

BALANCE BETWEEN SOME SETS OF VARIABLES IN THE SECOND
CYCLE PRIMARY SCHOOL CURRICULUM OF AMHARA NATIONAL
REGIONAL STATE

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BY
ALEMAYEHU SEBERU

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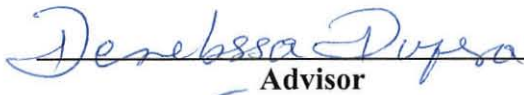
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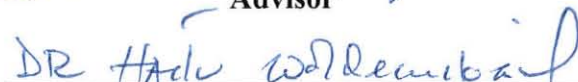
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ABSTRACT

The primary purpose of this study was to examine the balance between the three domains of objectives, breadth and depth of the curriculum, theoretical and practical exercises and the time balance among the subjects in the second cycle primary schools curriculum of Amhara Regional State.

For this purpose mainly a content analysis research method was used. In addition relevant information was collected from teachers. Data was collected from the syllabuses of the various subjects through coding sheets. Besides, a questionnaire was used to collect data from teachers. To this end, various statistical tools such as chi-square, percentage and correlation were used to analyze the data

The findings of the study revealed that there is time inadequacy in the science and social science subjects especially at the upper two grade levels vis-à-vis the amount of the content of the subjects although actually higher periods have been given to these subjects. On other hand, the time allocated for music and art tend to be more than adequate. The time allotted for the other subjects seems stable. There was also a wider gap among the three domain of objectives for the curriculum highly stresses on the cognitive domain and the extremely less emphasis given to the affective domain. The higher weight given to the lower level of objectives especially in the cognitive domain and to the expository type of teaching methods indicates that the curriculum focuses on breadth than depth. Furthermore, the curriculum tends to emphasize on theoretical than practical exercises. This is mainly observed in the science and social studies subjects. Generally, except in the time allocation there is similarity between the grade levels on the problems studied although some variation is seen within the subjects'.

At the end, based on the findings and conclusions drawn it is recommended to make some adjustment on the period allotment, to take measures to enhance more effective use of the existing school time, to restate the objectives stated in the syllabuses so as to accommodate the three domain and the different levels of objectives adequately, to highlight teaching methods that enable students to be engaged in an intelligent process of continual inquiry and discovery, and to add more practical exercises especially in the science subjects.

CHAPTER ONE

1 INTRODUCTION

1.1 Background of the problem

Any society has the responsibility to educate its children. To carryout this responsibility a plan is needed to guide all the activities that lead to its proper implementation. That is why a curriculum is one of the most important concerns educational endeavors. Here, the term curriculum can be generally referred as an intention or a plan that describes what, why and how happens in schools (Cuban, 1998:221).

In planning the curriculum it is very necessary to consider the time to be devoted for different areas. As Hawes (1979:75) said, the amount of time the students spend on and the arrangement of that time has the very greatest effect on the learning that is planned and provided for them. The amount of time allocated for different curriculum areas has a direct impact on the quality and quantity of learning.

On the other hand, schools work within limited time period. Their programs are divided into cycles, years, semester etc. and students can learn limited knowledge, skills and attitudes at each of these particular times. Therefore, it is very important to select content and learning experiences that can be taught in each particular time. This includes deciding what kind of knowledge, how much of it, with what emphasis should be provided by the school curriculum. Deciding what knowledge to include and what not to include is not an easy task.

Moreover, the rapid expansion of knowledge increases the demand of schools to teach students in various fields of knowledge. In line with this, Ernest (1993:84) has the following to say:

The continuous expansion of knowledge and technology has resulted in the inclusion of more subjects in the curriculum. Furthermore, emerging social needs, such as how to prevent drug abuse, teenage pregnancies, AIDS, war and violence have added more courses to an already crowded school Curriculum.

In this sense, there is much more knowledge worth knowing for students than that can be taught in the schools within the available time (Wiles and Bondi, 1989). Consequently, how to reconcile the push for more knowledge within the limited time is a major problem facing a modern curriculum developer. It requires selecting the most important curriculum experiences in balanced manner that can be treated adequately within the limited school time.

According to Clark and Starr (1986:14), a balanced curriculum is a curriculum made up of experiences from different subjects that meet the interest and needs of the learner and the needs of the society. It includes just enough of each kind of curriculum experiences to serve the students objectives and speed up their development (Shiundu and Omulando, 1992:121). In this case balanced curriculum help to develop all major areas of human competence. For this reason the three domains of objectives, needed for all round development of the learners are among which balance is sought.

As Wiles (1993: 324) stated, the issue of balance in the curriculum is not new. As he stated whenever individuals ask for a better emphasis or inclusion of a new subject in the curriculum the issue is always related with the question of balance in the curriculum. What area of knowledge to include and what not to include in the curriculum? Should priorities be given? Which area of knowledge to emphasize and which area of knowledge to de-emphasize? All these are questions of balance in the curriculum.

Ornestine and Hunkins (1998:191) contend, "Balance does not require a mid point". It depends on the relative weight given to different positions, values and views as bases for the selection of content and

learning experience. In this sense, balance in the curriculum does not mean giving equal weight for all curriculum areas but giving relative weight for each curriculum area in light of its importance to achieve the specified goals and objectives of the curriculum.

In support to this, Hawes (1979:3) said that it is very important to ensure that priorities are attained so as the non-priorities to receive less attention and support or be omitted totally from the curriculum. Therefore, to develop a balanced curriculum, the curriculum developer should decide what is important for children to learn and what is less important. However, merely listing subjects and major topics to be covered cannot eliminate the problem. It requires ensuring the adequacy of the composition of the curriculum from the different areas of knowledge and the relative emphasis given to them.

Due to this, maintaining balance between the various areas of knowledge that compete with others to be included in the curriculum has always been one of the major problems in curriculum design (Ranaweera, 1990:1). Distinguishing what is fundamental or basic knowledge for students is not an easy task for a curriculum planner. It requires weighting the potential contribution of each curriculum area for the overall development of the students.

In line with this, Wiles and Bondi (1989:170) stated, "The more fundamental a concept is the greater will be the breadth of application, for the concept is fundamental because it has broad and powerful applicability". This means in a balanced curriculum there could be areas with more emphasis and areas with less emphasis and other areas that may not be totally represented in the curriculum based on the goals and objectives of the curriculum. However, if one wants to include every bit of information in the curriculum, the students run the risk of being exposed to information that will have very little applicability outside the classroom. This can also hamper the balance between depth and breadth of learning. Such curriculum forces teachers to teach many discrete facts without going into depth.

For this reason, Hass and Parkay (1993:244) suggested that principles, generalizations and structures must become the center or core of the academic study while facts must become the variables, organized to develop understanding of the broader principles. Others reacting to the effects of the expansion of knowledge advice schools to redefine their objectives and narrow their curriculum accordingly so as to keep the balance of the curriculum.

In general, whatever the case is, securing balance in the curriculum should be one of the major areas of concern for both curriculum developers and implementers. Without securing balance in the curriculum it is difficult to achieve the goals and objectives of education.

With this understanding, it is very important to evaluate the balance of the current curriculum. Such studies help to reveal evidences on the prevailing problems of balance and based on the data secured to make an ongoing modification so as to make the curriculum to achieve what it intends to achieve.

According to the Education Sector Strategy (TGE, 1994:14) the current educational structure of the country is 8-2-2. The first eight years (grades 1 to 8) is subdivided into two cycles of basic (1-4) and general (5-8) education. The second cycle primary education (grades 5 to 8), which is the concern of this study, is to provide a graded general education in mathematics, language and the biological, physical and social sciences (TGE, 1994:15). Based on this, syllabuses of different subjects were developed and have been implemented consecutively in each year in each grade level starting from grade five in 1988E.C. By 1991 E.C. the 'new' curriculum covered the whole cycle under study. Thus, it is not early to study the current curriculum being used in the second cycle of primary schools. This study focuses on the balance between some sets of variables in the curriculum such as balance among the three domains of objectives, breadth and depth, theoretical and practical exercises and the time allocated for different subjects being taught in the second cycle primary schools of Amhara National Regional State.

1.2. Statement of the problem

A balanced curriculum contains appropriate type and amount of curriculum experiences that facilitate the overall development of the students. Therefore, it is necessary to select different curriculum experiences from the accumulated human knowledge with different emphasis to fulfill this purpose. This is because the curriculum cannot include areas that cannot be well treated or covered within the limited curriculum time.

Since there are no ready-made solutions that specify the amount of emphasis to be given to each curriculum area, there are various problems that schools come across in achieving balance in the curriculum. Regarding the balance of the curriculum no study has been made up to now except some points rose in relation to objectives of the curriculum by Abebe Bekele (1986) and ERGESE (1986) in relation to time allotment. According to ERGESE, the amount of time allocated for different subjects was not appropriate. Moreover, the previous curricula of Ethiopian schools have been accused of being theoretical and academic (TGE, 1994:2-3).

In addition to this, now day's students are being seen simply copying their textbook. The reason given by some teachers for this is that the time allocated for the subjects they teach is not adequate to cover all the topics specified in the textbooks and they order their students to copy the uncovered topics. Thus, it is very important to study these and other similar problems of balance in the curriculum.

To study this topic the primary school is selected on the assumption that primary school provides students the knowledge foundation. With this regard Russell (1965: 121) said that if the primary school fails to achieve its objectives, the resulting deficiencies could hardly be overcome. From the two cycles of the primary school the second cycle is chosen because in the first cycle students are being taught by self-contained method where there is an opportunity for the teacher to make some modification, at least in the time allocated for different subjects, as the teacher is teaching most of the subjects. Secondly, the second

cycle primary a school is the base upon which the secondary school is built in general education environment.

A balanced curriculum gives appropriate emphasis to the different components of the curriculum. The purpose of this study is, therefore, to find out the major problems encountered to achieve balance in the curriculum of the current second cycle primary school of Amhara National Regional State. The major objectives of this study are:

1. To find out the balance between breadth and depth of the curriculum.
2. To find out the balance between theoretical and practical exercises.
3. To find out the balance among the three domains of objectives.
4. To find out the time balance among the subjects being provided in the cycle.

With these objectives, the study tries to come up with possible answers for the following basic research questions.

- 1 What are the major problems of time balance among the subjects being provided in the second cycle primary school curriculum?
- 2 Is there a balance between:
 - 2.1 Cognitive, affective and psychomotor domain of objectives?
 - 2.2 Breadth and depth?
 - 2.3 Theoretical and practical exercises?
3. How do teachers perceive the adequacy of the time allotted to the subjects they teach to cover the contents?

1.3. Significance of the Study

A balanced curriculum plays a variety of roles in achieving the intended educational goals and in facilitating the overall development of students. Accordingly, it is hoped that this study will serve the following purposes.

1. The study may provide an up-to-date picture on the status of balance in the second cycle primary school curriculum.
2. The study may encourage other researchers to carry out similar studies that cover the curriculum of broader level of education.
3. The study may make teachers and principals conscious of the problem and may provide them clues how to secure balance in the curriculum and make instruction and school more effective.
4. The recommendations of the study may help educational officials, textbook writers and syllabus developers to take some measures to solve some problems of curriculum balance in the second cycle primary schools.
5. Since there is no study done on the balance of curriculum in Ethiopia, this study will help the compilation of information about the issue, which can serve as an initial source of knowledge in the country.

1.4. Delimitation of the Study

Balance in the curriculum can be analyzed between various curriculum dichotomies such as the balance between the needs of rural and urban people, student needs and societal needs (Shiundu and Omulando, 1992:121-122), national needs and global needs, education for unity and education for diversity

(Ranaweera, 1990: 14 -15), and balance between the immediate and the remote in both time and space (Oliva, 1997:449).

This study, however, limits itself mainly to the balance of curriculum in the second cycle primary school curriculum in relation to the balance between the three domains of objectives, depth and breadth, time allocation between different subjects and theoretical and practical exercises (Shiundu and Omulando, 1992:121-122, Clark & Starr, 1986:14, and Ranaweera, 1990: 14-15). The investigation into instructional aspect mainly focuses on the perception of teachers on the adequacy of the time allocated for the subject they teach so as to find if balance is secured between the time allocated for different subjects.

The scope of the study is limited to Amhara National Regional State with specific reference to the eight zones, which use Amharic as medium of instruction in the cycle. This is because the other three zones namely: Wag Hemra; Agew Awi and Oromiya zones use their respective local languages as medium of instruction and have different time allotment since they provide their local language as a subject in their respective areas in addition to the subjects being given in the other zones.

1.5. Limitation of the Study

The congruencies of the objectives stated in the syllabuses with the objectives stated in the policy are not analyzed for it requires more time and money than available and absence of general subject objectives for the cycle in the syllabuses.

Besides, in some subject syllabuses the teaching methods and exercises are not clearly stated and found very difficult to categorize them under each designated categories. This forced the researcher to refer the teacher guides of the subjects to find out what they implied to. This made the work very tedious and time consuming that would have been used for other research works.

Finally, the absence of research works in the area and related reading materials in Ethiopian context made the researcher to rely mainly on imported resources and unable to compare the results of the study with other similar studies. Despite all these, the researcher has made every effort to make the study as complete as possible.

1.6. Definition of Terms

Affective domain of objectives: objectives that deal with feelings and emotions such as attitudes, values, appreciation and interest (Seels and Glasgow, 1998: 57).

a) **Lower Level - Receiving and Responding:** refers to objectives that requires giving attention, differentiating the stimuli, merely complying expectations, willingly or voluntarily responding emotionally to a stimuli and being satisfied with the response (Adapted from Krathwohle (1974: 75-76)).

b) **Higher Level - Valuing organization, characterization by a value:** refers to holding consistent value, developing code of ethics, life policies and practices, viewing problems in terms of their aesthetic value, changing behavior in light of evidence and developing consistent philosophy of life (Adapted from Krathwohle (1974: 76)).

Balance between Some Sets of Variables: The balance among the time allocated for different subjects, the balance between breadth and depth, the balance between theoretical and practical exercises and the balance among cognitive affective and psychomotor domains of objectives.

Balance in the curriculum: The extent to which there is appropriate distribution of attention to the various elements in the curriculum (and its instruction) (adapted from Ranaweera, 1990:5-6)

Breadth: range of coverage.

Category: compartment with explicitly defined boundary in to which the content is grouped for analysis. It is used to differentiate and describe the content being investigated (Budd, Throp and Donohew, 1967: 39)

Coding Unit (Recording Unit): the smallest segment of content counted and scored in content analysis. It is the unit that being classified counted and processed (Budd, Throp and Donohew, 1967: 33).

Cognitive domains of objectives: objectives that emphasize the attainment, retention and development of knowledge and intellect (Sax, 1974: 56).

a) Lower Level- Knowledge and Comprehension: - refers to the objectives that require recall of facts, theories, concepts, terminology etc, understanding of ideas manifests in the student's ability to explain, interpret, illustrate or express the information presented (adapted from Gott and Duggan, 1995: 28).

b) Higher Level - Application, Analysis, Synthesis and Evaluation: refers to objectives that require relating knowledge and understanding to unfamiliar or novel situation, the ability of breaking down information in to its constituent parts, recognizing it so that a new structure emerges, to evaluate information in terms of its validity or underlying assumptions and consequences (Adapted from Gott and Duggan, 1995:28-29).

Curriculum Experience: both content and learning experience.

Curriculum Time: the time allocated for schools to cover a specified curriculum or subject.

Depth: level of complexity.

Objectives: Specific outcomes stated in the syllabuses that are expected to be accomplished by the learner as a result of learning a course or topic (adapted from Eisner, 1985: 109)

Practical Exercises: questions and student activities that provide the students with a direct experience that develops their skills and knowledge of techniques and procedures in performing and carrying out practical tasks.

Psychomotor domain of objectives: objectives that deal with muscular or motor skill, manipulation of materials or some act that requires a neuromuscular coordination (Brubaker, 1982: 20).

a) Lower Level: Perception, Set and Guided response: Objectives that range from the first level that is using sense organs to obtain cues that guide motor activity, readiness to take action to imitation or repeating what others have demonstrated (Adopted from Abebe, 1991: 201).

b) Higher Level - Mechanism, Complex overt response, Adaptation and Origination: Objectives at this level range doing things with some kind of confidence and proficiency, quick and accurate performance with out external aid to adapting and creating procedures and methods to fit new requirements (Adapted from Abebe, 1991: 201)).

Sampling Unit: the unit or part of the content that is taken as the final sample in the sampling process. It consists of the condign units.

Second Cycle Primary School: a primary school grades five to eight.

Syllabus: is a part of a curriculum that describes the objectives contents, assessment procedures and recommendations about teaching methods and resources to be used in teaching a particular subject (adapted from Marsh, 1992:51).

Theoretical Exercises: questions and student activities associated with recall of information and conceptual; understanding.

1.7 Organization of the Study

The research report consists of five chapters. The first chapter presents introduction about the study and its approach, the second contains a review of the related literature. The third chapter describes the research design and methodology, and the fourth chapter contains the presentation, and analysis of the data .The final chapter presents the summary, conclusion and recommendation of the study.

CHAPTER TWO

2. REVIEW OF THE RELATED LITERATURE

This chapter treats different topics related to the balance in the curriculum. It deals with the issue of balance in the curriculum, problems faced and methods used in securing balance. The need to secure balance among the three domains of objectives, between depth and breadth of learning, theoretical and practical exercises and time balance among different curricular areas are also discussed. Trends of emphasis in elementary school curriculum in different periods are also part of this chapter.

2.1 The Issue of Balance in the Curriculum

In designing a curriculum, curriculum developers face with various conflicting issues that require making visionary decisions. One of the major problems that should be considered in curriculum is attaining balance between the various subjects and activities that compete with others to be included in the limited curriculum space. Therefore, it is necessary for the curriculum developers to ensure the importance and appropriateness of the curriculum experiences to be included in the curriculum.

What is important for students to learn and what is less important? (Howes, 1979:7) What kind of education and how much of it to be given? What kind of citizens are we educating? Will they be highly sophisticated in the sciences but limited in the humanities and next to illiterate in the arts? (Prakken, 1995:36). What portion of the learner's time should be devoted to each subject selected? These questions are central to the issue of balance in the curriculum and need to be carefully examined and clearly answered.

Of course, as Woodering (1979:32) stated, these questions may divide people as different social groups appeal for a larger share of the curriculum and students' time. Although no possible answers are likely to please all of those who have taken sides in the debate, educators who take a broader view of their responsibilities must consider the effect of the various factors on the balance of the curriculum and the students overall development.

In line with this, Lewy (1977:51) has said that curriculum developers have to make decisions in answering these questions relying partly on the implication of the general educational aims and partly on systematic data they generate or collect. As to him, balanced curriculum means that the curriculum developers have weighted the importance they have given to each need without undue emphasis on any one need.

Some educators related the importance of curriculum balance with that of balanced diets' (Shindu and Omulando, 1992:120 and Day, 1993:90). According to them, as balanced diet is assumed to be good for human health, curriculum balance is a necessity for educational health. Dearden as cited by Lawton (1986:1), however, warns to use this analogy very carefully although it may be useful to express the importance of curriculum balance. The reason given by Dearden is that whereas the concept of a balanced diet is based on a well-established scientific data about its nutrients, there is no such agreement about the components of a balanced curriculum.

Accordingly, balance in the curriculum can be approached from different views. It depends on the emphasis one gives to different positions and values (Ornestein and Hunkins, 1998:191). "Our view of a balanced curriculum will be guided by our concept of the fundamental principles of education" (Shindu and Omulando, 1992:121). In this sense, different individuals who differ in their value system and philosophy dispositions can view balance in the curriculum differently.

Therefore, to decide whether the balance of the curriculum is obtained or not, it is very necessary to agree on the concepts and principles underlying to be used as criteria of curriculum balance prior to the decision or evaluation process is started. Based on this, the curriculum developers should identify what the students need to know before they take decisions on what the curriculum should contain. Thus, to secure the balance of the curriculum our decisions should be systematic, objective, and balanced in our views "... so as not to fall prey to particular drummer or popular tone" (Ornestein and Hunkins, 1998:191).

As stated in chapter one, there are various sets of variables in the curriculum among which balance is needed. Balance in the curriculum does not mean giving equal weight to each of these sets of variables. In connection to this Oliva (1997:447) asserted that curriculum balance does not follow the mathematical concept of balance as equilibrium. As to him, in balancing the curriculum one should not always seek to strike a fifty-fifty balance. "There are situations where a balance of one third / two thirds is acceptable" (Oliva, 1997:447). Thus, balance in the curriculum is relative. It is, therefore, a mistake to expect precision in the use of the term 'balance' in the context of curriculum as we may use it in mathematics.

