Center Planning and Facilitation

Item	Participati on	Option												Total	
		Disagree		Very disagree		Strongly disagree		Neu tral	Agree		Very agree		Strongl y agree		
		N	%	N	%	N	%	-	N	%	N	%	N		%
The quality of long and short term plan is satisfactory	Teachers	44	33.8	12	9.2	5	3.9	-	30	23.1	22	16.9	1	13.7	130
	Director	7	33.3	6	28.6	-	-	-	4	19.1	2	9.5	2	9.5	21
	Expert	-	-	-	-	-	-	-	7	22.6	8	25.8	1	51.6	31
Cluster lesson plan format is adequate	Teacher	12	9.2	-	-	9	6.9	-	30	23.1	37	28.5	4	32.2	130
	Director	6	28.6	-	-	-	-	-	-	-	-	-	1	71.5	21
	Expert	-	-	-	-	-	-	-	-	-	-	-	3	100.1	31
The record and report documentation program is of acceptable quality	Teacher	52	40	15	11.5	2	15.4	-	30	23.1	18	13.8	1	10.3	130
	Director	-	-	-	-	-	-	-	9	42.9	8	38.1	4	19.1	21
	Expert	9	29.03	4	12.9	-	-	-	15	48.4	3	9.7	-	-	31
Cluster resource center activities are planned	Teacher	30	23.07	10	7.7	25	19.2	-	26	20	-	-	3	30.9	130
	Director	-	-	10	32.3	-	-	-	4	19.1	-	=	7	33.3	21
	Expert	1	-	10	-	-	-	-	20	-	=	=	-	-	31

N- Number of participants

Schools are the mission centers where the actual teaching leaning takes place. Hence, making supervision a continuous responsibility at this level is crucial. Whatever, attempt made at cluster school and cluster resource center or any level outside the school regarding supervision, the attempt will

be meaningless unless supervisory activities, and long and short term plan are strengthened at school level (Markos 2004:108).

According to cluster school long and short term plan, teachers directors and woreda experts views, 44 (33.84%) of teachers disagree, 12 (9.23%) very disagree, 5(3.85%) strongly disagree, 30 (23.05%) agree, 22 (16.92%) very agree and 17 (13.07%) strongly agree. Regarding to directors 7 (33.3%) disagree, 6 (28.57%) very disagree, 4 (19.04%) agree, 2 (9.52%) very agree, 2 (9.52%) strongly agree. As Woreda and town administration educational expert reported 7 (22.58%) of directors agree, 8 (25.46%) very agree, 16 (51.61%) strongly agree so this shows that no punctuality of the practice of long and short term plan.

Cluster school lesson plan format, documentary record and report were the main features to developed students and teachers academic performance. Teachers directors and experts reported that 12 (9.23%) of teachers disagree, 9 (6.92%) strongly disagree, 30 (23.09%) agree, 37 (28.46%) very agree 42 (32.30%) strongly agree about clustered lesson plan format. While except 6 (28.57%) of directors, the other 15 (71.42%) directors and 31 (100%) town and Woreda educational experts strongly agree cluster school and cluster resources center lesson plan format.

According to cluster school exam, sporting, question and answer implementation of all program documentation and report process for Woreda and BTTC level respondents reported 52 (40%) of teachers disagree, 15 (11.53%) very disagree, 2 (5.38%) agree, 30 (23.07%) agree, 18 (13.84%) very agree, 13 (10%) strongly agree. Directors reported that 9 (42.85%) agree, 8 (38.09%) very agree, 4 (19.05%) directors strongly agree. While town and Woreda experts replied 9 (29.03%) disagree, 4 (12.90%) very disagree 15 (48.38%) 3 (9.67%) experts were agree and very agree.

In comparing to BTTC resource center participants teachers schools and students (Teppi, Beko, Kutire 2 , Fide and Kubito) with those non BTTC resource center supported teachers, schools and students (Ermich, Shai,

Bechi, Korcha and Zinki) cluster school participants lesson plan format, grade four and grade eight first and second semester final exam, cluster sporting, question and answering and documentary filling system were better than those non BTTC participating groups. Those supported by BTTC cluster school groups were more organized, incase of duplicating material, computer used, practicum practiced used yearly two times continuous training program.

