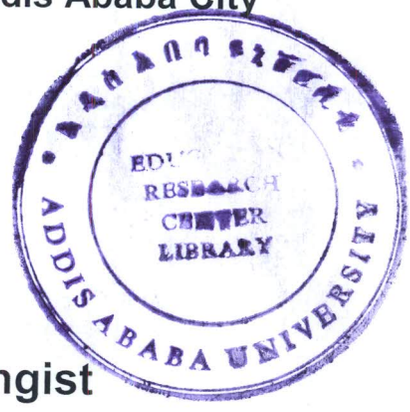
ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION
SCHOOL OF GRADUATE STUDIES

Evaluating the Balance of Primary Education Second Cycle Curriculum Materials Vis-à-vis the Four Pillars of Education (UNESCO) with Particular Reference to Addis Ababa City Government



By: Anduamlak Yibeltal Mengist

June 2009

Addis Ababa

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A Thesis Submitted to the School of Graduate Studies of Addis Ababa University in Partial Fulfillment for the Requirements of Master of Arts Degree in Curriculum and Instruction

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Acronyms and Abbreviations

AACGEB	Addis Ababa City Government Education Bureau
ERGESE	Evaluative Research on the General Education System of Ethiopia
ESDP	Education Sector Development Program
ETP	Education and Training Policy
FDRE	Federal Democratic Republic of Ethiopia
IBE	International Bureau of Education
ICDR	Institute for Curriculum Development and Research
MoE	Ministry of Education
TGE	Transitional Government of Ethiopia
UNESCO	United Nations Educational, Scientific and Cultural Organization.

Abstract

The major purpose of this study was to evaluate whether or not the Ethiopian primary education second cycle curriculum, with particular reference to Addis Ababa City Government, incorporates the "Four Pillars of Education" in a balanced manner . To this end, mixed method research with quantitative content analysis design supported by qualitative interview guide was employed. The contents of a total of seven selected sample text books from grades 5 and 8 were analyzed and officials, professionals and experts from Ministry of Education, Institute for Curriculum Development and Research and Addis Ababa City Government Education Bureau were interviewed in the research. The sample grades (grades 5 and 8) are selected purposefully where as the sample text books are selected using stratified sampling technique. All the data gathered through these data gathering instruments were analyzed thematically and meanings are constructed out of them. Consequently, it was found that in 71.4% of the sample text books the "Four Pillars of Education" are found unbalanced mainly dominated by the pillar 'learning to know'. Findings from the interview also ensured that these "Four Pillars of Education" were not deliberately considered during policy formulation, syllabi development and textbook preparation. In the end, it is concluded that the primary education second cycle curriculum of Addis Ababa City Government lack a proper balance in comprising the "Four Pillars of Education" set by UNESCO.

CHAPTER ONE

INTRODUCTION

1.1 The Problem and its Background

Curriculum is a crucial component of any educational process. It can be viewed from different points of view. The value we give for education dictates the meaning of the curriculum or the kind of school system. Basically there are four layers of curriculum, viz. intended curriculum – the written curriculum document; the expressed curriculum – the enacted or manifested curriculum elsewhere; the hidden curriculum – that invisibly taught of the interaction of teachers with the students and students with the students; and the experienced curriculum – the actual experiences in the classroom. The content of what we expect children to learn during their schooling is clearly a crucial element in curriculum planning, whatever view we take of education, curriculum or, indeed, knowledge itself (Kelly, 2004:14).

As Woube (2005) stated, education is unthinkable without curriculum. Curriculum is the central element or the main means to achieve the purposes of education. Developing or having a balanced and relevant curriculum is major and primary means of ensuring quality education. It will be more plausible and stronger if someone argues that education and especially primary education curriculum should be balanced and relevant. As it is emphasized in Yalokwu (2001), the quality of primary education hinges on how efficiently and effectively the primary education system meets the goals of primary education and the national objectives. Mentioning a curriculum that provides for a variety of learning experiences, as one of the indices of quality primary education, Yalokwu(2001:112)stated as follows:

> *A school curriculum that provides for a variety of learning experiences and skills (covering cognitive, psychomotor and affective skills) that are appropriate to the needs of the students is rated highly as a quality index. This is important especially where the*

curriculum provides for meaningful choices and is balanced in the variety of such learning experiences.

As stated in the education sector strategy document of Ethiopian government (TGE, 1994b as cited in Akalewold, 2005).

> *The quality and standard of education in a given country is mainly determined by the essence of its curriculum and the process of its implementation. The relevance of any curriculum on the other hand is determined by the extent it meets the educational objectives.*

When we refer the efforts made to achieve goals of primary education in Ethiopia (ESDP, 1996), the emphasis is on the improvement of the level of quality of human and material resources as well as capacity building of teachers. For instance, the goals of the second cycle of primary education are: to provide a grade education that prepares the learners for the next cycle and to prepare citizens who can be trained in basic vocational and technical skills (ICDR, 1994). However, as Wanna (2001) indicated, studies conducted show that especially the second goal has not been addressed well. This means that instructions given at elementary level have not motivated the students as expected to pursue different occupational skills at secondary level. Further study may not be required to recognize that the major factor for the in achievement of the aforementioned goals can be unbalanced and irrelevant curriculum because it is the curriculum, at any level, which guides the instruction.

By the formulation of the new education and training policy in 1994, one of the components of the educational structure is a primary education from grades 1-8 sub divided into two cycles of first or basic (grades 1-4) and second or general (grades 5-8) education (TGE, 1994). Accordingly, profile of students who finished the first eight years of elementary schooling is stated as follows (ICDR, 1994).

- They are ready to carryout simpler tasks that do not require special skills or training;
- They will be ready for different kinds of training;
- They can become productive workers with the help of directives, continuous training and assistance;
- They will actively participate in cultural activities and feel responsible;
- With the help of continuing education they can develop their knowledge and skills further;
- They have developed good experience of working cooperatively for the common good.

In order to attain these profiles and the objectives set, the responsible region (according to decentralization policy of the government, regions are given the right to contextualize the syllabus developed by ICDR and implement primary school curriculum) is expected to suggest detailed content specification. Even though, as different studies conducted on the primary education of Ethiopia showed, successes on the areas of expansion of quantity of primary schools, overall enrollment rate, management of primary education, decentralization of authority, etc. are recorded, the reports from the government itself and findings of researchers indicate that unbalanced and irrelevant curriculum is highly influencing the quality of primary education. A study conducted on quality of primary education by Yalokwu (2001), indicated that inadequate curriculum and curriculum that is not sufficiently customer-focused is one of the main problems facing quality primary education in Ethiopia. Citing the annual report of Ministry of Education Primary Education Performance Indicators Versus Achievements and Targets (2000), the finding further discussed that:

> *The primary school curriculum is not comprehensive enough to reflect all the skills and values that students need to reflect all the skills and values that students need to fit into the world of work.... The primary school curriculum is largely subject – centered and teacher-centered. It has been observed that some teachers tend to resist the new methods of teaching that would enhance students' learning, consequently primary school graduates have little or no useful skills for the world of work. Even some of these who gain admission to secondary schools find it difficult to cope due to poor foundation received at primary school. (Yalokwu, 2001:115).*

Of course the concept of quality education, according to Amare (2007), is a controversial issue, which is under debate by different nations and scholars in the world. This is because they define quality education depending on their economic, social and political development; and on the aim of education that it should solve the basic problems of their society. For instance, according to the report of International Commission on Education for the 21st century, UNESCO conceptualizes quality of education in four pillars: learning to know, learning to do, learning to be and learning to live together. Hence, the balance and relevance of a curriculum can be evaluated vis-à-vis the inclusion of these four pillars. Ethiopia, as a member country of UN, should evaluate its curriculum in general and primary education curriculum in particular.

1.2 Statement of the Problem

As indicated in Fekede (2007), primary education is seen as the first step in laying the foundation for the future educational opportunities and life long skills. Primary education being the base of the formal education pyramid has often been viewed as the most crucial educational level in the formal system because any unsolved problems at this level would automatically reflect at the subsequent (secondary and tertiary) educational levels (Yalokwu, 2001). One of the major determinants of quality of education is believed globally to be curriculum soundness in terms of relevance and balance. The new Education and Training Policy of Ethiopia gives due emphasis for strengthening of the individual's and society's problem solving capacities at all levels. As stated in ETP (1994:7) one of the objectives of education is "to develop the physical and mental potential and problem solving capacity of individual, by expanding basic education for all". Moreover, a look at the goal of primary education in Ethiopia which are documented by the Ministry of Education (MoE, 1996) in its Education Sector Development Program (ESDP) reveals that emphasis was placed on the improvement of the level of quantity of human and material resources as well as improvement in the training of teachers. However, not

much was stated in terms of the relevant skills and values to be inculcated in the training of primary school students (Yalokwu, 2001).

Quality education is understood in three aspects: input, process and output. Expecting to achieve quality education without having the major input, balanced curriculum is unthinkable. According to Amanuel (2007), curriculum irrelevance and imbalance is one of the major factors for in-achievement with respect to quality of the declaration of Education for All. With respect to Ethiopian primary education, neither the formative evaluations and review of curricular materials conducted as of the implementation of the curriculum reform nor the summative evaluation which took place between May – June, 2000 paid significant attention for balance and relevance of the curriculum (Dereje, 2001).

Surprisingly enough, not even a related issue to balance and relevance of the curriculum is mentioned in the findings of the evaluative research. The findings, rather, focused on the problem of communicating the curricula to education personnel, lack of professional support, distribution of materials, profile of the teaching staff and quality of educational leadership.

What initiated the idea of conducting a study on this issue is the conditions in which quality of education seems expected without giving sufficient attention for curriculum balance and relevance. Furthermore, the researcher believed that UNESCO's "Four pillars of education" can be best standards to evaluate curriculum balance. It is also the researcher's personal belief that the curriculum document of primary education second cycle is more of full of cognitive information and subsequent evaluations, even, overlooked or ignored the issue of balance and relevance of the curriculum.

It would, therefore, be very important to evaluate the Ethiopian primary education second cycle curriculum against the "Four pillars of education" set by UNESCO with particular reference to Addis Ababa City Government.

1.3 Objectives of the Study

The general objective of this study is to examine the balance and relevance status of primary education second cycle curriculum vis-à-vis the "Four Pillars of Education" set by UNESCO in Addis Ababa City Government.

The specific objectives include to:

- evaluate the primary education second cycle text books of Addis Ababa City Government against the set criteria;
- investigate the problems with respect to balance and relevance of the curriculum;
- describe the contribution of balanced curriculum for quality education;
- show the impact of unbalanced and irrelevant curriculum on the general aim of education of the country in general and primary education quality in particular.

1.4 Basic Research Questions

In brief, the study will attempt to answer the following questions:

1. Is the Addis Ababa City Government primary education second cycle curriculum balanced or not vis-à-vis the "Four Pillars of Education" set by UNESCO?
2. 2.What is the need for considering these "Four Pillars of Education" in curriculum development?
3. 3.What is the contribution of balanced curriculum for quality education?
4. What is the impact of unbalanced curriculum on the country's general aim of education?

1.5 Significance of the Study

As the main concern of any research activity is to know the unknown or to challenge the known, the findings of this research are also expected to do the same. The central objective of education is the preparation of citizens. A curriculum which emanates from an educational policy is the major component.

The philosophical, psychological and social foundations on which the educational policy is made and the curriculum is developed might be different from one nation to another, nevertheless; considering balance and relevance of the curriculum is hopefully a common issue. Accordingly, the study is believed to have the following significance:

- It can throw some light for educational policy makers and curriculum developers on the criticality of considering UNESCO's principles, opinions, standards, etc. during construction or development of curriculum;
- It might make the implementers to recognize that due consideration should be given for keeping the balance during instruction;
- Curriculum evaluators and reviewers are also expected to be benefited from the study because it might help them to focus on the balance and relevance of the curriculum at the time of evaluation or revision;
- Researchers might also use the research results as springboard for further investigations on the various aspects of curriculum balance and relevance.

1.6 Delimitation of the Study

As it is indicated in the background of this study, curriculum has four layers. But this study is delimited to evaluating only the first layer, the intended curriculum, which is found in documented form. The intended curriculum by

itself consists of various elements like curriculum goals and objectives, subject content, time required, period allotted, methods of teaching and methods of assessment. However, the study is restricted on textbooks. Furthermore, balance and relevance of a curriculum might be evaluated against different factors; nevertheless, this study is delimited to evaluating curriculum balance against the "Four pillars of education" set by UNESCO. The study is also delimited to primary education second cycle curriculum, particularly grades 5 and 8 of Addis Ababa City Government for the sake of in depth analysis.

1.7 Limitation of the Study

This study has not been completely free from any constraints. The major challenge of the research was lack of related literatures (especially books) on issues directly or indirectly focused on the "Four Pillars of Education" set by UNESCO which forced the researcher to rely more on journals and unpublished documents. Because of personal turnover or change of position in offices selected for interview, finding officials and experts who participated during the policy formulation and development of the existing curriculum was also another difficulty for the researcher. To overcome this challenge the researcher searched them in different offices where they are found. However, the study has come to an end passing through these challenges.

1.8 Operational Definition of Key Terms

1. **Four pillars of education**: the four major purposes that UNESCO believed education should achieve in the twenty-first century.
2. **Primary education second cycle**: one of the components of the Ethiopian educational structure which includes grades 5 to 8.
3. **Textbook**: A book prepared for students for a specific subject at a specific grade levels.
4. **Empathy:** the capacity for participating in another's feelings.
5. **Sympathy**: The act or capacity of entering into or sharing the feelings or interest of another.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This part of the study will discuss literatures, research findings, and experiences related to essentiality of curriculum, focusing on balance and relevance for quality education, the why of using UNESCO's four pillars as a benchmark for curriculum balance and the implication on the balance and relevance of Ethiopian education curriculum in general and that of primary education in particular.