To this end, achieving balance in the curriculum is a very difficult task. As Halverson as quoted by Oliva (1997:46) has noted, curriculum balance can never be fully attained, as schools are slow in adapting to new needs and demands. Therefore, the question of balance in the curriculum cannot be answered with dogmatic certainty but which must continue to be asked in each different context of time and place. In other words, curriculum balance is always a goal that requires continuous refinement.

2.1.1 Problems in Securing Balance in the Curriculum

To achieve balance in the curriculum it is necessary to select more appropriate curriculum experiences from the huge amount of knowledge accumulated throughout the history of mankind. It also requires deciding the relative weight to be given to each area vis-à-vis their contribution to accelerate the overall

development of the learners in particular and the society in general. Thus, in attempting to achieve such a balanced curriculum different problems can occur.

Wiles (1993:325) pointed out three problems that come across in securing balance in relation to individual differences of students. First, people perceive differently in terms of their purposes, needs and backgrounds. Due to this, a balanced curriculum for each individual student cannot be achieved by providing the same curriculum to all students. Second, people grow at different rates and mature at different ages. Most of the time curriculum is organized aiming around homogeneous age groups. However, due to differences in growth and maturation rate the curriculum could be ahead of time for some of the students whereas lagging behind to others. Third, learning rates differ. Since all students do not learn at the same rate, it will be difficult to secure balance in the curriculum by providing the same amount and type of curriculum experiences to all students who have different learning abilities.

In this sense, it seems hopeless to achieve balance in the curriculum without considering each individual student. Therefore, although it is very important to appreciate and seek possible solutions to these problems, it seems unrealistic to develop such a balanced curriculum that can address all these individual differences. Moreover, it may require developing the curriculum at the school level if not at the classroom level. Of course, other type of curriculum organization (other than subject centered curriculum) such as activity-centered curriculum where flexibility, and student and teacher planning is possible can better solve some of these problems.

In general, the problems raised by Wiles tell that the curriculum should provide some room to accommodate these individual differences of students. It advises to include alternative ways for learning based on the individual differences so as to assist the students to achieve the objectives of learning.

The other major problem in securing balance arises from choices of various curriculum areas and the relative emphasis to be given to each of them. One of the major issues here is that whether to emphasize natural science or social science subjects. As most people agree these fields of knowledge are essential source of content for elementary school curriculum. Elements drawn from these subjects can be provided at the primary school level to develop the students' knowledge about their social and natural environment.

As National Education Association (1963:109) stated, the development of science and technology in the modern world requires students to acquire knowledge in natural and physical sciences. They need knowledge to understand the natural world in which they live and the problems encountered to exploit it. Moreover, knowledge of these fields is very important for many occupations as well as for safe and healthful life.

On the other hand, as NEA(1963:110) put it, knowledge of the social sciences help students to understand the society's institutions, contemporary social trends and problems. These subjects help students to develop their national and international outlook, to understand their rights and responsibilities, to appreciate the culture and historical heritages of the different people.

In addition to this, mathematics and language subjects are very essential to develop the students' communication skills (Blenkin and Kelley, 1994:112-117). According to them, as these subjects are important to develop the students understanding and thinking skill they can be used as prerequisite for other subjects.

Moreover, aesthetic subjects such as physical education, art and music are very important to develop the students' mental and physical health. "Without the ability to react with aesthetic ... students life will be limited to natural world. Aesthetic appreciation is as basic to the humanness of man as are intelligence and physical well-being" (NEA, 1963:111). Thus, these subjects should be part of the curriculum.

Another aspect to be considered is a proper balance between areas of academic nature and experiences related to the world of work. This calls for the inclusion of curricular areas directed to productive work. Such subjects help students to develop basic practical and saleable skills that lead them to productive world of work (Ranaweera, 1990:12).

Similarly, as has been discussed before, academic subjects like natural sciences, social sciences, mathematics and languages are also very essential. Therefore, it is very important to strike balance among all these subjects. Curriculum that includes little or none of these subjects restricts students' opportunities to learn about these important areas of knowledge. Here, the problem is how to strike balance among all these fields so as to gear education for personal, social, economic and intellectual development of the students.

Other problems of balance in the curriculum are discussed broadly as separate major topics next to the following sub-topic.

2.1.2. Some Methods Used to Attain Balance in the Curriculum

To secure balance in the curriculum different methods have been used. In this regard Wiles (1993:324-325) pointed out five methods applied by different schools. As he said, some schools attempt to secure balance in the curriculum by assigning scholars to develop a curriculum by contacting all students so as to select the curriculum experiences that all students should know. Other schools seek balance by dividing the school day among different curricular areas based on their assumption about desirable balance in amounts of time to be provided for different areas. Some other schools attempt to attain balance by assigning special teacher in addition to the regular teacher to teach subjects that cannot be taught well by the regular teacher.

Wiles further stated that some schools try to obtain balance using self-contained method. Here, the assumption is that the teacher knows all the students and follows their activities based on some criteria by which the teacher keeps the balance. The fifth method used by other schools is assigning supervisors to guide teachers to keep balance in their teaching. In this method, the supervisor uses a guideline by which he/she can tell whether balance is kept or not.

In general, in all these methods with the exception of the first one in which balance is decided by designing a curriculum in advance, the attempt to secure balance is made in the process of teaching. Thus achieving balance does not end in the process of curriculum development but should be continuously sought in its implementation at the classroom level as well.

In addition to the above methods, there are certain guidelines that can help to develop balanced curriculum. Among others, curriculum objectives are the most significant criteria for developing a balanced curriculum. In line with this, Trieger (1963:19) contends that curricular objectives should provide the first guidelines for determining the curriculum experiences to be included in the curriculum and their relative emphasis to be given. To choose among curricular alternatives, the curriculum developer must know the objectives they are seeking for and use them as a bases to make their choices (Hass and Parkay, 1993:7). Otherwise, their selection will be little more than random.

Therefore, curriculum balance must lead to the attainment of the objectives of the curriculum (NEA, 1963:105 and, Clark and Starr (1986:14). Thus, the priorities in the curriculum must be in congruence with the priorities among the objectives in the curriculum. To this end, maintaining curriculum balance is part of the continuous process of decision-making concerning what to emphasize and what to de-emphasize in the curriculum that have been started in stating the objectives of the curriculum (NEA, 1963:105).

Curriculum objectives can then be used to define the need for various courses, activities, and experiences to be included in the curriculum. However, it should be clear that all objectives would not automatically lead to achieve balance in the curriculum. The objectives themselves need to be valid and balanced as well. As Hass and Parkay (1993:7) stated, curricular objectives should be determined through consideration of various factors such as the demands of the society, the characteristics of students and potential contribution of the different fields of studies. Objectives that do not consider these factors are not likely to help to achieve balance in the curriculum.

In addition to objectives, economy can also be used as criteria to select curriculum experiences in a balanced manner. Scheffler as cited by Hunkins (1993:330) said, "Content selected should be such that the learner can attain maximum self-sufficiency in most economical manner". Scheffler pointed out three types of economy that should be considered in selecting appropriate curriculum experiences. These are economy in terms of student's efforts, teaching efforts, educational resources and comprehensiveness of the subject matter. From this one can infer that in selecting curriculum experiences care should be taken not to waste the time, effort and resources of the student and the teachers unnecessarily. Therefore, it is important to select those curriculum experiences that can help to achieve multiple objectives so as to make the curriculum to be more effective and efficient.

Similarly, Hunkins (1993:330) advises curriculum developers to select curriculum experiences in light of their significance, validity, learnability, feasibility and student interest. As to him, in selecting curriculum experiences it is necessary to ensure its essentiality, authenticity, appropriateness to the student to which the curriculum is designed for and its feasibility to be taught in the time allocated using the available resources and teachers.

In general all these criteria are helpful to select proper curriculum experiences and courses that can lead to a balanced curriculum. Curriculum experiences selected without such considerations become amorphous and create confusion and wastage of resources. Thus our curricular decisions should be based on the objective condition rather than deciding subjectively if we are to achieve balance in the curriculum and thereby to bring balanced development from the part of the learner.

To this end, one should know that all the stated methods and guidelines might not solve all the problems of achieving balance in the curriculum. Since there is no one precise way to achieve balance in the curriculum, the curriculum developer must apply the methods and guidelines that fit to the objective condition under which the curriculum operates. Moreover, continuous collections of data concerning the students' achievement and revising the curriculum when the students' progress is not satisfactory are essential to make the curriculum more balanced.

2. 2. Balance Among the Three Domains of Objectives

Determination of objectives is one of the primary tasks of curriculum developers. Marler cited by Madaus and Kellaghan (1996:128) pointed out that although there is a considerable agreement that education should generally aim at bringing desirable changes, there is no agreement on which behavior should be changed. This necessarily creates a variation among different curricula on the objectives they intend to accomplish and the courses that the students will go through and the relative emphasis to be given to different areas in the curriculum. Therefore, the balance of any curriculum can be said appropriate or inappropriate by evaluating the objectives of the curriculum in light of various factors.

Oliva (1997:343) listed down the following helpful guidelines to analyze objectives stated in curricular materials. Thus, objectives should be: (1) related to the already specified curriculum goals and

objectives;(2) specified for three domains of learning; the cognitive, affective and psychomotor domain, and (3) identified at both low and high levels of learning with greater emphasis on the higher. These points are very important to evaluate the balance of the curriculum. They can be used to observe if appropriate emphasis is given to each domain of objectives and whether balance is kept between lower and higher levels of objectives.

In developing a balanced curriculum, deciding upon the outcome being sought is not enough. As Anderson, Ball and Murphy (1981:417) advise, it is equally necessary to determine which type of learning outcome ought to come first, which should receive major instructional emphasis or only a minor effort. Because of this the domain of objectives become one of the curricular areas among which balance should be sought

Several educators attempted to classify educational objectives. Among them the classification made by Bloom and his associates in the name "Taxonomy of Educational Objectives" is the first and the most acceptable (Hogben, 1972:42, Mazengia 1982:6, Derebssa et al.1999: 83 and Sax, 1974:56). Bloom and his associates first classify learning objectives in to three general objectives: cognitive domain, affective domain and psychomotor domain by identifying the nature of learning and mental processing. It is a systematic classification based on what kind of capabilities the learner acquires as a result of learning.

The categorizing of educational objectives into domains does not necessarily imply that the domains are completely independent of each other (Sax, 1974:56). This is to say that a given expected student behavior may involve more than one of these domains although may not equally. Thus, classifying educational objectives into three domains is not necessarily to compartmentalize learning but to identify which type of learning is emphasized. Therefore, "When we classify a learning outcome as being in one of the three domains, we do so on the basis of its primary focus and intent" (Seels and Glasgow, 1980:60).

This means what aspect of the learning behavior is largely emphasized in a given objective determines in which domain the behavior should be categorized.

To sum up, analyzing and categorizing educational objectives helps to identify and measure the relative emphasis given to each of the domains and thereby to observe if reasonable balance among them is achieved. In other words, the question is whether the curriculum is primarily focus on the cognitive, affective or psychomotor domain or appropriately covers each of the domains in a balanced manner.

2.2.1. Taxonomy of the Cognitive Domain of Objectives

As to Derebssa et al. (1999:83), "The cognitive domain represents the intellectual components of mental life and is certainly the most basic". Several attempts have been made to categorize this type of domain. Of all these attempts, according to Oliva (1997:348) , the Bloom classification of the cognitive domain is most popular and widely followed.

In line with this, Derebssa et al. (1999:83) said that Bloom's classification of the cognitive domain provide "easily understandable guidelines for systematic evaluation covering the whole range of cognitive process". This is to say that it comprises all cognitive learning behaviors ranging from lower order learning to higher order learning. Moreover, they stated that the Bloom's taxonomy of cognitive objective focuses on process rather than content and guides to decide appropriate balance between higher and lower level learning. Furthermore, Sax (1974:64) asserted that the Bloom's taxonomy could be applied for different fields of study. For this reason this study will focus on this classification.

Bloom and his associates' classified cognitive objectives into six main categories organized in hierarchical order. These are Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation. The organizing principle used for this domain is "complexity" that is each category is assumed to involve

behavior more complex and abstract than the previous category (Anderson, Ball, and Murphy, 1981:417). The descriptions of these six categories are given in appendix B.

2.2.2.Taxonomy of the Affective Domain of Objectives

Several authors stress the importance of affective learning as one major focus of education. Among these, Rowntree (1988:46) has said, curriculum and teachers should not be concerned merely in what the student can do after the end of the course but more importantly with what the learner will do in the long run. "It is the affective element that turns 'can do' capabilities into 'will do' dispositions". This means education should not only focuses to equip the students with knowledge and skills but also to develop a firm conviction on the importance of what they are learning.

Regarding this Evert Reimes as quoted by Rowntree (1988:46) said that developing affective behavior helps to make education long lasting by making students to be interested and committed to their learning. According to him, the less emphasis given to the affective learning is one of the major causes for failure to achieve the goal of education. In support of this, Jarolimek (1971:283) said that the way one feels about the problem considerably determines how one perceives and being involved in it.

In addition to this, there are other authors that give greater importance to the affective part of learning. For example, Kelley (1974:86) said, "... how a person feels is more important than what he knows. This seems true because what one feels controls behavior, while what one knows does not. It is possible to be a saint or a demon with similar knowledge". This is to say that the way one uses his/her knowledge depends upon the positive or negative feelings of the individual. However, it cannot be denied that any person must have first some knowledge about the object or phenomenon in order to feel about it.

What most writers agree is that the curriculum should not be concerned only on skill and cognitive type of learning but should also help students to develop appropriate affective behavior that facilitates and

strengthen their learning. To this end, as there is no better way of changing learners affective behavior than through relevant curricular experiences, developing affective behavior should be part and parcel of the learning at any educational level.

Krathwohl with his associates categorize the affective domain of objectives into five hierarchical levels. These are Receiving, Responding, Valuing, Organization and Characterization by a value or value complex. As Anderson, Ball and Murphy (1981:419) pointed out the organizing principle for this classification is 'internalization' or how fully and deeply an emotion, attitude, or appreciation has become 'part' of a person. The definitions of these categories are presented in brief in appendix B.

2.2.3.Taxonomy of the Psychomotor Domain of objectives

As the psychomotor objectives are concerned with the development of students' skills that help them to be involved in productive work, any curriculum should include adequate objectives of this type. As to Derebssa et al. (1999:91), these types of learning outcomes are very necessary for survival and independence as they contribute significantly for the individual physical and mental health to be maintained. Therefore, these types of learning should be part and parcel of the curriculum to make the curriculum comprehensive and balanced which comprises all types of learning through which all rounded personality can be developed.

Several taxonomies have been developed for the psychomotor domains. Among these, Elizabeth Jane Simpson had developed a hierarchical taxonomy of these objectives based on the principle of neuromuscular coordination (Oliva, 1997:351). These are Perception, Set, Guided response, Mechanism, Complex overt response, Adaptation and Origination. The definition of each of these categories is presented in appendix.

2.2.4 The Implication of Taxonomy of Objectives to the Balance of the Curriculum

The classification of educational objectives helps curriculum developers to make appropriate mix of learning outcomes for bringing about desired behavior changes from the part of the learner. When curriculum is developed it requires including objectives from the three domains of objectives in a balanced manner. This helps to integrate thinking, feeling and acting in the learning process (Brubaker, 1982:28). Therefore, curriculum developers should consider and use this classification not to unnecessarily overemphasize one type of domain to the neglect of other domain of objectives if the balance of the curriculum is to be secured.

Another way of classifying objectives is in terms of their level of complexity. Within each of the three domains of objectives we can identify high and low level of objectives. Both of these high and low levels of objectives have their own importance in learning. Although they are less significant than those higher levels, low-level objectives are the building blocks for the development of learning (Myers and Myers, 1995:419). As to them, people cannot learn if they do not know at least some of them. For example, to evaluate a situation the student must have some knowledge about it. Thus, to meet objectives at the higher level it requires attaining first some objectives at lower levels. This holds true for all the three domains.

The educational implication of the classification of educational objectives among various levels is, therefore, to give due emphasis to both high and low levels, with greatest emphasis given to the higher levels (Oliva, 1997:347). According to him the higher levels of learning are more substantive, complex and important than the lower levels.

In general, the taxonomy of the domains and category of the level of objectives assist to evaluate whether adequate attention has been paid to all domains and levels of learning; in other words, whether a

satisfactory balance among the different types and levels of objectives has been established. Finally it is argued that the curriculum that gives much emphasis on lower level objectives leads to shallow learning and focus on breadth of study while the curriculum that places greater emphasis on higher order objectives leads to profound learning and focus on depth of study.

2.3. Balance between Breadth and Depth of The curriculum

The question of balance between breadth and depth refers how much to cover and how much to go deep into the main concepts of the curricular areas included in the curriculum. Should the curriculum focus on limited areas and teach them in depth or focus on broad many different areas and teach some of them without going into depth? This is one of the fundamental questions of balance in the curriculum, which need sound judgment of the curriculum developers.

In answering this question, it is necessary to ensure if the curriculum contains appropriate curriculum experiences that match with the ability of the students and the time allocated to cover the curriculum. In other words, the curriculum should contain the right number and type of courses that provide the student with profound as well as appropriate blend of knowledge, skills and attitudes. Newmann(1993:478) has noted that a curriculum that focuses on depth of study gives students an opportunity to go deep and dig the main concepts of limited subjects whereas a curriculum that focuses on breadth provide students with an opportunity to grasp many different facts from various subjects without going into depth.

As Newman (1993; 479) indicated, most of the time teachers attempt to cover various topics as much as possible without going into depth. This exposes students to broad surveys of the subjects and to countless facts and skills. Thus, the course tends to cover wide varieties of contents that give students with little time to develop only superficial shallow understanding of the course. As he further stated, as the teachers have no time to explain, they will be forced to go hurriedly without fully understood by the

students so as not to leave topics uncovered. In connection with this, Mitchel (1972; 136) has noted that the broad content coverage forces teachers to use high degree of verbal explanation ignoring the students' initiative in the learning situations.

Newmann (1993:479-480) identified various problems caused by the emphasis given to breadth. First, the focus on breadth assumes human beings are able to master everything worth knowing. In contrary, the knowledge explosion of the time created a huge amount of knowledge worth knowing that cannot be mastered with human potential. Therefore, what the curriculum developers should do is to select valuable comprehensive sample of curriculum experiences from this huge amount of knowledge.

Second, survey coverage wastes the learning time without significant gain in learning. As the curriculum is heavily overloaded on teaching bits of information, the learned contents cannot be transferred to new situation and as a result they easily be forgotten. Failing to teach knowledge of long lasting value, therefore, tends to motivate students to develop "the habit of mindlessness" and block students' efforts to explore knowledge beyond what they have learned in the classroom (Newmann, 1993:480). As he said, the race for coverage make students to stop asking questions instead "they passively allow teachers and textbooks to pour material into their heads" that may not be used in their life except in some brief occasions or in exercises and tests. Thus, addiction to coverage gives little opportunity to the students to develop profound understanding and spent the time without significant benefit.

In general, depth of learning is preferable as principle in developing a curriculum so as to facilitate valuable retention and transfer of learning (Triege, 1963:38, Planix as cited in Ornestein and Hunkins, 1998:153). It is better to focus on limited major ideas of some courses rather than a mass survey and mere acquaintance with variety of subjects.

However, it should be borne in mind that to get rich understanding there is a need for students to acquire reasonable amount and variety of information that enable them to raise new questions that lead them to further inquiry. Rich understanding can be achieved by mastery of considerable amount of information. What is said is that the curriculum should not be simply a mass of facts to push into students' brains. Efforts should be made to select most important curriculum experiences that develop the inquisitive mindedness of the students. As Myers and Myers (1995:416) clearly put it, although there are trillions of facts to be taught and learned, some of them are more important than others, and some are more useful to the learners' rich understanding. Thus the problem can be partly solved by selecting such useful experiences that develops students' thoughtfulness and enable them to cope up with the problem of knowledge explosion of the time.

Newmann (1993:480-481) listed some major obstacles to achieve depth. These are: the pressure on schools to prove their effectiveness through students' scores on examinations that gives emphasis on coverage over depth; lack of curriculum guides and textbooks suitable for in-depth teaching and learning; and the orientation of students who have been rewarded for isolated tasks that require the memory of countless bits of information.

In this fashion, the curriculum contains discrete bits of experiences organized into variety of separate subjects and the curriculum time will be divided into small chunks among the subjects. This in turn impedes the continuous sustained intensive study of the courses and the topics included in the curriculum.

Jarolimek (1971:285) and Newmann (1993:481-483) suggested the following that can serve as guidelines to what to include in the curriculum and keep the balance between breadth and depth: (1) identifying curriculum experiences useful to develop concepts, principles or generalizations,(2) identifying curriculum experiences suitable to develop skills and method of inquiry for further learning;(3)identifying experiences

prerequisite to understand the important ideas that follow; and(4) ensuring the adequacy of the time allowed to teach all the selected topics and courses.

