EVALUATING THE INTEGRATION OF HEALTH EDUCATION INTO ENGLISH IN ERITREAN SECONDARY SCHOOLS

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A mini-thesis presented in partial fulfillment for the degree of masters in Curriculum Development and Instructional Methods in the Faculty of Education, the University of the Western Cape
South Africa

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Declaration

I declare that ***Evaluating the Integration of Health Education into English in Eritrean Secondary Schools*** is my own work that has not been submitted before for any degree or examination in any university and that all the sources I have used or quoted have been indicated and acknowledged by complete reference.

Name: ZAID KIDANE TEKLEHAIMANOT Date

Signature_____ SEPTEMBER, 2003

Dedication

This minithesis is dedicated to my brothers Yemane Kidane and Kesete Kidane who sacrificed their lives (martyred) for the independence of Eritrea and its people.

AKNOWLEDGEMENT

First of all praise be to God for granting me the strength, courage, and inspiration to succeed in this endeavour during the challenging times.

I wish to express my heartfelt gratitude to my supervisor, Sue Davidoff, for her valuable, consistent support and encouragement. Had it been without her guidance and critical comments, the mini-thesis would have not been completed. I thank her for her help in molding the mini-thesis from the starting of the proposal up to the final stage.

I also wish to express my gratitude to my respondent: the principal, the English teachers, and the students of the school in which I conducted my research for their cooperation for the research.

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Acronyms

AIDS	Acquired Immunity Deficiency Syndrome
CDD	Curriculum Development Division in Eritrea
DGE	Department of General Education
EPLF	Eritrean People's Liberation Front
HEE	Health Education
HIV	Human immunity virus
MoE	Ministry of Education in Eritrea
MoH	Ministry of Health in Eritrea
NASSPR	National Association of Secondary School Principals Report
NUEW	National Union of Eritrean Women
NUEYS	National Union of Eritrean Youth and Students
STDs	Sexually Transmitted Diseases
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNESCO	United Nations Educational, Scientific and Cultural Organization

Evaluating the Integration of Health Education into English in Eritrean Secondary schools

KEY WORDS

Eritrea

Curriculum

Curriculum development

Curriculum Integration

Health

Health Education

Vertical integration

Horizontal integration

Intended curriculum

Implemented curriculum

Achieved curriculum

Evaluating the Integration of Health Education into English in Eritrean Secondary schools

ABSTRACT

In Eritrean secondary schools, Health Education is not taught as a separate subject. However, in order to raise the students' awareness about health, the Ministry of Education of Eritrea has integrated health-related topics into English and science. The main objective of this mini-thesis is therefore to evaluate the integration of Health Education into English in Eritrean secondary schools with special reference to one secondary school.

In the post-independence curriculum of Eritrea, even though the curriculum has changed to the needs and interests of the Eritreans, Health Education is not given due emphasis and teachers are not implementing its integration into other subjects effectively. This can be due to the lack of teachers' ability and lack of orientation on how to teach Health Education/health-related topics. Moreover because of the overcrowded curriculum (and hence the shortage of time for teachers to take their own initiative to implement the integration of Health Education into English properly) they are limited in their capacity to help students learn Health Education.

In order to gather the necessary data, the qualitative research method, in particular the case study, is employed. The data were collected by interviewing people in the National Curriculum Department, teachers, and students. Moreover, to triangulate the data collected from the interviews, classroom observation and document analysis were employed. Finally, the data collected were analysed, classifying the information into six themes: contribution of English to Health Education, emphasis given to Health Education, strategies employed to teach Health Education, levels of integration of Health Education into English and Biology, problems in teaching Health Education and the status of teachers' training and ongoing teacher development.

The findings of the study revealed that there is a discrepancy between what the government has intended about Health Education, what teachers do and what students learn in reality. This is due to the lack of clear policy about curriculum integration or integrated subjects in general and Health Education in particular. In addition there is lack of teachers' training and teachers' development and hence teachers lack detailed knowledge about the integrated subjects and the methodology to teach them effectively. Moreover, there are real time constraints. The time allotted to health related topics is little, teachers teach two shifts and they are occupied the whole day and they are not encouraged to take their own initiative. The government thus needs to develop a clear policy on curriculum integration, where teachers should participate in its development so that they can contribute clear ideas about its development and its implementation.