2.1 Curriculum: a Major Input for Quality Education

Yalokwu (2001), in his study on quality of education, indicated that one of the process by which a society can preserve, enrich and transmit the accumulated knowledge, skills and values of its cultural heritage and environment in order to foster the well being of its members is education. However, this can be practical if and only if the education's quality standard is kept. International Bureau of Education(IBE) currently focused on the issue of quality curricula to achieve quality education. This idea is stated in the IBE strategy 2008-2013 as follows:

> *At the beginning of the twenty-first century, education systems are facing the challenges of the global market and the knowledge economy. National education authorizes around the work increasingly address the challenges of improving the quality of learning outcomes through curriculum reform, and curricula must respond to the new demands by providing skills and building competences that are relevant to local and global needs. (p. 9).*

All curriculum planning is nothing unless it influences and shapes the activities which students carryout. It is commonly agreed that learning is a process of growth, change and developing problem solving capacity. Hence, it is when these processes are taking place appropriately that learning is said to be

taking place and quality education is provided or delivered. Let it be defined and explained in terms of whatever factors and developed in whatever approaches, it is the curriculum which constitutes a lions share in influencing learning and quality education.

2.2 Balance and Relevance in Curriculum Development: Conceptual framework

The words "balance" and "relevance" in education are used in an intermingled way. The dictionary meaning of 'balance' is equality of weight, power, advantage, and the like or it is the equilibrium of various elements in a design, painting, musical composition, etc., harmonious proportion (Webster's new 20th century Dictionary). Based on this 'balancing' means to regulate so as to keep in a state of just proportion. Thus, 'balanced...' will have a meaning of a ... with the right amount and proportion. Similar source also interprets the meaning of the word 'relevance' as: the state or quality of being relevant; pertinence. Accordingly, 'relevant' means bearing upon or relating to the matter in hand; to the point; pertinent; applicable.

On the basis of the aforementioned dictionary meanings of the two words, it will not be wrong to consider that the presence of various elements which are expected to be found in harmonious proportion in a design is to make the design relevant to some existing matter.

In short, balancing a design is to have a relevant design. With this context using the words "balance" and "relevance" together and sometimes interchangeably in curriculum development or evaluating a curriculum is believed to be appropriate.

In underpinning the necessity of education for national development Fekede (2007) wrote that:

> *Education is the most effective means in the quest to achieve sustainable development by emphasizing a holistic, interdisciplinary approach to develop the knowledge and skills as well as changes in values, behavior and lifestyles and empower everyone, young and old, to make decisions and act in culturally appropriate and locally relevant ways to redress the problems that threaten our common future. Having such abilities and qualities would help to cope with the world's problems.*

However, as Wanna (2001) indicated, one of the challenges to education today is to make education relevant. A quality curriculum at all levels should keep favorable balance among its important ingredients. Grisay and Mahlek (1999) state that curriculum soundness in terms of relevance and balance as one of the determinants of school quality is common global concern. Amanuel (2007) further explained that:

> *Relevant curriculum must ensure that the subject matter learned is meaningful and learners are motivated to learn their individual development or to contribute to the development of their communities. In a rapidly changing, globalize world, one of the most vital characteristics of a relevant curriculum is flexibility, i.e. openness and adaptability both to local needs and to future trends; however, changing curriculum and value adding can be influenced by policy makers. Thus, education policies should be workable and facilitated.*

The elements that should be incorporated to keep the balance of a curriculum and the matter that a curriculum need to be relevant to may be considered from different points of view. For instance, Dr. Dengsheng Zhang, as the information retrieved from http://www. Mwc.edu/inte/ collaborations/tip-it/tipit182/article.htm/tried to compare what he called "deep learning" and "surface learning". He considered learning in terms of Bloom's taxonomy of educational objective and said:

> *Deep learning requires higher order thinking skills such as analysis (i.e. compare and contrast) and synthesis (students are required to integrate components into a new whole).Surface learning, on the other hand, consists mainly of comprehension and reproducing knowledge (rote learning) which is often forgotten by students shortly after the course has ended.*

It is, here, clear that a balanced curriculum which comprises of contents and activities that enable students develop both higher order thinking skills and lower order thinking skills. In his emphasis on the negative influence of unbalanced curriculum with only elements and activities limited to lower order thinking, Zhang said:

> *Surface learning is related to ad hoc approach based on individual events or examples. Learners resulted from this type of learning is prone to errors or failures when he/she is facing real world problem. While deep learning is related to systematic approach by finding the law behind the individual events.*

In his suggestion of strategies towards quality primary education, Yalokwu (2001) underlined the contribution of relevant education policies and curriculum programmes. He expounded the issue as follows:

> *Education policies should be workable and facilitate teaching and learning. The programs as documented in the syllabus should be relevant to the needs of the learners with practical subjects. The overall curriculum should be integrated with the values and activities of the surrounding environment (p. 116).*

2.3 Student Textbook: As the Major Curriculum Material

Textbooks are teaching materials carefully designed and prepared by experts for the purpose of attaining intended objectives of education (Desta, 2001). They are of a great value and they serve as a means but are not ends by themselves. Textbooks are major ingredients in learning, and the intended curriculum cannot be implemented without them.

A true textbook, according to Shores (1960), is one especially prepared for the use of pupil and teacher in a class, presenting a course of study in a single subject. Textbook, graded is a textbook prepared especially for use in a specific grade. As Good 91973) explained, a textbook is dealing with a definite subject of study; systematically arranged, intended for use at specific level of instruction and used as a principal source of study materials for a given course.

Altbach, cited in Lockheed (1991), considers textbooks as the single most important instructional materials to deliver the curriculum. He further noted: "Nothing has ever replaced the printed words as the key element in the educational process. They are also taken as central to schooling to all levels" (p.48). Textbooks must have the appropriate content and reading level; be consistent in approach or method, and exposition; be properly sequenced; motivate the students, and finally, be readily taught by less-qualified teachers yet allow good teachers to expand up on them (Newman, 1980). Improving the content of textbooks holds great promise for improving the learning.

On how curriculum material should be organized, it is said that " the heart of the technological revolution in curriculum; however, the belief that curriculum materials themselves, when used by those learners for whom the materials are developed, should produce specified learner competence" (Mineal, 1996:66).

Therefore, textbooks if are not prepared the right way, cannot serve the aim and they become far from being the ideal tool for the learning process.

2.4 UNESCO'S "Four Pillars" as Benchmark for Balanced Curriculum: Why?

2.4.1 UNESCO's Features and Tasks

The United Nations Educational, Scientific and Cultural Organization (UNESCO) is a specialized United Nation Agency which was founded on 16 November 1945. The main objective of UNESCO is to contribute to peace and security in the world by promoting collaboration among nations through education, science, culture and communication in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the people of the world, without distinction of race, sex, language or religion, by the charter of the United Nations (http://www.portal.unesco.org/education/en/ev.php-URL).

Through its strategies and activities, UNESCO is actively pursuing the Millennium Development Goals, especially those aiming to:

- have the proportion of people living in extreme poverty in developing countries by 2015
- achieve universal primary education in all countries by 2015
- eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015.
- help countries implement a national strategy for sustainable development by 2005 to reverse current trends in the loss of environmental resources by 2015.
  (http://www.portal.unesco.org/en/ev.php-URL)

Today, UNESCO functions as a laboratory of ideas and a standard – setter to forge universal agreements on emerging ethical issues. The organization also serves as a clearing house – for the dissemination and sharing of information and knowledge while helping member states to build their human and

institutional capacities in diverse fields. In short, UNESCO promotes international cooperation among its 193 (the number is as of 2007) member states and six Associate Members in the fields of education, science, culture and communication.

2.4.2 The "Four Pillars of Education"

UNESCO is working to improve education world wide through technical advice, standard setting, innovative projects and networking. Accordingly, after the General conference invited the then Director General, Federico Mayor, in November 1991, to convene an international commission to reflect on education and learning for the twenty-first century, the International Commission on Education for the Twenty-First century was formally established at the beginning of 1993. After carrying out its work in a very concerned and responsible manner, the commission provided a report, ***Learning: The Treasure within*** and delivered to the Director General on 11 April 1996.

The idea of life long learning is one of the keys to the 21st century education. Once the commission had embraced this concept, it wanted to emphasize one of the four pillars, which it saw as providing a framework on which education should be based. This, the first pillar, is learning to live together which involves developing an understanding for fellow people, for their history, traditions and spiritual lives. The commission has drawn up an understanding of what sort of education is needed to create and consolidate this new kind of awareness. And it is here that the significance of the other three pillars (learning to know, learning to do and learning to be) comes to the fore, given that it is these that provide the basis for learning how to live together.

Conceptual Framework

a. Learning to know:- concerned less with the acquisition of structured knowledge than with the mastery of learning tools.

All humans by nature desire to know. An indication of this is the delight we take in our sense; for even apart from their usefulness they are loved for themselves. "Know" is used to assure others in a special way. "Know" closes questions, stops debates (Yolton, 1965).

As the information retrieved from http://www.unesco.org/ delors/fourpil.htm, the concept learning to know may be regarded as both a means and an end of human existence. As a means, people have to learn to understand the world around them, at least as much as is necessary for them to lead their lives with some dignity, develop their occupational skills and communicate with other people. As an end, it is underpinned by the pleasure that can be derived from understanding, knowledge and discovery. UNESCO believed that the broader our knowledge, the better we can understand the many different aspects of our environment. Such belief encourages greater intellectual curiosity, sharpens the critical faculties and enables people to develop their own independent judgments on the world around them. From that point of view, all children – no matter where they live must have a chance to receive an appropriate science education and become friends of science throughout their lives.

Learning to know implies learning how to learn by developing one's concentration, memory skills and ability to think.

- Improving concentration skills can be aided by different learning opportunities like games, work experience programs, travel, practical science activities, etc.
- The development of memory skills is an excellent tool for countering the overpowering stream of instant information put out by the media.
- Ability of thinking should encompass both practical problem solving and abstract thought.

b. *Learning to do:* is the issue of occupational training i.e. equipping the pupils to do the types of work needed in the future. As the information retrieved from http://www.unesco.org/delors/fourpil.htm., there is a growing trend among employers to evaluate potential employers in terms of their personal competence rather than certified skills which they see as merely demonstrating the ability to perform specific physical tasks. This personal competence is assessed by looking at a mix of skills and talents, combining certified skills acquired through technical and vocational training, social behavior, personal initiative and a willingness to take risks. If we add a demand for personal commitment on the part of employers in their role as change agents, it is clear that this kind of personal competence involves highly subjective innate or acquired qualities, often referred to as "people skills" or "interpersonal skills" by employers, combined with knowledge and other job skills. Of these qualities, communication, team and problem solving skills are assuming greater importance. The new forms of personal competence are based on a body of theoretical and practical knowledge combined with personal dynamism and good problem-solving, decision making, innovative and team skills.

C. *Learning to be:*-implies learning for life

In his explanation about education of Eros (the passionate desire to attain or do good) Garrison (1997) asserted that:

> *Overcoming the modern prejudice against emotion and imagination in value enquiry is only part of the answer to the problem of values education. It allows us to choose intelligently among existing value alternatives. (introduction)*

The information retrieved from http://www.unesco.org/delors/fourpil.htm. about this pillar described as follows:

> *Education should contribute to every person's complete development – mind and body, intelligence, sensitivity, aesthetic appreciation and spirituality. As a means of personality training, education should be a highly individualized process and at the same time an interactive social experience.*

All people should receive in their childhood and youth an education that equips them to develop their own independent, critical way of thinking and judgment so that they can make up their own minds on the best courses of action in the different circumstances in their lives. To challenge dehumanization of the world, education should enable each person to be able to solve his own problems, make his own decisions and shoulder his own responsibilities. More than ever before, the essential task of education seems to be for make sure that all people enjoy the freedom of thought, judgment, feeling and imagination to develop their talents and keep control of as much of their lives as they can.

d. Learning to live together:- involves developing an understanding for fellow people, history, traditions and spiritual values. In underlining the importance of "intelligent sympathy" Garrison (1997:35) wrote:

> *We all have different need, desires, interests, purposes, wishes, hopes, perspectives, and values. These are the ingredients of self-knowledge as well as knowledge of others. There is always, though, the permanent possibility of interpersonal understanding regardless of how different our gender, race, ethnicity, culture, or social class may be. Without sympathy, however, there is always a danger of misunderstanding.*

The information retrieved from http://www.unesco.org/delors/tolive.htm. explains about the concept of learning to live together as follows:

> *To avoid conflict or resolve latent conflicts education should adopt two complementary approaches. From early childhood, it should focus on the discovery of other people in the first stage of education. In the second stage of education and in life long education, it should encourage involvement in common projects. One of education's tasks is both to teach pupils about human diversity and to instill in them an awareness of the similarities and interdependence of all people.*

Moreover, whether education is provided by the family, the community or the school, children should be taught to understand other people's reactions by looking at things from their point of view. Where this spirit of empathy is encouraged in schools, it has a positive effect on young person's social behavior

for the rest of their lives. Violence too often dominates life in the contemporary world, forming a depressing contrast with the hope which some people have been able to place in human progress. It is not possible to conclude that this problem is only due to shortcoming in education. Yet, it is possible to state that it has a role to play in helping to overcome it.

2.4.3 Why as a Benchmark?

Analyzing deeply the discussion in the above section about the four pillars of education, one can argue that taking them as a benchmark in formulating educational policy of a country in general and in developing curriculum in particular should be recommendable. This argument can be justified by two basic reasons.

1. It is UNESCO Which Set the Pillars

As an international lead agency for education, the sciences, culture and communication, UNESCO has been performing its standard setter function. With this understanding, it is reasonable to argue that the activities performed by the organization always consider the common needs, existing situation and future opportunities and challenges of the member nations. More specifically, before setting these four pillars the commission, assigned to reflect on education and learning for the 21st century, had carried out several consecutive studies, discussions, revisions, consultations, data gathering activities, etc to examine both the major topics chosen, and also concerns and issues particular to one region or group of countries. Participants on those activities were well known intellectuals, representative of a wide range of professions and organizations directly and indirectly related to education, formal and non formal: teachers, researchers, students, government officials, and people active in governmental and non governmental organizations at national and international levels. And it is after three years of critical and effective performance that these four pillars of education are set. (http://www.uneco.org/delors/fourpil.htm).