Although these may indicate on which the curriculum should be based in selecting curricular areas, these criteria alone cannot solve all the question of the balance between depth and breadth. In addition to this measures should be taken to minimize the negative effect of the method of student evaluation and assessment, and the method of teaching on depth of learning. Moreover, it is necessary to change the attitudes of students, teachers and others towards in-depth teaching and learning.

2. 3.1 Impacts of Teaching Methods on Depth and Breadth of Learning

As has been discussed before, due to the rapid rate at which knowledge is expanding any curriculum can hope to teach only a part of some subjects. Therefore, it is necessary to develop the students' ability to learn further by equipping them the necessary fundamental knowledge and skills. Thus, in addition to the attention given to different levels of objectives attention should also be given to the method of teaching and mode of learning through which the objectives are realized.

Wiles and Bondi (1989:169) said that a good curriculum includes appropriate and balance of teaching strategies that pave the avenues for different levels of learning. This would necessitate that a wider range of models of teaching and learning should be recommended in the curriculum that give the students with the opportunity to achieve both low and high levels of learning with greater emphases on the later.

As Rowntree (1988:7) stated, " Educational program is now seen to revolve not around the teacher teaching but about the learner learning". This implies that the method of teaching should be changed from the emphasis on teachers teaching to the students' learning. This requires the active involvement of the students in the learning process.

Bruner as cited by Myers and Myers (1995:421) suggested that students should be taught key concepts, fundamental principles or generalizations and methods of inquiry of the subjects instead of acquisition of a collection of basic facts and incidental information. These areas of focus for teaching will enhance greater student understanding, encourage students inquiry into issues and solve problems independently, enable them to transfer what they have learnt to new situations and to develop the ability to learn how to learn.

As these are high orders of learning that require in-depth teaching, the question is how to teach and what methods of teaching are appropriate to realize this aim. Bruner as cited by Myers and Myers (1995:422) argued that students should be engaged in situations in which they can use the fundamental ideas to find meaning in the data they studied. As he further stated, students who are taught in this way can learn relatively complex concepts and to be involved in the process of investigation.

Borich (1988: 139) classified learning outcomes into two. The first group consists of lower level of objectives such as facts, rules and action sequences. The second group represents behaviors at the higher level of learning, which includes concepts, patterns, and abstractions. According to Borich, there are two methods of teaching that are commonly used to teach these two distinct types of learning outcomes. As to him, for the first group of outcome teaching methods such as explanation, lecture, question and answer method, and rote repetition are used. In these methods the students learn to memorize right answers connected to facts as explained by the teachers that can be practiced in some limited context.

This method of teaching that Borich calls it direct instruction is synonymous with expository or didactic teaching (Borich, 1988:143). It is primarily teacher-centered strategy in which the teacher is the major provider of information. In this model the teacher's role is to pass directly facts, rules and correcting student errors. Here, the students' role is minimal.

However, the degree and complexity of learning is usually directly related to the extent the student is actively engaged in the learning process. Therefore, the active involvement of the students in their learning is the most important ingredients for high-level mastery of learning (Borich, 1988:146). Such teaching method what Borich calls it indirect instruction needs strategies to present complex materials involving objectives at higher levels such as analysis, synthesis and evaluation. These learning outcomes are most often associated with the teaching methods such as inquiry, problem solving or discovery learning (Borich, 1988:163).

These all indicate that the teaching methods grouped under direct instruction are more appropriate for acquisition of large amount of information and facts and leads to breadth of learning. On the other hand, the teaching methods grouped under indirect instruction are used to teach high order learning and lead to depth of learning. Hence, it is possible to evaluate the relative emphasis given in the curriculum to depth and breadth of learning by analyzing the teaching methods proposed in the different subject syllabuses. To this end, curriculum developers in addition to selecting objectives at various levels of complexity must also pay attention to the type and modes of teaching and learning so as to keep the balance between breadth and depth.

2.4. Time Balance among Various Curricular Areas

One of the major indicators of the emphasis given to various curricular areas in the process of identifying the balance of the curriculum is analyzing the time allocated to each curricular area. The time allotted for different subject of the curriculum is the first determinant of students' curricular exposure (Goodlad, 1984:131). Data on this issue provide a picture of how time is distributed among the curricular subjects and thus some insight into the nature of students' curricula exposure and its approximation of balance. Therefore, one way to infer what curriculum developers and other educational officials believe students

should learn and the relative emphasis given to each area is to examine the amount of time allocated to various subjects in the curriculum because the amount of time allotted reflects the relative importance of the objectives to be met through the subjects and activities selected.

In this sense, curriculum developers should think not only what subjects to include in the curriculums but also what balance to accord among them, which is primarily decided by the time allocation (Hawes, 1979:76). Since the time allocated to different curricular areas determine among others the quality and quantity of learning, the degree of time balance achieved in turn determines the students' opportunity to experience all round education that facilitates their overall development.

There are various factors that affect or determine the amount of time to be devoted for different subjects. The first is the number and the length of school days. (Goodlad 1984:96). According to Lokheed and Vespoor (1991:58-59) the international standard school year is 180 days with a total of 880 hours of instructional time. However, this could vary according the level of the economy of the countries, that is, higher in the developed countries and lower in the less developed countries. Therefore, schools that operate in higher annual school days and longer instructional hour can allocate higher amount of time for different subjects than schools work with shorter time.

The other factor that affects the amount of time to be devoted to various subjects is the number of subjects included in the curriculum (Smith, Stanley and Shores 1957: 197). Therefore, the more subjects included in the curriculum the less time will be available for each of the subjects. The third factor that determines the amount of time to be allotted for a certain subject is the perceived relative importance of the subject in relation to the whole curriculum. This in turn determines how many years of the total educational program to be given to that subject and how many times each week to be taught.

Therefore, subjects that considered as highly important will be sustained year after year or given in the whole cycle or school level and given higher periods allotment while the subjects considered as less important will be provided in one or two years and less amount of periods. Between these two extremes there could be subjects that are given in the whole cycle or school level but with low amount of period allotment. The following table indicates how time is allocated for different subjects in different countries of the world.

Table 2.1 Time Devoted to Major Curricular Areas in Primary Schools in Ninety Countries (in %)

Subject	Low income countries	Lower Middle income countries	Upper-Middle income countries	High income countries
Language	37	34	36	34
Mathematics	18	17	18	19
Science	7	9	8	6
Social studies	8	10	9	9
Moral Education	5	6	4	5
Music and Art	9	8	11	13
Physical Education	7	6	7	9
Hygiene	1	2	2	1
Vocational subjects	6	7	3	1
Others	3	3	2	3

Source: Lokheed and Vespoor (1991:45)

Although the total amount of instructional time varies according to the level of economic development of the country, the proportion or the relative emphasis given to the subjects at the primary school level is similar across the countries except slight differences in limited areas. As the table indicted, about 35 percent of the school time is devoted to language teaching and 18 percent to mathematics. On the other

hand, science, music and arts, and social studies are given almost equal emphasis; about half of that of mathematics and a quarter of that of language.

As Lokheed and Vespoor (1991:45) stated, vocational subjects are more common and receive relatively higher time allocation in elementary school curriculum in the developing than the developed countries although the time allotted is very low. The other major difference between the developed and developing countries in the allocation of instructional time is also reflected in language teaching. As Lokheed and Vespoor (1991:45) pointed out, although all countries spend about 35 percent the total teaching time to language teaching, more commonly the less developed countries divide this time to local, national and foreign language teaching whereas the developed countries focus on teaching a single national language. Thus, multiple language teaching in developing countries decreases the emphasis given to each language and thereby decreases the rate of literacy learning.

To sum up, the amount of time allocated for each subject should be adequate to master it. In addition to this, the important subjects should receive adequate attention. A curriculum that provide scant opportunity for students to experience the important subjects while giving generous allocation for other less important subjects seriously affect the quality of students' learning. Such imbalances reflect a lack of systematic and sound judgment in allocating time among the subjects of the curriculum.

2.5. The Need to Secure Balance between Theoretical and Practical Exercises

Active student involvement in the learning process is essential for effective learning. One of the ways of involving students in active learning is creating a situation in which the students can practice what they have learnt. As Naylor (1989:3) clearly put it, "Passive learning may suit some learners some of the time, but it is ineffective for many learners for much of the time". Thus, if one desires to bring about quality learning through methods that invite students to apply what they have learnt into some how tangible result,

practical learning is more effective. This method helps to make students to be fully engaged in their learning and to share part of the learning responsibility to the students themselves.

In connection with this Reid (1971:187) said, "Students who practice learn more than students who are motivated but do not practice, and both groups learn more than pupils who just watch and listen". This emphasizes the role of practice in students' learning. In addition to this, Clark and Starr (1986:216) pointed out that practical activities contribute to develop high rate of retention, to make learning more automatic and to develop desirable work habits. Therefore, it can be said that practice encourages students to employ more of their senses and thereby maximize their ways of learning. It provides the learners with an opportunity to transfer learning to new practical situation.

In general, students should be given the opportunity to be engaged in practical work in which a variety of practical skills can be developed. For this purpose, homework, class works, assignments, project works and student activities can play a major role. They can also be used as one way of extending students learning time.

To this end, the function of practical exercises can be distinguished from that of theoretical exercises is that practical exercise calls for some kind of performance on the part of the student as opposed to retrieving acquired information. Theoretical exercises mostly make the student to be a passive learner in which the student expected to give answers from the information he/she accumulated in her/his learning. Practical exercises, on the other hand, involve interaction between the student and the practice situation where the students produce some kind of material or product using their knowledge and skills. They require more than just knowing, that is, doing with some degree of proficiency (Myers and Myers 1995: 428).

It is, therefore, highly desirable to create balance between theoretical and practical exercises in the curriculum that can integrate theory with practice. Thus, the role of practical activities and exercises in providing students with firsthand experiences in the acquisition and application of knowledge and skills should not be ignored. Mere theoretical exercises accompanied by presentation and explanations tend to become meaningless and wasteful unless supported by some practical learning.

2.6. Trends of Curricular Emphasis since the Introduction of Modern Education in Ethiopia.

This topic focuses on the trends of emphasis in primary schools' curriculum since the introduction of modern education in Ethiopia. The educational development of this time is divided into five periods based on the change of governments that brought some changes on the curriculum.

2.6.1. Period I (1908-1935)

Modern western type of secular education in Ethiopia started at the beginning of the 20th century (1908) with the establishment of Menelik II School in Addis Ababa (Tekeste, 1990:1, Marew, 2000:100, Maaza, 1966:56). The main areas of study provided in the school were French, English, Italian and Arabic (Tekeste, 1990:1). As to Abebe (1991:55) Geez, Amharic, sport and gymnastic were also given in the school. This indicates that the school was mainly engaged in teaching foreign language. This was continued for a long time. For this reason Tekeste (1990:1) said, "Menelik II School resemble a language institute rather than a proper school".

According to Tekeste (1990:1), the emphasis given to language teaching in the Menelik II School reduced the opposition of the Ethiopian Orthodox Church as the church convinced that the courses given in the school would not threat its teachings. In addition to this, the teachers were mainly Egyptian Copts whose faith agrees with the beliefs of the church.

Although it helps to allay the fears of the church, the major reason to the focus of teaching foreign languages was that knowledge of foreign language was perceived as crucial to be able to communicate with the outside world and to maintain the sovereignty and independence of the country (Tekeste, 1990:1). Moreover, Marew (2000:104) gave comprehensive reasons why a western type curriculum was introduced in the country. According to Marew, Menelik was interested in: understanding the then prevailing international political order; modernizing and building Ethiopia; and training interpreters for international communication. These reasons seem the major ones, as there was a demand for manpower that would serve in the various government organizations that were established in that period.

In 1925 Regent Tefferi Mekonnen opened the second government school. The courses in this school were French, Arabic, mathematics, chemistry, history, geography, gymnastics and sports and Amharic (Teshome, 1979:34). Abebe (1991:60) added English as one of the subjects given in the school. As to Abebe all these subjects were given in the school although the main focus was teaching French. Thus, like Menelik II School, this school was also engaged primarily in foreign language teaching.

After 1930 government schools expanded considerably. In 1931 Menen School was opened for girls (Maaza, 1960:59). The subjects studied in this school included science, mathematics, drawing, home management and physical training. Students in Menelik II, Menen and Tefferi Mekonnen School had to take French Legation for the French Certificate for the completion of primary school (Teshome, 1977:40 and Marew 2000:106). Following this various primary schools were opened in different parts of the country. As Marew (2000:105) stated, these schools had no uniform curriculum as their respective founders that had little communication with the higher authorities directly influenced them. As the result there was a variation in the subjects provided in the schools.

Generally, in this period (1908-1935) mainly foreign teachers and principals staffed primary schools. The schools were primarily engaged in teaching foreign languages and their curriculum was extremely foreign influenced. The method of student evaluation was also foreign in nature.

2.6.2 Period II (1936 -1941)

The Italian Occupation (1935- 1941) disturbed the education system that had just started to emerge in the country. As Tekeste (1990:3) stated, most of the schools in the country were either closed down or were used for military activities. The few schools that were run by the Italians had very different aims. As Teshome(1977:48) indicated, the Italian curriculum was designed to Italianize Ethiopians, to train soldiers for their colonial aims and to create manual laborers. Accordingly, the schools were engaged in teaching respect for authority, obedience and discipline in line with the Italians values, ideals and colonial rule. They were used to indoctrinate their view and make the Ethiopian people to accept their inferiority.

The curriculum was consisted of Italian, Arabic, physical training, health education, arts and crafts, agriculture, arithmetic, penmanship, geography, morals, and the study of local and religious languages (Abebe, 1991:66). The contents of the curriculum were mainly about Italian Empire, its leaders, its colonies, ancient Rome and etc (Teshome, 1977:51). The mediums of instruction were Italian, Amharic and Tigrigna for Christians, and Italian and Arabic for the Muslims (Abebe 1991:665). Although it had pedagogical advantages, as Abebe stated the introduction of local language as medium of instruction and the instructional language differentiation between Muslims and Christians made by the Italians were aimed to create hostility among the people of different ethnic and religious groups. To sum up, the educational policy of the Italians was designed to weaken the country and to facilitate their colonial rule and exploit the resources of the country.

2.6.3. Period III (1942 – 1974)

Period III (1942 – 1974

After the end of the Italian Occupation, the Ethiopian government started to lay the educational foundation, which was disrupted seriously by the Italians. Although the major purpose of education at the beginning of this period was to meet the manpower needs of the country, the contents of the curriculum was not tailored to characteristic of the students and basic wishes of the people (Maaza, 1966:75). As she said, the first task of the schools was to make student proficient in English. Moreover, there was a great variation among the primary schools in the subject they provided and the period allotment for each subject. In relation to this Tekeste (1990:4) has said, "Teaching at the elementary (1- 4) and in the intermediate grades (5-8) was virtually left up to the teachers". This indicates that in this period there was no definite curriculum and schedule for the primary school.

To over come this problem, an attempt was made to unify curricular offerings. Therefore, the first primary school curriculum for grades 1 to 6 was published in 1947. Though largely foreigners, some Ethiopians had participated in developing this curriculum (Marew, 2000:100). This curriculum consisted of Amharic, English, science, art, geography, history, arithmetic, music, handcraft and physical education (Abebe, 1991:75). They further stated that in this curriculum it was recommended that Amharic to be used as instructional language for grades one and two to be replaced by English from grade three on wards. As to them, the first curriculum helped to unify the curricular offerings of the different schools and enabled students to transfer from one school to another and from region to region based on the established standards.

According to Abebe (1991:76) in the second curriculum (1948) the primary school level was extended to cover grades 7 and 8 by changing the educational structure 6-6 to 8-4. Following this, elementary school curriculum for grade 7 and 8 was issued in 1949. This curriculum like the previous curricula was also academically oriented and based on foreign experiences unrelated to the needs of Ethiopian students (Abebe, 1991:76 and Teshome, 1977:12).

Therefore, to make the curriculum related to the cultural, social and environmental condition of the country, a Long Term Planning Committee was appointed in 1953 (Maaza, 1966:108, Tekeste 1990:6). As a result in 1961, a new curriculum known as the 'Third Curriculum' or the 'Experimental Curriculum' with a new educational structure

6-2-3 was proposed to be implemented in the whole country (Abebe 1991:81). However, the proposal was not accepted. Instead, a new educational structure 6-2-4 began to be implemented by changing the 8-4 structure of the second curriculum that was in operation in all schools of the country. As he added, at this period (1963-64) Amharic became a medium of instruction for primary schools grades 1 to 6 for the first time.

Table – 2.2 Subjects and Period Allotment in the 1963/64 Primary School Curriculum

Subjects	Grades and Period Allotment					
	1	2	3	4	5	6
Amharic	5-8	5-8	5	5	5	5
English	10 min. daily	10 min. daily	5	5	5	5
Arithmetic	5	5	5	5	5	5
Social Studies	-	1	3-4	3-4	4	4
Natural Science	-	-	3-4	4	6	6
Morals	1	2	1	1	2	2
Health and Safety	15 min. daily	15 min. daily	1-2	1-2	1	1
Music	15 min. daily	15 min. daily	1	1	1	1
Agriculture	2	2	1	1	1	1
Art and Craft	5	5	2-3	2-3	1	1
Home Making	-	-	2-3	2-3	1	1
Physical tra. & Games	5	5	3-4	3-4	2-3	2-3
Total	28-31	29-32	28-32	33-38	34-35	34-35

Source: Marew Zewdie (2000:117)

As the above table indicates, at the elementary level Amharic and mathematics were the most emphasized subjects. English and natural science were given almost equal emphasis to the above subjects starting from grade 3 on wards. These subjects were not given at grades 1 and 2 although English was taught for only 10 minutes daily. On the other hand, arts and crafts, and physical training and games were given higher periods equal to mathematics at the first two grades but decreases towards the higher grades. Agriculture was also given for two periods in grades 1 and 2 but for only 1 period from grade 3 to 6. The unique characteristic of this curriculum was that some subjects such as English, music, health and safety subjects were given for less than one full period.

In general, in spite of all the attempts made, the curriculum of primary schools of this period was highly foreign influenced, alien to Ethiopian context and predominantly academic and theoretical. One of the significant gains was making Amharic as medium of instruction in the primary schools so as to solve the language barrier to learning at least for Amharic speaking areas. Moreover, the attempt made to change the curriculum from predominantly focused on language teaching to different academic and vocational subjects was significant in securing the balance of the curriculum.

From 1970 on wards the dissatisfaction of the people over the education of the country became a major issue. Accordingly, the government decided to review the overall educational system of the country. Therefore, Education Sector Review was set up in 1971 to analyze the education thoroughly and thereby to recommend ways of improvements and to identify areas of priority so as to gear education to the overall development of the country (Teshome, 1977: and Abebe, 1991:90-91).

As Tekeste (1990:8) pointed out, the major work of the Education Sector Review was to gear the education of the country to the rural people, which was 90% of the total population of the country.

However, as he said due to some procedural problems and opposition especially from the urban people the recommendations were neither tried out nor implemented. There after, the Government of Emperor Haile Selassie's was overthrown in 1974 and replaced by Military Government. Thus all the educational problems identified by the Education Sector Review remained unsolved.

2.6.4. Period IV (1975 – 1991)

The military government issued different policies and proclamations at different times that guide the school curriculum. Based on these, the three "slogan-like" educational aims, namely, education for production, education for scientific research, education for production with some improvements became the major guideline for the selection of curricular areas (Abebe, 1991:98)

Therefore, to achieve these aims of education five major areas of education were identified: Intellectual, Ideological/Moral, Vocational and Technical, Cultural and Physical Education (MOE as cited by Abebe, 1991:98-99). Under these major areas there were different subjects. The following table shows the subjects and their period alltment.

Table 2.3. Subject Offered and Period allotment in the General Education Program.

