

**ADDIS ABABA UNIVERSITY  
SCHOOL OF GRAGUATE STUDIES**

**INTEGRATION OF HIV/AIDS EDUCATION IN SECOND CYCLE  
PRIMARY SCHOOL CURRICULA: THE CASE OF ADDIS ABABA**

**BY  
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**JUNE 2009**

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**A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIRMENTS  
OF MASTER OF ART IN CURRICULUM AND INSTRUCTION**



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## Acknowledgment

First of all I would like to forward my gratitude and heartily praise to the almighty God for every thing He did to me. Secondly I am also happy to acknowledge my advisor Dr. Woube Kassaye, for his frequent constructive criticism and material support. In the absence of his material and technical support this study would have never been realized.

Then my unreserved thank also reaches to my lovely parents who made this happen but unable to see it. The last but not the least gratitude goes to all my brothers, sisters, relatives and friends who had been on my side on financial, technical and material support through out my study.

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## Abbreviations/acronyms

AA	Addis Ababa
AACAEB	Addis Ababa City Administration Education Bureau
AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
CDRD	Curriculum Development and Research Department
EMPDA	Educational Material Production and Distribution Agency
HAPCO	HIVAIDS Prevention and Control Office
HIV	Human Immune Virus
ICDR	Institute for Curriculum Development and Research
MOE	Ministry of Education
MOH	Ministry of Health
NGOs	Non Governmental Organizations
PLWH	People Living with HIV
UNESCO	United Nation Education Scientific and Cultural Organization
UNAIDS	Joint United Nations Programme on HIV/AIDS
WHO	World Health Organization
አአከአት.ቢ. ት.ሚ.	አዲስ አበባ ከተማ አስተዳደር ትምህርት ቢ.ሮ ትምህርት ሚኒስቴር

## Abstract

*The main objective of this study was to assess the extent of HIV/AIDS integration in primary school second cycle (grades 5-8) to the specific reference of Addis Ababa. Quantitative research approach was mainly employed to achieve the intended objective of the study. Four carrier subject experts of ICDR (1 male), AACAEB (2 males) and MOE (1 male) and student's text and syllabus were selected as sample of the study through purposive sampling. Accordingly from social science carrier subjects, Civic and Ethical Education texts and syllabuses of grades 5-8, and from natural science subjects Basic Integrated science of grades 5 and 6 and Biology of grades 7 and 8 texts and syllabuses were selected as sources of information of the study. In addition, 1 biology and basic integrated science expert from ICDR, 2 experts (1 biology and 1 social studies) from AACAEB and 1 civic expert from MOE were selected as sources of data. Data collection instruments mainly content analysis and semi- structured interview as supplementary of content analysis were used. The data collected through content analysis was analyzed through quantitative research approach by using tables and percentage. Moreover, data obtained from interview was also described and discussed qualitatively. The findings confirmed that HIV/AIDS education was integrated comprehensively (containing knowledge, attitude and skill based information about HIV/AIDS) in natural science subjects by far in a better coverage than in social science sample subject i.e. civic and ethical education. On the basis of the findings, it was suggested that curriculum experts of civic and ethical education require to reconsider the already integrated HIV/AIDS issues and revise to integrate comprehensive HIV/AIDS issues sufficiently which would enable students to protect them selves from risk of the disease rather than emphasizing mainly on knowledge based information that dominantly concentrated on impact and distribution of the pandemic. Furthermore, it was also recommended that there should be social mobilization and coordinated efforts of different sectors of institutions (MOH and HAPCO) and various NGOs working on fighting against the disease and anti-HIV/AIDS clubs established in schools.*

# CHAPTER ONE

## Introduction

### 1.1 Background of the study

The world has been oscillated by HIV/AIDS epidemic for over three decades. The first clinically diagnosed cases of AIDS were identified in the USA in 1981 among the homosexuals (MOE/ICDR, 1995). Subsequently, AIDS has been diagnosed among injecting drug users, children, and recipients of blood transfusions, hemophiliacs, heterosexuals and bisexuals (Ibid).

As a number of literatures indicate for the last 3 decades the whole world has been affected by the ravaging impact of the epidemic. No part of the globe and no one person is immune from in discriminatory attack of the disease. Irrespective of human identity and territorial scope of our planet, HIV/AIDS has affected the world (World Bank, 2004). The worst impact is however in the developing nations especially in sub-Saharan Africa (UNAIDS, 2008). Therefore, the issue of HIV/AIDS is not only the concern of a nation or an individual but rather it needs the collaborative or shared effort and responsibility of every nation as well as every individual. This study is also intended to contribute its own share regarding responses against the rapid spread of the epidemic.

At the dawn of the 21<sup>st</sup> century, the word HIV/AIDS dominated the media, be it in newspaper, through radio or television. A day can hardly go by without news as to how the epidemic is ravaging the whole world. Children and young people are at risk. According to UNICEF (2002) report, a survey carried out by countries shows that more than half of those aged 15 to 24 have serious misconceptions about HIV/AIDS.

Makofane (2004) stated that the epidemic's grip on Africa has been by far the deadliest, but no part of the world is immune. He further stated that the most devastated and far-reaching perhaps, is the epidemic's impact on the education system. In the mist of confusion and frustration one can't really afford to turn a blind eye on this scourge.

Calls are made from all corners of the world for the fight against the pandemic. A clear point is that there is no cure for HIV/AIDS. The only hope is “awareness” so that people can adequately protect themselves (Ibid). That is being the case, school curricula can assist by including HIV/AIDS programme in the school curriculum.

According to the study done by MOE (2003:6), the curriculum approach has entailed reforming formal curricula to incorporate HIV/AIDS as a stand alone subject and/or as an integral part of the other subjects such as biology, health and hygiene, family life education, guidance and counseling and social studies.

HIV/AIDS integration in school curricula is mainly aimed to avoid lack of awareness of students that in turn create awareness among the whole society. Hence, this kind of study is therefore, worth researching.

## 1.2 Statement of the Problem

It is obvious that HIV/AIDS does have multi-directional problems on the social, economical, political, and educational and over all developments of nations. As far as the impact of the disease on socio-economic and development is concerned, a February 2001 report as mentioned in MOE (2003:100) the UN secretary –General, Kofi, A. Annan warns that AIDS is reversing decades of development in the hardest – hit regions of the world. He said:

*HIV/AIDS changes family composition and the way communities operate, affecting food security and destabilizing traditional support systems. By eroding the knowledge base of society and weakening production sectors, it destroys social capital. By inhibiting public and private sector development and cutting across all sectors of society, it weakens national institutions. By eventually impairing economic growth, the epidemic has an impact on investment, trade and national security, leading to still more wide spread and extreme poverty.*

HIV/AIDS affects the day-to-day quality of life of the HIV-positive individuals and their families. It also removes these people from their work places leading to absenteeism. Thus the household spending power will decrease, labor productivity will suffer, and the skill base within socio-economic institutions will literally die out. Moreover, the economy of a nation as a whole will have to pick up for training new work force and paying health expenses, etc. In most of the

African countries, agriculture provides as many as 85% of the population. Consequently, as adults in rural areas fall ill, productivity in agriculture drops off dramatically (MOE, 2003:101).

The increasing number of AIDS orphans is among the manifestations of the social impacts of the disease –the disintegration of families and a tearing of the social fabric. Some studies in Addis Ababa have indicated the collapse of some indigenous social support systems such as Eders being unable to withstand the financial crises that resulted from increased AIDS related mortality (HAPCO, 2007).

Studies have also shown the increased AIDS related cost incurred by the health sector in terms of specific expenditure for hospitalization, treatment and supportive care. It has been documented that HIV- related patients occupy approximately half of hospital beds and that the increasing numbers of AIDS patients strain the capacity of the already overburdened health professionals. In addition the high cost for AIDS care affects budget allocation from other programs such as primary health care and essential drugs services (MOH and HAPCO, 2004).

The impact of this pandemic in the political aspect is enormous that it can cripple a country's attempts to establish and maintain democracy and equity because of the following reasons (MOE, 2003):

- The next generation of political and economic leaders is being wiped out.
- A magnitude of orphans poses a long term threat to stability and development
- Family and social structures are breaking down due to their inability to cope.
- Citizens' support and participation in democratic governance will wane, as more people are infected and removed from public sphere.

The pandemic has also an immense impact on the education sector of nations. For example, its impact in this sector is categorized in three parts: the impact on the **demand** through drop out of orphan students, illness and death of students due to HIV/AIDS. The impact on the **supply** and the impact on the **quality** of educational services through increase mortality rate of well-trained and experienced teachers (MOE, 2003:17 and World Bank, 2004:3).

As far as the global distribution of the epidemic is concerned UNAIDS 2008 report, indicates that around 30.8 million adults and 2.5 million children were living with HIV. The report also uncovered that some 2.5 million people became infected with the virus. The year also saw 2.1 million deaths from AIDS. The number of deaths probably peaked around 2005, and has since declined only slightly (UNAIDS, 2008).

Globally, around 11% of HIV infections are among babies who acquire the virus from their mothers; 10% result from injecting drug use; 5-10% is due to sex between men; and 5-10% occurs in healthcare settings. Sex between men and women accounts for the remaining proportion – (around two thirds of new infections) (WHO, 2008).

Around half of the people who acquire HIV become infected before they turn 25 and typically die of the life-threatening illnesses called AIDS before their 35th birthday (UNAIDS, 2008). By the end of 2007, the epidemic had left behind 15 million AIDS orphans, defined as those aged under 18 who have lost one or both parents to AIDS. These orphans are vulnerable to poverty, exploitation and themselves becoming infected with HIV. They are often forced to leave the education system and find work, and sometimes to care for younger siblings or head a family (MOH and HAPCO, 2008).

The overwhelming majority of people with HIV, some 95% of the global total, live in the developing world. The proportion is set to grow even further as infection rates continue to rise in countries where poverty, poor health care systems and limited resources for prevention and care fuel the spread of the virus (WHO, 2008).

The area in Africa south of the Sahara desert, known as sub-Saharan Africa, is by far the worst-affected in the world by the AIDS epidemic. The region has just over 10% of the world's population, but is home to 67% of all people living with HIV. HIV prevalence varies considerably across this region - ranging from less than 1% in Madagascar to over 25% in Swaziland (UNAIDS, 2008).

HIV prevalence (the proportion of people living with HIV) appears to have fallen slightly in this region over recent years because the number of new infections is exceeded by the number of deaths each year. However, the total number of people living with HIV is still rising because of overall population growth (Ibid).

Our country Ethiopia as one of the sub-Saharan African countries cannot be an exception from the devastating effect of the epidemic. AIDS was first identified in Ethiopia in february1986 (MOE and ICDR, 1995).

According to MOH and HAPCO (2008) report, 1,037,267 Ethiopians were living with HIV (969,131 adults; 612,815 women; and 68,136 children below 15 years). The report also uncovered that 125,147 people (111,054 adults, 71,577 women, 14,093 children below 15 years) were newly infected with the virus in the year of 2008. In the same year 58,290 AIDS deaths was also reported. Among this (49,006 adults; 33,084 women and 9,284 children under 15 years old) was reported .The report also shows the country's prevalence rate to be 2.2% (2.6 women, 1.8 men, 7.7 urban and 0.9 rural). According this data, it is possible to say that with in the duration of 4 minutes, an Ethiopian is infected by the virus. It implies that how much the virus is ravaging the society.

Addis Ababa's summary of the AIDS epidemic of MOH and HAPCO (2008) report reveals that: 171,722 people (165,483 adults; 101,851 women and 6239 children under 15 years) were living with the virus. It also further indicates that 21,732 people were newly infected by the pandemic (220,895 adults; 12,493 women and 837 children below 15 years). In the same report, 5,761 deaths (5,327 adults; 3,223 women and 434 children below 15 years) of the city were reported. The HIV prevalence rate of the city was 7.9% (9.5% women and 6.3% men) (MOH and HAPCO, 2008). The prevalence rate of the epidemic as reveals above, the case of A.A has been the highest (7.09). From this it is easy to understand that how much the disease is threatening the city more than else where of the country. That why this study was also intended to be carried out in this aspect.

Considering the aforementioned comprehensive problems of the deadly disease a number of countries as mentioned in the literature part of this paper have experienced integration of

HIV/AIDS education in their school curriculum believing that education is the only means to fight the disease and mitigate its impact through creating awareness.

At national level as a national response, various efforts have been exerted to combat the devastating impact of the pandemic since the first report of AIDS diagnosis in 1986 and even before it. Accordingly, the government has carried out a number of intervention programs against the spread of HIV/AIDS both through curricular and co-curricular activities. For example in 1985 HIV/AIDS task force was established, in 1987 AIDS department within the MOH was established, in 1988 an HIV surveillance system was established, in 1998 HIV/AIDS policy was set up, multisectoral HIV/AIDS strategic plan was also set up for the national response to HIV/AIDS in Ethiopia for 2001-2005 (HAPCO, 2007).

Moreover, HIV/AIDS education program in Ethiopia was introduced in schools first in 1989 as a pilot project. Later on in 1992, it was started in all Ethiopian secondary schools by the organizer of MOE under the direct supervision of the vice-minister. The program performed its activities on both co-curricular and curricular bases (Solomon, 2001). Co-curricular program includes establishment of anti-HIV/AIDS clubs in schools, distribution of pamphlets written on the disease, inviting different NGOs working on combating HIV/AIDS to teach students at school level etc. Curricular activities have been given in the classroom as formal academic basis. For this purpose following the launching of the NETP of 1994, in 1995 HIV/AIDS program was integrated in relevant carrier subjects such as biology, basic integrated science, physical education, civic and ethical education, language and social studies starting from grade four. By re-considering the extent of HIV/AIDS integration, in 2005 integration of the epidemic was revised and it was integrated starting from grade three (Solomon, 2003 and ICDR, 2004).

Nevertheless, except some researches done on the process of designing, implementation and impacts of HIV/AIDS, satisfactory research focusing on assessment of the extent of HIV/AIDS integration in school curriculum has never been undertaken (MOE, 2003; MOE and ICDR, 1995). That is why this study was conducted in this direction to fill the existing knowledge gap and to give some highlights and comments on its integration pattern.

### **1.3 Objectives**

1. The study is intended to check whether HIV/AIDS program in the school curricula of the study area was integrated sufficiently to reduce the vast spread of the virus or not.
2. To identify the reason why these grade levels and carrier subjects were selected for integration of HIV/AIDS education

### **1.4 Research Questions**

The outcome of the study is intended to answer the following research questions

1. To what extent issues of HIV/AIDS are incorporated in the school curriculum of second cycle primary school?
2. Where HIV/AIDS education was adequately incorporated? Was it at the syllabus or text books of the carrier subjects?

### **1.5 Significance of the Study**

1. The out come of the study is expected to indicate direction for policy makers and curriculum planners about the need for inclusion of HIV/AIDS in school curricula.
2. The result of this study would also serve as a land mark to do further study in the area.

### **1.6 Delimitation of the Study**

Due to financial, time and man power constraints the study is only delimited to Addis Ababa City Administration of second cycle primary school(Grades 5-8).These grade levels are selected purposefully because children at these grade levels are in the danger zone because they don't have sufficient knowledge and skills what is good and bad about sex (Makofane, 2004).

### **1.7 Definition of Terms**

**Curriculum:** There is no fixed definition of curriculum. Many authors and academics dared to define the word "curriculum" but each one from a different point of view. According to Mark

et al (1978:457) as quoted by Carl (1995:30), curriculum is ".....the sum total of the means by which a statement is quicked in attaining the intellectual and moral discipline requisite to the role of an intelligent citizen in a free society. It is not merely a course of study, nor is it a listening of goals or objective, rather it encompasses all of the learning experiences that students have under the direction of the school".

**HIV/AIDS Education:** According to this study HIV/AIDS education is an education that focus on HIV/AIDS integrated in (grades 5-8) the carrier subjects such as biology, basic integrated science , civics and ethical education ,physical education ,social studies and language considering definition of HIV /AIDS, cause of transmission, means of prevention, ways that are not transmitted the virus and situations that facilitate the conditions for the transmission of the virus (harmful traditional practices, alcoholic drink, sexual and different drug abuses or addictions) were taken as HIV/AIDS education of this study.