Thus, it should be recommendable, and of course mandatory, for the member nations to use these pillars as a benchmark in formulating their educational policy and developing their curriculum.

2. The Concept of the Pillars will Make Education to Play a Leading Role in Making the Globe Comfortable to its Dwellers.

The commission started its work with a major purpose of defining new aims to be assigned to education as a result of the rapid changes in knowledge and in societies, the demands of development, the aspirations of the individual, and overriding need for international understanding and peace. The final result concluded by setting the four pillars of education indicated that the commission attained its purpose.

General education which forges spatial and temporal links between societies, tends to make people more receptive to other branches of knowledge. Emphasizing the value of correct understanding of the concept 'learning to know', Amare (2008) wrote:

> *A type of curriculum that uses knowledge in the context of recall as an end in itself instead of a means for understanding, analysis, synthesis, reasoning acting and being, ultimately produces people who have inflated self images but who actually are incapable of adapting to or changing their environment.*

The value of the concept 'learning to do' will also be clearly observed if we recognize that currently the growing service sector needs people with good social and communication skills. Supportive to this recognition, Amare (2008) argued that:

> *All learning must lead to some kind of doing, be it an abstract action (writing a poem or an essay), or a concrete one (repairing a watch or ploughing a land). Learning does not take place if the new experience does not lead to a certain kind of action. ... It is also closely associated with how to structure the curriculum so that it can equip people to do the types of work needed for the economy, i.e. how to equip the learners so that they can use the available economic opportunities and use them to support themselves.*

Preparing children to think intelligently and to act competently is not adequate for living as persons. Education must prepare individuals who are committed and who embody an ethical orientation in their life and activities. They should grow as citizens of a country and good members of the international community. Here, the need to understand the concept of the third pillar 'learning to be' is unquestionable. This concept is basing the entire educational effort in morality. The information retrieved from http://www.unesco.org/delors/fourpil.htm recommended that the rejection of imported high-tech models, harnessing traditional implied forms of knowledge and empowerment are effective factors in endogenous development. It is further explained that both children and young persons should be offered every opportunity for aesthetic, artistic, scientific, cultural and social discovery and experimentation, which will complete the attractive presentation of the achievements of previous generations or their contemporaries in these fields.

The researcher hopes that it is enough to perceive the conflicts and violence taking place in a single day in the world to really appreciate the cruciality of understanding the concept 'learning to live together'. Indicating the role of education in avoiding these conflicts and violence, Amare (2008) wrote that *"Education must help us to view others as part of us, as friends, and not rivals, requiring vigilance to fight".*

UNESCO's report and explanation on this pillar in particular indicated that:
'Learning to live together' also entails wishing and knowing how to live together. Wishing and knowing how to live together entails knowledge, as intolerance and rejection are often borne of fear which in turn feed on ignorance on the one hand, and on intolerable injustices in terms of access to human rights and development, on the other hand. It is necessary to learn to discover and get to know other people, generations, genders, social classes and groups of people; their cultures, needs, aspirations, sufferings, religions, traditions, and

motivations. To be able to do so also requires learning to know oneself better; acknowledging our own strengths and weaknesses.

Saying these few things about the need and importance of understanding the concepts of these four pillars of education, the investigator hopes that the idea of using these pillars as a benchmark to evaluate the balance of a curriculum won't be argumentative.

2.5 Primary Education as Basic Human Right: An Overview

As Lockheed and Verspoor (1993:5) noted that *"Education is a cornerstone of economic and social development; primary education is its foundation".*

Weak educational foundations will seriously impair a nation's development endeavor. Effective primary education, particularly, is a base and necessity for development (Lockheed M. and Bloch D. 1990 in Amanuel, 2007). According to World Bank policy paper 1990, primary education has two chief purposes: to produce a literate and numerate population that can deal with problems at home and work; and to serve as a foundation upon which further education and training is built. In addition to these two purposes, it also contributes to social development. It encourages social development by helping people in showing the way as to how they solve their difficulties and developing their awareness (Amanuel, 2007).

In December 1948, the UN General Assembly adopted the Universal Declaration of Human Rights, in which article 17 states that access to primary education is the fundamental human right. According to article 26 of the same declaration, education shall be free at least in the elementary stages (World Bank 1980:23). On the basis of this, the acceptance of education as a basic human right is included in several human right treaties. The convention in the Right of the child (1989) asserts that the child has a right to education and that the state must ensure that primary education is free and compulsory. The 1990 Jomtien

(Thailand) conference on "Education for All" adopted the goal that by the year 2000 at least 80% of primary school age children should complete primary education. This goal was reaffirmed by the world summit for child (1990), the international conference on population and development (1994), the world summit for social development (1995). The Dakar framework for action, a world conference held in Senegal, Dakar (2000) evaluated the Jomtein's declaration and committed to achieve universal primary education (UPE) in 2015.

Ethiopia has committed herself to universalize basic education with out any discrimination by adopting the UN's convention in 1991. Accordingly the FDRE constitution article 13 sub article 2 states that:

> *The fundamental rights and freedoms specified shall be interpreted in the manner conforming to the principles of Universal Declaration of Human Rights, International Covenants on Human Rights and International laws adopted by Ethiopia.*

2.6 Curriculum Development in Ethiopia: Brief Historical Perspective

Even though most researchers commonly agreed that the history of education including curriculum development in Ethiopia has not been studied thoroughly, the already conducted studies provide almost similar information on the historical perspective of curriculum development in Ethiopia. Thus, the researcher prefer to use the study conducted by Woube (2005) entitled "An overview of curriculum development in Ethiopia: 1908-2005" as a major source to draw the image on the readers' mind.

The understanding and practice of curriculum development has varied throughout the history of Ethiopian education. Curriculum employed in each period was essentially foreign dominated. Utilizing evaluation and research findings was minimal. Public and professional engagement in curriculum development is little or non-existent.

Even though it is difficult to trace when indigenous education has started in Ethiopia, history of education in Ethiopia can be classified in six chapters. These are:

1. Traditional education (4th century - 1908): Church and Quranic education
2. First chapter of modern education (1908-1935)
3. No education period: period of Italian occupation (1935-1941)
4. Second chapter of modern education (1941-1974)
5. Third chapter of modern education (1974-1991)
6. Fourth chapter of modern education (post 1991)

However, for the sake of the researcher's interest to focus on the fourth chapter of modern education in general and that of the primary education in particular, the classification will be discussed by categorizing into two. More over the entire discussion focuses mainly on curriculum and related issues.

2.6.1 From Traditional Education to the Third Chapter of Modern Education (4th century to 1991)

Since the primary aim of traditional education was basically religious, the curriculum is largely unchanged and uncontested i.e. the contents are considered true, everlasting and worthwhile (Adane, 1991 cited in Woube, 2005). Modern education was introduced in Ethiopia in 1908 during the period of Menelik II. However as stated in Woube (2005:55):

> *There was no standard policy regarding curricula, text books and language of instruction. Furthermore, the Ethiopian experience (culture) in education was not well developed. Rather it was dominated by foreign experience. Curriculum developers and researchers were not available. No evaluation and researchers were made to improve the curriculum.*

It was during the coronation of Emperor Haileselassie I (1930) that an American foreign advisor known as professor F. Ernest Work was recruited "to study the situation and to make recommendations for an educational system" (Caulk, 1975 cited in Woube, 2005). Work tried to suggest ideas emphasizing rejection of foreign education system theoretically. He also proposed a new structure of six years of primary, six years of secondary, and four years of university education. Before Work's plan is realized, everything was disrupted by Italian occupation in 1935. During this time the government schools were closed down and the curriculum, for those few schools where Italian children are learning, became totally Italian.

The second chapter of modern education was opened after the liberation. According to Tadesse (1964), cited in Woube (2005), immediately after the liberation the need for personnel to work in the civil service made it necessary for all schools to offer courses (short and didn't strictly adhere to regular grade by grade promotion) in basic education. Even though not standardized and well thought out, the curriculum during this time was developed to meet immediate man power needs of the country (Teshome, 1979 cited in Woube, 2005). In this second chapter the curriculum could be classified into four. The first curriculum (1941-48) consisted of 6-6 structure and formulated by foreign advisors and teachers (Woube, 2005). In 1949 the 6-6 structure changed to 8-4 structure i.e. the second curriculum, because of two reasons (Ayalew, 1964 cited in Woube, 2005): First, to have students good background of English language before joining secondary schooling; Second, due to the desire created internationally after World War II, to extend the period of elementary education.

In 1955, a new curriculum, the third curriculum which was also known as the experimental curriculum, was introduced with a major objective of Ethiopianizing the entire curriculum (Teshome, 1979 cited in Woube 2005). However, it is still reflected that it was highly influenced by the experience of other countries. Ayalew (1964:23), cited in Woube (2005), commented that the

curriculum was dominantly theoretical in content and rather unrealistic for immature pupils. Due to various reasons, in which quality problem and lack of Ethiopianization of the third curriculum are the major, the fourth curriculum is formulated with a new structure of 6-2-4 i.e. six years of elementary, two years of junior secondary and four years of senior secondary. As stated in Woube (2005:61):

> *Elementary education was terminal. The curriculum at the primary level consisted of syllabi, which were classified as academic and non academic. Amharic became the medium of instruction throughout the elementary level.*

The third chapter of modern education started as the Derg regime replaced the Haile Selassie I regime. In this chapter education was mainly used to inculcate socialist ideology. With this focus a transitional centralized curriculum was developed through the former 6-2-4 structure consisting of academic, vocational and technical subjects. Amharic was continued as a medium of instruction in primary school. Though the Evaluative Research on the General Education System of Ethiopia (ERGESE, 1983) identified problems of the curriculum, no significant change was made until 1991.

2.6.2 The Fourth Chapter of Modern Education (post 1991)

As indicated in Fekede (2007), when the current government came into power, the Ethiopia education system was suffering from multifaceted problems. The main problems were related to the issues of relevance, quality, equity and access. The Transitional Government of Ethiopia (TGE) adopted Education and Training policy in 1994. According to Woube (2005), the TGE made the following major changes: a) decentralization of the education system, b) the use of nationality languages as media of instruction, and c) adopting a new structure of education. Accordingly, the structure has become 8-2-2 (MoE, 1996:95). The primary education consists of grades 1-8 subdivided into two cycles of Basic Education (1-4) and General Education (5-8). The secondary education consists of general secondary education (9-10) and the preparatory of senior secondary education (11-12).

Although Akalewold (2005) argued that the Ministry of Education dominates curriculum policy decision environment in the name of 'setting and maintaining of standards', 'provisions of assistance', and 'ensuring whether the curriculum developed at all levels was free from gender, cultural and political bias', the government took decentralization as a policy (MoE, 1995; 2002). At the primary level the general subject areas offered include: Language, Mathematics, Natural Science, Social Science, Environmental Science and Aesthetic education. Concerning the medium of instruction for primary education, the policy stated as follows: *"Cognizant of the pedagogical advantage of the child in learning in mother tongue and the rights of nationalities to promote the use of their languages, primary education will be given in nationality languages (TGE, April 1994:23)".*

Based on this policy a new curriculum was developed and implemented in different languages where over 20 languages have been employed as medium of instructions depending on the objective reality of each region (MoE 2002:39). As indicated in Woube (2005), the responsibility of developing the flowchart and the syllabus was given to the Institute for Curriculum Development and Research (ICDR). Based on the approved syllabus the preparation of text books for primary schools (grades 1-8) is the responsibility of the regions. Findings of formative and summative evaluation made on the implementation of curriculum for the primary school (1-8) indicated that although most schools tried to make the society to take part in the education process, their participation is little. Moreover, contents were found to be beyond the maturity level and the learning capacity of pupils in most cases (Woube, 2005).

2.7 The Current Ethiopian Primary Education Curriculum: Some Indications of Unbalance

As thoroughly discussed in the above sections primary education, being the foundation of education, is expected to lay a base for future educational opportunities and life long skills. To this effect, the curriculum which is the

central element of education should incorporate values which may help the learner solve day to day problems. Garrison (1997) argued that most contemporary curricula are dense with elements that are cognitive and intellectual. He described this idea as:

> *A good education brings out the best in us. It holistically unifies our character in judgment, compassion, and practice. It disciplines our desires to serve the greatest good, that is, those persons, things and ideals that are of most value. Traditionally philosophers, the lovers of wisdom, have received the education beyond knowledge. Looking at contemporary educational curricula, however, appears that almost all the subjects and objectives are cognitive and intellectual. Moral education is restricted to percepts and rules, while values education, if it has an explicit place in the school at all, probably just teaches students how to calculate their utilities. Aesthetic education is almost unheard of, and passionate desire is entirely ignored (p.2).*

In Ethiopia, as indicated in Jeilu (2006), the government has pursued decentralization policy by shifting authority and responsibility to regional states since 1992. The decentralization reforms as well as the education and training policy (TGE, 1994) seek to improve access, equity, quality, relevance and efficiency of the education system. In his further explanation about the development of primary education curriculum Jeilu (2006) wrote.

> *The decisions in the area of curriculum and instruction were made at regional and national levels... the practice showed that setting curriculum frameworks for primary education is the responsibility of the MoE. In practice the syllabi for almost all subjects, with the exception of nationality languages, were drafted at the national level, and then developed jointly with regions in the view of keeping uniformity and standards. Regions were responsible for primary text book preparation and instructional methods determination.*

It is expected that, this decentralization policy will have a positive contribution in keeping the balance and relevance of the curriculum. However, Amare (2008) commented that:

> *Even the knowledge function of the schools is so shallow and superficial that students are simply expected to recall a massive amount of facts, formulas and theories.*

Popper (2002), cited in Amare, 2008, seriously criticized such type of education by saying:

> *The perpetuation of recall type of education has the negative effect of intelligence suppression, blocking one's imagination and reasoning, by weakening the human curiosity to venture into the unknown, what we call problem solving capability.*

In his study of evaluating the link of primary education with occupational needs in the community, Girma (2001) investigated that the school curriculum of primary education has no practically oriented subjects. According to the information retrieved from http://www.unesco.org/delors/fourpil.htm

In many Sub-Sharan African countries and some Latin America and Asian countries, only a small proportion of the population is paid employment. The vast majority works in the traditional subsistence economy, where specific job qualifications are not required and where know how is the fruit of tacit knowledge. For this reason, education can not simply be modeled on the types of education that seem to fit the bill in post industrial societies.