No	Subjects	Grades and Period Allotment							
		1	2	3	4	5	6	7	8
1	Amharic	10	10	7	4	4	4	4	4
2	English	-	-	4	5	5	5	4	4
3	Mathematics	6	6	5	5	5	5	4	4
4	Social Stud. and Poli. Educ.	1	1	2	3	3	3	-	-
5	History	-	-	-	-	-	-	2	2
6	Geography	-	-	-	-	-	-	2	2
7	Science	2	2	2	3	3	3	4	4
8	Agriculture	1	1	1	2	2	2	2	2
9	Pr. Technology	-	-	-	-	-	-	2	2
10	Home Economics	1	1	1	2	2	2	1	1
11	Commerce	-	-	-	-	-	-	1	1
12	Political Education	-	-	-	-	-	-	1	1
13	Physical Education	3	3	2	2	2	2	1	1
14	Art	2	2	2	2	1	1	1	1
15	Music	2	2	2	1	1	1	1	1
16	Handicraft	2	2	2	2	2	2	-	-
Total		30	30	30	30	30	30	30	30

Source: Marew Zewdie (2000:126)

As table 3 indicates, Amharic was the most emphasized subject in grades 1 to 3 although it decreases from grade 4 on wards to four periods a week. English was given starting from grade 3. Mathematics was among the subjects with higher period allotment. Vocational subjects such as agriculture home economics and handicraft were part of this curriculum although their time allocation was minimal. Productive

technology and commerce were also given in grades 7 and 8. At the junior level, English, mathematics and Amharic had equal number of periods, each four periods a week. The most significant feature of this curriculum was that large numbers of separate subjects were included in the curriculum especially in grades 7 and 8.

Regarding to the curriculum of this period, the study made by ERGESE (1986:14-15) pointed out the following problems which seems relevant to this study (1) Subject objectives stress more on factual knowledge;(2) subject contents were above the students' ability and did not correspond with the objectives;(3) the time allocated for different subjects were not adequate to cover the subjects in the academic year; and (4) the lecture and question and answer were the most dominant teaching methods.

As it is indicated, this curriculum focused mainly on breadth of learning where there were large number of separate subjects, the objectives emphasized on factual knowledge and the lecture was the dominant teaching method. Moreover, the high amount of contents included in the curriculum did not enable teachers to cover the curriculum in the periods allocated. Based on this, it is possible to conclude that in this curriculum there was a problem of balance between objectives and contents, time balance, balance between higher and lower levels of learning outcomes and thereby a serious problem of balance between breadth and depth of learning.

In 1981 the government prepared a new educational program known as the General Polytechnic Education Program for grades 1 to 8. As Marew (2000:128-29) pointed out, this program had the following aims:(1) to create material and technical basis for building socialism; (2) to develop all round personality of students;(3) to relate learning to every day life and theory to practice; and (4) to over come the educational discrimination of the rural people. To realize these aims various curricular areas were identified. The following table shows the subjects and the distribution of time among the subjects.

Table 2.4 Number of Periods Per Subject in General Polytechnic Education (1988-89)

Subjects	Grades And period Allocation							
	1	2	3	4	5	6	7	8
Amharic	8	8	8	6	5	4	3	3
English	-	-	4	5	4	4	4	4
Mathematics	6	6	6	5	5	5	4	4
Environmental Science	3	3	3	-	-	-	-	-
Hand craft	2	2	2	2	2	-	-	-
Agriculture	-	-	2	2	2	-	-	-
Polytechnic	-	-	-	-	-	-	2	2
Home Economics	-	-	-	-	-	-	2	2
History	-	-	-	1	2	2	1	2
Geography	-	-	-	1	2	2	2	2
Political Education	-	-	-	1	1	1	1	1
Biology	-	-	-	2	2	2	2	2
Physics	-	-	-	-	-	2	2	2
Chemistry	-	-	-	-	-	-	2	2
Physical Education	3	3	2	2	2	2	1	1
Music	1	1	1	1	1	1	1	1
Art	1	1	1	1	1	1	-	-
Total	24	24	29	29	29	26	27	28

Source: Abebe Bekele (1991:101)

As table 2.4 indicates, Amharic, mathematics, physical education and music were given starting from grade 1 up to grade 8. Amharic and mathematics were the most emphasized subjects. Environmental science, which was given from grade 1 to 3, was replaced by history, geography, political education and biology from grade 4 on wards. Moreover, physics was given as separate subject starting from grade 6 and chemistry in grades 7 and 8. Although the name of this educational program is called polytechnic,

vocational and technical subjects such as agriculture, home economics, handicraft and polytechnic subjects received very less attention as compared to language and mathematics subjects. Finally, unlike all the other curricula the total number of periods in the polytechnic educational program was below thirty periods a week in all grade levels.

In 1990, while the polytechnic education program was in trial, the government declared a mixed economic policy. Following this, the program was abandoned and political education was replaced by civic education in the general education program (Marew, 2000:131). Finally, in 1991 the military government was overthrown and replaced by the present government.

Period V Curriculum Emphasis in the Current Second Cycle Primary Schools (1991 to Date)

The Transitional Government of Ethiopia, which came to power after the fall of the Military Government, formulated an Educational and Training Policy to improve the relevance and quality of education of the country. According to this policy (TGE, 1994:14) the primary education increased from 6 years to 8 years and divided into two cycles. The first cycle (grades 1 to 4) is to provide basic education whereas the second cycle (grades 5 to 8), the main focus of this study, is to provide general education.

According to MOE (2000:5) and Marew (2000: 135) the objectives of the second cycle primary education are:

1. To provide appropriate general education to prepare students for further learning;
- 2 To train students on basic and vocational skills so as to prepare them for productive work.

For this purpose, seven major curricular areas are identified. These include languages, mathematics, natural science, social studies, health and physical education, music and art. The following table shows the subjects and time allocation for each of the subjects.

Table 2.5 Time allocations in the current Second Cycle Primary School Curriculum

Area		Subject	Grades and Period Allotment			
1	Language		5	6	7	8
1	Language	Mother tongue	3	3	3	3
		English	5	5	6	6
		National Language	4	4	5	5
2	Mathematics	Mathematics	5	5	5	5
3	Natural Science	Integrated Science	5	5	-	-
		Physics	-	-	3	3
		Chemistry	-	-	3	3
		Biology	-	-	3	3
4	Social Studies	Social Studies	4	4	4	4
5	Aesthetic Education	Physical Education	3	3	3	3
		Music	3	3	-	-
		Art	3	3	-	-
Total			35	35	35	35

Source: Marew Zewdie (2000:137)

In this curriculum the number of subjects decreased to 9 subjects for each grade level as compared with the previous curricula that had more than ten subjects. This enables to allocate relatively higher periods for each of the subjects. For instance, there is no any subject with the time allocation below three periods a week. The main feature of this curriculum is that local language can be used as instructional language and taught as separate subject. Due to the inclusion of local language as separate subject, language teaching become the most emphasized curricular area. Moreover, the emphasis given to natural science subjects especially at the higher grades is increased to 9 periods a week where chemistry, physics and biology are taught as separate subjects.

Another important point to note is that unlike the previous curricula vocational and technical subjects are almost totally excluded from the curriculum. This increases the time allotted for the other subjects. There could be also a slight variation in the period allotment among the different regions of the country. For example, in Addis Ababa and Amhara regions where the local and national language is the same the period allotted for local language may be added to other subjects. Finally, as table five indicates the total period in a week is 35 assuming the schools are working in a full day program in one shift system which may not be true for most of the second cycle primary schools. Thus, if the contents of the various subjects are prepared in this way, there will be a problem in the time balance of the curriculum.

In general the main characteristics of the current second cycle primary school curriculum are the higher emphasis given to science subjects and the total exclusion of vocational and technical subjects. In this regard, this curriculum differs from that of the low income and lower middle-income countries' curriculum as well as the previous curricula of the country.

CHAPTER THREE

3 RESEARCH DESIGN AND METHODOLOGY

3.1 Research Method

The method of this study is the descriptive research method. This method is more appropriate to gather several kinds of data related to the problem under study (Anderson, 1990). Under this method content analysis and descriptive survey methods were employed.

The content analysis method was used to analyze the balance among the three domains of objectives, the balance between depth and breadth through the levels of the objectives and the teaching methods proposed in the syllabuses, the balance between theoretical and practical exercises and the time balance among the subjects included in the curriculum.

On the other hand, the descriptive survey method was used mainly to find out the teachers' perception on the adequacy of the period allocated for the subject they teach, in other words, whether the period allocated for each subject is adequate to cover the contents specified in the textbooks. In addition to this, this method enabled the researcher to collect data how the teachers utilize the time allocated for the subject they teach.

3.2 Data Source

The data sources of the study were of two types. The first data sources were syllabuses of the different subjects of the second cycle primary schools curriculum of the region. The main reason for selecting syllabuses as the main data sources is because in Ethiopian context syllabuses represent the curriculum where subject objectives, teaching methods, exercises and time allotment are stated. The second sources of data were teachers who were teaching different subjects in the second cycle primary schools.

3.3 Sampling Technique

The universe of the study was the second cycle primary schools syllabuses and teachers in Amhara National Regional State. Therefore, two types of sampling technique were used. First, to examine the balance between the three domains of objectives, breadth and depth, and theoretical and practical exercises of the curriculum it was necessary to evaluate the syllabuses of the different subjects being given in the cycle.

There are eight subjects being taught in each grade level. This means there are a total of thirty-two syllabuses to be evaluated. However, it is too voluminous and time consuming to examine all these syllabuses. To minimize this problem, therefore, multi-stage sampling was used. Thus, from the four grade levels of the cycle two grade levels were selected randomly and all the syllabuses of the subjects being given in the sample grade levels were included in the sampling. Finally, to make it more manageable fifty percent of the total chapters of each sample syllabuses were selected randomly as the final unit of sample. Therefore, all the odd numbered chapter of the sample syllabuses were included in the sample population.

This method was used to take the advantage of considering any data related to the characteristics of each subject and produce more efficient sampling than simple random sampling that might not represent each of the subjects being taught in the cycle. In other words, both subjects and grade levels were sampled to ensure an equitable distribution of both.

This method helps to minimize sampling errors that might occur within the grade levels and among the subjects. This implies each subject was included in the sample and it enabled to collect relevant data that represent the whole curriculum. Moreover, the method enabled to identify the problems and strengths reflected in each subject based on the research problem.

Table 3.1 Distributions of Sample Chapters With Regard to Subjects and Grade Levels

Subject	Grade Level	Total Chapters	Samples Chapters
Amharic	6	15	8
	8	30	15
English	6	16	8
	8	26	13
Mathematics	6	6	3
	8	7	4
Science	6	10	5
Biology	8	6	3
Chemistry	8	5	3
Physics	8	6	3
Social Studies	6	7	4
	8	8	4
Music	6	6	3
Art	6	8	4
Physical Ed.	6	6	3
	8	4	2
Total		166	85

Secondly, to collect data from teachers cluster sampling method was employed. From the total eight administrative zones that use Amharic as medium of instruction in the second cycle primary schools three zones were selected randomly. Then, two weredas were selected from each sample zones randomly. Finally, two second cycle primary schools were selected from each sample weredas and the questionnaires were distributed to all the teachers in the sampled schools. The schools where the questionnaire distributed were the following.

Zone	Wereda	Name of the School
South Wollo	Dessie	Kidame Gebeya
		Memhir Adalewold
	Tehuledese	Haik
		Slula
North Wollo	Woldia	Etege Taitu
		Woldia
	Meket	Filakit
		Geregera
South Gondar	Lay Gaint	Nefas Mewcha
		Gobgob
	Debretabor	Gafat
		Dagmawi Tewodros

A total of 210 questionnaires were distributed among the teachers of which 196 were filled and returned. From these eight questionnaires were found incomplete and excluded from the study. The remaining 188 questionnaires were used as source of data for the study.

3.4 Data collection Instrument

To obtain adequate information for the study, two types of data collection tools were employed. These were: -

a) Coding sheet

b) Questionnaire

a) Coding Sheet: Four types of coding sheets were prepared and used to analyze the sampled syllabuses. The objectives, class works and home works and the teaching methods stated in the syllabuses were analyzed using the coding sheet according to the designated categories. All of these served as a unit of analysis or coding unit of the study.

Firstly, to examine the balance among the three domains of objectives (Cognitive, Affective and Psychomotor) all the objectives stated in the sample chapters of the syllabuses were analyzed using Bloom's and his associates' classification of educational objectives.

Secondly, to examine the balance between depth and breadth of the curriculum the objectives stated in the sample chapters of the syllabuses were categorized into different levels. For this purpose, the hierarchical taxonomy of the cognitive domain developed by Bloom and his associates, the taxonomy of affective domain developed by Krathwohl and his associates and the taxonomy of the psychomotor domain developed by Simpson were used. In addition to these, one category was added under the heading "not clear" for the objectives not clearly stated. Because attempting to fit such objectives into the categories where they do not rightly belong injects error into the findings. In content analysis such category is acceptable but they should account for only a small proportion of all the contents being analyzed (Budd, Throp and Donohew, 1967:44).

Although all the objectives in the sample syllabuses were coded using the above models, for the purpose of analysis the researcher decided to modify each of the above models by combining the categories into only two levels of objectives to suit the purpose of the study. As Budd, Throp and Donohew (1967:44) clearly stated in content analysis "excessive fractionation that is more categories than needed to answer the questions may affect the study". In addition to this, Nachmias and Nachmias (1987:353) advise that one should keep coding schemes as simple as possible to increase the reliability of the coding. As Budd,

Throp and Donohew (1967:44) stated in content analysis method combining categories after coding can be done although it is not possible to divide a category after coding. Therefore, to increase the reliability of the study and reduce the possible complication of the analysis this modified simpler scheme was preferred to yield the data wanted in addition to the first one.

In this procedure, the classification of the taxonomy of the cognitive domain developed by Bloom and his associates were combined into two levels; lower level and higher level based on the division given by Welton and Mallan (1992:243) Borich (1988:140) and Gott and Duggan (1995:28) with slight modifications. Here, the main assumption is that lower level objectives lead to lower level of learning and imply breadth of the curriculum whereas higher-level objectives lead to higher level of learning and thereby imply depth of the curriculum.

The distinction between lower and higher level cognitive objectives is that the former require recalling and low level of understanding with one context whereas the later one require understanding to other contexts or to identify relationship between phenomena or judging its value. Objectives written at this level require the learner to use the previously it was learned.

Thus, the classification is made based on the amount of mental input required from the learner. Lower level cognitive objectives require the learner to memorize or comprehend the learned material more or less as it is presented. Here, the learner is largely passive recipient of information. On the other hand, higher-level cognitive objectives require the student to apply the learned material into new unlearned situation and judge its value in some kind of criteria. Therefore, the level of mental input required from the student in the learning process is higher.

To facilitate the categorization of the objectives within the above framework, the researcher included a table consisting of three columns in addition to the definitions given for each levels of objectives (refer to

appendix - C). The second column consists of key words that are used to state different levels of cognitive objectives as given by Metesfessel, Micheal and Kirsner (1974, 82-84). In the third column general terms relative to different subject matters properties are given as stated by the above writers.

The coders need to consult the table so as to identify and categorize the objectives precisely. Use of the table leads to substantial gain in the clarity and speed with which the coder can categorize the objectives into the corresponding levels. Therefore, the key words and direct objects included in the table are useful in operationalizing the levels of the objectives.

Similarly the levels of the affective domain objectives developed by Krathwohl and his associates were combined into two levels; lower and higher of affective objectives. The distinction between these two levels is that at the lower level the learner differentiate the affective stimuli and begun to seek them out and to attach emotional significance (Krathwohl, 1974:76) .On the other hand, at the higher level the learner holds a value and act accordingly or follow it strongly and become committed to it. At this stage the learner's involvement, commitment and reliance on his /her self as to what to feel is very high as opposed to having one's feelings, attitudes and values dictated by outside source Based on this, to facilitate the coding processes a table similar to that of cognitive objectives were also used (refer to appendix - D).

The levels of the psychomotor domain of objectives were also grouped into two levels like the cognitive and affective domain of objectives. The distinction between the two levels is that at the lower level the learner is dependent on what he/she see or observe while at the higher level the learner do things independently with out external help with some degree of proficiency and accuracy. At this stage the learner even goes modifying the learned methods so as to improve the effectiveness and efficiency of doing things or create his /her own original material or object. Like the cognitive and affective domain of objectives a similar table was included to enhance the coding process (refer to appendix - E)

The second indicator used to evaluate the balance between depth and breadth of the curriculum was the teaching methods proposed in the syllabuses. For this purpose the various types of teaching methods suggested in the syllabuses were categorized in a continuum that extends from lecture and explanation to project and inquiry of content and to achieve many lower level objectives. These types of teaching methods tend to focus on breadth of learning. On the other hand, the second continuum is more suitable to teach limited amount of content in-depth and to achieve higher order of objectives.

Finally, to examine the balance between theoretical and practical exercises the exercises and student activities stated in the syllabuses were categorized based on the definitions given in chapter one of this study for each category.

b) Questionnaire: A questionnaire was prepared and its Amharic version was used to obtain information from second cycle primary school teachers. Amharic was used to avoid language problems in understanding questions and to give chance to the respondents to write their responses in the language they know better.

3.5 Procedure

To make the coding reliable, the following steps were followed. First, to test the usability of the categories two coders and the researcher discussed and agreed up on the rules governing the coding process and the classification of the categories and their implications. For the pilot test two non-sampled subject syllabuses were selected to find out how far the categories are reliable to collect the data wanted. A coefficient of agreement test using 80 percent agreement level was employed since 50 percent agreement can be sufficient to be reliable if the number of coders are more than two (Amare, 1998:8). After coding each chapter discussions were held with the coders. Based on the results obtained from the pilot test and

discussions with the coders the coding sheet, the categories and their definitions were improved and modified.

Finally, after explanations on the categories, definition of terms and coding procedure one individual and the researcher himself using the final version of the coding sheets made the actual coding independently. In the process of coding each syllabus, the reliability was being checked by test-retest method and their correlation was calculated using Pearson's product-moment method and some measures were being taken to keep the agreed level of agreement.

In this process the level of agreement reached 90 percent in the categories of domain of objectives, teaching methods and theoretical and practical exercises. The categories of the levels of objectives, which remained at 80 percent agreement level, increased to 90 percent agreement level by combining the levels of the objectives of each domain into only two levels.

In addition to the coding sheets, the questionnaire also was pilot tested. Fifty questionnaires were distributed among teachers in two non-sampled second cycle primary schools in North Showa Administrative Zone. Depending the responses given five questions were modified or restated. Two questions were found irrelevant to the study and were canceled. Finally, the improved version of the questionnaire was administered in the sample schools.

3.6 Method of Data Analysis

Depending on the nature of the research questions and the data collected, different statistical techniques were employed. These include frequency count, percentage, rank order, chi-square and correlation to describe and draw inferences from the data collected through the questionnaire and content analysis. Finally, the implications of the results were discussed.

CHAPTER FOUR

4. PRESENTATIONS AND ANALYSIS OF DATA

In this chapter the data collected through content analysis and questionnaire are presented and analyzed and their implications are discussed. This includes the time balance among the subjects, the balance between the three domains of objectives, the levels of the objectives, the teaching methods suggested and the balance between theoretical and practical exercises.

4.1 The Time Balance Among the Subjects of the Curriculum.

The national time schedule for implementing the second cycle primary school curriculum has been illustrated in chapter two page 41. Irrespective of this some subjects such as science in grades five and six are given less periods and additional local language other than Amharic is not being given yet in the area under study. Thus, the researcher collected data on the actual allocation of time to the various subjects of the curriculum to check and find how the time allocation is changed in the actual teaching.

The periods have been converted to percentages of time allocated for each subject so that comparison among the subjects can be made.

Table 4.1 Actual Period Allotment for Different Subjects

Subject	Grade and Time Allotment							
	5		6		7		8	
	N $\underline{0}$	%	N $\underline{0}$	%	N $\underline{0}$	%	N $\underline{0}$	%
Amharic	3	10.00	3	10.00	3	10.00	3	10.00
English	5	16.67	5	16.67	6	20.00	6	20.00
Mathematics	5	16.67	5	16.67	5	16.67	5	16.67
Science	4	13.33	4	13.33	-	-	-	-
Biology	-	-	-	-	3	10.00	3	10.00
Physics	-	-	-	-	3	10.00	3	10.00
Chemistry	-	-	-	-	3	10.00	3	10.00
S. Studies	4	13.33	4	13.33	4	13.33	4	13.33
Physical Ed.	3	10.00	3	10.00	3	10.00	3	10.00
Music	3	10.00	3	10.00	-	-	-	-
Art	3	10.00	3	10.00	-	-	-	-
Total	30	100.0	30	100.0	30	100.0	30	100.00

As the table above shows the basic difference between the actual time schedule and the national schedule is that in the actual schedule the total number of periods reduced by five periods per week from the national schedule. However, as the national language and the mother tongue language in the area under study is the same, the reduction of the period does not change much the time allotted for the other subjects. Because from the five periods reduced in the actual schedule the four periods are compensated from the time that would have been devoted for additional local language. Thus, there is only one period to be reduced from the other subjects in grades five and six.

As it was observed in the field, most of the second cycle primary schools in the region operate in a double shift system. Therefore, it is not possible to teach more than thirty periods in a week and this forces to reduce the time allocated for science subject in grades five and six by one period per week. On the other hand, as it is indicated in the national schedule if additional nation or nationality language is going to be added in the curriculum, the time allocated for most of the subjects will be reduced and this will seriously affect the time balance of the whole curriculum.