Table 8. Expectation of hindrance during collaboration work and cluster school program innovation

Challenges	Respondents	Option											
		Low		Very low		Medium		Very high		High		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Reward for good performance	Teachers	14	10.8	15	11.5	30	23.4	31	23.8	40	30.8	130	
	Director	6	23.6	6	28.6	9	42.9	-	-	-	-	21	
	Expert	14	45.2	10	32.3	3	9.7	4	12.9	-	-	31	
Inculcating spirit of competition	Teacher	10	7.7	17	13.1	41	31.3	25	19.2	37	28.4	130	
	Director	8	38.1	7	33.3	6	28.6	-	-	-	-	21	
	Expert	13	41.9	18	58.1	-	-	-	-	-	-	31	
Ability of gender participation during the program	Teacher	13	10	18	13.9	20	15.4	12	9.2	67	57.5	130	
	Director	14	66.6	7	33.3	-	-	-	-	-	-	21	
	Expert	7	24.6	24	77.4	-	-	-	-	-	-	31	
Issues of gender participation during the club	Teacher	23	17.5	19	14.6	30	23.1	25	19.2	33	25.4	130	
	Director	7	33.3	4	19.2	10	47.6	-	-	-	-	21	
	Expert	21	61.8	7	22.6	3	9.7	=	-	-	-	31	
Absence of commitment to work collaboratively with colleagues	Teacher	24	18.5	4	3.1	17	13.1	35	27.1	50	38.5	130	
	Director	4	19.1	8	38.1	2	9.5	4	19.04	3	14.3	21	
	Expert	12	38.7	6	19.4	3	9.7	5	16.1	5	16.1	31	
Cluster school center program punctuality	Teacher	6	4.7	-	-	13	10	40	19.2	71	54.6	130	
	Director	3	14.3	5	23.8	4	19.1	7	33.3	2	9.5	21	
	Expert	8	25.8	17	54.8	6	19.4	-	-	-	-	31	

As Table-8 shows respondents were asked to indicate the degree of hindrance based on the given items. Five option of scales were given for the respondents to indicate the level of their choice. In the analysis, very low is reduce to low, and very high is raised to high, to simplify the analysis.

In case of cluster school program hindrance respondents were asked if absence of commitment to work collaboratively with colleagues hindered cluster school center from being effective. The majority of respondents (directors and experts) reported, 6 (28.6%) of directors and 14 (45.2%), 10 (32.3%) of experts replied low and very low hindrance during school clustering program, while, 9 (42.9%) of directors replied medium and 3 (9.7%) of experts and 4 (12.9%) of experts were medium and very high problem to implement school clustering question, exam and sporting program effectively. Teachers reported that 14 (10.5%), 15 (11.53%), 30 (23.40%), 31 (23.8%), 40 (30.8%), reported about reward system consequentially low, very low, medium, very high and high hindered to get cluster school program good result, this shows that not inculcated in to students, teachers and all participants spirit of competition in their clustering school program. The responds believe that rewarding for good performance and inculcating accountability advances cluster school activities in schools.

Table9. Expectation of hindrance during collaborative work resource use and monitoring system

Hindrance	Respondents	Low		Very low		Medium		Very high		High	
		N	%	N	%	N	%	N	%	N	%
Lack of follow up and monitoring from school directors	Teacher	38	21.5	6	4.6	40	30.8	26	20	20	15.4
	Director	14	66.6	-	-	3	14.3	-	-	4	19.04
	Expert	9	29.1	-	-	15	48.4	-	-	7	22.6
Lack of adequate resource	Teacher	14	10.8	11	8.5	36	27.7	28	21.5	41	31.5
	Director	5	23.8	-	-	3	14.3	7	33.3	6	28.6
	Expert	5	16.1	3	9.7	7	22.6	6	19.4	10	32.8
Lack of follow up and monitoring of officers	Teacher	34	26.2	19	14.6	47	36.2	12	9.3	18	18.9
	Director	3	14.3	4	19.1	4	19.04	-	-	10	47.6
	Expert	18	58.5	13	41.9	-	-	-	-	-	-
Lack of Department head, clubs and other committee participation	Teacher	20	15.4	8	6.2	50	38.5	28	21.5	24	10.76
	Director	-	-	4	19.04	4	19.04	8	30.1	5	23.8
	Expert	4	12.9	-	-	9	29.03	6	19.4	12	38.7

In addition teacher, students, directors and town and Woreda education sector facilitator's behavior during cluster school program innovation were great challenge for cluster school program facilitators. No punctuality of the program, the ability and issues to assess gender participation in the program and club rolling were low.