As one of sub-Saharan African countries the situation described above is also true for Ethiopia. Thus, it is must for curriculum in general and primary education curriculum in particular to incorporate elements that help students develop occupational skills. Nevertheless, Amare (2008) critically argued that:

> *In the Ethiopian curriculum, the language "development of skills, expresses learning to do. It, however, is not clear about what type of skills students are to learn, as the distinct actions to be taken are not clearly stipulated in the curriculum; and how these skills can be achieved is also unstated.*

He also asked that *"How can we think of learning to do in a curriculum in which the school time is exclusively used for the purpose of knowledge acquisition?".*

Extending his discussion of indicating the gap of Ethiopian curriculum against the concept of another pillar, 'learning to be', he again said that:

> *Teaching the moral virtues of truthfulness, integrity, courage, loyalty, fairness, and non endorsing falsehood, dishonesty, disloyalty, gross inequality, etc., in the form of rhetoric without a demonstrable commitment to these virtues by teachers, administrators and the community is a waste of time.*

He, then, recommended that:

> *We need to reconstruct the Ethiopian curriculum, which has hither to been designed for knowledge acquisition (consciously or unconsciously) into a type that focuses on nurturing critical persons, which aim at decency, freedom, caring and courage.*

Though the effort of either the responsible bodies at national, regional, woreda, etc. levels or educationalists, curriculum professionals and others is not that much significant in conducting researches on the balance and relevance of Ethiopian primary education curriculum, the problem is clearly observed.

CHAPTER THREE

RESEARCH DESIGN AND METHOD

All research needs a foundation for its inquiry, and inquirers need to be aware of the implicit world views they bring to their studies (Creswell and Clark, 2007:21). Philosophical foundations of a research represent underlying assumption on the nature of reality (ontology), how we gain knowledge of what we know (epistemology), the role values play in research (axiology), and the language of research (rhetoric). Accordingly, the design and method selected for the investigation are described as follows.

3.1 Research Design

Research design refers to the plan of action that links the philosophical assumptions to specific methods (Creswell, 2007; Crotty, 1998). I employed a mixed methods research methodology which mixes both qualitative and quantitative data. Methodology concerns the research strategy as a whole, including as Sale (1998:3) notes, the political, theoretical and philosophical implication of making choices of method when doing research (Creswell, 2007:9). Mixed methods research focuses on collecting, analyzing and mixing both quantitative and qualitative data in a single study or series of studies. In mixing the two types of data the 'embedded design', one of the four major types of mixed methods designs (the other three are triangulation, explanatory and exploratory designs) is used. In embedded design, one data set provides a supportive, secondary role in a study based primarily on the data type. Accordingly, I employed embedding a qualitative data within a quantitative methodology.

To simplify the description, a notation system QUAN (qual), first used by Morse (1991), cited in Creswell and Clark (2007:41) is used. Therefore, I gathered the

quantitative data as the major one and used the qualitative data to support the former. With this respect, it will be justifiable to describe the design which enables to collect and analyze the quantitative data. Thus, I decided to follow content analysis research design for its basic assumptions and procedures are found to be relevant to the problem I have raised. To brighten the route I traveled through to find a solution for the problem, it happens imperative to say few words on what content analysis means. According to the information retrieved from. http://en. wikipeida.org/wiki/ content_analysis, in 1931 Alfred R. Linde smith developed a methodology to refute existing hypotheses, which become known as content analysis technique, and it gained popularity in the 1960s by Glaser and is referred to as "the constant comparative method of qualitative analysis " in an article published in 1964-65.

The technical definition of content analysis varies from writer to writer. In the same source,http://en.wikipedia.org/wik/content_analysis,different definitions are given by the following scholars: Berelson (1952:18),defined content analysis as a research technique for the objective, systematic and quantitative description of the manifest content of communication. Holsti (1969) offers a broad definition of content analysis as any technique for making inferences by objectively and systematically identifying specified characteristics of message. Neuendrof (2002) also added that content analysis is an in depth analysis using quantitative or qualitative techniques of message using a scientific method (including objectivity-inter subjectivity, a priori design, validity, generalizability, reliability and hypothesis testing) and is not limited as to the types of variables that may be measured or the context in which the messages are created or presented. As an evaluation approach, content analysis is considered by some to be quasi-evaluation because content analysis judgments need not be based on value statements if the research objective is aimed at presenting subjective experiences. Thus, they can be based on knowledge of every day lived experiences. Such content analyses are not evaluations. On the other hand, when content analysis judgments are based on

values, such studies are evaluation (Frisbie, 1986). Another definition given by Stemler (2001), described content analysis as a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding.

Even though content analysis is said to be quantitative description, it does not also exclude qualitative approaches. While methods in quantitative content analysis transform observations of found categories into quantitative statistical data, the qualitative content analysis focuses more on the intentionality and its implications.

With respect to validity and reliability, Weber (1990:12) noted that "*To make valid inferences from the text, it is important that the classification procedure be reliable in the sense of being consistent: Different people should code the same text in the same way*".

Of course this design is highly developed in the fields of communication but still under developed and not well adapted to educational research, albeit its importance to the field (Amare, 1998).

Considering all these, I have got content analysis design very appropriate and relevant to evaluate balance against the components of the "Four Pillars of Education".

3.2. Research Method

It refers to more specific techniques, tools and procedures of data collection and data analysis. In this research, therefore, the method employed is guided and informed by the philosophical assumptions of mixed methods research and methodological orientations of embedded design relying more on the quantitative design content analysis.

3.2.1. Sample Selection

The selected sample grade levels are grades 5 and 8 from primary education second cycle and the selected sample region is Addis Ababa City Government. These samples are selected using purposeful sampling techniques due to some valid reasons.

Grade 5 is selected because it is a transfer level from basic education to general education and grade 8 is selected because it is a transition level to general secondary education. Addis Ababa City Government is selected because it is assumed that since the people living in the city are from different ethnic and cultural background and living standard, the curriculum developed is expected to consider all these and other differences so that it will relatively be easier to evaluate balance. It is also convenient for a careful and close study.

In this study the sample size is seven subjects' textbooks because textbooks are one of the most important tools for effective education in normal school subjects (Sinclair, 2004). The total subjects of grades 5 and 8 are 16, thus, the sample size accounts for 44% of the total subjects. The subjects are selected by stratified sampling technique as representatives of different area of studies in both grade levels, and Civics and Ethical education of grade 8 is selected because of special emphasis as it is expected mainly to address issues related to 'learning to be' and 'learning to live together'. (Refer the table below).

Table 1. Distribution of sample subjects

No	Area of studies	Subjects	Grade levels
1	Language	Amharic	5
2	Natural science	Science	5
3	Social science	Geography	5
4	Language	English	8
5	Natural science	Biology	8
6	Social science	Social studies	8
7	Social science	Civics and ethical education	8

3.2.2. Data Collection Techniques, Tools and Procedures

Since the methodology employed in the research is mixed methods, both quantitative and qualitative data are gathered. Based on the methodology and the design selected, the quantitative data are colleted by content analysis and the qualitative data are collected by interview in a sequential model.
Thus, the techniques and procedures employed were:

3.2.2.1. Content Analysis

As fairly explained in the research design section, the major instrument used to collect the data is content analysis. Of the two major types of it, conceptual analysis (the other is relational analysis) is found to be appropriate for this purpose. According to the information retrieved from http://www.writing.colostate.edu/guides/search/content, in conceptual analysis a concept is chosen for examination, and the analysis involves quantifying and tallying its presence. The concepts might be explicit or implicit, however, my study focused only on the explicit concepts. In order to investigate whether or not the primary education second cycle curriculum is balanced with respect to the "four pillars of education" set by UNESCO, the contents of the selected seven text books which are currently in use at grades 5 and 8 are analyzed.

a. Selection of unit analysis

The unit analysis in this study is each paragraph under each chapter. The paragraphs under each chapter were examined and evaluated in relation to the purpose of the study. Besides examining the central concept(s) of each paragraph tables, figures, illustrations, drawings and photographs are also evaluated. According to Kripendorff (1980:52), pages entirely devoted to exercises can be analyzed in such a manner that each exercise is taken as a unit depending upon the nature of drills' construction. That is, if an exercise is exclusively asking questions on a signal concept, it can be taken as a unit independently or if the whole bunches of drills ask a single concept, they would

be taken as a single unit. However, because it is complicated and time consuming, paragraphs of exercises are not evaluated in this study. The evaluation is made based on the categories constructed.

b. Category construction

Constructing categories that are pertinent to the objective of the study, functional and manageable is crucial and major task in content analysis. Accordingly, the categories constructed are: relevance to learning to know, relevance to learning to do, relevance to learning to be and relevance to learning to live together. Each category has three sub categories. The definition or description of each subcategory is found under an independent appendix (Refer Appendix B).

This categorization is directly or indirectly adapted from the report **'Learning: the treasure within'** by the International Commission on Education for the Twenty first century chaired by Jacques Delores (Delores et.al. 1996).

Coding Sheet

Relevance of grade (5 or 8)----(each of the selected eight subjects)

Chapters	Title of chapters	Categories											
		Learning to know			**Learning to do**			**Learning to be**			**Learning to live together**		
		Knowledge	Understanding	Discovery	Occupational training	Technical & vocational training	Inter personal skills	Values & moral issues	Self confidence	Exemplary practices	Self Acknowledgment	Interpersonal understanding	Spirit of empathy &sympathy
Total													
Grand total		No											
		%											

N:B. *A. When adapting and constructing this category, the researcher by no means believed it to be exhaustive in listing down all items of relevant contents that could be classified under any one of the subcategories. Moreover, the items that are classified under any one of the categories could also be classified under any other one or two of the categories. (Refer to appendices B to H)*

B. In the process of coding, a paragraph is read; its main concept is identified and finally a title, which is believed to describe the concept, is given. It is this title which is counted as one unit. On this process more than one paragraph with similar concept (even an entire passage) could be considered as one and named by a single title and counted as one unit (Refer to appendices B to H)

c. The coding process

The reliability of the coding process is another emphasis area in content analysis. As coding process affects the results of the study directly or indirectly the researcher has to be concerned with the following two issues:

I. Definition of terms: the definition and descriptions of terms and phrases used in the process are included.

II. The type of coding used

I have found inferential coding more appropriate for the study. As it is stated in Amare (1998), in inferential coding the order is required to consider what each observed content is indicative of and then record that meaning under a specified category during the process of coding, coding sheets consisting of each item were produced (Refer to coding sheet). The researcher was the coder of all sampled textbooks for the study.

3.2.2.2. Interview (with Interview Guide as Instrument)

To support the quantitative data collected by content analysis, a qualitative data was also gathered by interviewing officials or professionals who were directly or indirectly involved in the development of the curriculum. More specifically individuals from Ministry of Education, Institute for Curriculum Development and Research and Addis Ababa City Government Education Bureau were participants of the interview. Mainly the data collected from these individuals help to compare and contrast the theoretical expectations of balanced curriculum by respective offices and professionals with what is practically found in the contents.

3.2.3. Data Analysis

Data analysis in mixed method research relates to the types of research category chosen for the procedures. As any mixed methods design, both quantitative and qualitative data are analyzed independently and mixed at the discussion stage. Following sequential steps the analysis started from the quantitative data gathered by content analysis. Chi-square test is used to measure the level of significance of each subject. Then after, the qualitative findings collected by interview are also analyzed.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

For the study which is aimed at evaluating the balance of the "Four pillars of Education" in the primary education second cycle curriculum, both quantitative and qualitative data are gathered. As indicated in the 'Research design and method' chapter, the data collected are presented and analyzed sequentially. Analysis of quantitative data in the first phase is followed by qualitative interview analysis. For convenience, the summary of the quantitative data gathered from each sample textbook is presented in a table.

N.B. In the tables 2-8 abbreviations are used to indicate the sub categories as follows:

1. K- Knowledge
2. U- Understanding
3. D- Discovery
4. OT- Occupational training
5. TVT- Technical and Vocational training
6. IS- Interpersonal skills
7. VM- Value and Moral Issues
8. SC- Self Confidence
9. EP- Exemplary Practices
10. SA- Self Acknowledgment
11. IU-Interpersonal Understanding
12. ES- Spirit of empathy and sympathy

Table 2

Table 2.1 Summary of Units Counted and Categorized of Grade 5 Amharic

Chapters	Title of chapters	Categories											
		Learning to know			Learning to do			Learning to be			Learning to live together		
		K	U	D	OT	TVT	IS	VM	SC	EP	SA	IU	ES
1	How to use roads in Addis Ababa	1	1	-	-	-	-	-	-	-	-	-	-
2	Using water in harmony	1	-	-	-	-	-	-	1	-	-	-	1
3	Incidence of 'Genet'	-	-	-	-	-	-	-	1	-	-	-	-
4	Speech	-	-	-	-	-	1	-	-	-	-	-	-
5	Youth learn(poem)	-	1	-	-	-	1	-	-	-	-	-	-
6	How to use a library	-	1	-	-	-	-	1	-	-	-	-	-
7	Old age	-	-	-	-	-	-	1	-	-	-	-	-
8	Conversation	-	-	-	-		1	-	1	-	-	-	-
9	The best for children	-	-	-	-	-	-	-	-	-	1	1	-
10	Fish	-	1	-	1	-	-	-	-	-	-	-	-
11	Malaria	-	1	3	1	-	-	-	-	-	-	-	-
12	Form of letter	-	1	-	-	-	1	-	-	-	-	-	-
13	Impact of HIV/AIDS	-	2	1	-	-	-	-	1	-	-	-	1
14	Education	-	1	-	-	-	1	-	-	-	-	-	-
15	family planning	-	1	-	-	-	1	-	-	-	-	-	1
16	Life on the street	-	-	-	-		-	1	-	-	-	-	-
17	Abrham Lincon	-	-	-	-	-	-	1	1	1	-	-	-
18	Wish	-	1	-	1	-	-	-	-	-	1	-	-
19	Women and development		-	-	1	-	-	-	-	-	1	-	-
20	'Mitu' and her father	-	-	-	-	-	1	1	-	-	-	-	-
21	Before I die (poem)	-	-	-	-	-	1	-	-	-	-	-	-
22	Abdissa Aga	-	-	-	-	-	1	1	1	-	-	-	
Total (subcategories)		**2**	**11**	**4**	**4**	**-**	**7**	**8**	**5**	**2**	**1**	**4**	**4**
Grand Total (categories)	**No**			**17**			**11**			**15**			**9**
	%			**32.7**			**21.2**			**28.8**			**17.3**

Based on the units counted and categorized of grade 5 Amharic textbook, the percentage of the units which are relevant to the category 'learning to know' is the highest (32.7%) and that of the category 'learning to live together' is the least (17.3%). It is also observed that the difference between the coverage of the categories 'learning to know' (32.7%) and 'learning to be' (28.8%) is not significant. The same is true for the categories ' learning to do' (21.2%) and 'learning to live together' (17.3%). The chi-square test also shows the following.