**Second Cycle Primary School:** This is the phase of school grade levels from grade five to grade eight (TGE, 1994). According to the Cambridge International Dictionary of English, grade is a school class or group of classes in which all the children of a similar age or ability are grouped.

**Student's Text Book:** Student's text book is a material that contains contents, different types of learning experiences and activities prepared purposefully as students' learning material on the basis of the syllabus to make students learn. According to this study those materials that integrated issues of HIV/AIDS such as civics texts of grades5-8, basic integrated science texts of grades 5 and 6 and biology texts of grades 7and 8 were taken as student's text books.

**Syllabus:** It is an outline of a given subject for a specific grade providing the objectives, contents along with time allotment, methods and materials as well as the evaluation mechanisms. In this study syllabuses of civics grades5-8, basic integrated science grades 5 and 6 and biology grades7 and 8 were taken as focus of the study.

## CHAPTER TWO

### Review of Related Literature

This chapter focuses on important literatures regarding experiences of countries on HIV/AIDS programmes in their school, sample HIV/AIDS contents and mode of integration HIV/AIDS issues in the study area (grades 5-8).

#### 2.1 Experiences of Countries on HIV/AIDS Program

There is no single model of school based HIV/AIDS education that is appropriate to every country. Different situations call for different responses; a typical developed country programme that emphasizes the importance of individual responsibility may be thoroughly inappropriate in a developing country where social interdependence is a key to survival and personal choice is limited by poverty (WHO and UNESCO, 1994). What is universally clear is that schools are in a position to change young people's attitudes and behavior and that where this potential is harnessed successfully the impacts of the AIDS epidemic can be significantly reduced (Boler, and Jellama, 2005). Accordingly, some important experiences of countries of the school based HIV/AIDS education presented as follow:

**In Kenya** a weekly compulsory HIV/AIDS lesson has been inserted into all primary and secondary state curricula, and on top of this AIDS education has been integrated into all subjects at school – a strategy that has been widely commended (Pembrey, 2008).

The case study done by Pembrey (2008) also states that AIDS education in Kenya is based on a "life skills" approach- that is , an approach that focuses on relationships , issues and the social side of HIV, as well as simply the scientific facts about infection.

Maseko and Mthembu in Getachew et.al(1995) stated that AIDS education was integrated in grades 6 and 7 of English and science curriculum in **Swaziland**. In **Lesotho**, they have HIV/AIDS education programs that cover all the levels of primary and secondary education (6-17 years old). At primary school level they have already produced syllabuses and teachers' guide

(Mosala and Moholi in Getachew et.al, 1995). In **Zambia** the AIDS education project provides HIV/AIDS education and communication skills to youth at pre-school, primary and secondary school levels (Phiri and Mahambu in Getachew et.al, 1995).

In **Malawi**, there are series of AIDS booklets for primary schools comprising students' hand books and teachers' guides. AIDS education is given as part of health education and co-curricular activities. In **Tanzania** AIDS education is operated by two projects for primary schools. They have short term project in which AIDS education was allocated a single period per week not attached to any of the existing subjects. The long term project integrates AIDS education mainly with science education (Katende and Sawaya, 1994)

In **Uganda** in 2001, the Presidential Initiative on AIDS Strategy for Communicating to Young People (PIASCY) was launched-the country's first national AIDS curriculum for primary schools. Under this programme, primary schools are required to hold weekly assemblies about HIV and AIDS and a set of teachers manuals have been distributed give guidance on teaching the subject. Similar initiatives have been carried out in colleges and universities, although it has been reported that AIDS education in secondary schools is virtually non-existent

In many districts of **India** the topics of HIV/AIDS have been integrated into the existing adolescence education curriculums, rather than being treated as stand alone subjects (Boler, and Jellema, 2005). This approach has generally been successful, as one government officials stated even when school curriculums are over burdened it is always possible to adapt existing subjects to include informatics about AIDS: "If you have a glass of water, you can't add any more water to it .But you can add more salt, sugar and co lour to the glass. In the same way no more extra curriculum should be added to school education, but existing subject can be modified to add in HIV/AIDS".

India's examination board has proposed to introduce HIV/AIDS education in to nurseries and schools teaching children as young as five about HIV/AIDS, drugs, hygiene and nutrition in an appropriate manner. Ministry of Education have also designed a sex education programme to be taught to 15 to 17 years olds in Indian secondary schools , which could potentially be an invaluable tool in India's fight against AIDS.

In the **USA**, AIDS education in schools is carried out within the wider framework of sex education. Debate has ranged over whether AIDS education should take the form of abstinence education (where pupils are encouraged purely to avoid sex until marriage) or comprehensive AIDS education, which promotes other options such as condom use –along side abstinence – as ways of preventing infection. Ultimately comprehensive education has been shown to be more effective since it is more realistic about the life styles of young people, and because abstinence only protects an individual from AIDS if the person that they marry has also abstained from sex. Still, given the strong influences of religious groups and the political right in the US, many objections have been raised to comprehensive education (Boler and Jellema, 2005).

In **Ethiopia**, HIV/AIDS education program was introduced in schools first in 1989 as a pilot project. Later on in 1992, it was started in all Ethiopian secondary schools. This program was organized in the MOE under the direct supervision of the vice minister (MOE, 2003). The program performed its activities on both co-curricular and curricular bases. The main co-curricular activities conducted included establishment of anti-AIDS club in all the existing secondary schools of that time, funding club activities, issuing ID cards for anti-aids club members, conducting workshops for school directors, unit leaders, club matrons/patrons, and teachers of relevant carrier subjects and production of materials such as leaflets, booklets, other supplementary reading materials and posters (Solomon, 2001:2).

In 1995, the launching of the New Education Program (NEP) based on the New Education and Training Policy (NETP) provided the right opportunity to integrate HIV/AIDS education in to the new developed curricula of the relevant carrier subjects (TGE, 1994). Based on the findings of the need assessment on HIV/AIDS education from students, teachers, directors and community members for Ethiopian primary schools, HIV/AIDS was integrated starting from grade four. The relevant carrier subjects used for inclusion of the epidemic were environmental science, basic science, biology, language, physical education and civic education (MOE and ICDR, 1995). Therefore the aim of this study is to check and comment the extent of this integration in the aforementioned grade levels and carrier subjects.

Concerning the limitations of the program implementation Solomon (2001) maintains in the following manner: since then HIV/AIDS education has been given in schools both curricular and co-curricular means. But the degree of its actual implementation needs to be strengthened further and its success needs to be seen and assessed. Among the constraints which are prominently felt in the bringing about behavioral changes in students are lack of knowledge of life- skills' activities, shortage of materials on life –skills activities and the large classroom size witnessed specially in urban schools that renders life-skills' activities difficult and ineffective at the moment . More intervention programs are required in these areas (MOE, 2003 and HAPCO, 2007).

In 2000, in response to the serious threat that the pandemic is laying on the school youth, an education task force was established in the MOE (HAPCO, 2007). This task force was composed of department heads and chaired by the vice –minister. It has proposed to conduct from 2000-2003 at the primary and secondary schools and Teacher Training Institutions (TTIs). The most important undertaking of the task force would be strengthening the HIV/AIDS education, which was being given at the time, and directing it towards behavioral change and development of life skills (Solomon, 2001:3). Now a day this taskforce expanded its networks and established both at the national and regional levels by the name of HAPCO.

## **2.2 Mode of Inclusion of HIV/AIDS in the Curriculum**

According to the explanation given by Tyler cited in Abrha (1998), the term “integration” was defined in to two different ways: as a principle and as a type of curriculum organization for instance, defined integration as the horizontal relation ship of various curricular contents in different subject areas. The concepts and skills in mathematics should be developed in consideration of their application, in science and other fields at the same grade level. That is the structure of knowledge and its application areas are dissociated. It is a question of what types of concepts and skills can be learned by using these in other subjects. Subject boundaries are not to be eliminated. Thus according to such people, integration is a principle of correlation across the curriculum. On the other hand integration, as opposed to the separate subject approach, is a method of developing a unified whole. According to (McNeil in Abrha, 1998):”Integration usually means applying organizational elements to an ever-widening variety of situations.

Organizing principles commonly in use call for increasing breadth of application and range of activities for fitting parts in to larger and larger whole."

Here, integration is not principle but a process of establishing a total, not as a sum of parts but as a unified whole. For example water is composed of two molecule of hydrogen and one molecule of oxygen. But it doesn't appear as a sum. Because the result (water) has different property, appearance, function and others in its own. Hence, integration is not like the union of two or more sets in which change in any aspect will not be seen in the resulting set, except in the number of elements. That is: the word integration means a unit of parts in which the parts are in some way transformed. A single grouping or adding of distinct objects or parts together would not necessarily create an integrated whole. There would have to be some formal characteristics of the whole from which the parts gained some new identity, this characteristic belonging only to the whole (Pring in Abrha, 1998).

From the above definitions therefore, integration of HIV/AIDS education in school curriculum can be defined as inclusion of HIV/AIDS issues in school subjects either in horizontal or vertical or /and both by considering its advantage and disadvantage of the situation.

Regarding this issue Solomon (2001) stated that: "depending on the nature relevant carrier subjects, AIDS education contents might be integrated to the extent that for an ordinary observer the contents integrated might not be visible and very conspicuous in the curriculum". Whatever the case, AIDS education has become a segment of the new curriculum of the country that was designed in 1994.

Solomon (1995) also further recommended that before integration of the issue of HIV/AIDS education, it is better to make decision in which subject to integrate AIDS education: coordination is particularly important because of the increasing number of educational and social issues competing for limited school time. The program could be taught as a separate subject or topic, as part of an established subject (Population and Family Life Education, Health Education) as co-curricular activity or "infusion" in different subjects.

With regard to inclusion of HIV/AIDS education in school curricula Windal in Hopkins (1997) suggested in the following way: In maths class, students could study and solve problems using AIDS related statistics; they translate statistics in to simple graphs. In English /journalism class a study of a correct use of AIDS related by buzzwords. In addition, speakers –including a child with AIDS – spoke to students and students respond by writing poems to describe their feelings. In social studies/geography, students could study HIV/AIDS distribution maps and talk about the needs of people with HIV/AIDS in rural versus urban settings. In science, students test different brands of condoms for their ability to protect and they can test the viscosity benefits of water – based over petroleum based lubricants. In Spanish class, students can translate in to English the texts of a Spanish comic book about AIDS. French students could write poems based on their reactions to the panel speakers. Art students design panels for the AIDS memorial Quilt for people they know or, if they don't know any one who has died of AIDS, they design a panel for one of several “make believe” people based on personality profiles provided. Sewing students learn to sew panels for the AIDS memorial Quilt. Cooking students plan a diet for HIV/AIDS patients based on information about their health needs. Physical education students may use the “Now That You Know” series to learn about physical limitations of people with HIV/AIDS.

The aforementioned literature indicates the possibility of integration of HIV/AIDS education in school curriculum in any subject matter. But the question is that how this HIV/AIDS education contents could be integrated? Concerning this question Solomon (2003), recommended the following modes of integration:

- A separate subject approach
- As a segment of a new course.
- As a segment of existing course.
- As a segment of revised course
- Infusion in to existing contents.
- Special ancillary arrangement(co-curricular activities)

Generally considering the realities of the context these six modes of inclusion of HIV/AIDS education in to school curriculum can be employed. These must be considered by planners. At the

macro/national or mini (regional) or at micro (school or institutional) levels, the decision to use any or a combination of these modes of inclusion will depend on the advantage.

### **2.3 Consideration of the context in Preparing HIV/AIDS Education Curriculum**

There is increasingly consensus about the need for AIDS education for young people. Studies have shown that sex and AIDS education may lead to a delay in the on set of sexual activity, and to the use of safer sex practices among those students who are sexually active. Therefore, curriculum planners need to design HIV/AIDS /STD education programs for their school and students aged between 12 and 16 based on participatory methods, which have been shown to be particularly effective for the teaching of behavioral skills (WHO and UNESCO, 1994:2).

The curriculum planner has the task of designing convincing and effective programs for students which will be acceptable not only to students but also to their parents and the wider community. Especially cultural norms, social, religious and ethical values should be considered (World Bank, 2004). Hence, as WHO and UNESCO (1994) guideline says, the curriculum planners are expected to convince and design effective programs for students which will be acceptable not only to students but also to their parents and the wider community.

In this respect it is important that the knowledge and skills acquired by students at schools are sufficiently detailed and explicit to enable students to cope successfully with the situation of risk they are likely to encounter inside and outside the school, including peer pressure (WHO and UNESCO 1994:3 and Boyd-Franklin et. al 1995:251).

When designing educational programs, curriculum planners frequently include students in the initial discussions in order to ensure that the material will be relevant and therefore effective. Students have often been involved in discussions about social and, cultural, sporting and recreational or community based programs for schools (ICDR and MOE, 1995 and WHO and UNESCO 1994:3).

Considering the above statements suggested by WHO and UNESCO (1994:1-4), in 1994 need assessment was conducted by the collaboration of ICDR and MOE to integrate HIV/AIDS education programme in primary schools of the country. On the need assessment students, teachers, directors, and community leaders of 41 urban and rural primary school sample subjects were participated on the Focus Group Discussion (FGD) study (ICDR and MOE, 1995).

According to the out come of the study, there were misconceptions and superficial knowledge of students about the epidemic and no opposition to introduce HIV/AIDS education in primary schools of Ethiopia. Hence, HIV/AIDS education was introduced in Ethiopia primary school carrier subjects starting from grade 4(Ibid). By reconsidering the integrated issues of HIV/AIDS, in 2005 HIV/AIDS was integrated starting from grade 3.

While preparing HIV/AIDS curriculum, it is necessary to consider appropriate context for HIV/AIDS/STD education i.e. AIDS education can't be isolated from the whole range of problems such as use of alcohol and other drugs , early prostitution , teenage pregnancies , poor living conditions , violence and unemployment. In fact many of the skills and attitudes that young people need to prevent infected with HIV/STD, are life skills that will be useful in responding effectively to a variety of other problems that they may face as they grow up (Silin, 1995:62 and Soul Buddyz, 2003:74).

HIV/AIDS/ STD education is best taught as a component of health education, sex education, or family life education programs. In those countries where such programs don't exist, basic information about sexuality will have to be part of the HIV/AIDS /STD education program (Boyd- Franklin et .al1995).

Many programs for the prevention of AIDS and other STD focus only on biomedical information such as the virus that causes AIDS, the immune system, signs and symptoms of AIDS treatment. But according to the current research out comes shows that this type of knowledge is not enough to convince young people to adopt positive, healthy behaviors that prevent HIV/AIDS /STD. They need the motivation to act and the skills to translate knowledge in to practice (Trudell, 1993:20).

WHO and UNESCO (1994:3-4) and Trudell (1993:20) treated separately about the required knowledge, skill attitude and motivational support for students while learning HIV/AIDS education in the classroom as follow:

**Knowledge:** Information that would help students decide what behaviours are healthy and responsible includes: ways HIV/STD are transmitted and not transmitted; the wrong asymptomatic period of HIV/; personal vulnerability to HIV/STD; means of protection from HIV/STD; sources of help , if needed; and how to care for people in the family who have AIDS.

**Skill Development:** The skills relevant to HIV/AIDS preventive behaviours are: self awareness; decision making; assertiveness to resist pressure to use drugs or to have sex, negotiation skills to ensure safer sex; and practical skills for effective condom use. These skills are best taught through rehearsal or role-play of real-life situations that might put young people at risk for HIV/STD.

**Attitudes:** Attitudes derive from beliefs, feelings and values. HIV/AIDS/STD education should promote positive attitudes towards delaying sex; personal responsibility; condoms as a means of protection; confronting prejudice; being supportive, tolerant and compassionate towards people with HIV/AIDS; and sensible attitudes about drug use, multiple partners and violent and abusive relationships.