The absence of cooperation to working collaboratively with each cluster, schools, teachers, directors, students, Woreda, zone, and BTTC were affected the effectiveness practices of cluster school implementing program

innovation. No program evaluation system between each cluster, management committee, town and Woreda experts. This shows cluster school committee was not committed to the responsibility given, where as the beneficiaries primary school teachers and students are not benefited from the cluster resource and school provided.

The focus group reflection indicated that most of the teachers were practicing active learning and using continuous assessment to promote effective learning in the classroom. Similarity class observation depicted that most of the teachers were able to manage their respective classes in using student approach and systematic evaluation document observation reflected that cluster schools were provided with supplementary materials, modules, reference books which enable teachers to enrich their respective subject matter.

According to the report of the beneficiaries of resource material 24 (13.18%) teacher, directors and experts replied low, 14 (7.7%) all respondents were very low, 46 (25.27%) of respondent medium, 41 (22.52%) replied very high and 57 (31.32%) of all reported high hindrance.

All participants agree that they utilized supplementary materials provided to satellite schools, the in-service professional training given to the staff of primary schools has been the corner stone for the improvement of classroom instruction.

As MOE (2002) reported participation of women, repetition rate dropout rates, results of students as compared to the previous year etc. Mentioned as indicators of follow up and evaluation in cluster schools in teaching and learning process. The method of follow up and evaluation in cluster resource and cluster school center includes semester report, meeting.

Table. 10 Students dropout and pass rate of Yeki Woreda and Teppu Town in 2003 (2011/12)

	Registered			Passed			Repeated			Dropout		
	M	F	T	M	F	T	M	F	T	M	F	T
Teppu town administratio n	220 7	195 0	4157	835	901	173 6	968	841	180 9	404	20 8	61 2
Yeki woreda educational bureau	382 8	325 9	7087	208 1	180 1	388 2	119 4	119 4	238 8	553	26 4	81 7
Total	603 5	520 9	1124 4	291 6	270 2	561 8	216 2	203 5	419 7	957	47 2	14 29

M- Male F- Female T- Total

According to the Table-10 of educational section about students data; registered, passed repeated and dropout, were reported. Then, the number of repeated and dropout of students is greater than that of passed from the classes. This shows that the percentage of repeated and dropout students number were high.

Organizational arrangements that can influence innovations may be of various types. Delegation of responsibility and channels of communication could be noted Nicholas (1983:62). Responsibility with out accountability would bring lack of impact on school based innovation. Regarding this the respondents of the study, students reflected, no time punctuality, items of question and alternative problem, in coordination of facilitators and others, participants and students behavior during the program, editing problem etc, were various factors that hindered cluster school activities. Teachers, directors and experts reflected the lack of commitment, follow-up and monitoring, absence of cooperation among different groups, all these are affected the practices of innovation action.

In addition, it is worth remembering that if organizational changes require to undertake new roles, adequate time must be allowed for this and in the meantime there may be a period of temporary in efficiency. This implies that the relationship between organizational arrangements and innovation should regard school, sport and other clubs, department and classroom organization as flexible and dynamic, not fixed and rigid, and they should therefore, be alert to the effects of factors addressed and be prepared to modify when necessary.

In general, the beneficiaries of cluster school program innovation are not made to be aware of the above mentioned hindrances affecting the activities. In addition, the study indicates that there should be commitment, cooperation, accountability and follow-up-to bring about quality of education in cluster schools.

Chapter Five

Summary, Conclusions and Recommendations

This chapter deals with the summary, conclusions and recommendations. In this section, first brief summary on the general study and the major findings are presented second, conclusions of fundamental findings are made. Lastly, some possible recommendations are given based on major findings of the study.

5.1 Summary

The main purpose of this study was to identify factors affecting the effectiveness of school clustering program in Teppii, town administration and Yeki Woreda cluster primary schools with respect to the experience of BTTC.

Thus, the following five basic research questions were formulated that were focused on the extent to which the cluster school center has been successful in cluster exam, sporting, question and answer, training, supervision and teachers professional development and factors that influence its effectiveness. In order to meet this purpose, the following five basic research questions were raised.

Specific objectives

1. Analyze the clustering resource center and structure in Yeka Woreda and Teppii administration cluster primary school.
2. Asses program practices in clustered school
3. Identify factors affecting and effective benefit of cluster primary school program utilization
4. Asses the improvement areas in both Yeki Woreda and Teppii Town cluster primary school.
5. Examine the practices related to clustering exam, sport, question and answer and training

Basic research question

1. How far do clustering resource center give training?
2. To what extent do cluster school share experience?
3. What are the achievements of cluster exam, sport, question and answer?
4. Are cluster based in-service program important to improve school management and other school activities?
5. What are the factors that affect the effective implementation of the cluster based all program?