Table. 2.2. Chi- Square Test for Grade 5 Amharic

Categories	f_o	f_e	f_o-f_e	$(f_o-f_e)^2$	$(f_o-f_e)^2/f_e$
Learning to know	17	13	4	16	1.23
Learning to do	11	13	-2	4	0.3
Learning to be	15	13	2	4	0.3
Leaning to live together	9	13	-4	16	1.23
Total	52	52	$X^2 \sum \left[\frac{(fo - fe)^2}{fe} \right] = 3.06$		

The computed chi-square value shows $x^2=3.06$ which is less than the critical value (x^2 at df=3, 0.05 levels of significance= 7.815). Hence, the difference among coverage of the "four pillars" is not significant in grade 5 Amharic since the calculated chi-square value is less than the critical chi-square value. This implies that the contents of grade 5 Amharic textbook incorporates the "four pillars of education" almost in a balanced manner.

Table 3

Table. 3.1. Summary of Units Counted and Categorized Grade 5 Science (in Amharic)

Chapters	Title of chapters	Categories											
		Learning to know			Learning to do			Learning to be			Learning to live together		
		K	U	D	OT	TVT	IS	VM	SC	EP	SA	IU	ES
1	Substance	1	1	1	-	1	-	-	-	-	-	-	-
2	Air	2	4	-	2	-	-	1	-	-	-	-	-
3	Water	-	2	-	1	-	-	1	-	-	-	-	-
4	Plants	-	2	-	2	-	-	1	-	-	1	-	-
5	Animals	-	2	-	3	-	-	-	-	-	-	-	-
6	Human body	2	3	2	4	-	-	2	1	-	-	1	1
7	Energy	1	4	-	1	2	-	-	-	-	-	-	-
Total (subcategories)		**6**	**18**	**3**	**13**	**3**	**1**	**5**	**1**	**1**	**-**	**1**	**1**
Grand Total (categories)	**No**			**27**			**17**			**7**			**2**
	%			**50.9**			**32.1**			**13.2**			**3.8**

The data collected from the other sample textbook i.e. grade 5 science, show that the very largest content of the text book (50.9%) is covered with issues relevant to the category 'learning to know'. Relative to the categories 'learning to be' (13.2%) and 'learning to live together'(3.8%) coverage of 'learning to do' (32.1%) is better. The significance test using chi-square also indicated as follows:

Table 3.2. Chi-square Test for Grade 5 Science

Categories	f_o	f_e	f_o-f_e	$(f_o-f_e)^2$	$(f_o-f_e)^2/f_e$
Learning to know	27	13.25	13.75	189.15	14.3
Learning to do	17	13.25	3.75	14.1	1.1
Learning to be	7	13.25	-6.25	39.1	2.95
Learning to live together	2	13.25	-11.25	126.6	9.6
Total	53	53	$X^2 \sum \left[\frac{(fo - fe)^2}{fe} \right]$ = 27.95		

The computed chi-square value shows $x^2=27.95$ which is greater than the critical values (x^2 at df=3, 0.05 level of significance= 7.815). Hence, the

difference among coverage of the "four pillars" is significant in grade 5 science since the calculated chi-square value is greater than the critical chi-square value. This implies that imbalance of the "four pillars of education" in the contents of grade 5 science is very high dominated by the pillar 'learning to know'.

Table 4

Table 4.1. Summary of Units counted and categorized of Grade 5 Geography

Chapters	Title of chapters	Categories											
		Learning to know			Learning to do			Learning to be			Learning to live together		
		K	U	D	OT	TVT	IS	VM	SC	EP	SA	IU	ES
1	Studying Africa on map	1	5	-	1	-	-	-	-	-	-	-	-
2	Major geography of Africa	1	4	-	-	-	-	-	-	-	-	-	-
3	Africa rivers and lakes	4	2	-	-	-	-	-	-	-	-	-	-
4	Making and using graph and climatic zones	2	3	-	3	-	-	1	-	-	-	-	-
5	African people	1	2	-	-	-	-	-	-	-	-	-	-
6	African people and their environment	1	2	-	2	-	-	1	-	-	-	-	-
7	Data collection	-	1	-	-	-	1	-	-	-	-	-	-
8	Origin of African people	2	-	-	-	-	-	-	-	-	-	-	-
9	Culture and languages of African people	1	2	-	1	-	-	2	-	-	-	-	-
10	African civilization and historical heritages	4	4	-	-	-	-	4	-	-	-	-	-
11	Africa and foreign world	2	-	1	-	-	-	-	-	-	-	2	-
12	Agriculture in Africa	-	-	-	2	-	-	-	1	-	1	-	-
13	Minerals and sources of energy in Africa	2	2	-	-	-	-	-	-	-	-	-	-
14	Industry in Africa	2	1	-	-	-	-	-	-	-	-	-	-
15	Trade and tourism in Africa	2	2	-	2	-	-	1	1	-	-	-	-
16	Transportation and communication in Africa	1	1	-	-	-	-	-	-	-	-	-	-
17	Democracy in Africa	1	1	-	1	-	-	1	1	-	-	-	-
18	Current challenges of Africa	-	3	-	-	-	1	-	1	-	-	-	-
19	Anti colonial struggle and movements of independence	-	1	-	-	-	-	2	-	2	-	-	-
20	Establishment of OAU	-	3	-	-	-	-	-	-	-	-	-	-
21	OAU(AU) and international organizations	-	-	-	-	-	-	-	-	-	-	2	2
22	Self reliance movements and Africa skills	-	-	7	-	-	-	7-	3	7	-	-	-
Total (subcategories)		**27**	**39**	**8**	**12**	**-**	**2**	**19**	**7**	**9**	**1**	**5**	**2**
Grand Total (categories)	**No**	**74**			**14**			**35**					**8**
	%	**56.5**			**10.7**			**26.7**					**6.1**

Evaluation of grade 5 Geography textbook shows that over half of the contents of the textbook (56.5%) consists of issues that are under the pillar 'learning to know'. Only 6.1% , which is the least of all, addressed the issues of 'learning to

live together'. The finding also shows that the pillar 'learning to be' (26.7%) is better covered than the pillar 'learning to do' which is 10.7%.When the values obtained are also tested by chi-square a significance difference is observed among the pillars.

Table 4.2. Chi Square Test for Grade 5 Geography

Categories	f_o	f_e	f_o-f_e	$(f_o-f_e)^2$	$(f_o-f_e)^2/f_e$
Learning to know	74	32.75	41.25	1701.6	52
Learning to do	14	32.75	-18.75	351.6	10.7
Learning to be	35	32.75	2.25	5.1	0.15
Learning to live together	8	32.75	-24.75	612.6	18.7
Total	131	131	$X^2 \sum \left[\frac{(fo - fe)^2}{fe} \right]$ = 81.55		

The computed chi-square value shows x^2=81.55 which is very much greater than the critical value (x^2 at df =3, 0.05 level of significance= 7.815). Hence, the difference among coverage of the "four pillars" is significant in grade 5 geography since the calculated chi-square value is grater than the critical chi-square value. The implication of this finding shows that the contents of grade 5 Geography textbook are highly dense with cognitive information which is under the pillar 'learning to know'.

Table 5

Table 5.1. Summary of Units Counted and Categorized of Grade 8 English

Chapters	Title of chapters	Categories											
		Learning to know			Learning to do			Learning to be			Learning to live together		
		K	U	D	OT	TVT	IS	VM	SC	EP	SA	IU	ES
1	A famous person	-	2	2	1	-	3	1	-	2	1	1	-
2	Street children	-	1	-	1	-	2	-	-	-	-	1	1
3	Animals useful for tourism	-	2	-	1	-	-	1	-	-	-	-	-
4	A wish	-	1	-	4	-	-	4	1	-	1	1	-
5	Our museums	-	3	-	1	-	2	2	-	-	1	-	-
6	An educated farmer	-	3	-	2	-	-	-	1	-	-	-	-
7	Never delay work	-	3	-	-	-	1	1	-	-	-	-	-
8	What might happen to you in ten years time?	2	1	-	1	-	2	2	2	-	3	-	-
9	Every day sense in the environment	2	1	-	1	-	4.	-	-	-	-	-	-
10	No body knows how he gets money	-	2	-	-	-	1	1	-	3	-	-	-
11	Say "No": the impact of early marriage	-	5	-	-	-	-	2	-	-	-	1	1
12	Cost sharing	1	3	-	-	-	-	-	1	-	-	-	-
13	A holiday in the past	-	1	-	-	-	-	7	-	-	-	7	-
14	Living in harmony	-	1	-	-	-	2	-	-	-	-	3	2
15	Descry being a process	4	2	-	3	-	1	-	-	-	-	-	-
Total (subcategories)		**9**	**31**	**2**	**18**	**-**	**17**	**21**	**7**	**5**	**6**	**14**	**4**
Grand Total (categories)	**No**			**42**			**35**			**33**			**24**
	%			**31.3**			**26.2**			**24.6**			**17.9**

The findings from the other sample grade level grade 8 English indicate that the category 'learning to know' has a relative highest coverage , i.e. 31.3%. It is the category 'learning to live together' which has a relative lowest coverage (17.9%). The difference observed between the percentage of 'learning to do' (26.2%) and 'learning to be' (24.2%) is not that much significant. The result obtained from the chi-square test also shows the levels of significance.

Table 5.2 Chi-Square Test for Grade 8 English

Categories	f_o	f_e	f_o-f_e	$(f_o-f_e)^2$	$(f_o-f_e)^2/f_e$
Learning to know	42	33.5	8.5	72.25	2.15
Learning to do	35	33.5	1.5	2.25	0.07
Learning to be	33	33.5	-0.5	0.25	0.007
Learning to live together	24	33.5	-9.5	90.25	2.69
Total	134	134	$X^2 \sum \left[\frac{(fo - fe)^2}{fe} \right] = 4.92$		

The computed chi-square value shows $x^2=4.92$ which is less than the critical value (x^2 at df=3,0.05 level of significance=7.815). Hence, the difference among coverage of the "four pillars" is not significant in grade 8 English since the calculated chi-square value is less than the critical chi-square value. This value implies that the coverage of the "four pillars of education" in the grade 8 English textbook is almost balanced.

Table 6

Table 6.1. Summary of Units Counted and Categorized of Grade 8 Biology

Chapters	Title of chapters	Categories											
		Learning to know			Learning to do			Learning to be			Learning to live together		
		K	U	D	OT	TVT	IS	VM	SC	EP	SA	IU	ES
1	Human Biology and health	3	10	7	-	-	4	5	1	-	2	2	2
2	Humans and diseases	1	2	-	1	-	2	3	3	-	-	1	2
3	Flowering plants	1	4	-	2	-	-	-	-	-	-	-	-
4	Photosynthesis	-	2	1	4	-	-	-	-	-	-	-	-
5	Our environment	-	3	-	2	-	2	2	1	-	-	1	-
6	Classification	2	5	-	-	-	-	-	-	-	-	-	-
Total (subcategories)		**7**	**26**	**8**	**9**	**-**	**8**	**10**	**5**	**-**	**2**	**4**	**4**
Grand Total (categories)	**No**	**41**			**17**			**15**			**10**		
	%	**49.4**			**20.5**			**18.1**			**12.0**		

Units relevant to the category 'learning to know' scores the highest value (49.4%) in grade 8 Biology textbook . The coverage of the category 'learning to live together',12.0%, is the least value in this textbook. Even though their coverage is very much less than the highest value, the difference between the coverage of the categories ' learning to do' and 'learning to be' is not that much far. The level of significance tested by chi-square is shown as follows:

Table 6.2. Chi- square Test for Grade 8 Biology

Categories	f_o	f_e	f_o-f_e	$(f_o-f_e)^2$	$(f_o-f_e)^2/f_e$
Learning to know	41	20.75	20.25	410.1	19.8
Learning to do	17	20.75	-3.75	14.1	0.68
Learning to be	15	20.75	-5.75	33.1	1.59
Learning to live together	10	20.75	-10.75	115.6	5.57
Total	83	83	$X^2 \sum \left[\frac{(fo - fe)^2}{fe} \right]$ = 27.64		

The calculated chi-square value shows $x^2=27.64$ which is greater than the critical value (x^2 at df=3, 0.05 level of significance=7.315). Hence, the difference among coverage of the "four pillars" is significant in grade 8 Biology since the calculated chi-square value is greater than the critical chi-square value. This implies that unbalanced coverage of the "four pillars of education" is observed in grade 8 Biology textbook.