**Motivational Supports:** Even a well informed and skilled person needs to be motivated to initiate and maintain safe practices. A realistic perception of the student's own risk and of the benefits of adopting preventive behaviour is closely related to motivation. Peer reinforcement and support for healthy actions is crucial, as peer norms are powerful motivators of young people's behaviour. Programs that use peer leaders are effective because peers are likely to be more familiar youth language and culture. Parents and family members can also motivate and reinforce the objectives of the program and should be encouraged to play a part in their child's sexuality education.

## 2.4 Objectives and Contents of HIV/AIDS for 5 to 8 Grades Suggested By Various Educators

### 2.4.1 Curriculum in Fifth and Sixth Grades

The primary objectives of HIV/AIDS education at the elementary level are twofold. The first is to reduce anxiety resulting from misconceptions about HIV -transmission and manifestations of AIDS. Fassler, McQueen, Duncan, and Copeland (1990) as quoted by Boyd-Franklin et al, (1995:249), found that elementary age children expressed considerable anxiety about AIDS and that, unfortunately, television was their primary source of information about the disease. The information learned in the earlier grades can be reinforced here and expanded upon. The following can form part of the curriculum in grades five and six.

**Basic Sexuality Education:** Children can be taught the basics of sexuality education starting in the fourth grade. This is probably done most effectively when boys and girls are taught in separate classrooms. Emphasis can be on the basics of the anatomy and physiology of sexual reproduction. Boyd-Franklin et al (1995:250) maintain that “children are provided with accurate information about human sexuality, including: growth and development, human reproductive system, anatomy, physiology, masturbation, family life, pregnancy, sexual abuse, HIV/AIDS and other sexual transmissions”.

**Drug Abuse Prevention:** Silin (1995:61) maintains that “student’s emergent understanding of HIV/AIDS is closely associated with knowledge of related topics like sexual behavior or drug use”. Boyd-Franklin et al (1995:250) says “more specific information can be presented regarding the transmission of HIV through drug abuse”. Children can be taught about drug addiction and how it affects the body.

**Anxiety Reduction:** Anxiety is an uncomfortable feeling of nervousness or worry about something that is happening or might happen in the future. Children normally feel anxiety about HIV/AIDS. Therefore, the modes in which HIV is not transmitted should be emphasized. It is

important for learners to understand that HIV is not transmitted through casual contact, including touching, eating utensils and bathroom facilities. In this regard, Silin (1995:62) emphasizes that the curriculum should describe communicable diseases, the immune system, how HIV is not transmitted, and how to prevent AIDS by abstaining from drug use.

**Health Education:** In the classroom of grades five and six it is imperative to provide basic information on how the immune system functions and how bacteria, viruses, and parasites cause disease. That can serve to lay the groundwork for explaining how HIV damages the immune system. Learners can learn that the body produces antibodies to fight infections, and that the screening tests for HIV infection detect the presence of antibodies rather than the virus itself. In this regard, Silin (1995:63) maintains that HIV/AIDS is a medical phenomenon to be located within the confines of the health curriculum. In the following section, the focus will be on the tentative curriculum for grade seven and eight.

#### **2.4.2 Contents in Seventh and Eighth 8 Grades:**

The main objective of HIV/AIDS education in the second cycle primary school is to provide clear and explicit information regarding the transmission of HIV/AIDS through their curriculum in the classroom. The discussion will share light in the following sub-headings:

**Sexuality Education:** As in the earlier grades, sexuality education is best presented to boys and girls in separate classrooms; learners may feel more comfortable asking questions about detailed sexual information in a same gender context. The reason for abstinence from sexual intercourse should be emphasized, including the risk of contracting sexually transmitted diseases such as syphilis and HIV, the risk of pregnancy, and the need for emotional growth in order to be ready for satisfactory intimate relationships. According to Boyd-Franklin et al (1995:251), information about contraception, especially condoms and spermicidal, should be provided. A consumer report (1989) as quoted in Boyd-Franklin et al (1995:251) has described, in detail, the proper use of condoms. Detailed information about oral sex, homosexuality should be explained in a non-judgmental manner.

**Drug Abuse Information:** Again, avoidance of drug abuse should be emphasized. However, given that the same learners may inject drugs anyway, information about reducing the risk of HIV-transmission via dirty needles should also be provided, including avoiding the sharing of injection equipment and properly disinfected used injection equipment.

**Health Education:** In grades five and six, basic information about the immune system and how bacteria and viruses cause diseases should be given. Here the focal point should be the information regarding the progress of HIV -infection, the types of opportunistic infections associated with AIDS, and current treatments, can be presented. It is important for learners to understand that people infected with HIV may not become sick for a long time, that HIV -diseases may develop gradually with a variety of symptoms, and that AIDS is the end-point of HIV -diseases. It is also good for the learners to understand that even though an individual infected with HIV may show no symptoms, he or she can transmit the virus to others through sexual activity or needle sharing.

**Self-assertiveness training:** According to Soul Buddyz (2003:74), a multimedia education programme, teaching children the facts about HIV/AIDS from a young age is important for reducing stigma and discrimination. Boyd-Franklin et al (1995:251) maintain that emphasis should be placed on learners' responsibility to protect them from HIV-infection. Exercises in decision-making for high-risk situations should be presented, to enable learners to practice their responses in a controlled situation and prepare them for real-life situations. Although the emphasis of HIV/AIDS education at this level can be on risk reduction, learners should also learn that people with HIV/AIDS should be treated like anyone else and are deserving compassion and support as anyone else with a serious illness.

**Relationships and Inter-Personal Skills:** According to Trudell (1993:21), young people should be helped to develop inter-personal skills, including communication skills. Decision-making programmes can prepare learners to understand their sexuality effectively and creatively in adult roles. This would include helping young people develop the capacity for caring, supporting, non-coercive, and mutually pleasurable intimate and sexual relationships.

**Attitudes, Values and Insight:** Trudell (1993:21) maintains that young people should be given an opportunity to question, explore and assess their sexual attitudes in order to develop their own values, increase self-esteem, develop insight concerning relationships with members of both genders, and understand their obligations and responsibilities to others.

## 2.5 Sample Curriculum of HIV/AIDS Developed by WHO/UNESCO

Table B. sample curriculum of HIV/AIDS for grade 6, 7 and 8

Grade Level	Contents to be Included	Time
6 Approximate Age (12-14)	<b>Basic Information on HIV/AIDS/STD</b> Difference between HIV,AIDS and STD Ways of transmission of HIV Ways in which HIV/STD are not transmitted Methods of HIV/STD prevention	4 hours
	<b>Responsible behaviors: delaying sex</b> Reason for delaying sex Types of assertive behavior and the steps to a simple assertive message	4 hours
	<b>Responsible behaviors: protected sex</b> Know basic information about condoms	1 hour
	<b>Care and Support for PLWH</b> Know the meaning of discrimination and how people discriminate against PLWH A	1 hour
7 Approximate Age (13-15)	<b>Basic Information on HIV/AIDS/STD</b> Ways in which HIVSTD are not transmitted(review) Methods of HIV/STD prevention(review) Sources of help in the community	2 hours
	<b>Responsible behaviors: delaying sex</b> Help for delaying sex Review assertive messages and learn refuse ,delay and bargain assertive messages	3 hours
	<b>Responsible behaviors: protected sex</b> Respond to arguments against condom use	1 hour
	<b>Care and Support for PLWH</b> What is the importance of being compassionate and ways of being compassionate	2 hours
8 Approximate Age (14-16)	<b>Basic Information on HIV/AIDS/STD</b> Ways in which HIV/STD are not transmitted(review) Methods of HIV/STD prevention Know the progression of HIV/AIDS signs and symptoms	2 hours
	<b>Responsible behaviors: delaying sex</b> Alternative ways of being affectionate without having sexual intercourse Recognize and avoid situations that lead to sexual abuse	2 hours
	<b>Responsible behaviors: protected sex</b> Know the steps in using a condom correctly Respond to pressures for unprotected sex	2 hours
	<b>Care and Support for PLWH</b> Care for people with AIDS in the family and community	2 hours

Source: Hand Book for Curriculum Planners prepared by WHO andUNESCO (1994).

## 2.6 Research Paradigms/Approaches

In order to understand the concept of a research paradigm or approach, it is necessary to first define *research*. According to Bruce (1978:1) *research* is a “systematic attempt to provide answers to questions. Such answers may be abstract and general as is often the case in basic research, or they may be highly concrete and specific as is often the case in demonstration or applied research. In both kinds of research, the investigator uncovers facts and then formulates a generalization based on the interpretation of those facts”. This is supported by Leedy (1997:3) as quoted in Kgalema (2001:33): *Research* is a “rigorous process that is systematic and is concerned with the collection and analysis of data”.

A research paradigm is defined as a philosophical, ideological and methodological group activity with the aim of producing knowledge, Creswell 1994:1). Creswell further maintains that scientific knowledge, a commodity of the scientific community, is enshrined in rules and theory. According to Mouton (1996:204) as cited in Kgalema (2001:34) the concept of research paradigms means a “logical systematic and planned theoretical framework by which and through which the collection and analysis of data are directed to solve a research problem. From the above, one can deduce that there is more than one research paradigm that can be chosen to direct the process of collecting and interpreting data.

## 2.7 Types of Research Paradigms

There are two types of research paradigms, i.e. qualitative and quantitative research. These research paradigms are described by the following authors: Creswell (1994:1-2), Richard (1990:100-101), Strauss and Corbin (1990:17-19). Each of these research paradigms will be discussed with the purpose of choosing the one best suitable for this study. However, in certain circumstances, both paradigms can be used to collect data which was also done in this study.

### 2.7.1 Quantitative Research Paradigm

The quantitative research paradigm attempts to interpret human action in terms of numerical values or expressions. According to Creswell (1994:2) “... it is an enquiry into a social or human

problem, based on testing a theory composed of variables, measured with numbers, in order to determine whether the predictive generalizations of the theory hold true". It is the paradigm whereby the reality is objective and singular, not part of the researcher. Its scientific and philosophical point of view is neutral. Data is gathered objectively from the perspective of a hypothesis or question that is deductively derived from theory or other observations. The viewpoint of the person observed or whose behaviour is measured is not considered. Therefore, this research paradigm suggests that there is an absolute reality, independent of informants and researchers. In this study quantitative research paradigm was applied to a research problem, to analyze and interpret the data collected through content analysis techniques.

### **2.7.2 Qualitative Research Paradigms**

Sprinthall (1990:100) state that qualitative methods "are approaches used to systematically gather data, but the data are purely descriptive and therefore not numerical". He further state that "the data in qualitative research are made up of written descriptions of people, events, opinions, attitudes, and environments, or combinations of these". The data may be derived from direct observations of an individual's behaviour, from interviews, from written opinions, or from public documents. Creswell (1994:1-2) supports the above by saying: "This study is defined as an enquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting".

According to Baker (1999:240) "the simplest definition of qualitative research involves the fact that the findings of a qualitative study are presented not in numbers, but solely in words". The informant's subjective view of reality is considered to be the focal point of the qualitative research. It is the paradigm that seeks to understand phenomena in their entirety in order to develop a complete understanding of a person, programme, or situation. Qualitative research is intended to understand phenomena in their naturally occurring states. It is a discovery-orientated approach in the natural environment.

# CHAPTER THREE

## RESEARCH METHODOLOGY

### 3.1 Introduction

In this chapter research methodology which is preferable to this study was discussed. Accordingly mainly quantitative research methodology was employed. The aim was to develop an appropriate research framework to collect and analyze data collected through content analysis and interview. The data collected and analyzed would use to assess to what extent HIV/AIDS-programs were integrated as part of curricula in the second cycle of primary education.

### 3.2 Research Design and Methodology

In this study mainly quantitative research approach was employed. Accordingly systematic collection and analysis of data from second cycle primary school documents (syllabuses and text books of the carrier subjects) regarding inclusion of HIV/AIDS education in the school curriculum had been undertaken. Data from Curriculum planners of ICDR, Addis Ababa City Administration Education Bureau (AACAE) and MOE were collected in order to assess the practices of experts with regard to integrating HIV/AIDS education in school curriculum. The main purpose is to answer the research questions posed in chapter one. The collection and handling of data to answer the research questions should be regulated by a suitable research paradigm or combination of both paradigms. In this case combination of both paradigms were used, and reflected in the following sub-sections although qualitative paradigm was used as supportive of quantitative approach.

The intention of the researcher in this study was to collect data by using content analysis from documents such as syllabus and student's text of each grade levels as well as carrier subjects of the study area and this data would be analyzed and interpreted through quantitative research approach. Opinions and standards or grounds which were taken in to consideration while

integrating HIV/AIDS education in the school curriculum would also be gathered from curriculum planners via interview and would be interpreted through qualitative approach. The findings would reveal whether HIV/AIDS Program was integrated sufficiently or inadequately in the school curricula of second cycle primary school of AA. For the purpose of leading the reader in this study, it is important to cite the components of quantitative and qualitative research; those are content/document analysis and interviews. In this study both qualitative and quantitative approaches were selected as suitable and appropriate paradigms.

### **3.3 Reason for choosing mainly Quantitative Research Paradigm**

In this study, mainly quantitative research approach was preferred. This choice is informed by the following reasons, i.e. methodological assumption of quantitative paradigm.

The nature of the problem was an important factor that influences the choice of quantitative and qualitative paradigms. The data which had been collected from sample documents through content analysis were quantified in terms of percentage through quantitative research approach which is suitable and preferable for this purpose. In that way the researcher would be able to answer the research questions of this study regarding integration of HIV/AIDS program in the school curriculum.

Where as Participants' (planners') perception and the way they make it sensible to lives of learners was also considered or it was collected by using interview method of data collection. In this case qualitative approach was used to describe, interpret and analysis the extent of HIV/AIDS inclusion in the study area. Exploratory research was done and gain experience, opinion and way of integration of planners about the pandemic inclusion, by conducting interviews among curriculum designers from ICDR, MOE and AACAEB. Another reason that influenced the choice of qualitative paradigm was the psychological attributes to this research method. With regard to qualitative research, interviews with planners of the aforementioned grade levels under discussion and their description, feelings and opinions did contribute to this choice.

### **3.4 Trustworthiness**

According to Baker (1999:245) in undertaking the research, “there is concern about the trustworthiness of the data being gathered, which can become more dependable if the researcher has kept careful notes and an audit trail”. That is, issues of reliability and validity have to be addressed convincingly. This is supported by Silverman (1993:10) as cited by Kgalema (2001:37): “The qualitative research paradigm is concerned with the trustworthiness or authenticity rather than the reliability and validity of the data collected”.

From the above one can deduce that the researcher must develop a convincing data collection and data analysis process that would prove without doubt that the extent of inclusion of HIV/AIDS-programs in the school curricula. In this study, trustworthiness was addressed in a number of ways, namely, by conducting document analysis and interview with the concerned educators from ICDR MOE and AACAE. Another route of ensuring trustworthiness was by using tape-recorder during interviews, because the researcher could not be able to remember everything that was said.

After the interviews, the tape was transcribed by the researcher for the purpose of analysis. The transcriptions had been analyzed independently by the researcher and the external decoder. Categories and themes emerging from responses were compared to reach consensus on the findings. This was assumed to ensure the trustworthiness of the results.

### **3.5 Ethical Considerations**

The matter of ethics is an important one for educational researchers. Because the subject of study is the learning, experiences and opinions of human beings, the nature of such research may embarrass, hurt, frighten, impose on, or otherwise, negatively affect the lives of the people who are making the research possible through their participation. The researcher should endeavor to respect the rights of participants. Bruce (1978:16) maintains that to safeguard the privacy of the

subjects i.e. participants, “the researcher should take care to avoid asking unnecessary questions, obtain direct consent for participation from curriculum designers.”

In this study, the objectives of the research had been articulated to the informants (curriculum experts from ICDR, MOE and AACAE) so that it helped them to understand it clearly. Consent for participation was sought from the informants. All data collection devices and activities, verbatim transcriptions and written interpretations, and reports were made to be known to the informants. The informant’s rights, interests and wishes were considered first when choices were made regarding reporting the data.