The absence of additional nation or nationality language as a subject from the actual curriculum reduced the concentration of time on language teaching from thirty-four percent to twenty seven in grades five and six, and from forty percent to thirty percent in grades seven and eight from the planned curriculum. In another words, the actual curriculum allocates about twenty eight percent for language teaching as compared to thirty percent in the planned national curriculum.

Furthermore, the actual curriculum delivered in the region considerably deviates in its time allocation for the two subjects; language and mathematics from the planned national curriculum that allocate fifty-one percent of the curriculum time for these subjects. As indicated in table 2.1 despite slight differences, the curriculum time in primary schools in most countries characterized by allocation about fifty percent of time to these two basic subjects usually in the ratio of one third to language and one fifth to mathematics. As Lokheed and Vespoor (1991:45) stated this pattern had been a global constant irrespective of region, political economy or state of development. Thus, the time allocated for these two subjects in the national curriculum is common worldwide.

But what is new in the planned national second cycle primary school curriculum is that like other developing nations, the time allocated for language teaching is divided among three different

language subjects and thereby there is less time available for each of the language subjects as compared to the developed countries which mostly teach only one national language. Therefore, the curriculum under study slightly differs in its time allocation for these two basic subjects from the national and international trend. In addition to this, the time allocated for language teaching is divided between two languages that is one national language and one foreign language unlike the developing countries and the national curriculum that comprises three language subjects. It also differs from the curriculum of developed countries that consists of only one language subject.

Nevertheless, the time allotments in both actual and planned curriculum reflect similar curriculum priorities - priorities that may lead to divide the curriculum into two. Accordingly, based on the amount of time allotted for different fields of study it can be postulated that in the second cycle primary school there are two curricula; curriculum I which includes basic subjects such as language, mathematics, social and natural science subjects which are given large amount of time and higher priority and curriculum II which includes the non-basic subjects such as art, music and physical education which are given low amount of time and less priority as compared to the above ones.

In general, the time allocated for the basic subjects in the current second cycle primary school curriculum revealed a great continuity of the previous curriculum practices. As the review of the related literature indicates (refer to table 2.2 and 2.3) there is no significant difference between the current second cycle primary school curriculum and the 1963/64 curriculum and the General Education Program with respect to the time allocated for these major subjects. If anything new in the current curriculum, there is significant broadening of the curriculum with more time being given

to science subjects especially in grades seven and eight as compared to the 1963/64 curriculum and General Educational program from about 13 percent to 30 percent. The extra time found have been mainly taken from vocational subjects such as home economics, agriculture, productive technology, commerce and hand craft which were given in the previous curricula but excluded from the current curriculum of the same grade levels.

The exclusion of vocational subjects from the current curriculum enabled to allocate more time for science subjects which are being taught as separate subjects in grades seven and eight with a total of nine periods per week in each of these grades. Thus, the current second cycle primary school curriculum differs from the previous curricula which were intended to develop both academic and, vocational and technical knowledge though with less emphasis on the later one. This makes the current curriculum that is devoid of vocational and technical subjects different from the low-income and middle-income countries primary school curriculum, which allocate six to seven percent of the total curriculum time to these subjects.

Moreover, although the curriculum never left art and music subjects, these subjects are being excluded from the curriculum in grades seven and eight in order to fit the science subjects into the time available. Therefore it can be said that the current curriculum gives more emphasis to science subjects than any individual subject especially at the later grades, which amounted thirty percent of the total curriculum time. This is equal to the time allocated for both language subjects at these grade levels. Moreover, the time balance between science and social science subjects becomes weak at the later grades of the cycle, as the time allocated for the former is more than the two folds of the later.

In general, the high emphasis given to science subject does not contradict with the intention of the curriculum. As the Education Sector Strategy states (TGE, 1994:15) high emphasis would be given to sciences subjects. Therefore, due to the high emphasis given to these subjects one cannot conclude that there is time imbalance among the subjects of the curriculum as the emphasis given coincides with the intention of the curriculum.

In addition to the above, an item was included in the questionnaire to collect information from teachers to see how far the time allocated for the different subjects is adequate to cover the contents specified in the curriculum and to observe if there is a time imbalance among the subjects. Based on this, it is possible to trace the impact of the time allocation for the various subjects on the total time balance of the curriculum. This enables to examine in much more detailed way whether reasonable time is allocated to teach adequately all the subjects included in the curriculum. Therefore, the teachers were asked whether the time allocated for the subject they teach is adequate, not adequate or more than adequate to cover the subjects on time. The data are presented here under in table 4.2.

Table 4.2 Teachers Perception on the Adequacy of the Time Allocated for the Subject They Teach (in number and percent)

Subject	Grade Level	Not Adequate		Adequate		More than Adequate		Total
		No	%	No	%	No	%	No
Amharic	5	3	25	9	75	-	-	12
	6	3	38	5	62	-	-	8
	7	3	33	6	67	-	-	9
	8	3	33	6	67	-	-	9
English	5	7	47	8	53	-	-	15
	6	6	50	6	50	-	-	12
	7	7	47	8	53	-	-	15
	8	4	36	6	55	1	9	11
Mathematics	5	5	36	9	64	-	-	14
	6	2	25	6	75	-	-	8
	7	5	42	7	58	-	-	12
	8	4	40	6	60	-	-	10
Science	5	1	9	10	91	-	-	11
	6	2	18	9	82	-	-	11
Biology	7	9	100	-	-	-	-	9
	8	8	80	2	20	-	-	10
Chemistry	7	6	75	2	25	-	-	8
	8	8	80	2	20	-	-	10
Physics	7	6	75	2	25	-	-	8
	8	7	78	2	22	-	-	9
Social Studies	5	5	42	7	58	-	-	12
	6	8	67	4	33	-	-	12
	7	8	73	3	27	-	-	11
	8	8	89	1	11	-	-	9
Physical Education	5	1	17	4	66	1	17	6
	6	1	14	6	86	-	-	7
	7	1	14	5	72	1	14	7
	8	2	34	4	66	-	-	6
Music	5	-	-	2	25	6	75	8
	6	-	-	2	25	6	75	8
Art	5	-	-	2	33	4	67	6
	6	1	14	1	14	5	72	7
Total		134	43.23	152	49.03	24	7.74	310*

***NB.** The total number of teachers exceeds from the sample population due to some teachers teach more than one subject or grade level.

From table 4.2 above it can be seen that most of the grades five and six teachers perceived almost all the core subjects such as Amharic, English, science, mathematics and social studies to have had adequate time given to them. As table 4.1 have shown, most of the curriculum time has actually been given to these subjects. From these subjects of the same grade levels grade six social studies is the only subject, which most of the teachers (67 percent) said the time allocated is not adequate to cover the contents specified in

the curriculum. Of course, the problem is more serious in the next two grade levels as reported by the teachers of the subject. Seventy-three and eighty nine percent of grade seven and eight social studies teachers respectively reported that the time allocated for the subject is not adequate.

Despite this, the actual time allocated for grades five and six social studies is equal to that of science subject of the same grade level. Therefore, the problem might be caused by the high amount contents and topics included in the social studies subjects. Although the way the teachers utilize the time allocated for each subject has a significant impact on the adequacy of the time, it seems unlikely to expect social studies teachers to differ from science teachers in this regard as they have similar training and qualifications.

The other major problem reported by teachers on the adequacy of the time allocated is reflected in the three science subjects of grade seven and eight. About three quarter of grade seven and eight biology, chemistry and physics teachers said that the time allocated for these subjects is not adequate. On the other hand, as table 4.1 shown the actual time allocated for these subjects is very high. It constitutes thirty percent of the curriculum time of the two grade levels, which is 225 percent of the time allocated for social studies of the same grade level. Therefore, to solve this problem recommending additional period for these subjects will cause time balance between science subjects and the other subjects. Because increasing the period allotted for these subjects necessarily decrease the time allocated for the other subjects.

The other solution is integrating these subjects to one science subject. This was a view expressed by some science teachers' responses to a question as to how to solve the problem. According these teachers integrating the subjects will reduce the time needed to teach each subject separately. This method, however, will not enable to each the components of each subject in a broad and specialized manner. Moreover, the teachers' recommendation contradicts with the policy that emphasize science subject and

intends to teach each science as separate subjects as they are being given in the later grades of the cycle (TGE, 1994: 15).

Therefore, the only solution is to take more care in designing the curriculum of these subjects vis-à-vis the time allocated for them. As these subjects are started being given at these grade levels, the courses should be based on limited major ideas of each science rather than a mass survey of an entire field in order to be taught adequately within the time allocated for them.

Unlike the subjects discussed above Amharic and mathematics subjects are in a stable position in all grade levels where most of the teachers said adequate time has been given. Although the actual time allocated for Amharic is among the lowest one, the teachers' perception on the adequacy of the time is almost the same with that of mathematics, which is among the subjects that received highest period allotment.

The only subject with no significant marked difference in the proportion of teachers saying adequate and inadequate time given is English. In almost all grade levels English teachers divided into fifty-fifty on the adequacy of the time although slightly in favor of adequate. Thus, the variation in the teachers' responses could be due to the individual difference of the teachers on estimating the number of reasonable periods to cover the contents. Therefore, it is difficult to conclude that the time allocated for English is adequate or not adequate to cover the contents, as the teachers' response is not in a clear-cut position.

Of the remaining three subjects physical education appeared in a satisfactory position in all grade levels; proportion of the actual time allocated is almost reasonable and seventy-three percent of teachers perceived the time as adequate. Therefore, physical education is similar to Amharic in both actual time allocation and the teachers' perception on the adequacy of the time. At the bottom of the list there are two subjects; music and art of which only a quarter of the teachers thought to have adequate time allocated to

them. Unlike the other subjects, about seventy-five percent of the teachers believed that the time allocated for these subjects is more than the time needed to cover the contents.

On the other hand, the same subjects have been shown in table 4.1 to be the ones whose time allocations are among the lowest one. Therefore, the response of the teachers of these subjects is a little bit surprising. From all the teachers included in the study there were only three other subject teachers who reported that the time allocated for the subject they teach is more than adequate to cover the contents. However, the percentage of these teachers is insignificant as compared to the other teachers of the same subject. Generally this indicates the imbalances of the contents included in the music and art subjects and the time allocated for them.

Therefore, it can be concluded safely that the time allocations revealed an apparent lack of knowledge about the amount of contents presented in the subjects included in the curriculum. The time imbalances reflect, more than anything else, a general lack of systematic decision making in the area and the data likely suggest to make some adjustments on the period allotment than accepting the national schedule as it is. The regional education bureau has prepared its own syllabuses either by translating or modifying the nationally prepared syllabuses except English subjects. Thus, it is not difficult for the regional bureau to make some adjustment to correct such time imbalances between the various subjects. The time imbalances reflect inefficiency of the curriculum where there are subjects whose time is inadequate and at the same time subjects that have excess time.

Based on this, it is argued that the time allocated to each music and art subjects in grades five and six would need to be reduced to two periods a week and to add these periods to social studies and science subjects of the same grade level which their time seems inadequate to cover the content. This could be one of the necessary steps to keep the time balance of the curriculum. Because to secure the time

balance of the curriculum it requires more than any thing else more effective use of the existing school time rather than prolonging the school day or the academic year that might bring other problems. In Ethiopian context lengthening the school hour requires abandoning the double shift system, which in turn necessitate building additional buildings or schools to accommodate all students. This does not seem economically feasible, as the existing economy of the country cannot shoulder the resources needed for this. Similarly, lengthening the school year require to push the academic year to the summer season when most of the rural students are highly needed by their family to help them in the agricultural works.

When the teachers' responses on the adequacy of the time allocated for the subject they teach is compared among the grade levels, the number of teachers who reported that the time is not adequate significantly increases towards the higher grade levels. This indicates that the amount of content included in the curriculum in grades seven and eight tended to be large than the time allotted for them as compared to the other two lower grade levels. Therefore, one can conclude safely that the time imbalances is more serious in the two higher grade levels than the lower two grade levels due to the large amount of content contained in the higher grades of the cycle.

In line with this, the teachers who claimed that the time allocated for the subject they teach is not adequate were asked through the questionnaire how many additional periods they need if they are to cover the contents adequately. Most of these teachers (74 or 88.09 percent) indicated that they need one additional period per week for the subject they teach. However, this does not seem practical solution except for one or two subjects in grades five and six in which most of the music and art teachers reported that excess time is allotted for these subjects. This is to say that if the time allocated for these subjects reduced by one period there will be a possibility to add the reduced time to one or two other subjects of the same grade levels. Otherwise, an addition of one period for any of the subjects without any reduction will

necessarily affect the time allotted for the other subjects or the total time will exceed thirty periods per week that cannot be accommodated with the existing school days.

In addition to this, the teachers who claimed that the time allotted for the subject they teach is not adequate were asked as to what methods they use to cover the contents. The following table presents these data.

Table 4.3 Responses of the Teachers who said the Time Allocated is not adequate on the Methods they Use to cover the contents

Methods Used		<u>N0</u>	Percent
1	Making students to copy notes from their textbooks	21	25.00
2	Teaching important topics only	4	4.76
3	Teaching additional periods	44	52.38
4	Teaching all the contents in short	7	8.34
5	Teaching only the contents that can be covered and leaving the uncovered ones	3	3.57
6	Teaching all the contents hurriedly	5	5.95
Total		84	100.00

As shown in the above table from the teachers who believe the time is not adequate, most of them (52.38%) reported that they teach their students in their spare time in addition to the regular time allocated so as to be able to cover the topics of the subject they teach. However, this does not seem to happen regularly except on limited occasions. As it is observed on the field and the data on the class size indicates in most school there are no spare classrooms to be used for this purpose regularly. In addition to this, all of the sample schools function in a double shift system and the classrooms are occupied in all working days. Therefore, the only possible time to be devoted for this purpose is on Saturdays and Sundays. Generally,

though the teachers' effort is appreciable this method may make the students to be busy in learning and reduce their time to be devoted for study and doing homework and assignments.

Twenty-five percent of the teachers who believe the period is not adequate reported that they order their students to copy down notes from their textbooks, as there is no time to give notes for their students. However, this is not recommendable practice for students may simply copy down their textbooks without full understanding. After all it is not necessary to copy down notes from textbooks as the students can use their textbooks for study purposes. This method makes the students to be unnecessarily busy and reduce students' time that can be devoted for other educational activities.

The teachers who reported that they select important topics to be taught and those who said that they shorten the contents so as to cover on time are very few (8.34 and 4.76 percent respectively) as to compare to the above two groups of teachers. The position of the these two groups of teachers tends to be acceptable, as they did not try to unnecessarily treat each topic specified in the textbooks in detail. The other remaining teachers who reported that they leave some topics uncovered and the teachers who said that they cover all the topics hurriedly are also very few which comprises 3.57 and 5.95 percent of the teachers who believe the time is not adequate. All this indicated how the teachers are concerned to cover the topics of their subjects. From all these teaches who believe the time is not adequate, 94 of them try to cover all the topics specified in the textbooks. This seems the belief of most of the other teachers. This is presented in detail under table 4.5.

On the other hand, in addition to the amount of content of the subjects, the way the teachers utilize the time can also affect the adequacy of the time and the teachers' perception on the issue. For this reason, an item was included in the questionnaire how the teachers mostly utilize the time allocated to the subject they teach. The data is presented here under in table 4.4.

Table 4.4 The Way Teachers Mostly Utilize the Time Allocated (As reported by the Teachers)

The Way Teachers Utilize the Time		Teachers	Percent
1	Teaching the whole period and students take notes themselves in the process	22	12
2	Teaching and giving notes in alternate periods	83	44
3	Teaching and students practice what they have learnt in alternate periods	54	28
4	Teaching the whole period and students take notes from their textbooks	29	16
Total		188	100

As shown in the above table, 83 percent of the teachers use half of the time allocated to the subject they teach in giving notes for the students. These teachers use only half of the time for actual teaching. Had the students been trained and practiced how to take notes, the teachers would have got adequate time for explanation, discussion, correcting exercises and for other teaching and learning activities. These teachers might report the time is not adequate while using the time unconsciously by doing what the students themselves should do. Therefore, to increase the adequacy of the time and the efficiency of teachers in utilizing the time, teachers should be advised to teach their students how to take notes and assist them in the process rather than considering note giving as the exclusive responsibility of the teacher.

Although 54 percent of the teachers reported that they use half of the time for students to practice what they have learnt, the teachers who reported that they teach for the whole period by making the students to take notes in the process of teaching and learning are very few (22 percent). Both of these groups of

teachers might be reasonable if they say the time is not adequate. In reality, however, these teachers may need less time to cover all the topics than the teachers who use half of the time in giving notes for students. On the other hand, those teachers who spent the first period writing down notes and the remaining period for explanation, they would be in position to cover the contents of the subjects.

Of the four groups, the group of teachers who reported they order their students to copy down notes from their textbooks is not in a good position. If the students write down indiscriminately what is in the textbooks their notebooks will resemble to be textbooks rather than notebooks that should consist of the main ideas of the subject. Therefore, this will affect the quality of learning and the achievements of the students. What cannot be denied is that one of the main factors that force the teachers to use this method is the huge amount of content included in the textbooks that cannot be actually covered with the time allocated.

Here, there are two explanations for the above assumptions. These are, firstly, that the teachers are highly convinced or have a belief that they must do their best to cover all the topics required to cover. Thus, as teachers try to cover all the topics they confronted with shortage of time that might forces them to do so. Secondly, if the subjects were to be delivered in the right way with reasonable depth it would require longer time. This may force the teachers to use such unacceptable teaching practices. In general, unreasonable amount of contents could lower the standards of teaching and learning. Because trying to cover all the topics that cannot actually be covered with the time available hampers the quality of teaching and learning.

To the question included in the questionnaire that asks the teachers whether they believe that all the contents specified in the textbook should be covered or not the response of 167(188 percent) of the teachers was positive. The following table shows the main reasons given by these teachers for their belief to cover all the contents specified in the textbooks.

Table 4.5 Reported Reasons that Make Teachers to cover all the contents of the Subjects

Reported Reasons		Yes		No	
		N0	%	N0	%
1	All topics are important to be learnt by students	133	79.64	34	21.36
2	National and school examinations cover all the topics	52	31.14	115	68.86
3	School administrators and supervisors control it all the topics are covered.	126	75.45	41	24.55
4	Students want to learn all topics	16	9.58	151	90.42
5	It is one of the criteria on which the teachers efficiency is evaluated	159	95.21	8	4.79
6	Reasons other than the above	21	-	-	-

Table 4.5 above indicated that most teachers (79.64 percent) believe that all the topics of the subjects they teach are important to be learnt by their students. Similarly, as reported by 75.45 percent of the teachers the pressure from school administrators and supervisors to cover all the contents is very high. Above all, as reported by 95.21 percent of the teachers, the inclusion of coverage of contents as one criterion for evaluating teachers' performance is the major factor that forces teachers to teach each topic in detail. On the other hand, the effect of national and school examinations and the pressure from students to learn all the topics is very low as compared to the above reasons that forces teachers to teach all the topics of the subjects.

In addition to the above, two reasons which were not included in the alternatives to the question specified in table 4.5 were given by 21 teachers themselves. As to these teachers if they leave any topic untreated the students will face difficulty when they the come across related topics in the next higher grade levels.

These teachers reported that all the topics are interrelated and thus skipping any topic will create difficulty in teaching the following consecutive topics. Although the reasons given by these teachers seems acceptable, it shows that the teachers are unable to identify and select the most important topics for students to be learnt thoroughly in detail from the less important topics to be taught in less detail if it is not omitted. Moreover, the teachers should identify which topic is related with the topics of the next grade levels and which topic is taught in the previous grade levels before allocating the time to be devoted for each topic when they prepare the annual lesson plan.

Furthermore, the role of the school administrators and school supervisors should focus on helping teachers to utilize the time allocated efficiently and effectively rather than to pressurize teachers to cover all the topics specified in the textbooks. In addition to this, evaluation of the teachers performance should be based on how efficiently the teachers used the time allotted for the subject he/she is teaching rather than a mere coverage. Otherwise, as the teachers cram every detail in their teaching that cannot be taught adequately within the time available the balance between depth and breadth in particular and the quality of learning in general will be questionable. As the teachers rush to cover all the contents no time will be left for the contents to be taught thoroughly. Therefore, limiting the scope of coverage is necessary either by condensing the contents or by omitting the unnecessary details. After all the teachers are not expected to present all the details or specific facts and examples unless they are needed for the subsequent learning.