Table 7

Table 7.1. Summary of Units Counted and Categorized of Grade 8 Social Studies

Chapters	Title of chapters	Categories											
		Learning to know			Learning to do			Learning to be			Learning to live together		
		K	U	D	OT	TVT	IS	VM	SC	EP	SA	IU	ES
1	Map reading	4	8	-	-	-	2	-	-	-	-	-	-
2	Major development of modern World history	7	4	1	-	-	1	8	4	2	-	4	1
3	Major economic activities of the world	-	5	-	-	-	-	-	-	-	-	-	-
4	Major historical events	-	-	-	-	-	-	4	3	3	-	9	5
Total (subcategories)		**11**	**17**	**1**	**-**	**-**	**3**	**12**	**7**	**5**	**-**	**9**	**5**
Grand Total (categories)	**No**	**29**			**3**			**24**			**14**		
	%	**41.4**			**4.3**			**34.3**			**20.0**		

In grade 8 Social studies textbook it is the category 'learning to know' which has the highest coverage (41.4%). It is observed that the textbook has least coverage of the category 'learning to do' (4.3%). The category ' learning to be' which is 34.3% is better covered in the textbook next to the highest , i.e. 'learning to know'. Far from both the highest and least covered categories, the category 'learning to live together' found at the third level covering 20.0% of the textbook. The values are also analyzed by chi-square test as follows:

Table 7.2. Chi –Square test for Grade 8 Social Studies

Categories	f_o	f_e	f_o-f_e	$(f_o-f_e)^2$	$(f_o-f_e)^2/f_e$
Learning to know	29	17.5	11.5	132.25	7.56
Learning to do	3	17.5	-14.5	210.25	12.02
Learning to be	24	17.5	6.5	42.25	2.41
Learning to live together	17	17.5	-3.5	12.25	0.7
Total	70	70	$X^2 \sum \left[\frac{(fo - fe)^2}{fe} \right]$ = 22.69		

The calculated chi-square value shows $x^2=22.69$ which is greater than the critical value (x^2 at df=3,0.05 level of significance=7.815). Hence, the difference

among coverage of the "four pillars" is significant in grade 8 Social studies since the computed chi-square value is greater than the critical chi-square value. The implication of this value also ensures the unbalanced coverage among the "four pillars of education" in the contents of grade 8 Social studies.

Table 8

Table 8.1 Summary of Units Counted and Categorized of Grade 8 Civics and Ethical Education

Chapters	Title of chapters	Categories											
		Learning to know			Learning to do			Learning to be			Learning to live together		
		K	U	D	OT	TVT	IS	VM	SC	EP	SA	IU	ES
1	Building democratic society	-	10	-	1	-	1	3	1	-	1	4	2
2	Rule of law	3	2	-	-	-	-	3	2	-	-	1	-
3	Equality	-	2	-	-	-	1	3	-	-	-	7	-
4	Justice	-	5	-	-	-	-	3	1	-	-	-	-
5	Patriotism	-	2	-	-	-		-	9	1	-	1	2
6	Responsibility	-	1	-	-	-	-	7	2	-	-	-	-
7	Industriousness	-	2	-	1	-	1	4	4	1	2	-	-
8	Self reliance	-	-	-	-	-	-	-	4	-	-	-	-
9	Saving	-	-	-	1	-	-	1	1	-	-	-	-
10	Public participation	-	3	-	1	-	-	-	-	-	-	-	-
11	Searching for wisdom	-	1	-	1	1	1	-	1	-	-	-	-
Total (subcategories)		**3**	**28**	**-**	**5**	**-**	**4**	**34**	**14**	**2**	**4**	**14**	**3**
Grand Total (categories)	**No**			**31**			**9**			**50**			**21**
	%			**28.0**			**8.1**			**45.0**			**18.9**

The data collected from the last sample textbook, grade 8 Civics and ethical education show that the coverage of the category 'learning to be (45.0%) is the highest and that of 'learning to do' (8.1%) is the lowest. The category 'learning to know' is placed at the second level covering 28.0% of the text book. Only 18.9% of the textbooks issues are relevant to the category ' learning to live together'. The chi-square below shows the difference among the four categories.

Table 8.2. Chi-Square Test for Grade 8 Civics and Ethical Education

Categories	f_o	f_e	f_o-f_e	$(f_o-f_e)^2$	$(f_o-f_e)^2/f_e$
Learning to know	31	27.75	3.25	10-56	0.38
Learning to do	9	27.75	-18.75	351.6	12.67
Learning to be	50	27.75	22.25	495.1	17.84
Learning to live together	21	27.75	-6.75	45.6	1.64
Total	111	111	$X^2 \sum \left[\frac{(fo - fe)^2}{fe} \right]$		= 32.53

The computed chi-square value shows $x^2=32.53$ which is greater than the critical value (x^2 at df=3,0.05 level of significance= 7.815). Hence, the difference among coverage of the "four pillars" is significant in grade 8 Civics and ethical education since the calculated chi square value is greater than the critical chi-square value. This implies that imbalanced of the "four pillars" is also observed in the contents of grade 8 Civics and Ethical education textbook dominated by the pillar 'learning to be' unlike the other subject textbooks.

To support the quantitative data collected by content analysis, qualitative data are also gathered by interview. The interview participants are responsible officials and experts from MoE (one official), ICDR (two experts) and AACGEB (two experts). As mentioned in the 'limitation' section, due to personal turn over they are only two of the interviewee (one from ICDR and one from AACGEB) who participated in the preparation of the existing primary education second cycle syllabi and textbooks.

My interviewee from MoE believed that the issues of balance and relevance are not overlooked or ignored in evaluative researches because , as to him, one of the issues in which the education and training policy seek to improve is relevance. As to his understanding the conclusions and recommendations of the evaluative research need not mention about balance and relevance if it is not found a problem. About the responsibility of evaluating balance and

relevance of primary education second cycle curriculum the same person said that:

> *It can be evaluated at all levels; however, it will be more appropriate if the regions' education bureau do this because they are responsible to adapt and contextualize the syllabi and prepare textbooks (Interviewee 1,May 10, 2009).*

The response of two curriculum experts, who are participants from AACGEB, about the role of MoE, ICDR, and AACGEB in developing the existing primary education second cycle curriculum in relation to decentralization policy also support this idea. According to their response MoE is responsible to formulate education policy, ICDR is responsible to develop syllabi and preparing textbooks and other related materials is the responsibility of the bureau.

The issue of considering the "Four pillars of Education" during policy formulation or curriculum development is not done deliberately and shouldnot be expected to be deliberate at any level as all participants of the interview agreed. Their major justification for this agreement is that those which are mentioned lately as "Four pillars of education" are not new ideas. All the interviewee believed that the four pillars are the other names of the already existing concepts and those which are used as benchmarks during educational policy formation, syllabi development and textbook preparation and which are known as knowledge, attitude and skill. They further explained that UNESCO recommends opinions, principles and standards that it believes is best for quality education. If it does not sensitize or lobby countries to adapt these opinions, principles and standards, it will be up to a country's interest to search and use them as benchmarks in policy formulation and curriculum development. Rather, best practices of different countries in curriculum development are adapted especially with related to incorporating the three components: knowledge, attitude and skill. Moreover, one interviewee asked that:

> *If the ideas that are promoted by UNESCO are incorporated in one way or another in our policy and curriculum, why do we worry about adhering to UNESCO as an organization?(Interviewee 3,May 12,2009).*

Even taking the idea of participants about the concept similarity of the "Four pillars of Education" and "Bloom's taxonomy of educational objectives" for granted, the issue of balance of these components in the primary education second cycle curriculum is still under question as all of the participants admitted. They suspect that the three components (knowledge, attitude and skill), which can be equivalent to the "Four pillars of Education", are not incorporated in a balanced manner may be because of competence problem of professionals and experts who participate in the syllabi and/or textbook preparation. With similar agreement all interview participants believed that the imbalance of the pillars will have a negative impact on quality of education because currently education is expected to produce an individual with complete personality, i.e. intellectually, practically and morally which can fit with both the national and global society.

Finally, the interviewee told the investigator that currently a new curriculum is under development and textbooks are under preparation. They all believed that the new curriculum by far will solve the problem of imbalance.

Table 9 General summary of units counted and categorized of sample subjects

Grades	Subjects		Categories				Total number &% of units
			Learning to know	Learning to do	Learning to be	Learning to live together	
5	Amharic	No	17	11	15	9	52
		%	32.7	21.2	28.8	17.3	100
	Science	No	27	17	7	2	53
		%	50.9	32.1	13.2	3.8	100
	Geography	No	74	14	35	8	131
		%	56.5	10.7	26.7	6.1	100
8	English	No	42	35	33	24	134
		%	31.3	26.2	24.6	17.9	100
	Biology	No	41	17	15	10	83
		%	49.4	20.5	18.1	12.0	100
	Social studies	No	29	3	24	14	70
		%	41.4	4.3	34.3	20.0	100
	Civics and ethical education	No	31	9	50	21	111
		%	28.0	8.1	45.0	18.9	100

Even though the interview participant from MoE said that the issue of balance and relevance is not overlooked, the quantitative data of the research show that from the 7 sample subjects selected in 6 subjects' text books, i.e. 85.7% (except grade 8 Civics and ethical education) the pillar 'learning to live together' has least coverage. In 3 of the sample subjects (42.9%) (grade 5 Science, grade 8 English and grade 8 Biology) the pillar' learning to do' is at the second level of coverage where as the pillar 'learning to be' is at the second level in the other 3 of the sample subjects (grade 5 Amharic, grade 5 Geography and grade 8 Social studies) and the highest in one of the sample subjects (grade 8 Civics and ethical education).

The chi square test values also show that in five of the selected sample subjects (except grade 5 Amharic and grade 8 English), i.e. 71.4%, the difference among coverage of the "four pillars" is significant.

Table 10

Table 10.1 Total Coverage of the Four Categories in Number and Percentage

		Learning to know	Learning to do	Learning to be	Learning to live together	Grand total
Total (categories	No	261	106	179	88	634
	%	41.2	16.7	28.2	13.9	100

From the total 634 units counted and categorized, 261(41.2%) units are relevant to 'learning to know' where as only 88 (13.9%)units, which is the least of all, are relevant to 'learning to live together'. The percentage difference between the highest covered pillar ('learning to know'= 41.2%) and the least covered pillar ('learning to live together'=13.9%) is 27.3% which is very significant. Moreover, the percentage difference between two consecutive pillars (i.e. the highest, 'learning to know' which is 41.2% and the next, 'learning to be' which is 28.2%, and the second, 'learning to be' which is 28.2% and the third, 'learning to do' which is 16.7%) is 13% and 11.5% respectively which

are more than 10%. This shows the significance of the difference. The value obtained from the chi-square test of the total sample subjects also strengthened this difference.

Table 10.2 Chi-Square Test for the Total Sample Subjects

Categories	f_o	f_e	f_o-f_e	$(f_o-f_e)^2$	$(f_o-f_e)^2/f_e$
Learning to know	261	158.5	102.5	10506.25	66.3
Learning to do	106	158.5	-52.5	2756.25	17.4
Learning to be	179	158.5	20.5	420.25	2.7
Learning to live together	88	158.5	-70.5	4970.25	31.4
Total	634	634	$X^2 \sum \left[\frac{(fo - fe)^2}{fe} \right]$ = 117.8		

The computed chi-square value shows $x^2=117.8$ which is very much greater than the critical value (x^2 at df=3,0.05 level of significance =7.815). Hence, the difference among coverage of the "four pillars" is quite significant in the seven sample subjects.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In this section, the findings of the investigation are summarized and discussed, conclusions which are drawn from the results are presented and possible recommendations are suggested.

5.1. Summary

The background of this study was on the assumption that the "Four Pillars of Education" set by UNESCO might not be incorporated in a balanced manner in the primary education second cycle curriculum of Addis Ababa City Government in general and textbooks in particular. To test this assumption seven sample text books are selected from two grades (grades 5 & 8) of the cycle. A quantitative content analysis method is employed to evaluate their contents and supportive data are collected using a qualitative interview method.

The findings of the content analysis made on the sample textbooks and interview responses show that there is problem of imbalance in the curriculum of the education level under study.

- As shown in the analysis section, in the textbook contents of five subjects from the seven sample subjects the "four pillars" are found or incorporated in unbalanced manner. The difference among the four pillars in the subjects selected from language area of study (grade 5 Amharic and grade 8 English) is not, however, significant. This might occur because of the difference in competence of the experts or professionals participated in syllabi and/or textbook preparation as the participants of the interview justified for the imbalance of the "four pillars";
- The pillar 'learning to know" which is with highest coverage in six of the sample subject textbooks highly dominates especially grade 5 Science,

grade 5 Geography and grade 8 Biology. The domination of this pillar, especially in its simplest form, is a poor quality of the content. According to Dewey, (2004:237) *"The use of information in the context of recall as an end doesn't have any value even when education is conceptualized in the form of intellectual development or "enlargement of mental vision"";*

- The pillar 'learning to do' which is very crucial for under developed countries like Ethiopia by enabling the learners to equip with skills that can solve community problems is only given a better coverage in the contents of grade 5 Science textbook. This problem even has an impact on TVET program of the country which is expected to be a means of developing skills that are needed by the community. Recognizing this impact, Amare (2008) expressed that:

  The creation of a broad TVET infrastructure did not help much as the attitude of the students toward work and TVET is not positive. These attitudes that become manifest at TVET schools arise from poor background of students in competence on vocational skills at lower levels;

- One encouraging finding obtained from the analysis, even though there exists the problem of balance among the "four pillars" on these textbooks, also is that the pillar "learning to be" is better covered in social science subject textbooks which by their nature are expected to be as such;
- 'Learning to live together' which is the current major global issue is not addressed well in many of the sample subject textbooks. If the students do not develop this spirit since their childhood, it will be a big challenge for overall development of the country;
- The responses of the interviewee also show that these "four pillars of education" are not given deliberate consideration by the respective people from policy makers to textbook writers. Even, there is no readiness to deliberately consider and use in the future as a benchmark during policy formulation, syllabus development and textbook preparation.