### **3.6 Methods of data collection**

In this subsection, methods and techniques of data collection, that would yield quantitative and qualitative data regarding the research problem presented in this study, were discussed. Components of quantitative research instrument, namely document /content analysis and qualitative research instrument of this study i.e. interview were employed.

#### **3.6.1 Content Analysis**

Bernard Berelson (1974) defined Content Analysis as "a research technique for the objective, systematic, and quantitative description of manifest content of communications." Berelson also further maintains that content analysis is a research tool focused on the actual content and internal features of media. It is used to determine the presence of certain words, concepts, themes, phrases, characters, or sentences within texts or sets of texts and to quantify this presence in an objective manner. Texts can be defined broadly as books, book chapters, essays, interviews, discussions, newspaper headlines and articles, historical documents, speeches, conversations, advertising, theater, informal conversation, or really any occurrence of communicative language.

To conduct a content analysis on a text, the text is coded or broken down, into manageable categories on a variety of levels--word, word sense, phrase, sentence, or theme--and then examined using one of content analysis' basic methods: conceptual analysis or relational analysis. The results are then used to make inferences about the messages within the text(s), the writer(s),

the audience, and even the culture and time of which these are a part. For example, Content Analysis can indicate pertinent features such as comprehensiveness of coverage or the intentions, biases, prejudices, and oversights of authors, publishers, as well as all other persons responsible for the content of materials (Richard 1967).

Accordingly in this study the contents of sample documents such as student's text and syllabuses of the carrier subjects of the study area had been coded in terms of subject matter, grade level, chapters, page number, review exercises or questions, contents and sub-contents and number of periods allotted and then the coded documents were analyzed and interpreted in terms of percentage and table form.

According to Solomon (2001:2), the relevant carrier subjects used for inclusion of HIV/AIDS were environmental science, basic science, biology, language, physical education and civic education. Accordingly, the study area of this study includes (civics and ethical education 5-8 grades, physical education 5-8 grades, environmental science 5-6 grades, English 5-8 grades, social studies 7-8 grades, biology 7-8 grades). Among these grade levels and subjects, the researcher selected civic and ethical education (grades 5-8), basic integrated science (grades 5 and 6) and biology (grades 7 and 8) as sample of the study. These subjects were selected as sample of the study because the researcher considered that these subjects could represent both social sciences (civics) and natural sciences (biology and integrated science) carrier subjects and grade levels of the study area.

### **3.6.2 Uses of Content Analysis**

Due to the fact that it can be applied to examine any piece of writing or occurrence of recorded communication, content analysis is used in large number of fields, ranging from marketing and media studies, to literature and rhetoric, ethnography and cultural studies, gender and age issues, sociology and political science, psychology and cognitive science, as well as other fields of inquiry. Additionally, content analysis reflects a close relationship with socio- and psycholinguistics (Budd, Richard 1967). The following list (adapted from Berelson, 1952) offers more possibilities for the uses of content analysis:

- Reveal international differences in communication content
- Detect the existence of propaganda
- Identify the intentions, focus or communication trends of an individual, group or institution
- Describe attitudinal and behavioral responses to communications
- Determine psychological or emotional state of persons or groups

With regard to this study content analysis was used to detect, identify, determine, reveal or describe the extent of HIV/AIDS integration in the aforementioned grade levels.

### **3.6.3 Types of Content Analysis**

As Busha et al, (1980) states “there are two general categories of content analysis: conceptual analysis and relational analysis. Conceptual analysis can be thought of as establishing the existence and frequency of concepts in a text. Relational analysis builds on conceptual analysis by examining the relationships among concepts in a text.” Busha et al further explained conceptual and relational analysis in detail in the following paragraphs.

#### **3.6.3.1 Conceptual Analysis**

Traditionally, content analysis has most often been thought of in terms of conceptual analysis. In conceptual analysis, a concept is chosen for examination and the number of its occurrences within the text recorded. Because terms may be implicit as well as explicit, it is important to clearly define implicit terms before the beginning of the counting process.

As with most other research methods, conceptual analysis begins with identifying research questions and choosing a sample or samples of texts as the researcher did in this study shown above. Once chosen, the text must be coded into manageable content categories. The process of coding is basically one of selective reduction, which is the central idea in content analysis. By breaking down the contents of materials into meaningful and pertinent units of information, certain characteristics of the message may be analyzed and interpreted.

According to Busha et al, a conceptual analysis would be to examine a text and to code it for the existence of certain words. In looking at this text, the research question might involve examining

the number of positive words used to describe an argument, as opposed to the number of negative words used to describe a current status or opposing argument. The researcher would be interested only in quantifying these words, not in examining how they are related, which is a function of relational analysis. In conceptual analysis, the researcher simply wants to examine presence with respect to his/her research question, i.e. whether there is a stronger presence of positive or negative words used with respect to a specific argument or respective arguments.

In this case the researcher codified the sample documents (student's text and syllabus) of the sample subjects mentioned earlier and then quantified the frequency of HIV/AIDS contents and interpret and analysis by using conceptual analysis.

### **3.6.3.2 Relational Analysis**

As stated above, relational analysis builds on conceptual analysis by examining the relationships among concepts in a text. And as with other sorts of inquiry, initial choices with regard to what is being studied and/or coded for often determine the possibilities of that particular study. For relational analysis, it is important to first decide which concept type(s) would be explored in the analysis. Studies have been conducted with as few as one and as many as 500 concept categories. Obviously, too many categories may obscure your results and too few can lead to unreliable and potentially invalid conclusions. Therefore, it is important to allow the context and necessities of your research to guide your coding procedures.

There are many techniques of relational analysis available and this flexibility makes for its popularity. Researchers can devise their own procedures according to the nature of their project. Once a procedure is rigorously tested, it can be applied and compared across populations over time. The process of relational analysis has achieved a high degree of computer automation but still is, like most forms of research, time consuming. Perhaps the strongest claim that can be made is that it maintains a high degree of statistical rigor without losing the richness of detail apparent in even more qualitative methods.

Accordingly in this study both conceptual and relational analysis had been employed. Conceptual analysis was applied to reveal the existence of HIV/AIDS education in school curriculum of the study area and interpret it through quantitative research approach where as relational analysis was served to examine the relation ships of HIV/AIDS integration in the syllabus and student's text as well as its implicitness and/or explicitness explanation was also analyzed by taking in to account the chapter two review literature mode of integration as frame of reference or standard for comparison of the researcher.

### **3.6.4 Issues of Reliability and Validity**

The issues of reliability and validity are concurrent with those addressed in other research methods. The reliability of a content analysis study refers to its stability, or the tendency for coders to consistently re-code the same data in the same way over a period of time; reproducibility, or the tendency for a group of coders to classify categories membership in the same way; and accuracy, or the extent to which the classification of a text corresponds to a standard or norm statistically (Richard, 1967).

The overarching problem of concept analysis research is the challengeable nature of conclusions reached by its inferential procedures. The question lies in what level of implication is allowable, i.e. do the conclusions follow from the data or are they explainable due to some other phenomenon? For occurrence-specific studies, for example, can the second occurrence of a word carry equal weight as the ninety-ninth? Reasonable conclusions can be drawn from substantive amounts of quantitative data, but the question of proof may still remain unanswered (Klaus, 1980).

The generalizability of one's conclusions, then, is very dependent on how one determines concept categories, as well as on how reliable those categories are. It is imperative that one defines categories that accurately measure the idea and/or items one is seeking to measure. Developing rules that allow one, and others, to categorize and code the same data in the same way over a period of time, referred to as stability, and is essential to the success of a conceptual analysis. Reproducibility, not only of specific categories, but of general methods applied to establishing all

sets of categories, makes a study, and its subsequent conclusions and results, sounder (Thomas, 1972).

To avoid questions of reliability and validity of the present study repeated coding or counting of the developed categories was made. Moreover, to solve the challengeable nature of conclusion reached by its inferential procedures, the researcher used sample contents of HIV/AIDS developed by UNESCO/WHO as well as the serious threat of the disease was also considered.

#### **3.6.4 Advantages of Content Analysis**

Content analysis offers several advantages to researchers who consider using it. In particular, content analysis as (Klaus, 1980) has the following advantages:

- Looks directly at communication via texts or transcripts, and hence gets at the central aspect of social interaction
- Can allow for both quantitative and qualitative operations
- Can provides valuable historical/cultural insights over time through analysis of texts
- Allows a closeness to text which can alternate between specific categories and relationships and also statistically analyzes the coded form of the text
- Can be used to interpret texts for purposes such as the development of expert systems (since knowledge and rules can both be coded in terms of explicit statements about the relationships among concepts)
- Is an unobtrusive means of analyzing interactions
- Provides insight into complex models of human thought and language use
- When done well, is considered as a relatively "exact" research method (based on hard facts, as opposed to Discourse Analysis).

#### **3.6.5 Disadvantages of Content Analysis**

Content analysis suffers from several advantages, both theoretical and procedural. In particular, content analysis (Klaus 1980):

- Can be extremely time consuming

- Is subject to increased error, particularly when relational analysis is used to attain a higher level of interpretation
- Is often devoid of theoretical base, or attempts too liberally to draw meaningful inferences about the relationships and impacts implied in a study
- Is inherently reductive, particularly when dealing with complex texts
- Tends too often to simply consist of word counts
- Often disregards the context that produced the text, as well as the state of things after the text is produced
- Can be difficult to automate or computerize

To avoid these threats of disadvantages strategies mentioned above under the title of the issues of reliability and validity such coding of items repeatedly and checking it with the employed coder was applied by the researcher carefully and rigorously.

### **3.7 Interview**

According to Baker (1999:220) “An interview is a piece of social interaction with one person asking another a number of questions and the other person giving answers”. There are two types of interviews, namely face-to-face and focus group interviews. In this regard, Kgalema (2001:40) maintains that “individual interviews are similar to focus group interviews except that in an individual interview there is only one person face-to-face with the researcher”. Face-to-face individual interviews often limit free expressions. According to Baker (1999:225) “a focus group can dig more deeply into an interest area”. Baker further maintains that discussions that generate impressions and focus on interests may lead to the creation and suggestion of new and innovative ideas.

In this study face-to-face interview was only applied(enclosed in the appendice). It was so because each interviewee was expected to answer questions regarding his/her own carrier subject individually rather than in focus group. Accordingly 5 interview questions located at the appendix were interviewed with the concerned subject experts of ICDR, AACAEB and MOE.

The researcher could not put all the responses in his/her head. It is important that the interviews be recorded. Rudestan and Newton (1992:76) recommend the use of tape-recorders to record interviews. In this study, tape recorder was used to safe –the information obtained during the interview. After the interviews the tape was transcribed and a transcription was decoded by the researcher. The researcher repeatedly listened and compared with the transcribed meanings in order to ensure the trustworthiness of the findings.

### **3.8 Sampling Procedure**

In going through sampling procedure, one will commence by defining the population of the target group. Bruce (1978:227) says the population used in a questionnaire or interview study is that group about which the researcher is interested in gaining information and draw conclusions.

Regarding content analysis, the populations of the target group were documents of the carrier subjects and grade levels of the study area. Among the carrier subjects mentioned in the earlier topics, civics and ethical education (grades 5-8) from social science and basic/integrated science (grades 5 and 6) and biology (grades 7 and 8) from natural science were selected through purposive sampling procedure. From the target group documents i.e. student's text, teacher's guide and syllabuses; syllabus and, student's text of the sample subjects were chosen via purposive sampling of the study. The researcher selected student's text and syllabus considering that these documents could represent the characteristics of the whole population (natural and social sciences) in the absence of teacher's guide.

In addition the target groups in this study also includ ICDR (1 male), MOE (1 male) and Addis Ababa City Administration Education Bureau (AACAEB) (2 males) experts of each relevant carrier subjects were interviewed. In order to get a sample of this population, purposive sampling was drawn because these experts have been the prior concerned bodies who have been expected to answer the interview questions.

## 3.9 Protocol for Data Collection

### 3.9.1 Content Analysis

To conduct content analysis the following procedures or steps were recommended by Gall et al (1996: 358).

**Steps 1** Identify documents that are relevant to the research purposes. In the case of this research, it has already been done under the above sections.

**Steps 2** Specify research questions /hypothesis/objectives. It was also done in chapter one of this study.

**Step 3** Select a sample of documents to analyze. Accordingly the researcher selected the sample documents (student's text and syllabus) of the sample subjects (civics 5-8grades); basic integrated science (5-6 grades) and biology (7-8 grades) as sample of the study through purposeful sampling procedure. The researcher selected these documents as sample of the study considering that these sample size would represent the characteristics of the population for all grade levels (5-8 grades) and subjects social science(civics) ; and natural science (integrated science 5-6 grades) and biology ( 7-8 grades).

**Step 4** Develop a category –coding procedure. Accordingly the researcher developed two types of categories as shown in the following sections and tables.

The first category was developed to assess the extent or proportion of HIV/AIDS integration in the texts and syllabuses by comparing the number of chapters, contents, paragraphs, page numbers, objectives, exercise questions and period allotment of the total texts and syllabuses on one hand and numbers of HIV/AIDS issues integrated on the other hand. Here, it should be notice that chapter was not taken as a good measurement of extent of HIV/AIDS integration in this study. It is so because chapters that integrated issues of HIV/AIDS did not contain purely HIV/AIDS topics only rather many other topics with a few proportion of HIV/AIDS issues. Hence, the percentage of HIV/AIDS integration in relation to chapter does not mean that amount of HIV/AIDS issues integrated in the specified chapters rather it is the combination of other topics included in the chapter. Therefore, chapter was taken as one measurement mainly to indicate the proportion chapters those integrated issue of HIV/AIDS compared with those did not

integrate. The second category was developed to assess types of HIV/AIDS issues integrated in the sample documents considering four basic issues of the disease such as:

1. Basic information on HIV/AIDS (knowledge based information)
2. Responsible behavior for delaying sex (attitude based information)
3. Responsible behavior for protected sex and (skill based information)
4. Care and support as frame of reference (attitude based information)

**Steps 5** Conduct the content analysis. In this case the researcher used both quantitative and qualitative content analysis methodologies.

**Step 6.** Interpret the results. It is the final stage of content analysis and in this study the results were interpreted by considering the review of literature and relationships of the text books and the syllabuses as frame of reference.

### **I. Definition of Categories In Terms of Chapter, Content, Paragraph, Page Number, Objective and Exercise Questions Developed For Analysis of Texts**

**1. Chapter:** According to oxford advanced learner's dictionary (2000) chapter is a separate section of a book, usually with a number of titles. Based on this definition in this study sample texts of the study have a number of chapters and these chapters were divided in to two parts i.e. the whole chapters of sample texts and chapters that integrated HIV/AIDS education.

**2. Content:** Based on the same dictionary mentioned above, content is the different section that is contained in a book. In this study contents include the main topics and sub-topics of the sample documents written under headings of numbers put in ascending order like 1,1.1, 1.2 ; 2,2.1, 2.2 etc. Thus all contents of the text and contents of HIV/AIDS of the same text were counted separately.

**3. Paragraph:** According to American Heritage Dictionary paragraph is defined as "distinct division of written or printed matter that begins on a new, usually indented line, consists of one or more sentences, and typically deals with a single deals with a single thought or topic or quotes one speaker's continuous words". Considering the above definition, in this study questions,

instructions, objectives of units, exercises and summary of units, list of points put with out explanation were not taken as paragraphs of the study. Each conversation under taken between two or more persons on a given issue was considered as one paragraph. Hence, the whole paragraphs of sample texts and HIV/AIDS paragraphs were counted independently.

**4. Page:** Oxford advanced learner’s dictionary defined Page as “one side or both sides of a sheet of paper in a book, magazine etc.” Based on this definition, in this study both sides of sample texts were considered as pages. Accordingly the whole pages of the sample texts and the pages that contained HIV/AIDS education were counted.

**5. Objective:** According to Derebssa (2004:174) an objective was defined as an intended change to be brought about in a learner at a classroom level. Based on the above definition the total specific objectives written in each sample text and objectives written specifically on the issues of HIV/AIDS were counted independently.