To find answers to these basic questions the study was conducted on two educational offices (Teppi town and Yeki woreda educational service center (Bonga teacher training college) , ten cluster schools (Teppi, Beko, Kutir Hulet, Fide, Kubito, Ermich, Zinki, Korcha. Bechi and Shai center). A total of 130 key teachers 21 directors and 31 educational supervisors and experts were the respondents from target schools, Teppi town educational unit and Yeki Woreda educational bureau experts respectively participated.

The researcher has employed descriptive survey method using the questionnaire as the main data collecting instruments substantiated with focus group discussion, observation, documentary analysis and semi-structured interview- in-some respective. The data obtained using qualitative method were collected and analyzed in each phase of the analysis. Secondly, the data collected through survey (quantitative method) analyzed using percentage. Finally the results of both methods were integrated, triangulated and interpreted to answer the basic questions.

All clusters school program observation and group focus discussion were employed to examine teachers and students activity in the cluster school program at the result of in-services teachers' professional development training program. Document analysis was employed to investigate the utilization and distribution of BTTC support educational materials and others at cluster resource centers to cluster school centers. Semi-structure interview was conducted to realize the function of cluster resource centers. The data obtained were analyzed through the use of percentage and direct

interpretations. At last, based on the review of literature and the analysis of the data the following findings were obtained from the study

Major findings:-

1. Teppi town educational unit and Yeki Woreda educational office have no organ of cluster resource center and system to follow up and monitoring of cluster school compositional program. Interview made with officials confirmed that both educational bureau has no structure and model of cluster resource center. The officials and focal persons of BTTC indicated that cluster resource center was not functioning as an organ of the bureau. Therefore, chain of responsibility regarding cluster resource didn't appear in both educational area of Teppi and Yeki woreda educational sectors. On the other hand teacher educational college of Bonga were not linked either to the education Bureau or cluster school centers to contribute their part in in-service teachers' professional development and practicum program lack of coordination to working cooperatively have its own influence on the practice of implementing cluster resource center innovation in clustered primary school.
2. The number of key teachers and directors who have participated in active learning techniques trainings organized at school, BTTC and region level was not implemented as planned by the project. The frequent turnover of key teachers and directors has made the trainings not to be sufficient as expected. Yet, trainings given on active learning techniques and related topics were found to be important to develop teaching skills of BTTC supported schools.
3. Joint planning and execution that may contribute for sustainability of the program best practices, students and teachers' initiation to implement active learning and experience sharing at cluster level were the major success of BTTC project revealed in this study
4. Interest of teachers, directors and experts to participate in cluster school center program activities was found to be less and medium
5. There was some resistances on the part of three cluster school centers concerning the use of the materials (TV, computer, Duplicates,

stationary material, laboratory supplies and science kits) donated by BTTC project in common

6. The variety of topics were covered in the training programs, the presenter was knowledgeable about the subject mater and the training program was of high quality. However, head teachers and teachers felt that the duration of the training program is too short and lacks continuity.
7. The head teachers' and directors indicated that the program were highly useful to them and applicable to their students' work and activities. But need assessments was not conducted to select the training topics. Always training topics were selected through key teachers, cluster school center directors and cluster resource enter program facilitators.
8. Majority of educational expert, directors and key teachers described that there has been no follow-up strategies to check the reflective practices of the training except periodic supervision by town educational unit and Woreda educational bureau and school level supervisors as usual
9. According to the interviewed respondents it was indicated that teachers have negative feelings about the training and cluster school program activities
10. Supervisors' activities at cluster and school level in promoting teachers professional competences through their supervisory practices were not promising
11. Continuous assessment, active learning and student based practice were better. But female student participation during the program were very less

5.2 Conclusion

Based on the above major findings of the study the following conclusions were drawn.