5.2. Conclusions

This study has attempted to cross- validate the balance of primary education second cycle curriculum vis-à-vis the "four pillars of education" set by UNESCO. Based on the findings of the investigation the following conclusions are drawn:

1. The contents of the primary education second cycle program lack a proper balance in comprising the "Four pillars of Education". Even though the MoE, ICDR and AACGEB assumed that these "four pillars" are indirectly incorporated in the contents in the form of knowledge, attitude and skill in a balanced manner, the analysis of the sample textbooks reveals a different fact. This finding can also help to conclude impossibility of generalizing that the ideas or concepts of the "four pillars of education " set by UNESCO are the same to that of "Bloom's taxonomy of educational objectives" because the concepts of the former are broader than the latter;
2. The ideas or concepts of the "Four pillars of Education" are observed incorporated at policy level even though not deliberate consideration is given. The general objectives listed (1 to 5) and specific objectives listed (1 to 15) in the Education and Training Policy document incorporate the ideas of these "four pillars" (TGE, 1994: 7-11).

The policy also added that *"The preparation of curriculum will be based on the stated objectives of education, ensuring that the relevant standard and the expected profile of students are achieved" (p.12)*

Hence, the failure of incorporating them in the contents in a balanced manner happened on the level of syllabi and textbook preparation;

3. The contents of primary education second cycle curriculum are more of cognitive information as presumed by the investigator. It is known that the investigation is made only by evaluating the content of the textbooks. But, if the pedagogy had been evaluated, some of the

contents that are categorized under the other three pillars (learning to do, learning to be and learning to live together) might have been included in the first pillar (learning to know). As the analysis so far made has shown, large coverage of cognitive elements is at the simplest levels of cognitive domain;

4. The pillar 'learning to do', which is crucial to link primary education with occupational needs in the community, is not given sufficient coverage in the primary education second cycle curriculum. Especially contents that are relevant to technical and vocational training are insignificant in coverage. This will be also against the education and training policy of the country, because, if a foundation is not laid at primary school, how possible will be thinking about the effectiveness of TVET program? Further, the issue of TVET is not only the issue of education sector, it also highly affects the development policy of the country;

5. The contents that are relevant to the pillar ' learning to live together' which help people live together in peace and with respect for the human dignity and well being of others are least incorporated in the primary education second cycle curriculum. As to Sinclair (2004), one of the challenges for educators at the beginning of the twenty first century relate to students' behavior in their personal lives. This includes issue of conflict prevention and resolution, tolerance, respect for cultural and ethnic diversity, gender sensitivity, civic participation, non abusive relationships, respect for the health of one's fellows and of the environment. This pillar can be incorporated, in the contents of the curriculum if the "Four pillars" are deliberately considered during curriculum development;

6. As to the researcher's belief the imbalance of the "Four pillars of Education" has negatively affected the aim of education of the country in general and quality of primary education in particular. This is because contents that

are inclined largely to cognitive information cannot enable to produce an individual who is intellectually, practically and morally fit to the national or global community. It is impossible to talk about the achievement of the aim of education and a better quality of education with poor foundation at primary level.

5.3. Recommendations

A curriculum sets forth a systematic selection and organization of teaching and learning content and methods by addressing questions such as what students should learn, why, how and how well (IBE, 2004). From the conclusions described above the researcher has two recommendations which are believed to answer the 'what students should learn' and 'why' questions of a curriculum. These are:

1. All responsible bodies (MoE, ICDR and AACGEB) should deliberately consider the "Four Pillars of Education" set by UNESCO and use the ideas and concepts in them as a benchmark during policy formulation, syllabi and textbook preparation or revision. Evaluative research at different levels should also make the balance of these pillars as one element to be evaluated;
2. The Institute for Curriculum Development and Research (ICDR) should establish partnership with International Education Bureau (IBE) so that it can be accessible to the opinions, guiding principles and standards of UNESCO. Since IBE, as a UNESCO institute, focuses on curriculum issues from its development to implementation, partners will benefit from it especially in having quality curriculum that incorporates UNESCO's global ideas including the "Four Pillars of Education".

The two recommendations are believed to help avoid the imbalance and the problem of irrelevance of the newly developed curriculum.

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Appendix A

The Sub-Categories of each of the four Categories and their Description

Category one: Learning to know

1.1. Knowledge

- a unit which consists of acquisition of information and transmission of facts

1.2. Understanding

- a unit which provides knowledge necessary for the learners to lead their lives, to develop their occupational skills and to communicate with other people

1.3. Discovery

- a unit which helps to develop the ability of thinking, appreciate developments and achievements in the sciences, arts and humanities.

Category two: Learning to do.

2.1. Occupational training

- a unit which helps to equip the pupils to do the type of work needed by the community.

2.2. Technical and vocational training

- a unit which provides both theoretical and practical knowledge and equip the learners with skills.

2.3. Interpersonal skills

- a unit which helps to develop problem solving skills, decision making skills, communication skills, innovative skills and team skills.

Category three: Learning to be

3.1. Value and moral issues

- a unit which helps to develop feeling of aesthetic appreciation, freedom, independence, spirituality, responsibility and ethics .

3.2. Self confidence

- a unit which helps the pupil to solve his/her own problems, make his/her own decisions and shoulder his/her own responsibilities.

3.3. Exemplary practices

- a unit which familiarize the pupil with knowledge applications for problem solving and achievements of successful people.

Category four: Learning to live together

4.1. Self acknowledgment

- a unit which helps to admit ones own strengths and weaknesses, and understanding one self as a member of the society.

4.2. Interpersonal understanding

- a unit which helps to understand, respect and appreciate persons of other cultures, ethnic groups, races, gender, social class and to involve in common projects.

4.3. Spirit of empathy and sympathy

- a unit which helps to listen and understand other's needs, develop health preserving behaviors, condemn conflicts and violence, and involve in avoiding conflicts and stand against violence.

Adapted from: The Report

'Learning: the treasure within' by the International Commission on Education for the Twenty –First century chaired by Jacques Delors (Delors et.al, 1996).

Appendix B
Categorization of Grade 5 Amharic

CATEGORY ONE	RELEVANCE TO LEARNING TO KNOW
Sub category 1.1.	Knowledge - Information about Addis Ababa city - About nature and use of water
	Understanding
Sub category1.2.	- About how to use roads safely - Benefits of education - How to use a library - About nature and use of fish - Female anopheles mosquitoe - About letter writing - What is HIV/AIDS and its prevention? - Benefit of education - The need for family planning - Having a good wish
	Discovery
Sub category 1.3	- Scientific analysis about cause, symptom and prevention method of malaria - Scientific analysis about HIV/AIDS
CATEGORY TWO	**RELEVANCE TO LEARNING TO DO**
Sub category 2.1.	Occupational training - About how to fish - Prevention and control methods of malaria - Modern education for farmers - Role of women in the community
Sub category 2.3.	Interpersonal skills - Developing communication skills - Poem writing - Solving family problems using family planning

	- Skill of living together
CATEGORY THREE	**RELEVANCE TO LEARNING TO BE**
Sub category 3.1.	Value and moral issues - Don't tear even a page of a book - Respecting parents and old people - No sex before marriage - Helping the needy - Feeling of freedom - How to be ethical? - Ethical and spiritual feeling - Feeling of freedom and independence
Sub category 3.2	Self confidence - Self reliance - Solving her own problems - Self confidence - Self confidence of Abrham Lincon
Sub category 3.3.	Exemplary practices - success of Abrham Lincon - success of Abdissa Aga
CATEGORY FOUR	**RELEVANCE TO LEARNING TO LIVE TOGETHER**
Sub category 4.1.	Self acknowledgment - Recognizing children as part of the community
Sub category 4.2.	Interpersonal understanding - Respecting children's rights - Recognizing the value of farmers' effort and wish all the best for them - Gender equality - Loving every body
Sub category 4.3.	Spirit of empathy and sympathy - Conflict resolution - Preventing HIV/AIDS - Conflict resolution in family - Empathy for street children

Appendix C

Categorization of grade 5 science

CATEGORY ONE	RELEVANCE TO LEARNING TO KNOW
Sub category 1.1	Knowledge - About substance (elements and compounds) - What is air? - Characteristics of air - What is excretion? - What is HIV/AIDS? - What is energy?
Sub category 1.2	Understanding - Nature and characteristics of elements and compounds - Use of air - Breathing system - Cigarette smoking - What is water? - Water as a compound - Importance of plants - Soil and plants - Insects and their reproduction - Amphibians and reptiles - Organs of exertion - Symptoms of HIV/AIDs - Prevention and control of HIV/AIDS - Heat energy - Methods of heat transfer - Food energy - Force and its effects
Sub category 1.3.	Discovery - Discovery of atoms, elements, compounds

	and mixtures - What is HIV/AIDS? - Organs of excretion
CATEGORY TWO	**RELEVANCE TO LEARNING TO DO**
Sub category 2.1.	Occupational training - The importance of oxygen for burning - The processes of inhalation and exhalation - Conservation of water - Soil conservation - Forest conservation - Harmful insects and their impact in health - Useful animals - How to fish and bee breeding - Food sanitation - Methods of food preservation - Toilet sanitation - Food scarcity and responsibility of the community - Sample machines and their importance
Sub category 2.2.	Technical and vocational training - Techniques of separating mixtures - Practical training on methods of heat transfer - Practical training on energy and force applications
Sub category 2.3.	Interpersonal skills - Life skills practice

CATEGORY THREE	**RELEVANCE TO LEARNING TO BE**
Sub category 3.1	Value and moral issues - Harmful traditional practices - Forest conservation - Care and support for PLWHA - Impact of HIV/AIDS on children
Sub category 3.2	Self confidence - Life skill practices
Sub category 3.3.	Exemplary practices - Knowledge application in conserving the environment
CATEGORY FOUR	**RELEVANCE TO LEARNING TO LIVE TOGETHER**
Sub category 4.2.	Interpersonal understanding -Food scarcity and responsibility of the community
Sub category 4.3.	Spirit of empathy and sympathy -Impact of HIV/AIDS on children

Appendix D

Categorization of Grade 5 Geography

CATEGORY ONE	RELEVANCE TO LEARNING TO KNOW
Sub category 1.1.	Knowledge - What is continent? - What is a river? - African rivers - What is a lake? - African lakes - What is graph? - Four climatic zones in Africa - Population of Africa - What is environment? - The three human races - Human races in Africa - What is culture? - Ancient Ghana - Ancient Mali - Ancient Songhai - State towns of Hawsa - History of Africa's foreign relation - Travelers - Major minerals in Africa - Hydroelectric power sources - Status of modern industry in Africa - Distribution of industry in Africa - What is trade? - What is tourism? - Major systems of communication - What is democracy?

Sub category 1.2.	Understanding - The seven continents - Location of Africa - latitude and longitude - Hemisphere - Countries of Africa and their capital cities - Mountains - Causes of mountain formation. - Plateau, - Lowlands - Uses of African rivers - Uses of African lakes - The two kinds of graph - Desertification in East Africa - Animals and plants found in different climatic zones of Africa - Factors which control population growth - Population distribution in Africa - Population increases and deforestation - Rivers and lakes of Africa - The necessity of population data - Languages of Africa - Culture and languages of horn of Africa - Ancient Egypt and blue Nile Africa and trade - Ancient Egypt and manufacturing - Historical periods of ancient Egypt - Use of minerals classification of minerals - Types of industry in Africa - Two kind of trade system - Foreign trade

	- Status of transportation in Africa - Principles of democracy - Economic crisis in Africa - Social crisis in Africa - Political instability in Africa - Emergence of colonialism - Initiation and establishment of OAU - Structure and responsibilities of OAU - Charter and human rights of OAU
Sub category 1.3	Discovery - Travelers - African skill in different areas (medicine, art , literature, music, patriotism, administration and sport).
CATEGORY TWO	**RELEVANCE TO LEARNING TO DO**
Sub category 2.1.	Occupational training - Locating a place on the map - How to make and use graph - Humans' way of living in the different climatic zones of Africa - Forest conservation to prevent desertification - Impacts of population increase - Water management in east Africa - Cultures of Africa - Methods of agricultural practices - Types of agricultural activities - Uses of tourism – Tourism sites - How democracy is established
Sub category 2.3.	Interpersonal kills - Methods of population data collection - Solving problems of Africa
CATEGORY THREE	**RELEVANCE TO LEARNING TO BE**
Sub category 3.1.	Value and moral issues

	- Forest conservation to prevent desertification - Population increase and deforestation - Cultures of Africa- religious beliefs - Ancient Egypt and art - Africa and hand craft - Historical heritages of Africa - Heritage perfection - Tourist sites - How democracy is established - Anti colonial struggles in Africa - Pan Africanist movements - Africans skill in different areas/medicine, art, literature, music, patriotism, administration and sport)
Subcategory 3.2.	Self confidence - Causes and impacts of food scarcity in East Africa - Domestic trade - How democracy is established - Solving problems of Africa - Self reliance movements (Negrituid, Mahdiay, Mao MaO)
CATEGORY FOUR	**RELEVANCE TO LEARNING TO LIVE TOGETHER**
Sub category 4.1.	Self acknowledgment - Causes and impacts of food scarcity in East Africa
Sub category 4.2	Interpersonal understanding - Slave trade - Colonization - Uses of tourism - OAU and UN - OAU and Red cross organization
Sub category 4.3	Spirit of empathy and sympathy - OAU and UN - OAU and Red Cross Organization

Appendix E

Categorization of the Grade 8 English

CATEGORY ONE	RELEVANCE TO LEARNING TO KNOW
Sub category 1.1.	Knowledge - Transportation in Ethiopia - Fossils found in many regions of Ethiopia - Different places - Different environments - Secondary schools enrollment statistics - Describing the processes of getting schools uniform, making coffer, making injera and bread.
Sub category 1.2	Understanding - Gerund - Venn diagram - Either...or/neither....nor - Adjective clauses - National parks of Ethiopia - Past, present and future wishes - Definition of words - Verbs - Topic sentences - Using "will be" and "going to" - Context clues - Eggs (a poem) - Words that express time - Past participle of a verb - Asking questions - Using the verbs "to do' and ' to make' - Active voice and passive voice