**6. Exercise question:** Oxford advanced learner’s dictionary defined exercise as “is a set of questions in a book that tests one’s knowledge or practices.” In this study those questions written under the title of “exercise” with in every chapter of the sample texts and those written under the “summary” Parts (end of each chapter) were counted as exercise questions.

Types of exercise questions include objective types (true/false, matching, multiple choice and completion) and subjective types (open ended questions); and project works. Hence, the whole exercise questions of sample texts and exercise questions of the epidemic were counted separately.

**Table B, format of category developed for content analysis of sample syllabuses.**

No	Categories/codes	Definitions
1	Objectives	Considering the definition given for objective in the above table, total specific objectives written in the sample syllabuses and objectives written specifically on the issues of HIV/AIDS education were identified independently.
2	Contents	It includes the main topics and sub-topics of the sample documents written under the heading of ascending order of numbers like 1, 1.1, 1.2; 2, 2.1, 2.2 etc. Accordingly all contents of the text and contents of HIV/AIDS were counted separately
3	No of periods	Period means lesson of any of the parts that a day is divided in to at a school, college, etc for study. In this study a period was taken as 42 minutes which is usually common in elementary school of Ethiopia. Accordingly the number of periods given for each sample syllabus and periods given for the topics of HIV/AIDS education were considered separately.

Table B above was developed to conduct content analysis and to assess the distribution of HIV/AIDS issues compared to other issues of the sample syllabuses by breaking down these sample documents in to manageable forms such as objectives, contents and number of periods allotted for each document.

**Table C, category II developed for analysis of types of HIV/AIDS issues integrated in the texts and syllabus**

No	Category	Parts/definition
1	A	Difference between HIV,AIDS and STD Ways of transmission of HIV Ways in which HIV/STD are not transmitted Methods of HIV/STD prevention for effectiveness Sources of help in the community Know the progression of HIV/AIDS signs and symptoms Impacts of HIV/AIDS Distribution of HIV/AIDS
2	B	Reason for delaying sex Types of assertive behavior and the steps to a simple assertive message Learn refuse ,delay and bargain assertive messages Alternative ways of being affectionate without having sexual intercourse Recognize and avoid situations that lead to sexual abuse
3	C	Know basic information about condoms Respond to arguments against condom use Know the steps in using a condom correctly Respond to pressures for unprotected sex
4	D	Know the meaning of discrimination and how people discriminate against PLWHA What is the importance of compassionate and ways of being compassionate Care for people with AIDS in the family and community

Where A=Basic information on HIV/AIDS (knowledge based information about HIV/AIDS)

B= Responsible behavior: delaying sex (attitude based information about HIV/AIDS)

C= Responsible behavior: protected sex (skill based information about HIV/AIDS)

D= Care and support for people living with HIV/AIDS (attitude based information about HIV/AIDS)

Table C, was prepared mainly for assessing of HIV/AIDS issues integrated in the sample text books of the study in terms of knowledge, attitude and skill. Therefore, based on the above table comprehensiveness of HIV/AIDS issues were analyzed and interpreted quantitatively.

### **3.9.2 Interviews**

The following steps were used to collect data concerning the inclusion of HIV/AIDS-programmes in the school curriculum with special reference to primary school second cycle

**Step 1:** Purposeful selection of curriculum planners was made to secure relevant information of the study that is grades 5, 6, 7 and 8 planners/designers who involved in the design process.

**Step 2:** Securing an appointment in person, with planners through ICDR, MOE and AACAEB principals. The appointment in person would serve to explain the purpose and the aims of the interviews, and also to arrange a suitable venue for the interview.

**Step 3:** Making sure that the venue for the interview is arranged, and that the interviewees are informed of the time and are aware of the purpose of the interview.

**Step 4:** The researcher introduced himself. The introduction was read from prepared notes that the researcher had brought along. This was gone along with the reading of the questions.

**Step 5:** As soon as data appears to be saturated, after numerous probing and focused questions, the researcher would conclude the interview by thanking the interviewees, and assuring them of continued contact in future.

## **3.10 Protocol for Data Analysis**

In this sub-section, the steps and procedures to go through the research process towards analyzing data presented are described.

### **3.10.1 Data Gathered From Interviews**

**Step 1:** Listen to the tape from all the interviews several times to avoid omission, and thereafter transcribe the tape word by word.

**Step 2:** Repeatedly read the transcriptions to detect relevant and irrelevant responses with regard to the interview questions. Lists of relevant responses were drawn up using the pre-conceived list of interview questions.

**Step 3:** Identify categories by grouping together answers with similar description and meaning. The categories will then be re-grouped into sub-categories with the help of supporting quotes or evidence. This will be done together with step 4.

**Step 4:** Involve the services of the external decoder to develop categories and sub-categories from the interview transcriptions. By doing this, ensure a further reliability check which would guarantee the trustworthiness of the results. The identified categories and sub-categories were compared with that of an independent decoder to seek similarities. On dissimilarity, it was discussed the matter with the independent decoder until there was an agreement. Subsequently a report on such differences and the subsequent discussion was written. The report assisted during the interpretation and discussion of the final findings of the research.

**Step 5:** Involve a literature comparison. The literature on HIV/AIDS was checked against the findings emerged from the research in order to provide proper findings.

**Step 6:** Conclusion and recommendations was drawn with regard to the hypothesis developed in chapter 1.

### **3.10.2 Data Gathered From Content Analysis**

**Step1** The collected data through coding the sample documents were presented through percentage and table forms.

**Step2** The data presented in percentage and table forms had been analyzed and interpreted for both documents i.e. texts and syllabus of all sample subjects through quantitative and qualitative approaches as mentioned in the content analysis data collection section.

**Step 3** The relation ship between the analyzed data of the text and the syllabus was compared through qualitative approach for each subject and grade levels.

## CHAPTER FOUR

# INTERPRETATION, ANALYSIS AND DISCUSSION OF DATA

### 4.1 Data Obtained From Content Analysis of the Sample Documents

The aim of this chapter is to analyse the data collected through content analysis and interview.

**Table 1, Analysis of Civics and Ethical Education, Basic Integrated Science and Biology Student Texts by Chapter, Content and Paragraph**

Grade level	Subject:	Categories/codes								
		chapter			content			paragraph		
		N	n	%	N	n	%	N	n	%
5	Civics	11	1	9.09	73	3	4.1	304	5	1.6
6	Civics	11	1	9.09	87	1	1.15	319	5	1.56
7	Civics	11	1	9.09	126	1	0.79	335	6	1.79
8	Civics	11	1	9.09	125	3	2.4	412	19	4.61
Total		44	4	9.09	411	8	1.95	1370	35	2.55
5	Basic Integrated science	7	1	14.28	51	1	1.92	393	22	5.6
6	Basic Integrated science	7	1	14.28	52	1	1.92	400	23	5.75
Total		14	2	14.28	103	2	1.94	793	45	5.67
7	Biology	7	1	14.28	111	1	0.9	394	16	4.06
8	Biology	6	2	33.3	71	-	-	588	41	6.97
Total		13	3	23.08	182	1	0.55	982	57	5.8

Where N= total number of items of a category of a sample text book

n= number of items of a category of a sample text book that contained issues of HIV/AIDS

%= percentage of  $n = n/N \times 100$

According to the data shown on table 1, among 11 chapters of each grade level of civic texts of grades 5-8, 1(9.09%) chapter (chapter 6) entitled "responsibility" from each grade level integrated the issues of HIV/AIDS. From 44 total chapters of civics texts of grades 5-8, an average of 4 (9.09%) chapters integrated the issues of HIV/AIDS.

As it is also shown from the same table above, the total number of chapters of grade 5 integrated science student's text is 7. Among these, 1(14.28%) chapter (chapter 6) entitled "our body" is the one that integrated HIV/AIDS education. Likewise grade 6 basic integrated science text has 7 chapters. Out of these, only chapter 6 entitled "our body" (14.28%) contained HIV/AIDS messages. Hence, the proportion of issues of HIV/AIDS integration in terms of chapter in both texts is equal or proportional i.e. 14.28%.

In grade 7 biology student's text book, there are 7 chapters. Out of these, 1(14.28%) chapter (chapter 7) under the title of "human biology and health" integrated HIV/AIDS messages. On the other hand grade 8 sample text does have 6 units/chapters and from these, 2 (33.3%) chapters (chapter 1 and 2) under the titles of "human biology and health" and "humans and diseases" respectively integrated HIV/AIDS education. It is the largest proportion of HIV/AIDS coverage compared to the rest sample documents of this study with regard to chapter comparison. Therefore, it is obvious that the epidemic was given better chapter emphasis or coverage in this text.

The total number of chapters of grades 7 and 8 biology texts is 13, in which 3(23.08%) chapters integrated issues of the pandemic. Therefore, the average chapter coverage of biology texts is the highest (23.08) proportion compared to civics (9.09%) and basic integrated science (14.28%) chapter coverage of HIV/AIDS. However, chapter could not be considered as a good measurement of extent of HIV/AIDS integration of this study compared to the other categories such as content, paragraph and exercise questions. It is so because as mentioned in the previous chapter, the proportion of integrated HIV/AIDS issues within the specified chapters are too small dominated by other topics unlike in case of contents, paragraphs and exercise questions. Therefore, proportion of chapter doesn't mean that it is purely HIV/AIDS coverage rather it is the combination of other topics integrated with in the specified chapter.

The total number of contents and sub-contents of grade 5 civic education is 73. Among this number, there are 3(4.1%) contents connected with HIV/AIDS. Hence, it is the highest proportion of HIV/AIDS content coverage not only compared to contents of civic texts of grades 6, 7 and 8

but also to HIV/AIDS contents of biology and basic integrated science sample texts shown in table 1 above.

The whole contents of grade 6 civic text book are 87. Out of this number, 1(1.15%) content of HIV/AIDS was identified. When it is compared with the rest grade levels, it is the least proportion next to grade 7 which contained 1(0.79%) content of HIV/AIDS. The number of the killer disease contents of grades 6 and 7 is equal i.e. 1 content for each grade level was incorporated. The total number of HIV/AIDS contents of grade 6 and 7 civics texts is 87 and 126 respectively. The total number of contents of grade 8 civics text is 125 in which 3(2.4%) of them are contents of the fatal disease. This percentage is the second highest next to grade 5, HIV/AIDS content coverage.

From HIV/AIDS contents of grade 5-8 civics texts, one can deduce that the extent of HIV/AIDS content integration in grade 5 has been the highest, where as in grade 7 it is the lowest one. It was confirmed by taking in to consideration of the extent of HIV/AIDS content inclusion of grade 5, 6, 7 and 8 which accounts 4.1%, 1.15%, 0.79% and 2.4% respectively. Hence, the cumulative number of contents of the four grades is 411 with 8(1.95%) content of HIV/AIDS education.

As far as assessing of the extent of HIV/AIDS content inclusion, grade 5 basic integrated science does have 51 total number of contents in which 1(1.92 %) HIV/AIDS content integrated in the text. Like wise in grade 6, there are 52 total number of contents in which 1(1.92%) of them is HIV/AIDS content. Therefore, it can be said that in terms of content integration, the two grade levels have equal amount of HIV/AIDS inclusion in their texts.

In grade 7 biology text, the total number of contents is 111. Among these, 1(0.9%) content of HIV/AIDS was integrated.

Based on the definition of content given in this study (see table C of chapter 3), in grade 8 sample text of biology, there is no content of HIV/AIDS that fulfills the criteria given in the definition. But beyond the definition given in this study; there are a number of HIV/AIDS contents in this sample text. Accordingly, these contents were not considered for analysis of this study. For

example as indicated in chapter 3, table C, the definition given by the researcher, is that any title/topic or sub-title/topic of the epidemic written in ascending order of numbers and sub-numbers were counted as content of this study. But in this sample text, HIV/AIDS topics were written with out the heading of numbers. Considering this as a criterion of the study, the researcher rejected these contents as measurement of this study. But it doesn't mean that HIV/AIDS was not integrated here. Perhaps this type of content inclusion in this text, show the form/mode of integration of the fatal disease. From this perspective it is possible to say that HIV/AIDS content integration has a tendency to be integrated as a segment within the existing contents rather than standing alone or independently of other topics (Solomon, 2003:12-13).Therefore, HIV/AIDS integration of this text can be assessed through other categories developed for this study(paragraph, exercise question etc).

In grade 5 civic text, 304 paragraphs were identified. Among these, 5(1.6%) paragraphs contained the issues of HIV/AIDS. In grade 6 civic text, totally 319 paragraphs were counted. Out of these, 5(1.57%) paragraphs contained issues about HIV/AIDS. This is equal to paragraphs of HIV/AIDS of grade 5. In grade 7, the total number of paragraphs was 335, of these 6 (1.79%) paragraphs contained messages of the fatal disease. In grade 8: 412 paragraphs were counted in which 19(4.61%) paragraphs of the text talk about HIV/AIDS.

Generally grades 5, 6 and 7 have almost equivalent number of paragraphs that included HIV/AIDS messages. On the other hand, the number of paragraphs of grade 8 deviated from the rest grade levels that is 19(4.61%) which is said to the highest coverage of HIV/AIDS paragraphs among civics texts of the study.

In all grade levels the whole number of paragraphs is 1370 in which 35(2.55%) paragraphs contained the issues about HIV/AIDS. Therefore the average number of the pandemic paragraph coverage in the four grade levels is 2.55%.

Grade 5 basic integrated science text has 393 total number of paragraphs in which 22(5.6%) of these are paragraphs of HIV/AIDS .Where as grade 6 has a total of 400 paragraphs in which 23 (5.75%) paragraphs of HIV/AIDS integrated. These two grade levels integrated equivalent

proportion of issues of HIV/AIDS paragraphs as it is also observed in the chapter and content distribution section of the same grade levels and subject matter.

Hence, from the above interpretation one can deduce that in relation to chapter, content and paragraph of grade 5 and 6 sample text of basic integrated science have almost similar extent of HIV/AIDS integration.

In grade 7 biology text, 394 paragraphs were identified and out of these, 16(4.06%) paragraphs contained HIV/AIDS messages. In grade 8 biology text, there are 588 total paragraphs and 41 (6.97%) of them are connected with the epidemic. In this context, grade 8 biology text does have the highest proportion of paragraphs that integrated HIV/AIDS education.

The sum of paragraphs of the two grades is therefore 982 in which 57(5.8%) HIV/AIDS paragraphs. Accordingly, it is the highest paragraph coverage of the epidemic of this study.

**Table 2, Analysis of Civic and Ethical Education, Basic Integrated Science and Biology Texts In Terms Of Page, Objective and Exercise Questions.**

Grade level	Subject:	Categories/codes								
		Page			Objective			Exercise Question		
		N	n	%	N	n	%	N	n	%
5	Civics	78	3	3.85	37	-	-	591	3	0.5
6	Civics	92	2	2.17	56	-	-	400	3	0.75
7	Civics	103	3	2.9	62	1	1.6	452	8	1.77
8	Civics	107	3	2.8	43	-	-	424	5	1.18
Total		380	11	2.89	198	1	0.5	1867	19	1.02
5	Basic Integrated science	141	9	6.38	-	-	-	184	12	6.52
6	Basic Integrated science	157	16	10.2	-	-	-	270	10	3.7
Total		298	25	8.39	-	-	-	454	22	4.84
7	Biology	148	8	5.4	-	-	-	296	7	2.36
8	Biology	180	23	12.8	-	-	-	325	14	4.3
Total		328	31	9.45	-	-	-	621	21	3.38

In order to assess the inclusion of HIV/AIDS in the sample text books, analysis was made in terms of page coverage. Accordingly, grade 5 civic text does have 78 total number of pages. Out of these, 3 (3.85%) pages integrated HIV/AIDS issues. On the other hand, the total number of pages of grade 6 civic text is 92. Among this number, 2 (2.17%) pages integrated HIV/AIDS messages. In grade 7 civic text, there are 103 total number of pages. Among these pages, 3(2.9%) pages included issues of the epidemic. Grade 8 civic text has 107 pages and out of these, 3(2.8%) pages incorporated issues of the disease.