Even though the study was conducted in one school, it revealed an impression of the status of Health Education in Eritrean secondary schools: its level of integration, emphasis given to it, and problems that hinder its implementation. However, to evaluate the curriculum integration from its development up to its implementation and the factors which affect its development and its implementation, a further study should be conducted on a larger-scale.

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CHAPTER ONE

INTRODUCTION

1.1. Background and Context

Eritrea is located along the Red Sea on the northeastern part of the African continent. It neighbours with Sudan in the northeast, Ethiopia in the south and Djibouti in the southeast. Its area is approximately 123,3000 square kilometres. The population of Eritrea is estimated to be 4,465,651 (World Fact Book, 2002). Eritrea is a country where different ethnic groups coexist. They are Kunama, Nara, Tigre, Tigrigna, Hidareab, Bilen, Afar, Saho, and Rashaida. Each ethnic group speaks the language of its own group; however, the Rashaida speak Arabic. All these ethnic groups reside in different parts of the country.

Eritrea like any other African countries had been under successive colonisation for a long period of time. It had been successively colonised by different groups of colonisers for about a century (1890-1991). It has taken its ultimate and present shape at the end of the 19th century. On January 1, 1890, Italy proclaimed Eritrea its own colony. It remained under its control until the British occupied the territory in 1941 during the Second World War (1939-1945). This was the first colony acquired by Italy. Later, the greater part of today's Somalia and Libya were occupied in 1889 and 1912 respectively. The Italians furthered their colonial expansion by invading Ethiopia in 1935. This led to interference of the British and French to safeguard their interests in the horn of Africa. During the Second World War the British as members of the Allied Powers defeated the Italians, controlled Eritrea, and established a British Administration that lasted from 1941-1952.

Parallel to the colonisation by different colonisers, Eritrea had passed through different educational policies and curricula, which fitted the agenda of the colonisers. The various colonisers of Eritrea adapted the education system of the country to their own needs and requirements. During these times, Eritreans were deprived of their rights to learn though the degree of deprivation varied from coloniser to coloniser and

from time to time. However, the educational and curriculum policy was changed after its liberation.

In 1952, through the United Nations (UN) decision, Eritrea was forced into federation with Ethiopia (1952-1962). However, many Eritreans opposed the federation and later union with Ethiopia (1962 onwards) and started an armed struggle in 1961. They continued this for decades. After 30 years of armed struggle, however, the Eritrean People's Liberation Front (EPLF) defeated the Ethiopian army and liberated Eritrea on May 24, 1991. After establishing Provisional Government, it was decided that a referendum for the independence of Eritrea should take place after two years. The referendum took place on April 23-25, 1993 with the question "Do you want Eritrea to be independent and sovereign country? Ninety-nine point eight percent of the people of Eritrea voted for the independence and sovereignty of Eritrea. Eritrea was proclaimed an Independent and Sovereign State on May 24, 1993. Its sovereignty was ratified by U.N.O's 104th General Assembly. On May 28, 1993, Eritrea thus became the 182nd member of the UN.

Even though the devastating 30 years colonial war was finally ended on May 24,1991, the problems did not end then. The economy and infrastructure had collapsed and social services including education and health had disintegrated. Eritrea's human resources development was greatly hampered during the struggle. In general, the quality of education had deteriorated so much that there was a crisis in the system. Since independence, however, the Government of Eritrea has embarked on a wide-ranging programme designed to revitalise and develop the collapsed educational system. This is because it has been realised that the previous educational system under colonisation was intentionally designed to reinforce the colonial ideologies and political machinations.

In a country where almost every thing was destroyed, the Ministry of Education now faces enormous challenges. One of the many challenges is improving and implementing of curriculum. In order to help clarify this, the educational policy and curriculum of Eritrea since its official colonisation by the Italians (1890) and after its liberation is discussed as a background for the study in the section below:

1.2. Eritrean Curriculum during Colonisation

Under this section, I will try to reflect the curriculum during the Italian colonisation, curriculum during the British rule and curriculum during the Ethiopian colonisation. Moreover, the Eritrean curriculum after independence and the language policy in education in Eritrea will also be discussed.

1.2.1. Eritrean Curriculum during the Italian Colonisation

During the Italian period (1890-1941), the curriculum was prepared for the Italians. Though a formal European style of education was first introduced during this period, few chances were given to Eritreans and there was great discrimination: Eritreans were allowed to learn only up to Grade Four. Besides, they were not allowed to attend classes with the Italians. Gottesman (1998: 76) confirms this: "In 1909, the first colonial educational policy was declared, based on the separate schools for Italians and Eritreans. Schooling was compulsory for Italians aged from six to 16; curriculum followed was the curriculum of the Italian schools."