	- Direct and indirect questions - Present continuous tense verbs - Using 'should 'or 'ought to' in giving advice - Using 'unless' or 'if... not' in giving warning - Nouns - Action verbs - The words 'advantage' and 'disadvantage' - Obligations, using 'must' + the verb - Prohibitions, using 'must n't+ the verb - No obligation, using 'need' or 'needn't' - Using 'while' and when' - An adjective and an infinitive - Simple present tense verbs - Writing is a process
Sub category1.3.	Discovery - Dr. Aklilu Lemma - Liya Kebede
CATEGORY TWO	**RELEVANCE TO LEARNING TO DO**
Sub category 2.1	Occupational training - Job application - Representing one ministry of the country and developing strategies to help street children - Tourist attraction in Ethiopia - Writing a paragraph using topic sentence - Pollution and the environment - Deforestation - Water and health - Making a leaflet about a museum

	- Ethiopia's economy - Why is education important to a farmer? - The ant and grasshopper (a fable) - Writing a paragraph about delaying some work - Never give up - Famine in Ethiopia - A Job at the garage - Making coffee, injera and bread
Sub category 2.3	Interpersonal skills - Expressing one self - Conversation - Interview - Solving the social problems of street children describing what you have seen - Planning for a museum visit - Locating the direction of museums - A job you would like to do - A place you would like to live - A job at the garage - Act as a tour guide of your school - Shared decision making - Describing an activity in a paragraph using active or passive verbs - Writing interview questions - Friendly letter - Making a brochure about HIV/AIDS - Writing a composition

CATEGORY THREE	RELEVANCE TO LEARNING TO BE
Sub category 3.1	Value and moral issues - Liya Kebede: the model - Tourist attraction in Ethiopia - Pollution and the environment - Deforestation - Water and health - Visiting the national museum - Preserving history - The ant and grasshopper (a fable) - Birds - Ethiopia police take action on illegal ivory market - Elias the smooth operator - Early marriage in Ethiopia - Life after early marriage - Holidays (Christmas, Ramadan, Easter, New years day in Ethiopia. Harvest festival, Kawnza)
Sub category 3.2	Self confidence - Cost sharing in Ethiopia - Representing one ministry of the country and developing strategies to help street children - Ambition (personal) - Why is education important to a farmer? - Never give up - A job you would like to do - A place you would like to live
Sub category 3.3	Exemplary practices

	- Dr. Aklilu Lemma - Kiya Kebede - Derartu Tufu - Sahleselassie Berhane Maryam - Ethiopia's Finest
CATEGORY FOUR	**RELEVANCE TO LEARNING TO LIVE TOGETHER**
Sub category 4.1	Self acknowledgment - Expressing one self - Ambition (persona) - Preserving history - A job you would like to do - A place you would like to live - Famine in Ethiopia
Sub category 4.2	Interpersonal understanding - Liya Kebede helping the women - Street children - Different ambitions - Early marriage in Ethiopia - Holidays (Christmas, Ramadan, Eastern, New year's day in Ethiopia, Harvest festival, Kwaniza) - How can we live in harmony at home? - Tolerance - Friendly letter
Sub category 4.3	Spirit of empathy and sympathy - Street children - Life after early marriage - How can we live in harmony at home? - A disease that devastates

Appendix F

Categorization of Grade 8 Biology

CATEGORY ONE	RELEVANCE TO LEARNING TO KNOW
Sub category 1.1.	Knowledge - The nervous system - Global HIV/AIDS - HIV/AIDS in Ethiopia - What is disease? - Monocots and dicots - The basis for classification - The five kingdom of organisms
Sub category 1.2	Understanding - The eye and vision - The structure and function of the ear - The sense of taste - The sense of small - The skin as a sense organ - Neurons - Spinal cord and Brain - The endocrine system - The human reproductive system - Sexually transmitted diseases - Plant diseases - Human diseases - Flowering plants; classification and use - The organs of flowering plants - Reproduction in flowering plants - Storage organs - The food making process - Comparison of photo synthesis and respiration - Ecosystem - Physical factors of an ecosystem - The importance of water - The need for classification - The species concept - Classification groups - Binomial nomenclature - The use of keys

Sub category 1.3	Discovery - Vision defects and their correction - The role of sense organs in walking safely along a road - Neurons - Spinal cord and brain - The endocrine system - The human reproductive system - Sexually transmitted diseases - The food making process
CATEGORY TWO	**RELEVANCE TO LEARNING TO DO**
Sub category 2.1	Occupational training - Community hygiene - Fruit and seed dispersal - Seed germination - Practical activities on: comparison of condition of plants in watered and unwatered pots ➢ Searching for opening on the plant surface ➢ Comparing starch production in part of leaves exposed and not exposed to light ➢ Testing for starch in a green leaf - Soil conservation - Water conservation
Sub category 2.3	Interpersonal skills - Keeping eyes healthy - Our ears and health - Life skills - Contraception - Control of plant diseases - Transmission and prevention of human diseases
CATEGORY THREE	**RELEVANCE TO LEARNING TO BE**
Sub category 3.1	Value and moral issues - Drug and drug abuse - Abortion - Harmful traditional practices - Care and support for PLWHA

	- Life skills - HIV/AIDS crisis in the society - Fight against HIV/AIDS - Community hygiene - Soil conservation - Water conservation
Sub category 3.2	Self confidence - Life skills - Transmission and prevention of human diseases - Fight against HIV/AIDS - Community hygiene - Plant adaptation to conserve water
CATEGORY FOUR	**RELEVANCE TO LEARNING TO LIVE TOGETHER**
Sub category 4.1	Self acknowledgment - Drug and drug abuse - Life skills
Sub category 4.2	Interpersonal understanding - Harmful traditional practices - Care and support for PLWHA - The impact of HIV/AIDs on women - Biological association
Sub category 4.3	Spirit of empathy and sympathy - Harmful traditional practices - Care and support for PLWHA - Fight against HIV/AIDS - Community hygiene

Appendix G
Categorization of Grade 8 Social Studies

CATEGORY ONE	RELEVANCE TO LEARNING TO KNOW
Sub category 1.1	Knowledge - The earth shape and structure - Types of rock - Water bodies - Distribution of vegetation - Definition to modern history - Modern Ethiopia history (185-1974) - Explorations and their consequences from 15th to 18th c - Industrial revolution - Definition of culture - Historical development of culture - Distribution of HIV/AIDS
Sub category 1.2	Understanding - Enlarging and reducing maps - Map colors and land forms - Earth's external and internal force of change - Uses of rocks - Ecosystem (plants, animals and soil) - Air pollution - Causes of draught and famine - Uses and conservation of vegetation - Characteristics of modern world history - Characteristics of modern Ethiopia history - Problems resulting from rapid population growth

	- The need for traffic safety: technical details of a car - Agriculture - Mining - Industry - Trade - Transportation
Sub category 1.3	Discovery - Explorations and their consequences from 15th to 18th c
CATEGORY TWO	**RELEVANCE TO LEARNING TO DO**
Sub category 2.1	Interpersonal skills - Map colors and land forms - Methods of air conservation - Population policy
CATEGORY THREE	**RELEVANCE TO LEARNING TO BE**
Sub category 3.1	Value and moral issues - Modern Ethiopia history (1855-1974) - Africa in the age of imperialism - African resistance to colonial expansion - Culture as civilization - Culture as tradition - The use of culture - Useful and harmful cultures - The protection and conservation of cultural heritages - Population policy - The 1st world war (feeling of independence) - The 2nd world war (feeling of nationalism) - African independence struggle - African union - Great men and their contribution to the

	world peace and human rights.
Sub category 3.2	Self confidence - Modern Ethiopia history (1855-1974) - Africa resistance to colonial expansion - Culture as civilization - Population policy - African independence struggle - African union - Great men and their contribution to the world peace and human rights
Sub category 3.3	Exemplary practices - Modern Ethiopia history (1855-1974) - African independence struggle - Great men and their contribution to the world peace and human rights - Exploration and their consequences from 15th to 18th c
CATEGORY FOUR	**RELEVANCE TO LEARNING THE LIVE TOGETHER**
Sub category 4.1.	Interpersonal understanding - Modern Ethiopia history (1855-1974) - The use of culture - Equality of culture - Population policy - The 1st world war - The 2nd world was - The united nations organization - African union - Great men and their contribution to the world peace and human rights
Sub category 4.3	Spirit of empathy and sympathy - The use of culture - The 1st world war - The 2nd world war - The united nations organization - Great men and their contribution to the world peace and human rights

Appendix H

Categorization of Grade 8 Civics and Ethical Education (in Amharic)

CATEGORY ONE	**RELEVANCE TO LEARNING TO KNOW**
Sub category 1.1	Knowledge - What is constitution? - The general content of the constitutions - The definition of corruption
Sub category 1.2	Understanding - Building democratic society - Principals of democratic society in Ethiopia - Kinds of democratic participation - The relationship between democratic and human rights - Institutions for protection of human rights - What is opinion difference? - The relationship between federal and regional governments - Powers and functions of government organs - The objectives of foreign affairs and security policy of Ethiopia government - Similarities and differences between the federal and regional constitutions - Causes of corruptions in our surrounding - Concepts of equality rights - What is gender equality? - What is justice?

	- Tax imposed revenues - Importance of justice - Justice and the judiciary - Independent judiciary organs and its powers - What is patriotism? - What is the value of fighting poverty? - Impacts of HIV/AIDS - What is job? - What is profession? - The need for citizens participation - Wisdom for civilization
CATEGORY TWO	**RELEVANCE TO LEARNING TO DO**
Sub category 2.1	Occupational training - State formation Rural development policies and strategies - Rural development policies and strategies - Mechanisms of saving - Issues for citizens' participation - Study and its methodology
Sub category 2.3	Interpersonal skills - Peaceful resolution of conflicts - The need for respecting equality rights - Professional development - Importance of information
CATEGORY THREE	**RELEVANCE TO LEARNING TO BE**
Sub category 3.1	Value and moral issues - The roles of individuals to resolve conflicts through discussion - State formation

	- Foreign relations principles of Ethiopia government - Transparency and accountability - Understanding power limit - Institutions that fight against corruptions and responsibility of citizens - What is equality ? - The need to respect equality rights - Equal opportunity right - Tax and revenue system - Ethics of workers of revenue and tax collecting offices - Conditions that cause injustice - Attributes of patriotism - Interconnectedness of state and citizenship - The relationship between protection on citizenship rights and patriotism - Searching for truth - Corruption - Exposing state's l secret - Foreign invasion - Citizens responsibility of standing for collective security - The roles of volunteers and civic associations - Individuals and collective responsibilities - Responsibility of conserving natural resources - Preserving historical heritages

	- Proper use of public and governmental resources and properties - HIV/AIDS prevention - Time management - Problems of idleness - Professional ethics
Sub category 3.2.	Self confidence - State formation - Understanding power limit - Institutes that fight against corruption and responsibility of l citizens - Proper taxation and revenue collection system - Attributes of patriotism - Individual and collective responsibility - Accountability - Time management - Problem of idleness - Professional development - Fighting against superstition that lead to poverty
Sub category 3.3	Exemplary practices - Professional development - "Movement of water"
CATEGORY FOUR	**RELEVANCE TO LEARNING TO LIVE TOGETHER**
Sub category 4.1	Self acknowledgment - Individuals role to resolve differences - Let's identify our biased history - Problems of idleness - Professional development

Sub category 4.2	Inter personal understanding - Peaceful conflict resolution - Role of individuals to resolve differences through discussion - Foreign principles of Ethiopian government - Equality of citizens before law - What is equality? - The need to respect equality rights - Unfair gender division of labor - Language, religion and culture equality - Equal opportunity right - Equality a foundation for strong unity - The relationship between protection of citizenship rights and patriotism - Civil war
Sub category 4.3	Spirit of empathy and sympathy - Peaceful conflict resolution - Foreign principles of Ethiopia government - Civil war

Appendix I

Addis Ababa University

College of Education

Department of Curriculum and Teachers Professional Development Graduate Program

Interview guide for Ministry of Education (MoE)

1. Evaluative research conducted at different times by the ministry at all levels in general and primary education in particular didn't address issues related to balance and relevance of the curriculum. Don't you think that one major factor for achieving quality education is over looked or ignored?
2. Since regions have some autonomy in curriculum development originated from the decentralization policy, which body is responsible to evaluate balance and relevance of primary education curriculum?
3. Do you think that the "four pillars of education" set by UNESCO were considered during the formulation of the education and training policy of the country?
4. Don't you think that Ethiopia, as a member country of UN should adhere to the principles, standards, guiding opinions, etc. of UNESCO for their values added to achieve quality education?

Appendix I

Addis Ababa University

College of Education

Department of Curriculum and Teachers Professional Development

Graduate Program

Interview Guide for Institute for Curriculum Development and Research (ICDR)

1. Is there a practice of considering UNESCO's opinions, guiding principles and set standards, since UNESCO is an international leading agency for education, the sciences, culture and communication, in developing curriculum? if not why?
2. If there is the practice, are the "four pillars of education" incorporated in the primary education second cycle curriculum (more specifically the syllabi) in a balanced manner?
3. As stated in the education and training policy (1994) the profile of students who completed the first eight years of primary education seem tried to consider the "four pillars of education". However, they are not found in the text books in a balanced way. Why did this happen?
4. Don't you think that the unbalance of these "four pillars" especially in primary education second cycle curriculum will have a negative impact on the country's general aim of education? If you think so, what will be the impact?

Appendix K

Addis Ababa University

College of Education

Department of Curriculum and Teachers Professional Development

Graduate Program

Interview Guide for Addis Ababa City Government Education Bureau (AACGEB)

1. What body (MoE, ICDR or the Bureau) was responsible for the development of the existing primary education second cycle curriculum?
2. To what extent did decentralization policy in curriculum development implemented in the city government?
3. Do you think that the "Four Pillars of Education" set by UNESCO are taken under consideration during primary education second cycle text book preparation?
4. If so, are they included in the contents of each subject in a balanced way? If not, don't you think that disregarding them will have a negative impact on the quality of primary education

Declaration

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

Name Andualem Yibeltal
Signature: _____
Date: 04/07/09

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

Name Lemma Seteyn
Signature: _____
Date: 04/07/09