The extent of HIV/AIDS integration according to page coverage in civic texts of the specified grade levels seems to be proportional with some relative exceptional cases of grades 5 and 6. For example relative to grades 6, 7 and 8; grade 5 text has the largest 3 (3.85%) page coverage of HIV/AIDS issues. On the contrary grade 6 has relatively the smallest 2 (2.17%) page coverage of the disease. On the other hand, grade 7 and 8 civic texts account 2.9% and 2.8% of the epidemic respectively which is almost proportional number of the pandemic page coverage shown in these two grade levels.

Hence, the sum of pages of the four grade levels is 380 with an average of 11(2.89%) pages which are found integrating HIV/AIDS issues.

Grade 5 basic integrated science text has 141 total number of pages in which 9(6.38%) of them contained information on HIV/AIDS. In grade 6, there are 157 total number of pages and out of this number 16 (10.19%) pages contained HIV/AIDS information. Therefore, in this case there is higher coverage of pages of HIV/AIDS education in grade 6 than grade5. The sum of pages of grades 5 and 6 basic integrated science text is 298 in which 25 out of 298 contained issues of the disease. The two grade levels have an average of 8.39% pages that incorporated issues of HIV/AIDS.

As shown in table 2, grade 7 biology text has 148 pages. Among these, 8(5.4%) pages integrated affairs of HIV/AIDS. Grade 8 biology text does have 180 total number of pages. Out of these, 23(12.77%) pages included issues of the epidemic which is not only the highest proportion of pages of biology sample texts but also page coverage of all sample documents of this study.

The total number of pages of the two grades of biology texts is 328, among which 31(9.45%) pages that consisted of HIV/AIDS education. In other words an average of 9.45% pages of grades 7 and 8 biology texts integrated issues of the epidemic.

Analysis of HIV/AIDS integration in relation to distribution of specific objectives was made. The number of objectives indicated in civic texts of grades 5, 6, 7 and 8 are 37, 56, 62 and 43 respectively. But the surprise thing here is that there was no any objective written about HIV/AIDS except 1(1.6%) objective in grade 7. The remaining three grade levels don't have HIV/AIDS objective. Therefore, it is possible to deduce that from the view point of objective, emphasis has never been given for the fatal disease in civics texts. However, as Derebssa (2004:174) states that "an objective identifies how students should change their behavior as a result of certain learning experiences." From this context in the absence of objective it will be difficult to identify behavioral changes of students that they will bring concerning HIV/AIDS. Thus only 0.5% of an average of objective was identified from all sample civic texts which is insignificant proportion of objective of HIV/AIDS.

There is no any objective written in basic integrated science text books of grades 5 and 6 for both HIV/AIDS topics as well as for other topics. Hence, the researcher did not have ground here to treat extent of HIV/AIDS inclusion in the texts.

Like the case of basic integrated science texts, there is no any objective written in biology texts of grades 7 and 8 as shown in table 2. Therefore, in this direction there was no treatment done here about inclusion of the epidemic in relation to objective.

Regarding grade5 civic text book, 591 exercise questions were counted. From this large number, only 3(0.5%) HIV/AIDS questions were identified. It is the smallest proportion of HIV/AIDS inclusion from the rest grade level exercise question assessment. In grade 6, there are about 400 exercise questions, out of which 3(0.75%) questions are about issues containing HIV/AIDS and it is the second smallest percentage next to grade 5. The number of exercise questions of grade 7 is 452. Among this number, 8 (1.77%) questions raise about HIV/AIDS. Relative to other grade

level texts of this study, grade 7 has the largest proportion which indicates that better coverage was given for the disease. The total number of grade 8 exercise questions is 424 in which 5(1.18%) of them focused on HIV/AIDS questions and it is the second largest number of the pandemic questions next to grade 7.

The sum of all exercise questions of civic texts of grades 5-8 is 1867. Among this number, 19(1.02%) questions were incorporated focusing on HIV/AIDS.

From the view point of the highest prevalence rate of the virus in the city (AA) (i.e. 2.2% of the country, 0.9% rural, 7.7% urban and 7.9% of AA) as report of HAPCO and MOH (2008) of the virus, this proportion of exercise questions of the killer disease in civics texts could not be satisfactory. From this data one can easily understand that how much HIV/AIDS is a serious threat for the city more than other regions of the country. Moreover, from sample HIV/AIDS curriculum and recommendation of WHO/UNESCO (1994:19) this proportion of exercise questions could not also be satisfactory.

As far as exercise question is concerned, in grade 5 basic integrated science text there are 184 total questions and out of these 12 (6.52%) HIV/AIDS questions were integrated. On the other hand, grade 6 text has 270 total number of exercise questions in which 10(3.7%) of them are HIV/AIDS questions. Therefore, grade 5 has more coverage of HIV/AIDS questions than grade 6.

In grade 7 biology text, there are 296 exercise questions and out of these 7(2.36%) questions raise concerning the disease. But in grade 8, among 325 total number of questions 14(4.3%) HIV/AIDS questions were identified.

In all measurements/categories except in content of the extent of HIV/AIDS integration, grade 8 biology text does have the highest coverage not only from the same subject but also from all texts of this study. The sum of exercise questions of grades 7 and 8 biology texts is 621. Among this number, 21 are HIV/AIDS questions. In this regard the average number of HIV/AIDS questions of these grades is 3.38%.

**Table 3, Analysis of Civic and Ethical Education, Basic Integrated Science and Biology Syllabuses by Content, Period Allotment and Objectives.**

Grade level	Subject:	Categories/codes								
		Content			Period			Objective		
		N	n	%	N	n	%	N	n	%
5	Civics	209	3	1.43	95	2	2.10	41	-	-
6	Civics	153	4	2.6	95	2	2.10	33	-	-
7	Civics	143	3	2.09	94	2	2.12	33	1	3.03
8	Civics	133	3	2.25	94	2	2.12	42	1	2.38
Total		638	13	2.04	378	8	2.12	149	2	1.34
5	Basic Integrated science	51	1	1.96	135	7	5.18	152	8	5.26
6	Basic Integrated science	50	1	2	136	10	7.35	134	7	5.22
Total		101	2	1.98	271	17	6.27	286	1	5.24
7	Biology	112	2	1.78	105	-	-	162	9	5.55
8	Biology	73	-	-	105	-	-	160	9	5.62
Total		185	2	1.08	210	-	-	322	1	5.59

Where N= total number of messages of a category of a sample syllabus

n= number of messages of a category of a sample syllabus that contains issues of HIV/AIDS

%= percentage of  $n = n/N \times 100$

In grade 5 civics syllabus, out of 209 total number of contents, 3(1.43%) HIV/AIDS contents were identified. On the other hand grade 6 civics syllabus consisted of 153 total contents, out of which 4(2.6%) contents contained issues of the pandemic. In the case of grade 6 civics syllabus, the extent of HIV/AIDS integration has the highest content coverage when it is compared with the number of contents integrated in all grade levels and subjects mentioned in table 3. In grade 7 civic syllabus, 143 number of contents was detected. Among these, 3(2.09%) are HIV/AIDS contents. Grade 8 civics syllabus does have 133 contents in which 3(2.25%) contents are on HIV/AIDS. Although it seems that grade 5 and 6 have the least and the highest proportion of

HIV/AIDS content coverage respectively, the four grade levels (5, 6, 7 and 8) don't have that much big difference of HIV/AIDS content coverage.

Generally in the civics syllabuses of the four grades, totally 638 contents were identified and among these, 13 (2.04%) are HIV/AIDS contents. However, from the ground of the city prevalence rate (7.9%) of the epidemic which is by far greater than 2.2% (rate of the country), HIV/AIDS content coverage of the city (AA) text books should have been greater than its corresponding syllabus's coverage of the epidemic. However, in the contrary the average HIV/AIDS content coverage written in civic texts of grades 5, 6, 7 and 8 is 1.95% whereas in the syllabuses of the same subject and grade levels is 2.04% .

Grade 5 basic integrated science syllabus has 51 total number of contents in which 1(1.96%) of them is HIV/AIDS content. In the same way in grade 6 civics syllabus, 50 total number of contents were identified and out of these 1(2%) HIV/AIDS content was integrated. To this end, it is possible to say that both texts and syllabuses of basic integrated science of grades 5 and 6 have equivalent number of HIV/AIDS content coverage or integration. However, from the perspective of the serious threat prevalence rate of HIV/AIDS of AA (7.9%), HIV/AIDS contents integrated in text books should have been greater than the syllabuses'.

In grade 7 biology syllabus, total number of contents is 112 and among these, 2(1.78%) contents reflecting HIV/AIDS issues were integrated. But in grade 8, no HIV/AIDS content was identified fulfilling the definition of content given in this study. Because of this reason there is no treatment dealing with assessment of extent of HIV/AIDS inclusion made here. Therefore, an average of 1.08% HIV/AIDS content coverage was found in biology sample syllabuses in which the entirely proportion was obtained only from grade 7. Hence, it can be said that insignificant proportion of HIV/AIDS content integration was observed.

Total periods allotted in civics syllabuses of grades 5, 6, 7 and 8 are 95, 95, 94 and 94 respectively. Among this time allotment, HIV/AIDS content of each grade level was given equally 2 periods. Like wise the proportion of periods allotted for HIV/AIDS issues of grades 5 and 6 have equal proportion i.e. 2.10%. Similarly grades 7 and 8 also have equal proportion of

periods allotted for HIV/AIDS education i.e.2.12%. From this analysis one can conclude that the amount of time allotted for the four grade levels is almost equal. It implies that the extent of HIV/AIDS integration with regard to time allotment was given similar emphasis in civics syllabuses of grades 5, 6, 7 and 8. However, scientific thinking whenever grade level increases depth of contents also increase which this in turn needs more time allotment to teach the contents. But it was not the case in civics syllabuses of grades 5, 6, 7 and 8.

In short the four grade levels, totally 378 periods were allotted for civics syllabuses and out of these, 8(2.12%) periods were given for HIV/AIDS issues. The sum of period allotted for civic syllabuses of grades 5,6,7 and8 is 8 periods which is less than time given by WHO for each grade of 6, 7 and 8 which was 10, 8 and 8 hours respectively (WHO/UNESCO, 1994:19). From this comparison it can be concluded that the time given for HIV/AIDS education in the syllabuses is by far smaller and deviated from WHO sample time allotment for the epidemic. Moreover, it is also insignificant when it is compared to the experiences of Tanzania in which AIDS education was allocated a single period per week in addition to integration of AIDS education with science education (Katende and Sawaya, 1994).

In terms of period distribution, in grade5 basic integrated sciences syllabus 135 periods were allotted and among these, 7(5.18%) periods were given for HIV/AIDS topics. Whereas in grade 6 there are 136 total periods of the syllabus and 10(7.35%) periods were allotted for the same topics. In this case it can be said that in grade 6 more emphasis was given for HIV/AIDS education and it also shows that better integration of the epidemic than in grade 5.

In case of period allotment for grades 7 and 8 biology syllabuses, 105 total number of periods was given for each grade level. But there is no period allotment made for each topic/content of the syllabuses separately. Thus the researcher did not have the chance to assess the extent of HIV/AIDS integration in this section.

An assessment of HIV/AIDS inclusion in terms of objective in civics syllabuses of grades 5, 6, 7 and 8 reveals that: there are 41 and 33 objectives for grades 5 and 6 respectively. But in both grade levels, there was no any objective that raises the issue of HIV/AIDS. This indicates that no

attention was given for HIV/AIDS in the specified syllabuses of the study. On the other hand grade 7 civic syllabus has a total of 33 objectives in which 1 (3.03%) objective of HIV/AIDS was identified. Grade 8 civic syllabus does have 42 objectives, out of which 1(2.38%) objective was focused on the disease.

The cumulative number of objectives of the four grades of civic syllabuses is 149 with 2(1.34%) emphasizing on HIV/AIDS. This indicates that emphasis was not given for the pandemic in this section. However, the importance of objective was mentioned by Derebssa (2004:174) as “an objective identifies how students should change their behavior as a result of certain learning experiences.” Therefore, in the absence of objective it would be trouble to identify behavioral changes acquired by students with regard to HIV/AIDS.

In grade 5 basic integrated science syllabus, 152 total objectives were identified and out of these 8 (5.26%) HIV/AIDS objectives were observed. On the other hand in grade 6 syllabus; 134 objectives were identified and among these, 7(5.22%) HIV/AIDS objectives were integrated. Therefore, vis-à-vis to objective is concerned, both grades (5 and 6) incorporated proportional number of HIV/AIDS objectives.

The sum of objectives of grades 5 and 6 basic integrated science syllabuses is 286. Among these, the number of HIV/AIDS objectives of the two grades is 15 (5.24%).

In grade 7 biology syllabus, 162 total number of objectives was counted and out of these 9(5.55%) HIV/AIDS objectives were integrated. In grade 8: 160 objectives in which 9(5.62%) HIV/AIDS objectives were identified. Therefore, both grades have almost proportional number of objectives written stating about the pandemic.

The sum of objectives of grade 7 and 8 biology syllabuses is 322 in which 18(5.59%) objectives of the pandemic were integrated. So the average of HIV/AIDS objectives of grades 7 and 8 is 5.59%.

Based on the interpretation and analysis of texts and syllabuses of this study, it was concluded that issues of HIV/AIDS coverage in relation to the specified categories (chapter, content,

paragraph, page number, and objective and exercise questions) ranged from 0 % up to 33.3%. For example, in terms of chapter coverage of the disease, it ranged from 9.09% in civics texts to 33.3% in biology text of grade 8. Content coverage ranged between 0% in biology grade 8% text, to 4.1% civics text of grade 5. The range of Paragraph of the disease is between 1.57% in civics text of grade 6, to 6.97% in biology text of grade 8. Page number coverage ranged between 2.17% in civics text of grade 6, and 12% in biology text of grade 8. Objective coverage ranged from 0% in civics texts of grades 5 and 6; and 3.03 in civics text of grade 7. Lastly HIV/AIDS coverage with regard to exercise questions ranged from 0.5% in civic text of grade 5 to 8.15% in biology text of grade 8.

From the above paragraph, it was concluded that in almost all categories, the epidemic was integrated with greater coverage in biology grade 8 text than the rest texts.

**Table 4 Data Obtained From Content Analysis of Paragraphs of the Sample Documents of Student's Text.**

Grade level	Subject:	Categories/codes											
		A=Basic information on HIV/AIDS (knowledge)			B=Responsible behavior for delaying sex(attitude)			C=Responsible behavior for protected sex(skill)			C=Care and support for PLWHA(attitude)		
		X	y	%	X	y	%	X	y	%	X	y	%
5	Civics	5	3	60	5	1	20	5	-	-	5	1	20
6	Civics	5	4	80	5	-	-	5	-	-	5	1	20
7	Civics	6	6	100	6	-	-	6	-	-	6	-	-
8	Civics	19	19	100	19	-	-	19	-	-	19	-	-
Total		35	32	91.42	35	1	2.85	35	-	-	35	2	5.71
5	Basic Integrated science	22	15	68.18	22	3	13.6	22	-	-	22	4	18.18
6	Basic Integrated science	23	14	60.87	23	2	8.69	23	4	17.39	23	3	13.04
Total		45	29	64.44	45	5	11.11	45	4	8.88	45	7	15.55
7	Biology	16	10	62.5	16	5	31.25	16	-	-	16	1	6.25
8	Biology	41	30	73.17	41	3	7.31	41	2	4.88	41	6	14.63
Total		57	40	70.17	57	8	14.03	57	2	3.5	57	7	12.28

Where X= total numbers of HIV/AIDS paragraphs of the sample texts of the specified subject and grade level

y= the number of HIV/AIDS paragraphs of a specified category/code

%= percentage obtained from y divided by X multiplied by 100

Grade 5 civic text integrated 5 HIV/AIDS paragraphs in which 3(60%) of them states about basic information on HIV/AIDS. On the other hand responsible behavior for delaying sex integrated 1 paragraph and the remaining 1 paragraph contained issues about care and support for PLWHA. But responsible behavior for protected sex was not included in the text.