1. The findings of the study revealed that cluster resources were not organized and structured as a body in Teppi town educational unit and Yeki Woreda educational bureau level. The absence of structure from top to down created loose linkage between officials at different level of Woreda, zone and regional levels and between different echelons and cluster school center. The result of the study indicate that there was no proper follow up and monitoring made to strengthen the practice of cluster school program innovation by the concerned experts and BTTC. For the reason that there was no follow up mechanism the cluster resource center program facilitators at cluster school center failed to work collaboratively so that it influenced the practice of cluster school program innovation
2. The cluster school program innovation practice has improved the teaching learning process in the cluster school. Dropout, pass rate and student participation in the class and sporting , question and answer program, female participation during program and students and teachers behavior during cluster school competition program, did not change
3. Trainings organized to key teachers and directors in a round program need to be implemented with no discontinuity. Clusters school program supporting of Woreda and zonal unit had limited vision and understanding of what school clustering school could perform and how school cluster accomplish their responsibilities
4. Improving the competence of head teachers and teachers on school management, on the subject matter they teach, on methods of teaching they use in the classroom and finally the qualify of education is the main objectives of school clustering. Where as, the findings indicated that cluster school centers have not given emphasis to efficiency of education (drop out and repetition), sport competition and question and answer participation.

5.3 Recommendations

Based on the research findings and conclusion drown, it seems reasonable to suggest the following recommendations in Teppi and Yeki Woreda education sector:

1. It is necessary to orient and reorient cluster resource centers and cluster school center to utilize resources in common to promote the efficient use of major resources. Town and Woreda educational bureau need to allocate relatively adequate budget for cluster school center in planned way per annum to implement the cluster school competition program through clustering approach.
2. In order to make the practice of cluster school more effective, in sense of organization responsibility and accountability it is advisable if Teppi Town and Yeki Woreda education bureau, look back to make arrangement for establishing cluster resource center organ in both areas.
3. The training strategy designed by BTTC need to give priority to the training at the school level which could result in feasibility. Therefore, it is advisable if direct training be provided to the school staffs of every school in a cluster. Again, in relation to the training, utilizing cluster resource center need to be attached to result based system of education by exercising the practice of preparing portfolios by the beneficiaries.
4. For affective implementation of cluster school based program innovation, willingness and positive reaction from responsible bodies are very important.
5. Teacher's professional development, material and technical support provided to cluster schools, improve dropout and pass rate, practice of students centered approach, female students participation, continuous assessment. Therefore, it is recommended that the innovative action may go on with its program of improving the quality and equality of education in both Woreda
6. Factors that influence innovative action need to be considered for the success of cluster school program innovation. It is advisable if follow up and monitoring, accountability, commitment, etc be taken as part of the teaching profession for the effectiveness of practice of cluster school program innovation.

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Appendix 1

Addis Ababa University

Collage of Education

Department Institution of Educational Research and Development

Thesis Topic:- Factors affecting the effectiveness of school clustering do to the teaching and learning process of Yeki Woreda and Teppi Town educational unit administration.

Questionnaires to be filled by teachers; officers & principals

The questionnaire which is part of the study, designed to collect relevant data about the impact of cluster schools in implementing primary school curriculum in Teppi Town administration and Yeki Woreda. So your sincere cooperation in answering each question is highly important.

1. Please follow the specific instruction of the beginning of each section and read each part before go to answer.
2. No need of writing your name.
3. For any additional explanation of your opinion use it as briefly as possible in the space provided.
4. Mark your response in the space provided by putting “√” Mark.

Thank you in advance for your co-operation

Part One

Background information

Direction:- Please indicate by marking “ ” or by writing short answer on the space provided

1. City administration _____ Woreda _____
2. Name of school _____ name of cluster school _____
3. Name of cluster school resource center _____
4. Your job position _____

5. Sex Male () Female ()
6. Work experience
- 6.1 1-5 () 6.2 6-10 () 6.3 11-15 () 6.4 16-20 ()
- 6.5 21-25 ()
- 6.6 26 & above ()
- 6.7 Service your in this school
- 6.7.1 1- 5 () 6.7.2 6-10 () 6.7.3 11 and above ()
7. Academic qualifications
- 7.1 12 complete () 7.2 12+TTI
- 7.3 12+Diploma () 7.4 BA/BED () 7.5 10+3 ()
- 7.6 other ()
8. Teaching load (period)
- 8.1 10-15 () 8.2 16-20 () 8.3 21.25 ()
- 8.4 26.30 () 8.5 30 and above ()
9. Subject taught _____
10. Grade you teach _____
- 10.1 First cycle () 10.2 second cycle ()
11. Year of participation in school cluster No () One year ()
- Two years () Three years () Four years () Not remember ()

Main Research Question

Part Two

1. Do you have the chance to share experience in the cluster school center?

Yes () No ()

If your response for question one is “Yes” write where and when?