In general, due to the absence of clear guidelines for distinguishing between more important and less important contents and topics, most of the teachers are trying to cover all the contents of the subject they teach simply to get every thing in. This is reflected in the response of the teachers where most of them believe all the contents of the subject is very important without specific reason why the topics are important or need to be learnt. Therefore, teachers must make decisions and plan ahead as to how they will approach the subject area they assigned to teach. However, attempting to give equal treatment to

everything in the text within the time available without identifying the topics needed for awareness from the topics that need greater understanding of the students is not advisable. Thus, the belief of most of the teachers that everything in the textbooks is important must be changed and the teachers must be help in identifying the most important from the less important topics.

4.2 Balance between the Cognitive, Affective and Psychomotor Objectives Stated in the Syllabuses.

As is stated in the review of the related literature educational objectives can be conveniently categorized as cognitive, affective and psychomotor objectives. These three domains of objectives represent three different types behaviors expected from the student as a result of learning. The cognitive domains of objectives emphasize with behaviors related to acquisition and development of knowledge. The affective domain represents those behaviors related with feelings, emotions or values directed in favor of or against an object, phenomenon or idea. The psychomotor domain of objectives refers to muscular or motor behaviors.

Based on these, the objectives stated in the sample chapters of the syllabuses were categorized to find out whether the curriculum intends to emphasize one or two of these behaviors or give appropriate emphasis to each of them.

Table 4.6 Distributions of the Three Domains of Objectives

Subject	Grade	Cognitive		Affective		Psychomotor		Not Clear	Total
		N0	%	N0	%	N0	%	N0	N0
Amharic	6	25	75.75	-	-	8	24.25	-	33
	8	19	82.61	-	-	4	17.39	-	23
English	6	30	78.00	1	2.63	7	18.42	-	38
	8	20	80.00	2	8.00	3	12.00	-	25
Mathematics	6	45	91.84	1	2.08	3	6.25	-	49
	8	34	80.95	-	-	8	19.04	-	42
Science	6	38	90.48	2	4.76	2	4.76	-	42
Biology	8	53	84.13	8	12.70	1	1.59	1	63
Chemistry	8	36	80.00	5	11.11	4	8.89	-	45
Physics	8	46	83.64	3	5.45	5	9.09	1	55
Social Studies	6	26	92.86	2	7.14	-	-	-	28
	8	26	96.30	-	-	1	3.70	-	27
Physical Education	6	5	21.74	5	21.74	7	30.43	6	23
	8	11	28.21	1	2.56	27	69.23	-	39
Music	6	3	33.33	3	33.33	3	33.33	-	9
Art	6	21	45.65	6	13.04	17	36.96	2	46
Sub Total	6	193	72.01	20	7.46	47	17.54	8	268
Sub Total	8	245	76.80	19	5.96	53	16.61	2	319
Total		438	74.62	39	6.64	100	17.04	10	587

As shown in table 4.6 the result of the content analysis of the objectives stated in the syllabuses is most striking. The objectives of most of the subjects included in the curriculum highly concentrate on the cognitive domain. Based on the emphasis given to the cognitive domain the subjects can be divided into two. At the top a group of twelve subjects that includes Amharic, English, mathematics, social studies and

all the science subjects from grades five to eight gave more emphasis to the cognitive domain which ranges from 76 percent in grade six Amharic to 96 percent in grade eight social studies. In these subjects the affective and psychomotor domain are markedly under emphasized.

At the bottom of the list there are four subjects that give less emphasis to the cognitive objectives as compared to the first group of subjects. These subjects are physical education, music and art. The emphasis given to the cognitive objectives by these subjects ranges from 18 percent in grade six physical education to 33 percent that of grade six music. However, the proportion of emphasis given to the cognitive objectives by these subjects cannot be said generally low. For one thing the percentage of the emphases given to the cognitive objectives by these subjects is not as extreme as the first group of subjects. In addition to this, as these subjects are more of practical they are expected to emphasize psychomotor domain of objectives.

The frequency of objectives classified under the affective domain indicates the insignificant emphasis given to this domain by most of the subjects. The extent even goes to total exclusion of these objectives in some subjects of the curriculum. In subjects such as Amharic in grades six and eight, grade eight mathematics and social studies the affective domain is totally ignored. These subjects have no even a single objective of this type. In general, the emphasis given to this domain by most of the other subjects is not much different from the above stated subjects. They have only one to five of these types of objectives. From the entire subjects grade six physical education and music, which give 23 and 33percent respectively, can be said they have given appropriate emphasis to these types of objectives.

The psychomotor domain is the other domain which is given less emphasis by most of the subjects although the magnitude of the problem is not as that of the affective domain. Based on the emphasis given to the psychomotor domain, the subjects included in the study can be grouped into two. The first group

that consists of twelve subjects such as Amharic, English, mathematics, social studies and all the science subjects of the whole cycle gave less emphasis to this domain of objectives as compared to the cognitive objectives. The number of this type of objectives in these subjects ranges from zero in grade six social studies to eight in mathematics grade eight.

The second group at the bottom of the list consists of four subjects namely; Physical education of grade six and eight, and grade six art and music that emphasize these type of objectives as compared to the other two types of objectives. The emphasis given to these objectives by these subjects extends from 32 percent of physical education to 69 percent of physical education grade eight.

When the total amount of emphasis given to each of the three domains of objectives is compared between the two sampled grade levels there is no significant difference at 0.05 level. The total amount of emphasis given to the cognitive domain in grade six subjects is 74.51 percent and 75.38 percent in grade eight subjects. Similarly, the total amount of emphasis given to the affective domain is 7.34% in grade six subjects and 5.85 percent in grade eight subjects. The emphasis given to the psychomotor domain is 18.15 percent in grade six and 18.77 percent in grade eight subjects. From this one can conclude that in the second cycle primary school curriculum there is a variation in emphasis given to the three domain objectives within the subjects but not among the grade levels.

In general, the balance between the three domains of objectives of the curriculum can be said defective. The major cause to the problem of such imbalance is the very low emphasis given to the affective objectives and to the contrary the very high emphasis given to the cognitive objectives by most of the subjects. Thus, it can be said that the second cycle primary school curriculum of the region is geared mainly to producing students who can deal with facts, concepts and different subject symbols that stressed on intellectual tasks.

However, as is noted in the review of the related literature of this study adequate persons are, among other things, the product of strong affective learning and, therefore, affective learning should be one of the important aims of the curriculum. The implication seems to be clear, then, that curriculum developers must be interested and concerned with the affective learning and should include enough of this type of objectives that in fact receive the lowest priorities in the second cycle primary school curriculum. Thus, the development of such attributes as interests, desirable attitudes, appreciation, values, commitment, will power and etc should be among important areas of the curriculum. Therefore, if the affective learning to be taught and part of the aim of the curriculum, then identifying and stating these types of objectives should be an essential task for the curriculum planner or syllabus developer.

As Sax (1974:64) stated a student who has a value or a preference is willing to devote greater time and effort than students that merely knows. Therefore, even in dealing with cognitive objectives, where the success is determined by the students' ability to perform a task, the affective behavior is necessary to make the students intrinsically motivated to use their cognitive ability in situations other the learned one. In other words, if intellectual excellence to be achieved it requires to stimulate the students desire to grasp ideas intuitively. This requires developing such curriculum that sets appropriate emphasis to the affective domain of objectives.

Finally, the emphasis given to the psychomotor objectives is not adequate although the magnitude of the problem of balance is not as that of affective domain. Such inadequate emphasis given to the psychomotor domain observed in most subjects hinders the students' skill and motor development such as writing; reading, speaking and other hands-on activities that would have facilitate the students learning. Conversely, the students learning should not be confined with knowing but should also be able to do and practice what they have learnt. Moreover, the students must be engaged or involved in various motor

activities to be able to learn in the process. Therefore, the less emphasis given to this type of objectives by most subjects needs to be corrected.

Here it must be clear that it is not argued that the proportion of emphasis given to the three domain objectives should be equal. But it is said that each of the domain should receive proper emphasis vis-à-vis the educational policy of the country. Thus, the basic question is does the subjects of the curriculum provide an appropriate blend of knowledge, skills and attitudes.

To this end, if the balance of the curriculum to be kept one should not ignore any of the three domains of objectives because the curriculum should contain just enough of each kind of objectives. Each of these domains has its own importance and contribution to the overall development and life of the learner. For this reason, the new educational policy of the country stresses the balanced development of the learner in these three domains of behaviors (Ambaye, 1995; 16). However, this balance cannot be obtained when the curriculum is limited to one domain. The prospect of stressing one type of objective to the exclusion of the other appears scarcely worthy of consideration. Nonetheless, as indicated in table 4.6 it is not difficult to observe the curriculum under study emphasized cognitive domain to the impoverishment of the other two domains. In other words, the curriculum of the second cycle primary schools is heavily overloaded on the cognitive domain of objectives.

4.3 Balance Between Depth and Breadth of the Curriculum

To analyze the balance between depth and breadth of the curriculum two methods were used. The first method was categorizing the level of the objectives stated in the sample syllabuses using content analysis method. The second method was categorizing the types of teaching methods suggested in the syllabuses

4.3.1 Levels of the Objectives Stated in the Syllabuses

Curriculum workers must make decisions on the balance of the curriculum not only among the three domain objectives but also the levels within each the domains. This is to say educational objectives should be stated at different level of complexity.

Table 4.7 Distributions of the Levels of Objectives Stated in the Syllabuses

Subject	Grade	Domain of Objectives																		Not Clear	Total
		Cognitive						Affective					Psychomotor								
		Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation	Receiving	Responding	Valuing	Organization	Characterizath	Perception	Set	Guided Res.	Mechanism	Comp.Ove.Res.	Adaptation	Origination		
Amharic	6	9	9	2	1	3	1	-	-	-	-	-	-	1	2	5	-	-	-	-	33
	8	8	4	4	1	1	1	-	-	-	-	-	-	-	3	1	-	-	-	-	23
English	6	12	10	8	-	-	-	-	1				1	5	1	-	-	-	-	-	38
	8	12	4	3	-	1	-	-	1	1	-	-	-	1	2	-	-	-	-	-	25
Mathematics	6	21	11	9	4	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	49
	8	13	4	16	1	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	42
Science	6	23	8	1	4	1	1	-	-	2	-	-	-	-	-	2	-	-	-	-	42
Biology	8	31	10	5	6	-	1	-	3	4	-	1	1	-	-	-	-	-	-	1	63
Chemistry	8	29	2	1	2	2	-	-	-	5	-	-	-	-	-	4	-	-	-	-	45
Physics	8	28	6	5	6	-	1	-	-	3	-	-	-	-	1	2	-	2	-	1	55
Social Studies	6	21	1	1	3	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	28
	8	15	7	2	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	27
Physical Education	6	3	-	-	1	-	1	1	2	2	-	-	-	-	-	4	3	-	-	6	23
	8	6	-	5	-	-	-	-	-	1	-	-	-	-	2	13	11	1	-	-	39
Music	6	2	-	-	1	-	-	-	-	3	-	-	-	-	3	-	-	-	-	-	9
Art	6	14	3	-	1	-	3	2	-	2	2	-	2	-	1	7	4	1	2	2	46
Sub Total	6	105	42	21	15	4	6	3	3	11	3	-	3	6	7	21	7	1	2	8	268
Sub Total	8	142	37	41	18	4	3	-	4	14	-	1	1	1	8	29	11	3	-	2	319
Total		247	79	62	33	8	9	3	7	25	3	1	4	7	15	50	18	4	2	10	587

As it can be observed from table 4.7 above, there is a general tendency to decrease the number of objectives towards the higher levels. The number of objectives classified under the category of analysis, synthesis and evaluation of the cognitive domain, organization and characterization by value or value complex of the affective domain, and complex overt response, adaptation and origination of the psychomotor domain are very less as compared to the other categories of each of the domains. This indicates how far importance is given to the lower level of objectives in almost all the subjects of the curriculum.

When comparison is made between the three domains of objectives on the degree of emphasis given to each of the different levels two patterns can be identified. The first pattern is reflected in the cognitive domain in which more emphasis is given to the first two lowest levels namely to knowledge and comprehension and generally decreases towards the next three higher levels. The last two higher levels namely synthesis and evaluation represented in very low proportion.

In the other two domain of objectives; affective and psychomotor domain higher emphasis is placed at the central levels; namely at the valuing of the affective domain and mechanism of the psychomotor domain. Then, the degree of emphasis given towards the first two lower levels; receiving and responding, and the last two higher levels; organization and characterization by value or value complex of the affective domain and similarly to the first three lower levels; perception, set, guided response and to the last three higher levels; complex overt response, adaptation and origination of the psychomotor domain significantly decreases.

In both of the above stated cases there is a clear imbalance among the different levels of the objectives that can affect the balance between depth and breadth of the curriculum. In the first case, the lower level cognitive domain of objectives are highly emphasized, hence, it implies that it intends to focus on breadth

of learning. Because an overwhelming emphasis up on the lower level of cognitive objectives makes the curriculum to focus on mere memorization and recital of factual data rather than an in-depth understanding. As table 4.6 shows since most of the objectives of the curriculum are cognitive type, this is the major contributor to the problem of balance between depth and breadth of the curriculum.

The second case, which is reflected in the affective and psychomotor objectives, poses another problem on the balance between depth and breadth of the curriculum because to keep the balance between depth and breadth each level of the objectives should receive appropriate emphasis. As the review of the related literature of this study indicates more emphasis should be given to the higher levels of objectives. However, ignoring either of the higher or lower levels of objectives, as it is observed in the psychomotor and affective domain of objectives, implies the imbalance between depth and breadth of the curriculum. Several levels of objectives are needed to bring different kind or level of learning and to ensure their interrelationship.

This is to say that since the objectives are hierarchical, the achievement of each of the higher levels mostly depend on having learned the first simpler ones. This can be accomplished by presenting the less complex version of the topic first that can be presented subsequently in greater depth and at higher level of sophistication. However, as it is reflected in the psychomotor and affective domain objectives stating at the central or higher level which are not backed by adequate lower level of objectives become very difficult to achieve and create a problem of balance between depth and breadth of the curriculum. Therefore, these objectives should be redefined or restated at different levels of abstraction to accommodate both the lowest and highest levels. From this it seems clear, then, that objectives at several levels of abstraction or complexity are useful to keep the balance between depth and breadth of learning and enhance the teaching and learning process.

To compare statistically the emphasis given to the lower and higher level of objectives so as to analyze the balance between depth and breadth of the curriculum and to make comparisons among the subjects the following table seems useful. Here an attempt is made to minimize the complication that might be created by the number of categorical levels of objectives by combining the levels of the objectives into higher and lower objectives. (Refer chapter three of this study for the methods used to combine the levels of objectives).

Table 4.8 Number and Percentage of Higher and Lower Levels of Objectives of Each Subject

Subject	Grade	Domain of Objectives												Total			
		Cognitive				Affective				Psychomotor							
		Lower		Higher		Lower		Higher		Lower		Higher		Lower		Higher	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Amharic	6	18	72.00	7	28.00	-	-	-	-	3	37.5	5	62.5	21	63.64	12	36.36
	8	12	63.16	7	36.84	-	-	-	-	3	75.0	1	25.0	15	65.22	8	34.78
English	6	22	73.33	8	26.67	1	100.0	-	-	7	100.0	-	-	30	78.95	8	21.05
	8	16	80.00	4	20.00	1	50.0	1	50.0	3	100.0	-	-	20	80.0	5	20.0
Mathematics	6	32	71.11	13	28.29	-	-	1	100.0	-	-	3	100.0	32	65.3	17	34.7
	8	17	50.00	17	50.00	-	-	-	-	-	-	8	100.0	17	40.48	25	59.52
Science	6	31	81.58	7	18.42	-	-	2	100.0	-	-	2	100.0	31	73.81	11	26.19
Biology	8	41	77.36	12	22.64	3	37.5	5	62.5	1	100.0	-	-	45	72.58	17	27.42
Chemistry	8	31	86.11	5	13.89	-	-	5	100.0	-	-	4	100.0	31	68.89	14	31.11
Physics	8	34	73.91	12	26.09	-	-	3	100.0	1	-	4	100.0	35	64.81	19	35.19
Social Studies	6	22	84.62	4	15.38	-	-	2	100.0	-	-	-	-	22	78.57	6	21.43
	8	22	84.62	4	15.38	-	-	-	-	-	-	1	100.0	22	81.48	5	18.52
Physical Education	6	3	60.00	2	40.00	3	60.5	2	40.0	-	-	7	100.0	6	35.29	11	64.71
	8	6	54.55	5	45.45	-	-	1	100.0	2	7.41	25	92.59	8	20.51	31	79.49
Music	6	2	66.67	1	33.33	-	-	3	100.0	-	-	3	100.0	2	22.22	7	77.78
Art	6	17	80.95	4	19.09	2	33.33	4	66.67	3	17.64	14	82.36	22	50.0	22	50.50
Sub Total	6	147	76.16	46	23.83	6	30.00	14	70.00	13	27.66	34	72.34	166	63.85	94	36.15
Sub Total	8	179	73.06	66	26.94	4	21.05	15	78.95	10	18.87	43	81.13	193	60.88	124	39.12
Total		326	74.43	112	25.57	10	25.64	29	74.36	23	23.00	77	77.00	359	62.22	218	37.78

As table 4.8 above shows most of the academic subjects put more emphasis on lower level of objectives. In these subjects above 65 percent of the objectives are at the lower level. The emphasis given to the lower level of objectives in social studies, science, chemistry and grade eight English even goes up to 86 percent of their total objectives. Similarly, the emphasis given to the lower level of objectives by the subjects such as Amharic, Biology, Physics, grade six English and Mathematics though a little bit lower than the above subjects, is also very high which amounted 70 percent of their total objectives.

Although what the teachers actually do in the classroom determine whether and what kind of learning occurs, the way the curriculum materials organized and the intended objectives stated can significantly influence the activities of the teacher and the learner. For this reason, a curriculum that is tied up with such lower level of objectives, as it is observed in the above listed academic subjects, does not seem to develop higher thinking skills of the learners. If this need to be realized the contribution of the curriculum which its objectives focuses mainly on developing students abilities in recognizing patterns, dealing with probabilities, drawing analogies, analyze and synthesize data to see relationships and evaluating evidences is worth considering. Therefore, to achieve this one has to think of objectives of the sort that lead to the development of high thought process of the students rather than objectives geared to achieve simple facts, which erodes the balance between depth and breadth of the curriculum.

Such curriculum that emphasizes lower level objectives tends to contain more content than the student could learn in the time allocated. This is reflected in some subjects of the curriculum understudy as it is discussed on the time balance of the subjects. In such subjects the teacher is expected to cover them rather superficially with some kind of survey without going into depth. Thus, such lower level objectives take time and concentration of the teaching and learning efforts and the students cannot master higher-level objectives while devoting much time on such lower level objectives. On the other hand, a curriculum that focuses on depth of learning requires having adequate higher level of objectives and limited range of

contents in which the learned knowledge and skill can be transferred to new situations. Such curriculum tend to emphasize lower level objectives that requires rote memorization except in gaining prerequisite knowledge for more complex skills and intellectual abilities.

Here, the central premise is that the higher level of objectives should be more stressed than lower level of objectives if the balance between depth and breadth of the curriculum is to be achieved. The ability to think critically is fostered not through low level recall of knowledge alone but more importantly through application, analysis, synthesis and evaluation. Due to this, stimulating critical thinking of students that enable students to learn by themselves is gaining more attention in all spheres of education. For this reason, the current educational and training policy of the country is aimed to develop the students' problem solving capacities. This requires setting the objectives of the curriculum that intend to develop higher thinking skills of the students.

Nonetheless, the objectives stated in the syllabus put much emphasis on lower level of objectives that require simple recall of information. This shows that the level of the objectives stated in the syllabuses are not in accordance with the aim of the policy. The aim of the policy to develop the learners' problem solving capacities cannot be realized where there is such over emphasis on recall of information with no time left for creativity and innovation. Therefore, the objectives stated in the curriculum should not be fixed at the lower levels as it is reflected in most subjects if the problem solving capacities and higher level thinking skills of the students are to be enhanced. This was also one of the criticisms given to the previous curriculum (TGE, 1994:3). In this regard, therefore, the current curriculum needs much more ongoing improvement to solve such problems.

Unlike the other academic subjects, mathematics grade eight gives slightly more emphasis to the higher level of objectives. The non-academic subjects such as art, music and physical education although their

cognitive objectives are at the lower level due to the more emphasis given to the higher levels in their affective and psychomotor domain of objectives they generally tend to emphasize higher level of objectives. However, it cannot be said there is no problem of balance between depth and breadth in these subjects as the proportion of the various levels is not adequate due to the very less emphasis given to the lower levels in the affective and psychomotor objectives of the subjects.