Moreover, during the Italian period, "The Italians neglected the development of native Eritreans. The educational facilities were limited; there were few teachers who were unqualified. They served the propaganda dissemination of the colonialists" (ibid.:77). This shows the extent to which the Eritreans were deprived of their rights to learn.

The purpose of the Italian education in Eritrea was clear and narrow. It was to inculcate the skills required of labour forces serving the needs of the colonial administration. That is, to indoctrinate the Eritreans with devotion for Italy and a respect for Italian culture and civilisation. Schools were opened for Eritreans to become worthy elements of the native troops, interpreters, clerks, telephone operators, and typists. As far as the female Eritreans are concerned, it was only to make them loyal and good house workers for the Italians.

In general the Italian educational system emphasised the loyalty to the Italian flag and the virtue of obedience to white supremacy. The following statement in colonial

1. What do secondary school principals themselves see as their leadership and management role within their schools?
2. What constraints do secondary school principals face in leading their schools?
3. What are the most practical and successful strategies that principals apply in leading their schools?
4. What policies are in place to enable principals to perform their roles effectively?
5. How does the Ministry of Education see the leadership and management role of secondary school principals?
6. What recommendations can this study make to help improve school leadership and management functions of school principals in the region and elsewhere in Eritrea?

1.4 . Statement of aims and objectives

The aim of this study is to investigate and to explain the secondary school principal's leadership and management roles and responsibilities. The researcher strongly believes that because of the problems and circumstances of the secondary schools in Eritrea to be expanded upon later, an investigation into the leadership and managerial roles, activities and functions of the principal should be carried out. Thus the main aims and objectives of this study are:

1. To investigate how secondary school principals lead and manage schools.
2. To examine the techniques and styles that some of the principals use to overcome problems in schools.
3. To identify the most practical and successful approaches and strategies of school leadership and management.
4. To identify common challenges and obstacles principals face in leading and managing schools.
5. To make a contribution to the research community with the hope that the findings will benefit organizations those are interested in the field as well as educators who may become interested in school leadership and management in the future.
6. To make recommendations on how principals improve their leadership and management roles.

1.5. The Eritrean education background and the present situation of the secondary schools

After thirty years of war, the State of Eritrea obtained its independence in 1991. Consequently the state was in dire need of reconstruction and rehabilitation as the

at primary level" (Gottesman, 1998: 80). The British made Arabic and Tigrigna languages of instruction in the areas where Arabic is frequently spoken and in the highlands of Eritrea respectively. At this time the community was given chances to decide about the languages to be used.

1.2.3. Eritrean curriculum during the Ethiopian Colonisation

During Eritrea's federation with Ethiopia (1952-1962), the establishment of schools and the progress of education were maintained. The constitution which provided all Eritreans with the right to education was brought into effect. Tigrigna and Arabic were made the country's official languages. Gottesman (1998:80) says, "In 1952, Eritrean constitution guaranteed residents the right to education and declared Tigrigna and Arabic the official languages. Tigrigna and Arabic were used for primary education up to Grade Four, English thereafter." However, the high demand and expectations of the Eritrean children were not yet met and Haileslasie (emperor of Ethiopia at that time) began to undermine the Eritrean education along with its institutions.

In 1956, Amharic (Ethiopia's official language) was proclaimed as the only language for public office, schools, law, courts and business documents. Ethiopian teachers were brought in to teach Amharic. In the same year, when the Ethiopian occupation was at its height, "all Arabic and Tigrigna text books were burnt; all other indigenous languages were prohibited from being used as instructional languages, and replaced with Amharic" (Bariagabir, 1998: 24). From this we can clearly understand how the Ethiopians dominated the Eritrean educational policy and curriculum to respect only their own interests without considering the needs of the Eritreans.

After federation with Ethiopia for ten years, Eritrea was annexed to Ethiopia in 1962. Following annexation, the Eritrean educational system was amalgamated into the Ethiopian educational system and all educational decisions were made in Addis Ababa, the capital of Ethiopia. During this time, the policies of Ethiopia and the emergence of Amharic as an official language were intensified. The standard of education that was achieved during the British administration deteriorated during the

Ethiopian colonisation.