A) At your school () B) At cluster center () C) At Woreda level ()

D) Zone () E) Other ()

2. If your answer is “No” for question one Why?

3. If your answers is “yes” for question one write the case, type, place, length of time, etc in short

Part three- main research question

2.1 Assessing the implementation of cluster school center expectance sharing training and resource center.

No	Item	Disagree	Very disagree	Strongly disagree	Neutral	Agree	Very agree	Strongly agree
1.	Cluster training character							
2.	School clustering exam satisfaction							
3.	Question & answer program interest							
4.	Clustering sport computation							
5.	Student centered approach							
6.	Cluster school co-ordination							
7.	Clustering lesson plan format							
8.	Cluster resource center							
9.	Changing cluster school student academic							
10.	School clustering supervision participation							
11.	Cluster school teachers professional development							
12.	Teachers behavior in the clustering program							
13.	Students & participant behavior during clustering program							
14.	The quality of long and short term plan							
15.	The record & report of documentation filing							
16.	Officer, head persons & others routines manage mental activities							

Part four 2.2 factors which hinder the effectiveness of cluster school cooperation hindrance for degree of expectation

No	Hindrance	Low	Very low	Medium	High	Very high
1.	Absence of commitment to work collaboratively with colleagues					
2.	Lack of follow-up & monitoring from school director					
3.	Lack of adequate resources					
4.	Lack of follow-up & monitoring of officers					
5.	Reward for good performance					
6.	Inculcating spirit of competition					
7.	Ability of gender participation during the program					
8.	Issues of gender participation during the program of HIV/AIDS					
9.	Department head, clubs and other commit participation					
10.	Cluster school center program punctuality					

Appendix 2

Interview Guide for key teachers, directors, town administration and woreda educational experts

1. How do cluster school organized in your
 - a) Town administration?
 - b) Woreda bureau?
2. To what extent do you
 - Collaborative work in cluster school implementation improved the teacher learning?
 - School clustering linked with town administration /woreda/?
 - Cluster school linked to Bonga teacher training collage
3. Would you please explain the training items given to teachers to improve leading in your cluster school?
4. Would you please explain how the offices promote cluster review?
5. Was there any head person to monitoring the program?
6. What service to give for cluster schools member?
7. What kinds of support do you get from Bonga college teacher training?
8. How do your evaluate the activities of teachers in cluster school service?
9. How do your evaluate the active studying in cluster school service?
10. What way do you use to participate students competition during cluster questioning and other program? Why?

Appendix 4

Teaching performance observation rating scale

Directions:

1. Use one copy for each observation
2. Write the general information on the given point.
3. Bring the lesson plan of the teacher observed with you before starting classroom observation.
4. Rate the performance of the teacher observed on the respective five point scale given by putting (√) mark. If you want to give comment on each indicator you can write it precisely on the respective comment column.

Woreda _____ Sex _____ Grade _____ date _____

Cluster _____ Year of service _____ first observation day _____

Items observed	5 excellent	4 Very good	3 Good	2 Poor	1 Very poor	Comment
Class room organization and management						
Student sitting arrangement						
Attractive class regarding poster and necessary charts						
Organization, allocation and managing time space						
Learners adequate opportunities for individual practice						
Teachers follow-up routine activities						
Teachers ability to connect the lesson with students daily life						
Communication skills						
Teachers using of teaching methods						
Usage of instrinactional material						

Primary information document observation

Items observed	5 Excellent	4 Very good	3 Good	2 Poor	1 Very poor	Comment
Lesson plan quality						
Written students portfolio						
Timely using media material						
Ways of lesson summary						
Portfolios and follow up of documents						
Activities of record and report system						
Techniques of evaluation system						
Feed back of continuous assessments						

Appendix 5

Check list for Availability of supplementary materials in cluster /satellite/ schools

Type of material	Yes	No	Remark
Is there supplementary reading materials to enhance the learning teaching process?			
Is there Games, kits, posters, charts?			
Is there English book supplementary material?			
Is there Teacher guide for all subjects?			
Is there Health and physical education materials ?			

Declaration

I declared that this thesis is my own organized work and has not been presented for any other degree and that all sources of materials used for the thesis has been duly acknowledged.

Name: Tesfaye Tekaligne

Signature: _____

Date: _____

This thesis is submitted examination with my approval

Name: Wanna Leka (PhD)

Signature: _____

Date: _____