Because attempting to achieve higher level of objectives can be premature unless timed carefully and supported by lower level of objectives. This is to say attempting to develop high thought levels of the students without learning the simpler facts of the material can retard the attainment of the higher level of objectives. As Taba cited in Biddle and Dunkin (1974:257) stated, "Learning tasks should be rotated systematically, thus avoiding both prolonged exposure to facts without reshaping of conceptual schemes and premature leaps to more complex types of thought". This requires setting objectives on both higher and lower level in a balanced manner.

When the emphasis given to the higher and lower level objectives is compared through a chi-square at 0.05 level there is very high significant difference among the three domain of objectives. The major cause for this differences are the more emphasis given to the higher levels in the psychomotor domain and the more emphasis given to lower levels in the cognitive domain consecutively in their contribution for the difference. Similarly, there is a significant difference at 0.05 level among the subjects in the emphasis they give to the higher and lower level cognitive objectives. The only major cause for this is the more emphasis given to the higher level of this type of objectives by mathematics grade eight.

On the other hand, there is no significant difference at 0.05 level among the two sampled grade levels in the emphasis they gave to the lower and higher level in all the three domain of objectives. Thus, one can conclude that there is a significant difference within the subjects of the curriculum and the three domains of

objectives on the emphasis they give to the higher and lower level objectives but there is no significant difference between the grade levels. Thus, the academic subjects except mathematics grade eight and the cognitive domain of objectives tend to focus on breadth of learning and the non-academic subjects and the affective and psychomotor objectives tend to emphasize to in-depth learning.

To this end, the curriculum of the second cycle of the Amhara National Regional State generally emphasizes lower level objectives. Based on this, it can be said that the curriculum tends to emphasize breadth of learning than depth as most of the objectives stated in the syllabuses are intended to develop students' abilities in reproducing and recalling acquired knowledge. This is observed in all academic subjects except mathematics grade eight, which slightly emphasize higher level of objectives. This subject seems the only subject that can be said in fair balance between depth and breadth. In the non-academic subjects there is a tendency to move up to higher level of objectives that are not accompanied by lower level objectives especially in the affective and psychomotor objectives and, hence, reflect another problem of balance between depth and breadth. The major contributor to the imbalance between depth and breadth of the curriculum is the much more emphasis given to the lower level in the cognitive domain of objectives in all subjects of the curriculum.

4.3.2 Types of Teaching Methods suggested in the syllabuses.

The second method used to evaluate the balance between breadth and depth of the curriculum is analyzing and categorizing the various teaching methods suggested in the syllabuses through content analysis method. For this purpose, seven types of teaching methods are identified from the syllabus that extends from expository method such as lecture and explanation to free discovery like inquiry method. In addition one category is added under the heading "others" for the teaching methods that appeared rarely

in the syllabus and do not fit to the other categories. This is done not to inject on the data by classifying such methods in to the categories, which do not actually belong to.

Table 4.9 Percentage of the Different Types of Teaching Methods Suggested in the syllabuses

Subject	Grade Level	Lecture/ Explanation		Question and Answer		Demonstration		Discussion		Guided Discovery		Task/ Project		Inquiry		Other		Total
		N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	N0	%	
Amharic	6	52	64.2	13	16.1	4	4.9	7	8.6	2	2.5	2	2.5	-	-	1	1.2	81
	8	26	49.1	11	20.8	3	5.7	6	11.3	2	3.7	2	3.7	-	-	3	5.7	53
English	6	3	10.4	7	24.1	3	10.4	12	41.3	4	13.8	-	-	-	-	-	-	29
	8	11	26.2	10	23.8	-	-	13	30.9	4	9.5	2	4.8	-	-	2	4.8	42
Maths	6	32	64.0	9	18.1	2	4.0	4	8.0	2	4.0	1	2.0	-	-	-	-	50
	8	50	68.5	12	16.4	5	6.9	4	5.5	2	2.7	-	-	-	-	-	-	73
Science	6	12	30.7	3	7.7	4	10.3	16	41.0	-	-	2	5.1	1	2.6	1	2.6	39
Biology	8	27	64.3	1	2.4	2	4.8	6	14.3	2	4.8	1	2.3	2	4.8	1	2.3	42
Chemistr	8	15	36.6	6	14.6	6	14.6	13	31.8	-	-	-	-	1	2.4	-	-	41
Physics	8	29	60.4	3	6.3	10	20.8	2	4.2	-	-	-	-	4	8.3	-	-	48
Social Studies	6	18	10.0	3	10.0	1	3.3	5	16.7	1	3.3	2	6.7	-	-	-	-	30
	8	17	39.5	6	13.9	1	2.3	9	20.9	3	7.0	2	4.7	2	4.7	3	7.0	43
Physical Educ.	6	15	48.4	4	12.9	7	22.6	3	9.7	-	-	1	3.2	-	-	1	3.2	31
	8	10	22.2	8	17.8	11	24.4	5	11.1	5	11.1	1	2.2	2	4.4	3	7.8	45
Music	6	11	55.0	2	10.0	2	10.0	2	10.0	2	10.0	1	5.0	-	-	-	-	20
Art	6	38	60.0	6	9.3	10	15.4	6	9.3	2	3.0	2	3.0	-	-	-	-	64
Sub Total	6	181	52.6	47	13.7	33	9.6	55	16.0	13	3.8	11	3.2	1	0.3	3	0.9	344
Sub Total	8	185	47.8	57	14.7	38	9.8	58	15.0	18	4.7	8	2.1	11	2.8	12	3.1	387
Total		336	50.1	104	14.2	71	9.7	113	15.5	31	4.2	19	2.6	12	1.6	15	2.1	731

As the above table shows 50.17 percent of the methods proposed in the syllabuses constitute lecture 14.23 percent, question and answer, 9.71 percent demonstration and 15.46 percent discussion method. The guided discovery, task/ project, and inquiry methods constitute 4.24 percent, 2.60 percent and 1.64 percent respectively.

Therefore, the majority of the teaching methods suggested in the syllabuses are lecture/explanation, discussion, question and answer, and demonstration methods. These methods tend to require little involvement of the student but enable the teacher to cover large amount of content. Such methods are more suitable to teach a broad survey of content and to achieve many lower levels of objectives. Here, the role of the student abounds with receiving of information and observing what the teacher does. In such transmission model of teaching the function of the teacher is to impart knowledge and keep the students mostly on a passive position. Therefore, these methods tend to focus on breadth rather than an in depth learning.

As Nelson et al. (1993:163) clearly put it, depth of learning require active involvement of the learner and goes beyond receiving information imparted by the teacher. In other words, higher order learning is highly dependent up on the degree of the engagement of the learner in the learning process. For this reason, what is currently gaining attention is to enable the students from the beginning to be inquirers and seek to learn by equipping them the necessary skills that lead them to dig deeper into the subject and work independently. Therefore, to achieve such higher order of learning it requires changing the role of the teacher from one of lecturer to one of guide so that the students themselves go through the process necessary to form a concept, to interpret data for inferences and to make generalization. To achieve this, one has to think of teaching methods of the sort that leads the students to learn by themselves to expand their knowledge and foster their creativity rather than listening and observing what the teacher does for them.

Nonetheless, the task/project and the inquiry methods comprise the least proportion of the teaching methods cited in the syllabuses, which only constitute 2.60 and 1.64 percent of the total. Such methods involve the student highly in the learning process. They invite them to collect data, analyze and synthesize

relationships, evaluate evidences and draw conclusions. As these methods are found rarely in the syllabuses, the curriculum under study does not seem to develop the above stated higher order learning.

In spite of this fact, the current educational policy of the country advocates these types of teaching methods, which actually appear very less in all subjects. The Education Sector Strategy (TGE, 1994:15) states that the problem solving method would be the major teaching method in all levels of education. This method of teaching, however, requires to use different teaching strategies that expand the students opportunity to develop critical thinking and be engaged in an intelligent process of continual inquiry and discovery on their own rather than merely exposed to lectures and explanations.

Finally, when the teaching methods suggested in the syllabuses compared through a chi-square (X^2) at 0.05 significance level there is no significant difference between the two grade levels. Therefore, the proportion of the teaching methods is similar in both grade levels. However, there is a significant difference between the teaching methods suggested for the academic and non-academic subjects due to the high number of demonstration methods observed in the non-academic subjects. Thus, it appears from the above discussion that the second cycle primary school curriculum tend to emphasize exposition type of teaching methods which focuses on breadth of learning than methods that foster an in-depth learning.

4.4 Balance Between Theoretical and Practical Exercises

The acquisition of subject matter, whether it is very simple or complex in nature, cannot be achieved unless adequate exercises and student activities are included in the curriculum that serve as one means of learning. Exercises and student activities are also helpful for students to practice what they have learnt and to evaluate their progress. Thus, in addition to theoretical exercises, which are mostly knowledge bound, adequate emphasis should also be given to practical exercises, which focus on practical abilities and skills that the students can apply in a practical situation.

Based on this, to evaluate the balance between theoretical and practical exercises of the curriculum under study the exercises and students activities cited in the syllabuses were analyzed and categorized into theoretical and practical exercises according the definition given to them. Table 4.10 presents these data.

Table 4.10 Frequency and Percentage of Theoretical and Practical Exercises Cited in Different Subjects

Subject	Grade Level	Theoretical		Practical		Total
		N0	%	N0	%	N0
Amharic	6	70	66.67	35	33.33	105
	8	27	60.00	18	40.00	45
English	6	32	59.26	22	40.74	54
	8	37	60.66	24	39.34	61
Mathematics	6	33	64.71	18	35.29	51
	8	21	63.63	12	36.36	33
Science	6	17	70.83	7	29.17	24
Biology	8	36	75.00	12	25.00	48
Chemistry	8	33	89.19	4	10.81	37
Physics	8	37	72.55	14	27.45	51
Social Studies	6	22	88.00	3	12.00	25
	8	24	80.00	6	20.00	30
Physical Education	6	20	35.71	36	64.29	56
	8	4	10.81	33	89.19	37
Music	6	64	71.91	25	28.08	89
Art	6	22	41.51	31	58.49	53
Sub Total	6	280	61.27	177	38.73	457
Sub Total	8	219	64.04	123	35.96	342
Total		499	62.45	300	37.55	799

As table 4.10 above indicates most of the subjects give more emphasis to the theoretical type of exercises. The highest emphasis given to the theoretical exercises is observed in the social studies and all science subjects in which 71 to 89 percent of their exercises and student activities are theoretical exercises that are concerned on recall of facts and conceptual understanding. In social studies subjects practical exercises and student activities that require students to read and construct graphs, maps, geographical symbols, to collect historical and geographical information, to observe physical phenomena receive insignificant emphasis. Thus it can be said that though the subjects could be more of theoretical, due to the less emphasis given to practical activities, the balance between theoretical and practical exercises tends to be inappropriate.

Similarly, in the science subjects exercises that require students to handle and use scientific tools, measuring different components and elements, manipulating equipment, making experiments to exploring phenomena, to collecting data and reporting their findings are very less. Thus, these subjects are overwhelmed on exercises that are geared to develop knowledge about the subjects rather than doing science to solve real problems, which is gaining more attention in these subjects.

Though the magnitude is not as in the above-mentioned subjects, mathematics and language are among the subjects that put more weight on theoretical exercises that give to this type of exercises that ranges from 59 to 67 percent of their total exercises and student activities. In these subjects the emphasis given to practical exercises is moderately high as to compare to the above subjects. However, as these subjects expected to be more of practical the weight given to this aspect cannot be said adequate. For example, in both language subjects (Amharic and English) the number of exercises that require speaking, listening, writing and reading is less than the exercises concerned with grammar and structure.

The other group of subjects that comprises arts, music and physical education generally put more emphasis on practical exercises. From these subjects music is the only subject that tends to give more attention to theoretical exercises, which amounted about 72 percent of the total exercises and student activities of the subject. In general, in these groups of subjects, except in music, the balance between theoretical and practical exercises has no problem though they tend to stress the practical aspect due to the nature of the subjects.

The significant feature observed in all subjects of the curriculum is that the emphasis given to practical exercises tends to increase towards the higher-grade levels although it is in small proportion. This holds true in all subjects except in the science subjects where the emphasis given to practical exercises and student activities in grade six integrated science is slightly higher than the emphasis given to this type of exercises in grade eight biology, chemistry and physics.

Generally, it can be said that the theoretical and practical exercises and student activities included in the second cycle primary school curriculum of the region is not in balance in most subjects. Except in physical education and art subjects the exercises in the other subjects such as science, social studies, mathematics and language, tends to stress theoretical than the practical aspect of the subjects. Therefore, the less attention given to practical exercises may hinder involvement of students in real practical situation to develop the ability to use variety of firsthand sources from which they develop hypotheses and draw conclusions. It minimizes the students' opportunity to examine and apply their knowledge, which has been previously learned in a new or different situation. In such curriculum, the opportunity of the students to interact with objects and materials and engage in actual life situation is very minimal. Therefore, there is a need to add more practical exercises, which must be practiced in variety of contexts over a considerable period of time if performance of learning and transfer of learning to new situation is to occur and to keep the balance of the curriculum.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

This part of the thesis deals with summary of the major findings of the study, the conclusion reached at and the recommendations forwarded on the basis of the findings.

5.1 Summary

The major purpose of this study was to examine the balance between the three domains of objectives, breadth and depth, theoretical and practical exercises and the time balance among the various subjects of the curriculum of the second cycle primary schools' of Amhara National Regional State. Information was obtained mainly through content analysis of the syllabuses. In addition, an attempt was made to substantiate the data obtained through content analysis by collecting relevant data from teachers through a questionnaire.

Finally, the data obtained were analyzed using various statistical tools such as frequency count, percentage, correlation and chi-square. According to the results of the data analysis, the major findings of the study are the following.

The actual total time allocation is reduced by five periods per week from the national time schedule for implementing the second cycle primary school curriculum. This is due to the absence of additional local language subject in the schools under study. This reduced the proportion of time allocated for language teaching in the cycle from 37.14 percent in the national time allocation to 24.29 percent. However, the actual time allocated for each of the other subjects is the same with the national schedule except in grade five and six science subjects that reduced by one period.

The time allocated for science subjects in grades seven and eight is perceived as an inadequate by most of their respective teachers to cover the contents although higher time has actually been given to these subjects. Similarly, most social studies teachers perceived the time allocated for the subject from grade six onwards is not adequate. On the other hand, most music and art teachers reported that the time allocated for the subjects is more than adequate. The actual time allotted for the other subjects and the teachers' perception on its adequacy seems stable except in English, which the teachers' responses is not in a clear-cut position.

As the teachers' response indicates the inadequacy of the time significantly increases towards the higher-grade levels. Thus, the imbalance between the amount of contents of the subjects and the time allocated for them tends to be serious in grade seven and eight.

From the total 152 teachers who believe the time allocated for the subject they teach is not adequate 52.38 percent of them reported that they use their spare time to cover the contents. On the other hand, 25 percent of these teachers order their students to copy down notes from their textbooks. The teachers who reported that they select important topics, leave some topics uncovered, teach fast and shorten the contents to cover the topics are 8.34 percent, 5.95 percent, 3.57 percent and 4.76 percent respectively. This shows how the teachers are concerned about the coverage of the contents of their subjects.

Most of the teachers spent half of the time in giving notes for students. These teachers use only half of the time for actual teaching in which the students interact with their teachers and among themselves.

The major factors that make teachers trying to cover all the topics of their subjects are the inclusion of coverage of the contents as one criterion for teachers performance evaluation (95.21 percent), the belief of the teachers that all the topics of the subject are important (79.64 percent), and the pressure of school administrators and supervisors to cover the topics (75.45 percent). School and national examination (31.14

percent) and students want to learn all the topics (9.5 percent) have less influence on the teachers attempt to cover all the topics.

Most subjects of the curriculum stress cognitive domain. The weight given to this type of objectives in Amharic, English, mathematics, social studies and science subjects range from 75.75 percent (Amharic grade six) to 96.30 percent (social studies grade eight). In these subjects the affective domain is markedly under emphasized. In Amharic, grade eight mathematics and social studies the affective domain is totally ignored. Physical education and music give relatively higher weight to this type of objectives, which ranges from 22.73 to 33.33 percent.

The psychomotor domain is the other domain which is given less weight although the magnitude is not as that of the affective domain. Amharic, English, mathematics, science and social studies are the major subjects that give less weight to this type of objectives, which ranges from zero percent (grade six social studies) to 19.04 percent (grade eight mathematics). On the other hand, physical education, music and art stress this type of objectives that extend from 31.82 percent (grade 6 physical education) to 69.23 percent (grade eight physical education).

There is no significant difference at 0.05 level between the grade levels on the emphasis they give to the three domains of objectives. Thus, the variation on the weight given to the domains of the objectives is within the subjects but not among the grade levels.

In all subjects there is a general tendency of decreasing the number of objectives towards the higher level of objectives. The number of objectives classified under the category of analysis, synthesis and evaluation in the cognitive domain, organization and characterization by value or value complex of the affective domain, and complex overt response, adaptation and origination of the psychomotor domain is very less.

In the cognitive domain more stress is given at the first two levels namely; knowledge and comprehension. In the affective and psychomotor domain higher weight is given at the central level; namely valuing in the affective domain and mechanism of the psychomotor domain. In both cases there is imbalance between depth and breadth of the curriculum.

Academic subjects put more weight on lower level of objectives as to compare to the non-academic subjects. Mathematics grade eight is the only academic subject that gives relatively higher emphasis to the higher level of cognitive objectives.

There is no significant difference at 0.05 level between the grade levels on the emphasis they give to different levels of objectives. But there is significant difference among the three domains of objectives due to the higher emphasis given to the higher levels of objectives in the psychomotor objectives and the higher emphasis given to the lower level objectives in the cognitive domain.

The majority of the teaching methods cited in the syllabuses are lecture/explanation (50.17 percent), question and answer (14.23percent) demonstration (9.71 percent) and discussion (15.46 percent). The guided discovery, task/project and inquiry methods comprises the least proportion of the methods cited in the syllabuses which only constitutes 4.24 percent, 2.60 percent and 1.64 percent respectively. Thus, the methods suggested in the syllabuses tend to be more of exposition or transmission than discovery and problem solving methods that enable students to go deep into the subjects and work independently.

There is no significant difference on the methods of teaching between the grade levels at 0.05 levels. But there is significance difference between the academic and non-academic subjects for the non-academic subjects stress on demonstration method as to compare the academic subjects.

In most subjects more weight is given to theoretical exercises. The highest emphasis is observed in social studies and science subjects. Mathematics and language subjects although they stress mostly on

theoretical exercises the emphasis given to practical exercises are relatively high as to compare to science and social studies.

The non-academic subjects emphasize practical exercises except music, which stress on the theoretical aspect. The emphasis given to practical exercises generally tend to increase towards the higher-grade levels.

5.2 Conclusions

The major difference in time allocation between the current curriculum and the previous curricula of the same grade levels is the higher emphasis given to science subjects and the exclusion of vocational and technical subjects in the present curriculum. Thus, this curriculum is more of academic especially at the higher two grade levels. The exclusion of vocational /technical subjects from the curriculum seems to contradict with the educational objectives of the second cycle of primary education that says, "to enable students of this cycle to become productive citizens by providing basic skills and vocational training" (MOE, 2000:5) and Marew (2000: 101). This objective cannot be fully achieved by providing academic subjects, as the curriculum does not include even a single vocational or technical subject. On the other hand, although higher time is allotted for science subjects at the higher two grade levels as to compare the international norm and the previous curricula of the country, it is not possible to conclude that there is time imbalance between the science and the other subjects because the educational policy stipulates to emphasize science subject in the cycle.

There is inadequacy of time to cover the contents in science subjects in grades seven and eight although thirty percent of the curriculum time has actually been given to these subjects. There is also similar problem in social studies in grades six, seven and eight. On the other hand, more than adequate time is allocated for art and music vis-à-vis the amount of contents of the subjects. In both the above stated

groups of subjects there is a mismatch between the amounts of the contents of the subjects and the time allocated to cover them. Thus, the time allocation revealed an apparent lack of knowledge about the amount of contents presented in these subjects. However, the time given to the other subjects seems well balanced.

There seems unconscious utilization of time by most teachers. Most teachers spent one half of the time allocated for the subjects in giving notes for students that would have been used for other actual teaching and learning activities. These teachers would be in no position to cover the contents by devoting only half of the time for explanation and, doing and correcting exercises. In addition, most teachers try to cover all topics of their subject without identifying the less important topics needed for awareness which require less time or totally to be omitted from the topics to be taught thoroughly which require more time. This is due to their belief that all the topics are important to be learnt by the students and the pressure from school administrators and supervisors. Thus, both of these affect the adequacy of the time allotted for the subjects that force teachers to teach fast, order their students to copy down their textbooks or teach in their spare time that would have been used for other remedial purposes.