In grade 6 civic text book, 5 paragraphs of HIV/AIDS were detected. Among these, 4(80%) paragraphs talk about basic information on HIV/AIDS. The remaining 1(20%) paragraph contained about care and support for PLWHA where as responsible behavior for delaying sex and responsible behavior for protected sex were totally neglected.

Grade 7 civic text incorporated 6 paragraphs of HIV/AIDS issues in which all of them were written only on basic information on HIV/AIDS. But the other 3 categories were not included in the text. Like wise grade 8 civic text incorporated 19 HIV/AIDS paragraphs in which (100%) of them were only on basic information on the pandemic.

From the above table and interpretation of the data, one can deduce that HIV/AIDS messages expected to be informed to students through civic texts of grade 5, 6, 7 and 8 were concentrated mainly on knowledge based information(basic information) on the HIV/AIDS which can be said that special emphasis was given for this category. But the other categories were not incorporated sufficiently. However, WHO and UNESCO (1994:3) says that: "knowledge and skills acquired by students at schools are sufficiently detailed and explicit to enable them to cope successfully with the situation of risk they are likely to encounter inside and out side school including peer pressures." Moreover, it was also explained in various literatures. For instance, according to Boyd-Franklin et.al (1995:251), information about contraception, especially condoms and spermicidal, should be provided. A consumer report (1989) as quoted in Boyd-Franklin et al (1995:251) has described as the proper use of condom, detailed information about oral sex; homosexuality should be explained in a non-judgmental manner. Nevertheless, such biomedical aspects of the epidemic which are categories skill and attitude based information for delaying or protected sex were not treated properly in civics texts of grades 5, 6, 7 and 8.

In basic integrated science text of grade 5: 22 HIV/AIDS paragraphs were identified in which 15(68.18 %) of them contained HIV/AIDS messages related to basic information on HIV/AIDS. About 3(13.6%) paragraphs of responsible behavior for delaying sex were integrated and 4(18.18%) paragraphs on care and support for PLWH with no paragraph of HIV/AIDS issues on responsible behavior for protected sex were observed.

In grade 6 basic integrated science text, 23 HIV/AIDS paragraphs were counted. Among these, 14(60.87%) of them were written on basic information on the epidemic with 2(8.69%), 4(17.39%) and 3(13.04%) paragraphs containing about responsible behavior for delaying sex, responsible behavior for protected sex and care and support for PLWHA respectively.

Therefore, it is possible to say that HIV/AIDS issues were integrated in better way in the paragraphs of basic integrated science texts than civic texts both in terms of coverage and comprehensiveness of HIV/AIDS messages which are believed to be crucial to students which was recommended by WHO and UNESCO (1994:19) and mentioned in Boyd-Franklin et.al (1995:251).

Grade 7 biology text has 16 HIV/AIDS paragraphs in which 10(62.5%), 5(31.25%), and 1(6.25%) of them contained about categories of basic information on the disease, responsible behavior for delaying sex and care and support for PLWHA respectively. But responsible behavior for protected sex was not included in this text. On the contrary in grade 8 biology text, 41 HIV/AIDS paragraphs which is said to be the largest number were incorporated. Out of these paragraphs, 30(73.17%) were written on basic information on HIV/AIDS, and 3(7.31%) paragraphs contained issues related to responsible behavior for delaying sex. Where as 2(4.88%) and 6(14.63%) paragraphs included HIV/AIDS issues related to responsible behavior for protected sex and care and support for PLWHWA respectively.

In this case it was shown that except responsible behavior for protected sex of grade 7 biology text, all categories were included in biology texts of grade 7 and 8 by far better than in civic texts. From the view point of WHO and UNESCO (1994:19), better HIV/AIDS integration was observed in biology texts than civics texts.

**Table 5 Data Obtained from Content Analysis of Exercise Questions of Student Text's Book Sample Documents of the Study.**

Grade level	Subject:	Categories/codes											
		Basic information on HIV/AIDS(knowledge)			Responsible behavior for delaying sex (attitude)			Responsible behavior for protected sex (skill)			Care and support for PLWHA(attitude)		
		X	y	%	X	y	%	X	y	%	X	y	%
5	Civics	3	2	66.66	3	-	-	3	-	-	3	1	33.33
6	Civics	3	3	100	3	-	-	3	-	-	3	-	-
7	Civics	8	7	87.5	8	-	-	8	-	-	8	1	12.5
8	Civics	5	5	100	5	-	-	5	-	-	5	-	-
Total		19	17	89.47	19	-	-	19	-	-	1	2	10.53
5	Basic Integrated science	12	8	66.66	12	1	8.33	12	-	-	1	3	25
6	Basic Integrated science	10	8	80	10	1	10	10	-	-	1	1	10
Total		22	16	72.72	22	2	9.09	22	-	-	2	4	18.18
7	Biology	7	6	85.7	7	1	14.3	7	-	-	7	-	-
8	Biology	14	12	85.7	14	1	7.14	14	-	-	1	1	7.14
Total		21	18	85.71	21	2	9.52	21	-	-	2	1	4.76

Grade 5 civic text integrated 3 exercise questions focusing on HIV/AIDS. From these, 2(66.66%) and 1(33.33%) exercise questions were contained basic information on the disease and care and support for PLWHA respectively. But no exercise question was contained on responsible behavior for delaying sex and responsible behavior for protected sex. In grade 6 civic text, 3 HIV/AIDS exercise questions were counted in which all of them (100%) are on basic information on the pandemic.

Grade 7 civic text contained 8 exercise questions of HIV/AIDS among which 7(87.5%) and 1(12.5%) questions connected with the fatal disease related to basic information and care and support for PLWHA respectively. But responsible behaviors for delaying and protected sex were neglected from being integrated in the text. In grade 8 civic text, 5 HIV/AIDS exercise questions

were identified in which 5(100%) of them ask only issues on basic information on the disease ignoring all the remaining 3 categories.

From the view point of WHO and UNESCO (1994:19) sample HIV/AIDS issues recommended to be integrated in grades 6, 7 and 8, it deviated both in terms comprehensiveness and coverage of the epidemic expected to be incorporated in the aforementioned grade levels. According to WHO and UNESCO sample curriculum of HIV/AIDS; 8, 9, 4 and 5 hours were allotted for basic information on HIV/AIDS, responsible behavior for delaying sex, responsible behavior for protected sex and care and support for PLWHA respectively. It implies that no omission of any of the categories of HIV/AIDS content types. Moreover, in reality responsible behavior for delaying sex and protected sex are crucial for students to develop life skill behaviors that will enable them protect themselves by responding assertively for peer pressures and risky situations that expose them to be victim of the virus. But it was not given attention in case of civics texts.

In grade 5 basic integrated science text, 12 HIV/AIDS exercise questions were counted. Out of these questions 8(66.66%), 1(8.33%), and 3(25%) questions were included on basic information on HIV/AIDS, responsible behavior for delaying sex, and care and support for PLWHA respectively with no question included on responsible behavior for protected sex. Like wise grade 6 of the same subject integrated 10 HIV/AIDS questions of which 8(80%), 1(10%) and 1(10%) questions were incorporated on basic information on HIV/AIDS, responsible behavior for delaying sex and care and support for PLWHA respectively but responsible behavior for protected sex was ignored.

The analysis uncovered that although it did not directly match with the sample curriculum of the epidemic suggested by WHO and UNESCO (1994:19), basic integrated science text integrated in greater amount and type(knowledge, attitude and skill based information) of HIV/AIDS questions than civic texts of the same grade levels.

Grade 7 biology text, integrated 7 HIV/AIDS questions among which 6(85.7%), and 1(14.3%) questions observed on basic information on the disease and responsible for delaying sex respectively with no questions asked on responsible behavior for protected sex and care and

support for PLWHA. Grade 8 biology text contained 14 HIV/AIDS questions in which 12(85.5%), 1(7.14%) and 1(7.14%) questions were requested on categories of basic information on HIV/AIDS, responsible for delaying sex and care and support for PLWHA respectively with no question of the disease requested on protected sex.

More or less similar pattern of coverage and comprehensive of HIV/AIDS issues was observed in natural science (biology and basic integrated science) documents than social science (civics and ethical education) sample documents. Moreover, better integration of the disease was also identified in natural science sample subjects than social science when it is compared with sample HIV/AIDS curriculum of WHO and UNESCO (1994:19) and Boyd-Franklin et al (1995:251) recommendation.

## 4.2 Interpretations of Data Obtained From Interview

Table 6, Summary of Background Characteristics of the Interviewed Experts of ICDR (1 Biology and Basic Integrated Science), AACAEB (1 Biology and 1 Social Science) and MOE (1 Civic).

No	Items	No of Experts	%	
1	Sex	M	4	100
		F	-	-
	Age	31-40	1	25
		41-50	1	25
		51-60	2	50
3	Qualification	Diploma	-	-
		BA/BED	3	75
		MA/MSc	1	25
4	Experience	0-10	1	25
		11-20	1	25
		21-30	2	50

As indicated in table 6, all interviewed experts were males which indicate that the concerned experts of the institutions are male dominant. This table also disclosed that 2 of the experts of this

study are between the age ranges of 51-60, whereas the remaining 2 experts are between 31-40 and 41-50. Concerning their qualification 3 of the experts are first degree holders and 1 MA (Master of Art) holder. With regard to experience of the interviewed experts, 2 of them have served 21-30 years; the others have 0-10 and 11-20 years of experience. It implies that the experts of this study are well experienced and matured enough to give relevant information to the present study.

## **Interpretation of the Collected Data**

### **Sources of information used while integrating HIV/AIDS:**

According to the responses obtained from the experts of ICDR, AACAEB and MOE national and international situations were considered as source of information or ground for integration of the epidemic. Accordingly, the ICDR expert answered that “WHO and UNICEF were the pioneer initiators to recommend ICDR experts to integrate HIV/AIDS contents in the national curriculum. These organizations not only offered idea support but they also provided financial donation to sponsor the integration process and other supportive activities.” The other source of information as responded uniformly by all interviewed experts was that need assessment was undertaken by the collaboration of ICDR and MOE to integrate HIV/AIDS education programme in primary schools of the country in 1994 as it was also confirmed from ICDR and MOE (1995). Accordingly the out come of the need assessment confirmed the importance of inclusion of HIV/AIDS program in the carrier subjects. Moreover, the devastating impact of the pandemic itself at national level especially in urban areas initiated them to integrate HIV/AIDS issues in the curricula according to all the experts’ (4 experts) response.

### **Criteria Considered While Selecting Carrier Subjects to Integrate HIV/AIDS Program in the Curriculum:**

The requested respondents said that carrier subjects such as biology, basic integrated science, civics and ethical education, physical education, social studies, and language were selected based on their proximity with human physiology, behavior and social issues. For example 2 biology experts (one) from ICDR and the other from AACAEB answered that when a teacher teaches about human immunity, blood and reproduction, it would be easy for him to teach about HIV/AIDS which interrelated with these topics. Considering this fact in biology sample

documents the topics selected for integration of the epidemic are “human and disease” and “human biology and health.” In the case of civic and ethical education the selected topic for the purpose of integration of the pandemic is “responsibility” for all grade levels of the study area. Hence, the concerned expert from MOE explained the reason why this topic was selected for inclusion of HIV/AIDS issues in such a way that: “responsibility enables students to learn responsible behavior that would help them to protect themselves from the fatal impact of the disease.” Likewise basic integrated science also integrated HIV/AIDS in a unit entitled “our body” which related with human physiology and appropriate topic to teach HIV/AIDS.

In short all interviewed subject experts answered uniformly that the topics of the unit of the carrier subjects were selected from the perspective of its proximity to human behavior and immunity as well as its appropriateness and suitability to teach the pandemic.

#### **The Degree of Integration HIV/AIDS:**

The four interviewed experts responded this question from the point view of their own subject matter. Accordingly for example an expert of biology as well as basic integrated science from ICDR responded being certain that: “HIV/AIDS issues were integrated adequately in appropriate place and topic of the carrier subjects except problems in the process of its implementation.” This expert was also asked to check whether there is any standard or not to say it is adequate or sufficient. He again responded that there is no any standard to say so. But there are issues of HIV/AIDS (basic knowledge of HIV/AIDS/STD, responsible behavior delaying and protected sex, and care and support for people with HIV/AIDS) recommended by WHO and UNESCO to be included in curriculum of nations these topics are designed for different levels of knowledge, attitude, skill and motivation development (WHO and UNESCO, 1994:5). Considering these suggestions given by WHO and UNESCO as well as by taking in to consideration our own country reality we included HIV/AIDS program in the national curriculum. “Therefore, the integrated issues of HIV/AIDS are sufficient” said biology and basic integrated science expert from ICDR. Moreover, the expert added that “loading of HIV/AIDS contents more than the already integrated contents would be boring and leads to fade up of students rather than learning it with interest.” The expert also maintained that “rather than loading a number of HIV/AIDS contents more than this in the text, it is better to write different triggering words, phrases or

sentences of HIV/AIDS on the texts' coverage". The expert recommended this idea believing that students can always read it from the coverage and it would be conceived in their mind that in turn lead them to develop behavioral changes to protect themselves from the pandemic. However, the researcher confirmed that there is no any such a word, phrase or sentence of HIV/AIDS written on the coverage of the sample documents of this study.

An expert of biology from AACAEB also answered that "when it is compared to biology curriculum in the pre-2005, it is said to be sufficient more than 80%."He added that the necessary issues which are expected to be included were integrated in biology sample documents.

Civic and ethical education expert from MOE also answered this question saying that: "from the point of view of the available resources such as financial and human it was sufficiently integrated."

#### **The Impact of HIV/AIDS Contents in the Curriculum:**

All of the four interviewed experts agreed on the presence of some indicators of behavioral change among students of this grade levels although it needs confirmation through research. Their grounds to forward this response include simple observations and discussion with students while they have undertaken supervision in different schools of the city and even from the experience of their children, as well as statistical data declared by the government indicating declining of prevalence rate of HIV/AIDS.

But these behavioral changes have been mainly on simply awareness of the means of transmission and prevention as well as ways that HIV/AIDS can't be transmitted rather than life skills development such as self awareness; decision making; assertiveness to resist pressure to use drugs or to have sex, negotiation skills to ensure safer sex; and practical skills for effective condom use WHO and UNESCO (1994:3-4).

For example a biology as well as basic integrated science expert of ICDR, responded that "the problem of students is lack of life skill development that would enable them to respond assertively to peer pressures and other risk situations that expose them for risk of the epidemic."

Therefore, students should develop responsible behavior that would enable them to reason out the purpose of delaying and protected sex if it is necessary.

Social science expert of AACAEB answered that “students are aware of the epidemic but due to economic problem and exposure of students to romantic films and acts of their parents who engaged themselves in prostitution forced students to practice sex at their early ages that facilitate their vulnerability to the disease”, said the expert emphasizing on the importance of research to be sure on the behavioral changes obtained

A civic expert of MOE also responded that: “I can’t be sure without research findings but the government has been launching some indicators of declining of the disease prevalence rate from time to times. Hence this decline rate can be considered as an indication of behavioral changes obtained from the cumulative effect of the curriculum and co-curricular activities done in the classrooms and out of it.” The expert also added the experience of his primary school daughters on progress of awareness about HIV/AIDS observed can be an indication of awareness of students about the disease.

#### **Future Intervention to Reduce the Existing Serious Prevalence Rate of the Virus in AA:**

All the experts responded on the importance of giving especial attention for social mobilization to mitigate the spread of the disease. To this end an expert from ICDR maintained the importance of social mobilization by mentioning the experience of Uganda that showed remarkable achievement and can be taken as an exemplary in the continent.

According to an expert from ICDR who was interviewed representing both biology and basic integrated science he said that “some sectors of the society have been expecting miracle to be done by ICDR and MOE regarding the fight against the epidemic. But it should not have been. It is the society itself who can make miracle not these institutions could make it. For example Ugandan president began social mobilization from himself and then initiated the parliament and finally mobilized the entire society from the lower level. Accordingly remarkable achievement was recorded regarding awareness and behavioral changes on the epidemic.”