The last phase of Eritrean education during colonisation was education under the Dergue regime, Mengistu's Rule, (1974-1991), which lasted for 17 years. During this time, Amharic remained the compulsory language and the number of teachers increased. But in 1990, as the EPLF occupied most of the country, the Dergue regime disbanded the University of Asmara, taking its staff and movable property to Ethiopia. Thus Eritrea remained without a university, and this was the time the education standard and quality fell to its minimum level because at that time the war between the EPLF and the Ethiopian Government was severe. Thus Ethiopian Government was not giving emphasis to education, as it was a critical time to them. Finally, after a 30-year bloody war, Eritrea achieved its independence and from that time on the policy and curriculum of independent Eritrea was totally changed.

1.3. Eritrean Curriculum after Independence

Since independence, the Government of Eritrea has embarked on a wide-ranging programme designed to revitalise and develop the collapsed educational system. Higher education has been set as the government's priority because it has been realized that the colonisers' educational system was designed to reinforce the colonial ideology. Moreover, Eritrea has believed that through education, the major national development strategies could be achieved. The government of Eritrea has rightly understood that the overall vision of Eritrea's progress is ultimately based on human capitalisation, with education and health as key inputs.

The curriculum policy which Eritrea is practising, originated from the curriculum of the EPLF in the liberated areas before independence. "The development of the curriculum was started in 1976 in the field during the Liberation War in a model school called Betimhrti Sawra (Revolutionary School)"(Ministry of Education, Curriculum (MoE), 1995:4). This curriculum was revised three times up to 1981. Here it should be noted that schools were not with furnished classrooms as such. Classes were conducted under the shade of trees and caves to hide themselves from the enemy's fighter planes. Thus, after the independence of Eritrea the situation is

totally different and the curriculum cannot be adopted as it was, without making changes.

After independence, in 1992, with the limited educated human resources it had at that time, the Ministry of Education (MoE) of the State of Eritrea conducted a survey to see whether the syllabi that were used before independence could be used as they were without any change or whether they needed modifications. This was made by interviews and questionnaires. Finally, it was agreed to adopt the pre-independence curriculum. However, it was only transitional. After that many curriculum revision programmes were conducted:

- A curriculum review discussion was prepared to the lay ground for development of the national curriculum;
- Workshops on curriculum development and education research had been conducted for fifty-two curriculum and other members from the MoE in order to improve their professional skills on curriculum preparation;
- A situational analysis of the current curriculum at various points in the school system was conducted to assess whether it fulfils the needs and interests of the students as well as aspirations and expectations of the nation;
- An assessment survey had also been conducted by means of questionnaires sent to different groups in different ministries, and institutions (MoE, 1995: 5).

1.3.1. Language in Education Policy in Eritrea

Before the European colonisation, there was a religious educational system in Eritrea. Churches and mosques were the main avenues of schooling. Muslims used Arabic script while the Christians used Tigrigna script. These scripts are evident even today. However, the school system was changed when the British started to rule Eritrea (1941-1952). "The choice of language of instruction at primary level was decided by local educational committees, which favoured the use of Tigrigna where the local population was predominantly Christian, and Arabic in the regions where it was predominantly Muslim" (Bariagabir, 1998:8). At that time both Arabic and Tigrigna achieved the status of official languages. Nevertheless, the intention of the British ruling system was behind the cartoon: the aim of dividing Eritrea, "the West and the North to the Sudan and the rest to Ethiopia" (Paice, 1994:27).

or restrictions. Marshall and Rossman (1995: 44) state that the strengths of qualitative studies should be demonstrated in research that is explanatory or descriptive and that it stresses the importance of context, setting and the participants' frames of reference. Since most of the research is explanatory and descriptive, the qualitative method is an appropriate approach.

1. Literature review: Initially a review of the literature relating to the leadership and management role of principals will be done using different sources (e.g. books, journals articles, web-sites, policy documents and other published materials) in order to generate ideas and concepts for testing as well as for finding answers to the research questions.

2. Interviews (semi-structured): A face-to-face semi-structured interview with eight secondary school principals and two senior education officials will be conducted. Semi-structured interviews allow respondents to clarify certain points or situations more than the other data gathering techniques and at the same time control the tendency of deviation from the content of the question. According to Cohen and Manion (1980: 243) the purpose of an interview is to provide access to what the participants are thinking as well as their experiences. It also builds confidence and mutual trust between the interviewer and the interviewee.