The academic subjects highly stress on the cognitive domain. In these subjects the psychomotor domain is markedly under emphasized. The emphasis given to the affective domain by these subjects is extremely low. In some of these subjects the affective domain is totally unrepresented. Thus, there is a clear imbalance among the three domains of objectives as most of the subjects of the cycle are in this group. The balance among the three domains of objectives seems fairly balanced in the non-academic subjects although they relatively stress on the psychomotor domain due to the nature of the subjects. All these holds true in all grade levels, as there is no significant difference between the grade levels on the weight given to the three domains. In general, the curriculum is heavily overloaded on cognitive domain of objectives.

In all subjects there is a tendency to decrease the number of objectives towards the higher levels. Most of the cognitive types of objectives in all subjects except mathematics grade eight are at the first two lower levels. The number of objectives at the application; analysis, synthesis and evaluation are very minimal. Such curriculum, which is tied up with such lower level of objectives, does not seem to develop higher thinking skills and deep understanding. On the other hand, the affective and psychomotor objectives stress at the central levels. Such premature leap to the central level objectives that are not built upon the lower levels and remaining at central level without going to more complex of learning reflect another problem of balance between depth and breadth. This is mostly reflected in the non-academic subjects, which emphasize on these domains of objectives. In general, the academic subjects put more weight on lower level objectives as to compare to the non-academic subjects. Therefore, the emphasis on breadth is more serious in the academic subjects and the cognitive domain of objectives than in the non-academic subjects, and psychomotor and affective domains. There is no significant difference between the grade levels on the emphasis given to different levels of objectives; hence, there are similar imbalances between depth and breadth between the grade levels.

Most of the teaching methods cited in the syllabuses are expository type such as lecture/explanation, question and answer and demonstration that suits for broad survey coverage than an in-depth understanding. Teaching methods like guided discovery, task/project and inquiry methods that invite students to go deep in to the subjects and work independently are very minimal. Thus, the teaching methods suggested in the syllabuses, like the levels of the objectives, depicts the focus of the curriculum on breadth than depth.

There is a general imbalance between theoretical and practical exercises which most of the subjects stress on theoretical aspect. This is highly reflected in social studies and science subjects. In mathematics and language subjects although relatively higher emphasis is given to the theoretical exercises the

magnitude of imbalance is less serious. Based on the nature of the subjects the non-academic subjects except music, have fair balance between the two types of exercises though they stress on the practical aspect. There is also a tendency to increase the number of practical exercises towards the higher-grade levels. Generally, the imbalance between theoretical and practical exercises can be said less serious as to compare the imbalances between the three domains of objectives and breadth and depth of the curriculum.

5.3 Recommendations

- 1 The data on the adequacy of time likely to suggest making some adjustments on the period allotment rather than accepting the centrally set time schedule as it is. Therefore, the period allotment must be examined with respect to the content of each subject as outlined in the syllabuses and textbooks. In this case, the time allocated for music and art in grades five and six would need to be reduced to two periods per week. These periods should be added to social studies and science subjects of the same grade levels and bring some topics from the higher grade levels to these grade levels considering the maturation level of the students, the sequence, horizontal and vertical integration of the topics.
- 2 In general to keep the time balance it requires more effective use of the existing school time rather than prolonging the school day or the academic year. Thus, the teachers must be helped in identifying the most important and the less important topics rather than to treat each topic equally and trying to cover all the topics which cannot be actually covered using the available time. To insist teachers on dogmatic policy to cover all the contents is unworkable. Therefore, it would be more advisable and profitable if the school administrators and supervisors focus on helping teachers to

utilize the time allocated efficiently and effectively rather than insisting to cover all the topics specified in the textbooks. The teachers should be also oriented how to assist their students to take notes rather than considering note giving as the exclusive responsibility of the teachers. In addition to this, teachers' performance evaluation should be based on how efficiently the teachers have used the time allotted rather than a mere coverage. Furthermore, the role of the teachers' guide in providing teachers with practical advise in indicating which topic is raised in the previous or next grade levels, which topic is related with topics of the other subjects, which topic need more concentration must be clearly stated rather than simply mentioning selection is acceptable in certain cases.

- 3 If the stated objectives of the cycle to train student on vocational and technical skills through the academic subject is correct, the only workable strategy is that substantial elements of technical and vocational skills should be consciously integrated and delivered through their application in other subjects. In this case, the science subjects can play a major role. Otherwise, if this objective is referring to the parallel structure of vocational and technical education this objective should not be stated in this way under the second cycle primary education.
4. Educational objectives should not be confined only on cognitive domain. Attention should be also given to the important role of feelings and physical activities in the students learning so as to integrate thinking, feeling and doing in the learning process and enhance the over all development of the learner. In this regard, the objectives stated in the syllabuses need to be restated.
5. To stimulate critical thinking of students require cultivating the students' thoughtfulness and creativity. To achieve this it is necessary to set curricular objectives that stress on higher level rather than on lower level objectives concerned on retention, recalling and reproducing previously acquired

knowledge. Therefore, the objectives stated in the syllabus need to be redefined to accommodate the need for more high level of objectives.

6. The policy advocates problem-solving method would be the major teaching method in the cycle. This requires students to be engaged in an intelligent process of continual inquiry and discovery than merely exposed to explanations. Therefore, the teaching methodologies that provide an opportunity to the student to be involved in exploration, manipulation, experimentation, inquiry and making generalizations on their own should be more highlighted in the syllabuses than methods concerned on transmission.
7. The students must be able to practice or engage in doing things to develop their skills and solve practical problems. However, the current curriculum mostly focuses on exercises that require acquisition of knowledge. Thus there is a need to design more appropriate curriculum, which allow students to experience a range of practical problems, and exercises that develop students' skills in doing things that are demanded both in and out of school. In this regard, the science subjects need much more improvements.
8. To implement all the above recommendations at once may be difficult and may need longer time but all these should be considered during revisions and reprinting of syllabuses, textbooks and teacher guides.

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5. Your Qualification a) TTI 12 +1 year collage
 c) 12 + 3 d) Degree holder

6. Your Field of Specialization (for teachers above TTI qualification) _____

7. Your Weekly teaching load in Periods _____

8. Average number of Students per Class _____

Part II Period Allotment and Method of time Utilization

1. In your opinion how far the period allocated for the subject you teach is adequate to cover the subject on time? Indicate your response using the following table for each of the subjects and grade level you teach.

<u>Subject</u>	<u>Grade level</u>	a) <u>Not adequate</u>	b) <u>adequate</u>	c) <u>More than</u>	<u>adequate</u>
1 _____	_____				
2 _____	_____				
3 _____	_____				
4 _____	_____				

2. If your response for question 1 above is "not adequate" in your view how many additional period per week is needed to cover the subject on time? Indicate your response using the following table for each of the subjects and grade level you teach.

<u>Subject</u>	<u>Grade level</u>	a) <u>One</u>	b) <u>Two</u>	c) <u>Three</u>
1 _____	_____			
2 _____	_____			
3 _____	_____			
4 _____	_____			

3. If your response for question 1 above is "not adequate" what mechanisms do you use to cover the contents?

- a) Ordering students to copy notes from their textbooks ☐
- b) Teaching additional periods un your spare time ☐
- c) Teaching all the topics in short ☐
- d) Leaving the contents uncovered ☐
- e) Teaching hurriedly to cover all the topics ☐

4. In your view what should be done to solve the problem of time in-adequacy to cover the subject on time?

- a) Increasing the number of school days ☐
- b) Increasing the schools hour ☐
- c) Reducing the amount of the contents of subject ☐
- d) Reducing the number of subjects being given in the cycle and adding the obtained period to the remaining time ☐
- e) If others, please specify _____

5. If your response to question 4 above is "yes", what is the major reason? (you can choose more than one answer).

- a) Yes ☐
- b) No ☐

6. If your response to question 4 above is "Yes", what is the major reason? (you can choose more than answer).

- a) All the topics are important ☐
- b) National and class examinations cover all the topics ☐
- c) School administrators and supervisors control whether all topics are covered ☐
- d) The students want to cover all the topics ☐
- e) It is one of the criteria for teacher's performance evaluation ☐
- f) If other, please specify _____

7. How do you mostly utilize the time allotted for the subject you teach?

- a) Teaching the whole period and in the process the students
take notes by themselves.
- b) Giving notes and teaching in alternate periods
- c) Teaching in part of the period and students exercise what they have learnt in the remaining
time
- d) Teaching the whole period and students take notes from their textbook
- e) If other, please specify _____

_____ //

Thank you again for your cooperation

APPENDIX - B

DEFINITIONS OF THE DIFFERENT LEVELS OF THE THREE DOMAINS OF OBJECTIVES.

Levels Of The Cognitive Domain Of Objectives From The Lower To The Higher Level

- 1 **Knowledge:** involves the remembering of previously learned material. It includes from recall of single facts to complete theories or generalizations.
- 2 **Comprehension:** is the ability to grasp the meaning of material. It involves translating material from one form to another, interpreting materials and estimating future trends.
- 3 **Application:** refers to the ability to use learned material in new and concrete situations. It includes application of rules, methods, concept principles, laws, procedures and theories.
- 4 **Analysis:** refers to the ability to break down material into its component parts so that its organization and structure may be understood. It includes the identification of the parts analysis of the relationships between parts, and recognition of the organizational principles involved.
- 5 **Synthesis:** is concerned with the ability to put parts together to form a new whole. It includes the production of a unique communication, a plan of action or a set of abstract relations.
- 6 **Evaluation:** refers to the ability to judge the value of a material for a given purpose based on definite criteria.(Welton and Mallan,1992:AD1-AD3)

Levels Of The Affective Domain Of Objectives

- 1 **Receiving:** refers to the student's willingness to attend particular phenomena or stimuli. It is concerned with getting, holding, and directing the student's attention.
- 2 **Responding:** refers to active participation of the student. At this stage the student not only attends to particular phenomenon but also reacts to it in some way.
- 3 **Valuing:** is concerned with the worth or value a student attaches to a particular object, phenomenon, or behavior. This includes from simple acceptance of a value to high degree of commitment.
- 4 **Organization:** is concerned with bringing together different values, resolving conflicts between them and beginning the building of an internally consistent value system.
- 5 **Characterization by a value or value complex:** at this level the student behaves in accordance with his/her value system that controls his/her behavior for a sufficiently long time. At this stage the student develops consistent philosophy of life and an internal drive to continue it (Welton and Mallan, 1992:AE1-AE3).

Levels of the Psychomotor Domain of Objectives

- 1 **Perception:** refers the use of the sense organs to obtain cues that guide motor activity. It ranges from sensory stimulation through selection of task relevant cues to translation in to action.
- 2 **Set:** refers to readiness to take a particular type of action. It includes mental and physical readiness to act.
- 3 **Guided response:** refers to the early stages in learning a complex skill. It includes imitation and trial and error.
- 4 **Mechanism:** is concerned with performing acts with some degree of confidence and proficiency.
- 5 **Complex overt Response:** refers to currying out skillful performance of motor acts that involve complex movement patterns smoothly and accurately with minimum of time and energy.
- 6 **Adaptation:** concerned with altering movement patterns to fit requirements of a new problem situation (Abebe1991: 201)
- 7 **Origination:** refers to creating new motor act or original movement patterns to meet the requirement of a new problem. This stage stresses or creativity of highly developed skills.

Table-1 Instrumentation of the Taxonomy of the cognitive Domain: Level 1

Sub Categories	Examples of key words	Examples of Direct objects
Knowledge	Define, distinguish acquire, identify, recall, recognize	Vocabulary, terms, terminology meaning definitions, referents, elements, facts factual information (sources, names, dates, events, persons, places) properties, examples phenomena
	Recall, identify, recognize, acquire	Forms conventions, uses, usage, rules ways, devices, symbols, representations, styles, formats, actions, processes, movements, continuity, development, trends, sequences, causes, relationships forces, influences
	Recall, recognize	Areas, types, features classes, sets, divisions, arrangements, classifications categories
	Recall, recognize to acquire, identify	Criteria, basics, elements. Methods, techniques, approaches, uses procedures, arrangements, classifications categories
Comprehension	Translate, transform, illustrate, prepare, read, represent change rephrase, restate	Meaning, samples, definitions, abstractions representations, words, phrases
	Interpret, reorder arrange differentiate Distinguish, make, draw, explain, Demonstrate	Relevancies, relationships, essentials, aspects, new views qualifications conclusions, methods, theories, abstractive
	Determine estimate infer, conclude, predict Differentiate extend interpolate	Consequences, Implications, conclusions, factors, ramifications, meanings, corollaries effects, probabilities.

APPENDIX -C**Table 2- Instrumentation of the Taxonomy of the cognitive Domain: Level-2**

Sub categories	Example of Key words	Examples of Direct Objects
Application	Apply, generalize, relate, choose, develop, organize, use, employ transfer, to restructure, to classify	Principles, laws, conclusions effects, methods, theories, abstractions, situations, generalizations, processes, phenomena, procedures.
Analysis	Distinguish, detect, identify, classify, discriminate, recognize, categorize, deduce, analyze contrast, compare,	Elements, hypotheses, conclusions assumption, statements of intent, arguments particulars, relationship, interrelations relevancies, themes, evidences, fallacies, cause and effect, consistency, parts ideas, assumptions, forms, patterns, purposes, points of view, bias, techniques, structures, arrangements organizations.
Synthesis	write ,tell relate produce constitute transmits ,to originate modify to document –unique communication to propose, plan design , modify , specify , to drive develop, combine, organize, synthesize formulate	Structures, patterns products. Performances design works communication specifics composition efforts, plans, objectives specifications schematics, operations ways, solutions, means phenomena, taxonomies concepts, theories, relationship, abstractions generalization, hypotheses perceptions, ways discoveries.
Evaluation	Judge, argue, validate, assess, decide, consider, compare, contrast Standardize, appraise on internal or external criteria	Accuracy, consistency fallacies, reliability flaws, errors, precision, exactness ends, means efficiency, economy, utility, alternatives, courses of action standards theories generalizations.

Adapted from Metfessel, Michael and Kirsner (1974: 82-84)

APPENDIX -D Table 3- Instrumentation of the Affective Domain of Objectives

Levels of Objectives	Sub categories	Examples of key words	Examples of Direct Objects
Lower Level	Receiving	Differentiate, separate, set apart share.	Sights, sounds, events, designs, arrangements
		Accumulate, select, combine, accept	Models, examples, shapes, sizes, maters, condenses,
		Select, post rally, respond to, listen, for, control	Alternatives, answers, rhythms, nuances
	Responding	Comply with to follow, commend approve	Direction, striations, laws, policies, demonstrations
		Volunteer, discuss, practice play	Instruments, games, dramatic works charades burl esque
		to applied ,acclaim, to spend leisure time in ,augment	Speeches plays, presentations, writings
Higher Level	valuing	Increased measured proficiency in increase numbers of relinquish, specify	Group membership artistic production, musical production, personal friendships
		Assist, subsidize, help, support deny protest, debate, argue	Artists, projects view points, arguments, deceptions, irrelevancies abdications, irrationalities
	Organization	to discuss, theorize(on)abstract to balance, to organize, define formulate	Parameters, codes standards, goals systems, approaches criteria limits
	characterization by value or value complex	Revises change, complete to requires to be rated high by peers in, to be rated high by subordinates in, manage to resolve to resist avoid,	Plans behavior methods, efforts humanitarianism ethics, integrity maturity Extravagance, excesses, conflicts, exorbitance

Adapted from Metfessel, Micheal and Kirsner (1974:85)

APPENDIX -E Table 4- Instrumentation of the psychomotor Domain Objectives

Levels of objectives	Sub categories	Examples of Key words	Examples of Direct Objects
Lower Level	Perception	Choose, to describe detect differentiate, distinguish, identify, to isolate, relate select, to separate	Sound of machine, music to particular dance step, maps, graphs, charts
	Set	Begin display, explain, move placed Ire act of read respond show start listen	Sequences steps desire to do things desire to act, maps, graphs charts
	Guided response	Assemble copy builder, calibrate construct, dismantles display dissects, fastens, fixes, grinds beat, manipulate, to measure, mend, mixes to organize to play sketches, works-as demonstrated or shown,	Materials, equipments, machines goods furniture's space parts, first aid procedures sequences of preparing meals, -as demons traced or shown or learned maps charts graphs take notes dancing throwing typing speaking develop eye and hand coordination
Higher Level	Mechanism and complex overt Response	Operates, dissects fasten opens manipulate, close, sketches writes, dances plays demonstrate swim drive draw sing repair	Writes smoothly and legibly sequences operations, maps, charts, graphs playing musical instrument dancing acting drawing perform accurately, independently, proficiently, with speed,
	Adaptation and Origination	Adjusts adapts, alters changes rearranges reorganizes revises varies arranges combines composes, constructs creates, designs, originates develops counter act	Methods procedures, dress style, mystical com position dance step, write original composition forms shapes, plan, drawings music goods, furniture painting sculpting,

Adapted from Abebe (1991: 202)

APPENDIX - F

FORM 1

Coding Sheet for Categorizing Domains of Objectives

I. General Information

1. Subject of the Syllabus _____
2. Grade Level _____
3. Sampling Unit (Chapter) _____
4. Page _____ to _____
5. Coding Unit Objectives _____
6. Codder _____ a)Qualification _____ b)Subject Major _____
7. Coding Date a)Started _____ -b)End _____ C)Total days _____

II INSTRUCTION: -Enter “X” in the table under the category you think most appropriate based on the definitions and indicators given for each category and on your judgment which the objective primarily focuses.

CHAPTER	Domain of Objectives			
	Cognitive	Affective	Psychomotor	Not Clear
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
Total				

APPENDIX -G

FORM 2

Coding Sheet for Categorizing Levels of Objectives

I. General Information

- 1 Subject of the Syllabus _____
2 Grade Level _____
3 Sampling Unit (Chapter) _____
4 Page _____ to _____ -
5 Coding Unit Objectives
5 Coders a)Qualification _____ b)Subject Major _____
6 Coding Date a)Started _____ -b)End _____ C)Total
days

II INSTRUCTION: -Enter “X” in the table under the category you think most appropriate based on the definitions and indicators given for each category and on your judgment which the objective primarily focuses.

[illegible]

APPENDIX -H FORM 4

Coding Sheet for Categorizing Types of Teaching Methods

I. General Information

1. Subject of the Syllabus _____
2. Grade Level _____
3. Sampling Unit (Chapter) _____
4. Page _____ to _____ -
5. Coding Unit Types of Teaching Methods
6. Coder _____ a)Qualification _____ b)Subj.Majr _____
7. Coding Date _____ a)Started _____ -
b)End _____ c)Total days _____

II INSTRUCTION:-Enter "X" in the table under the category you think most appropriate.

CHAPTER	Lecture/ Explanation	Question and answer	Demonstratio n	Discussion	Guided Discovery	Task/Project	Inquiry	Others
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
Total								

APPENDIX - I

FORM 4

Coding Sheet for Categorizing Theoretical and Practical Exercises

I. General Information

1. Subject of the Syllabus _____
2. Grade Level _____
3. Sampling Unit (Chapter) _____
4. Page _____ to _____ -
5. Coding Unit Questions of Exercises and Student Activities
6. Coder _____ a) Qualification _____ b) Subject Matter _____
7. Coding Date _____ a) Started _____ - b) End _____ c) Total days _____

II INSTRUCTION:- Enter "X" in the table under the category you think most appropriate based on the definitions and indicators given for each category.

CHAPTER	Type of Questions and Student Activities	
	<i>Theoretical</i>	<i>Practical</i>
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Total		

APPENDIX - J

CHARACTERISTICS OF THE RESPONDENTS

Variables	Characteristics Category	Teachers	
		No	%
Sex	Male	159	84.57
	Female	29	15.43
	Total	188	100
Age	Less than 30 years	17	9.04
	30 – 40 years	74	39.36
	41 - 50 years	85	45.21
	51 and above years	12	6.38
	Total	188	100
Qualification	TTI	100	53.19
	12+1	15	7.98
	12+2	70	37.23
	12+3	3	1.60
	Total	188	100
Work Experience	1 –5 years	12	6.38
	6 –10 years	14	7.45
	11 –15 years	21	11.17
	16 – 20 years	52	27.66
	21 –25 years	55	29.26
	26 and above years	34	18.08
	Total	188	100
Status on the Career Structure Ladder	Beginner Teacher	4	2.13
	Junior Teacher	5	2.66
	Teacher	29	15.43
	Senior Teacher	71	37.76
	Associate Lead Teacher	79	42.02
	Total	188	100

DECLARATION

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

 June 14, 2001

ALEMAYEHU SEBERU

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



DEREBESSA DUFERA (Ph.D)