Social study expert of AACAEB also responded that “there should be social discussion among the society that would support the formal curricular activities done in schools.” Whereas civic expert of MOE responded in such a way that “in order to achieve the intended objectives, there should be coordination between anti-HIV/AIDS clubs of schools, HAPCO, MOH and different NGOs working on the fight against HIV/AIDS rather than undertaking fragmented activities.”

Biology expert of AACAEB on the other hand said that “the integrated contents of the epidemic should be implemented in a better methodology and approach and it also needs to be up-to-dated considering the ever changing situation of the national and international affairs.”

# CHAPTER FIVE

## Summary, Conclusion and Recommendation

### 5.1 Summary

The objective of this study was to assess the integration of HIV/AIDS program in second cycle primary school of Addis Ababa (AA). In order to meet this objective the study was guided by the following basic research questions.

1. To what extent issues of HIV/AIDS are incorporated in the school curriculum of second cycle primary school?
2. Where HIV/AIDS education was adequately incorporated? Was it at the syllabus or text books of the carrier subjects?

To address the research problems descriptive survey method was used to analyze and interpret the data in this study. On the basis of interpretation and analysis of the collected data, the findings were summarized as follow:

#### **In Terms of Subject Matter:**

From sample subjects HIV/AIDS integration was identified by far in a better way in Biology and Basic integrated sciences (representative of natural science) than Civics subject (representative of social science) both in terms of amount of HIV/AIDS coverage and distribution of varieties of HIV/AIDS issues. Accordingly from the total chapters, contents , paragraphs ,pages , objectives and exercise questions of civic texts of grades 5,6,7 and 8: 9.09% chapters, 1.95% contents, 2.55% paragraphs , 2.89% pages, 0.5 objectives and 1.02 %exercise questions of HIV/AIDS coverage was identified.

On the other hand from the total number of categories of biology texts of grades 7 and 8: 23.08% chapters, 0.55% contents, 5.8% paragraphs, 9.45% pages and 3.38% exercise questions contained HIV/AIDS issues. From the above findings it is easy to conclude that biology texts integrated in a better coverage of the epidemic in most of the specified measurements or categories.

From the total number of categories of basic integrated science texts 14.28% chapters, 1.94% contents , 5.67% paragraphs, 8.39% pages and 5.95 % of exercise questions of HIV/AIDS coverage was incorporated which is said to be better coverage compared to civics texts.

### **In Terms of Grade Level:**

#### **Grades 5, 6, 7 and 8 With Regard to Civics Texts:**

From the total civic texts of grades 5,6,7 and 8: 9.09% chapters, 4.1% contents, 1.6% paragraphs , 3.85% pages , 0 % objectives and 0.5% exercise questions of HIV/AIDS coverage was found in grade 5 civic text. Whereas grade 6 civics text HIV/AIDS coverage was 9.09% chapters, 1.15 % contents, 1.57% paragraphs, 2.17% pages, 0% objectives, and 0.75% exercise questions. Grade 7 civics text integrated HIV/AIDS coverage of 9.09% paragraphs, 0.79% contents, 1.79% paragraphs, 2.9% pages, 1.6% objectives and 1.77% exercise questions. Finally grade 8 civic text HIV/AIDS coverage was found to be 9.09% chapters, 2.4% contents, 4.61% paragraphs, 2.8% pages, 0% objectives and 1.18% of exercise questions of the epidemic.

From the above presented data all grade level civics texts had similar HIV/AIDS chapter coverage i.e. (9.09%). But with regard to content, grade 5 civics text had a better coverage. On the contrary, grade 7 text had the least coverage of the epidemic. From the perspective of paragraph evaluation, grade 8 civics text had the highest coverage of the pandemic. But the rest three grade levels (grades 5, 6 and 7) had almost equivalent paragraph of HIV/AIDS coverage. Based on evaluation of page number, grade 5 civics text had the highest percentage (3.85%) but the remaining three grade levels had almost equivalent percentage of HIV coverage. From objective evaluation except grade 7 civics text (1.6%), there was no any objective written for the other grade levels. Finally according to the number of HIV exercise questions of HIV/AIDS, grade 7 had relatively better integration and grade 5 had the least i.e. 1.18% and 0.5% respectively. Therefore, evaluation of HIV integration in terms grade levels specifically on civic subject, there was no that much out shine differences observed. Except a few exceptions as observed above, all the grade levels had proportional coverage of the epidemic.

### **Grades 7 and 8 Biology Texts:**

From the total categories of biology texts of grades 7 and 8: grade 7 HIV/AIDS integration was, 14.28% chapters, 0.9 % contents, 4.06% paragraphs, 5.4% pages and 2.36% exercise questions. In grade 8 of the same subject, 33.3% chapters, 6.97% paragraphs, 12.8% pages and 4.3% exercise questions of the disease was assessed. From these two grade levels, grade 8 by far had better integration of the epidemic except in terms of contents which was untreated based on this study criteria.

### **Grades 5 and 6 Basic Integrated Science:**

From the total categories of grades 5 and 6 basic integrated science texts: 14.28% chapters, 1.92% contents, 5.6% paragraphs, 6.38% pages and 8.15% exercise questions of the epidemic were integrated. In grade 6, 14.28% chapters, 1.92% contents, 5.75% paragraphs, 10.2% pages and 4.44% exercise questions of the pandemic were identified. In this case both grade levels had almost similar proportion of HIV coverage particularly in terms of chapters, contents and paragraphs.

### **In Terms of Types of Distribution of HIV/AIDS Messages:**

From the total messages of HIV/AIDS integrated in the sample texts, the distribution of various types of issues of the epidemic was summarized as follow.

#### **A. Basic Information on HIV/AIDS (category A)/knowledge based information**

From the total 35 paragraphs of the epidemic integrated in civic texts of grades 5, 6, 7 and 8; 32(91.42%) paragraphs were written about basic information on the disease giving especial emphasis on the distribution and impacts of the virus.

From the total 45 paragraphs of HIV/AIDS incorporated in basic integrated science texts of grades 5 and 6; 29(64.44%) paragraphs concentrated on the category of basic information on the disease. In case of biology texts of grade 7 and 8; 57 HIV/AIDS paragraphs were identified. Out of these, 40(70.17%) paragraphs still talk about basic information on HIV/AIDS.

Generally from all sample subjects and grade levels, on average 75.34% paragraphs of the epidemic concentrated dominantly on basic information on the deadly disease which implies that especial emphasis was given for this category (basic information on HIV/AIDS). Particularly in civic texts, this category had the highest proportion i.e. 91.42%.

#### **B. Responsible behavior: delaying sex (category B)/attitude based information**

From 35 paragraphs of HIV/AIDS written in civic texts of grades 5, 6, 7 and 8; only 1(2.85%) paragraph in grade 5 was written concerning this category. In basic integrated science texts of grades 5 and 6, from the total of 45 paragraphs of the epidemic, 5(11.11%) paragraphs of responsible behavior for delaying sex were identified. In biology texts of grades 7 and 8, from the total 57 HIV/AIDS paragraphs, 8(14.03%) paragraphs were observed containing issues of delaying sex.

On average 9.33% paragraphs were found incorporating issues of responsible behavior for delaying sex. In this case, biology and basic integrated science accounted the largest proportion which is 14.03 % and 11.11% respectively while civic accounted the least proportion i.e. 2.85%.

#### **C. Responsible behavior: protected sex (category C)/ skill based information**

In civic texts of the four grade levels 35 paragraphs of HIV/AIDS were found to be integrated. Out of this number, there was no any paragraph found written on the issues of protected sex. Where as in case of basic integrated science texts of grades 5 and 6, out of the total 45 HIV/AIDS paragraphs, 4(8.88%) paragraphs were integrated stating about issues of protected sex. In biology texts of the two grade levels, among 57 total HIV/AIDS paragraphs, 2(3.5%) were found written concerning responsible behavior for protected sex.

On average, 4.12% paragraphs were found from the 3 subject matters. Among these subjects, basic integrated science accounted the largest proportion (8.88%) whereas civic had the least one i.e. 0%.

#### **D. Care and support for PLWHA/Attitude based information**

From civic texts of the four grade levels, from the total 35 HIV/AIDS paragraphs, 2(5.71%) were observed. Regarding basic integrated science of the two grade levels, among 45 total HIV/AIDS

paragraphs 7(15.55%) of them were written on care and support for PLWHA. From biology texts of the two grade levels from 57 total paragraphs of HIV/AIDS, 7(12.28%) paragraphs were counted.

An average of, 11.18% paragraphs from the 3 subjects were integrated regarding the issues of HIV/AIDS related to care and support for PLWHA.

The average distribution of the four types of categories of all sample subjects was shown as 75.34%, 9.33%, 4.12% and 11.18% for basic information on HIV/AIDS, responsible behavior for delaying sex, responsible behavior for protected sex and care and support for PLWHA respectively. Therefore, the greatest coverage was given for basic information and the second emphasis was for care and support for PLWHA followed by delaying sex of the epidemic. However, for responsible behavior for protected sex was given insignificant attention particularly in civic texts no attention was given for this category. However, in reality the necessary information for students that will help them for their future life to protect themselves from risk of the virus is category C (responsible behavior for protected sex). For example according to UNAIDS report of 2008, the major means of transmission of the virus (greater than 65%) is through sexual intercourse. It indicates that emphasis should be given for responsible behaviors for delaying and protected sex. However, it is not the case in civics texts of grades 5, 6, 7 and 8. Moreover, different literatures such as WHO and UNESCO (1994:3-19) and Boyd-Franklin et al (1995:251) recommended the need of sufficient information on protected and delaying sex.

## **5.2 Conclusion**

On the basis of the findings of the study and considering the serious threat of the virus the following conclusions were made:

As different literatures indicate, HIV/AIDS education given at second cycle primary school should include varieties/comprehensive types of issues of the virus that will enable students to develop comprehensive knowledge, skill and attitude about the fatal disease (WHO and UNESCO, 1994:3-19, and Boyd-Franklin et. al 1995:251).

However, according to the findings of the present study emphasis was given mainly for knowledge based information with little attention given for skill and attitude based information of HIV/AIDS. This has been evident from the following findings:

-An average of 75.34% of HIV/AIDS issues integrated in all the sample texts dominantly concentrated on basic information about the pandemic (knowledge based information).

-About 20.51% of HIV/AIDS issues related to attitude (delaying sex and care and support for PLWHA) were incorporated in the sample texts. The remaining 4.12% HIV/AIDS issues focused on skill (protected sex) based information.

Moreover, in the case of civics texts concentration of knowledge based information has been 91.42% with no issues of HIV/AIDS integrated about skill based information and the remaining 8.58% of HIV/AIDS issues focused on attitude. In addition, the knowledge based information was also superficial and shallow emphasizing mainly on distribution and impact of HIV/AIDS. Beyond this the information presented in civics texts is ordinary to the extent that students are aware of this information informally from informal learning especially through Medias.

With regard to comparison of HIV/AIDS integration between sample texts of A.A and the sample syllabuses, to some extent greater HIV/AIDS coverage was identified in the syllabuses. It was confirmed by the following points:

Average of 1.95% and 2.04% of HIV/AIDS contents were integrated in civics texts and syllabuses respectively. In case of basic integrated science texts and syllabuses, 1.94% and 1.98% average HIV/AIDS contents were incorporated respectively. Biology texts and syllabuses integrated 0.55% and 1.08% HIV/AIDS contents respectively. But from the point of view of the serious threat prevalence rate of HIV/AIDS in AA (7.09%), the integrated contents of HIV/AIDS in the texts should have been greater than from its corresponding syllabuses.

As the four interviewed experts of ICDR (1 expert), AACAEB (2 experts), and MOE (1 expert) responded, integration of HIV/AIDS issues in the sample documents of grades 5-8 is adequate or sufficient. However, when the integrated issues of the disease are compared to sample HIV/AIDS

contents of WHO and UNESCO (1994:3-19) and Boyd-Franklin et. al (1995:251), the integrated HIV/AIDS issues particularly in the civics texts and syllabuses are not satisfactory.

Generally based on the findings of the study, extent of HIV/AIDS integration varies from one subject to another subject and from one grade level to another grade level. Hence, both in terms of coverage/amount and distribution of varieties/comprehensiveness of issues of HIV/AIDS, biology and basic integrated science (representatives of natural science subjects) integrated in a better distribution and coverage than civics texts (social science representative) did. It was evident from the following findings:

An average of 91.42% of HIV/AIDS coverage of civics texts of grades 5, 6, 7 and 8 was concentrated dominantly on basic information (knowledge) on the disease giving especial emphasis on distribution and impact of the virus with no attention given for skill based information. Moreover, from the total paragraphs of civics texts an average of 2.55% coverage of HIV/AIDS was identified.

An average of 70.17% HIV/AIDS issues integrated in biology texts of grades 7 and 8 were related to basic information on the disease and the remaining proportion given for skill and attitude based information. In terms of coverage, among the total paragraphs of biology texts an average of 5.8% of HIV/AIDS paragraphs were integrated.

Among the integrated HIV/AIDS issues in basic integrated science texts of grades 5 and 6: 64.44% of them was on basic information on the fatal disease and the remaining percentage was allotted to attitude and insignificant attention for skill based information. On average 5.75% of paragraphs of HIV/AIDS were identified from the total paragraphs of the texts.

### 5.3 Recommendations

Based on the findings of the study, the following recommendations were forwarded for the concerned stake holders.

- In order to equip students with comprehensive information such as knowledge, skill and attitude about HIV/AIDS, the city (A.A) curriculum experts especially civics experts need to reconsider the already integrated HIV/AIDS issues. Moreover, the incorporated HIV/AIDS information in all the civics texts of the city and syllabuses need to be put explicitly and in detail by taking in to account the students' level of understanding.
- Standing from the ground of 7.09% prevalence rate of HIV/AIDS in A.A which is by far greater than 2.2% of the country, A.A curriculum experts require to revise the already designed curriculum and incorporated comprehensive HIV/AIDS issues better than or at least equal proportion with the integrated issues of HIV/AIDS in the syllabuses.
- From the view point of the major means of transmission( about 75%) of the virus i.e. unprotected sexual intercourse as reported by UNAIDS in 2008, skill based HIV/AIDS information that will enable sexually active primary school students to apply delaying or protected sex, should be included sufficiently. The already integrated issues of HIV/AIDS were concentrated mainly on knowledge based information which can be said superficial and implicit to the extent that students are aware of this information informally out side the classroom through media. But in reality the major means of HIV/AIDS transmission that is affecting dominantly the youth is unprotected sex. Therefore, to avoid this risk sexual intercourse, students need to be well informed about protected (skilled based information) or delaying (attitude based information) sex through school curriculum sufficiently by far more than the already integrated information.
- As it was also suggested by all the interviewed subject experts to supplement the formal curricular activities, which have been implementing in classrooms, to effectively fight against the disease and to mitigate its devastating impact, it needs the joint efforts of different sectors of the society, institutions (anti-HIV/AIDS clubs, HAPCO, MOH and various NGOs) and individuals.

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## APPENDIX A

### **Semi-Structured Interviewed Questions for Experts of ICDR, AACAEB and MOE:**

1. What Sources of information were used while integrating HIV/AIDS issues in the national as well as AA school curriculum?
2. What were the criteria Considered While Selecting Carrier Subjects to Integrate HIV/AIDS Program in the Curriculum?
3. How do you evaluate the degree of integration of HIV/AIDS issues in your concern carrier subject?
4. What kinds of HIV/AIDS Interventions should be done in the future to reduce the existing serious Prevalence Rate of the Virus in AA?
5. What is the impact of the integrated HIV/AIDS contents in the curriculum?

## Declaration

I, the undersigned, confirm that this thesis is my original work which has not been presented for the fulfillment of the requirements of any other degree and all sources of materials used for the thesis have been duly acknowledged.

Name      Hailemichael Lemma  
Signature \_\_\_\_\_  
Date        \_\_\_\_\_

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

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