The interview will be conducted in the Tigrigna language, which is one of the official languages of the country in order to gauge the experiences, views, opinions and attitudes of the respondents in full detail and depth. All the information collected will be recorded using a tape recorder with the permission of the interviewee.

Once the interview is conducted and the information recorded with the help of a tape recorder, it will be carefully transcribed in full detail. After transcribing the information, it will be translated from Tigrigna into English with care and attention. Then it will be categorized (sorted out) in themes to be identified for systematizing the views of the respondents. Finally, the research data will be interpreted and analyzed in relation to the research objectives. For the analysis of the questions, the researcher will also draw on his own experience as a principal of a secondary school, responsible for the leadership and management of the school.

3. Document (archival) and contextual analysis: Interviews and questionnaires are preplanned and can promote biases. Mouton (1996: 143) demonstrates that creativity becomes the largest single threat to the validity of research findings when human

Independent Eritrea is a new country. It was liberated from Ethiopia in 1991. Before its liberation most of its teachers were Ethiopians and they left after its independence. The educational background of the students was low because when the war between Ethiopia and EPLF was intense, the Ethiopians did not give due emphasis to education; if at all, it was for the dissemination of their propaganda. Thus the curriculum needs redesigning, developing and reforming. The State of Eritrea has reformed its curriculum and educational policy attempting to meet the needs of its citizens. The contents of the subject matter are totally different from that of the colonisers. In its recent curriculum, it has introduced an integrated curriculum to teach subjects like Health Education and Environmental Education into other subjects such as English and biology. The main concern of this mini-thesis lies in evaluating the status of Health Education with special reference to its integration into English in Eritrean secondary schools.

1.4. Health Education in Eritrean Secondary Schools

According to the Eritrean educational policy, schools are classified into five levels: Kindergarten (1or 2), elementary (1-5), junior (6-7), secondary school (8-11), and tertiary levels. In the Eritrean school system children stay one or two years in the kindergarten but this is not for all students. The majority of the students and all the students in the rural areas do not get the chance to attend in kindergarten. In the other grade levels students attend five years in elementary, two years in junior secondary, and four years in secondary schools. As far as the tertiary level is concerned, it depends on the courses and the qualification they are seeking. In Eritrean schools, students are supposed to learn different subjects at each grade level. But due to progress in science and technology, new innovations, new information, and other more important subjects have emerged.

The length of school days has not changed but the knowledge has increased exponentially and the emergence of such new innovations has put pressure on subject teachers. Nonetheless, developing countries like Eritrea have not been able to provide teachers for every new subject introduced to be taught separately. However, updating students' knowledge and making the content relevant to students' real life situations is

compulsory. Thus, curriculum integration was introduced as a way of including relevant topics into the curriculum without creating an extra subject.

I will argue in this thesis that it is good that Eritrea, which is suffering from a shortage of teachers, should use curriculum integration as a way of teaching important subjects like Health Education and Environmental Education in its secondary schools. It uses its scarce human resources to do two things at the same time. "Integration kills two [or more] birds with one stone. Integrated lessons can be fun, exciting ways to engage students in active learning. Teaching more than one subject can be efficient and effective" (Spring 4 health, 1999: 4). Moreover many writers argue that curriculum integration is a highly desirable form of curriculum development (Marsh, 1997:95). For example, Jacobs (2000:111) argues that an integrated curriculum:

- Enables teachers to concentrate on several skills (communication skills) which are often disregarded in single subject teaching;
- Helps teachers to teach the whole child;
- Results in the curriculum revolving more pertinently around students' interests

The above quotation suggests that the integrated curriculum, unlike single subject teaching, enables teachers to see the teaching and learning process from different angles so as to help the students to develop a more all-rounded personality. Moreover, it has certain advantages on the part of the student. It:

- Enables students to assess the information using a variety of learning values;
- Promotes synthesising of thinking;
- Promotes divergent thinking;
- Fosters co-ordination and team work among a group of teachers and students;
- Addresses different learning styles and intelligence;
- Helps students comprehend concepts and ideas beyond facts and figures and logical connections of subjects (Payne, 2001:1).

In Eritrean secondary schools Health Education is not taught separately, but it is integrated into other subjects such as English and Biology. At a macro level, there is no written document or policy about the integration of Health Education and how it should be taught and who should teach it in class but there is a general idea which

encompasses (includes) the message that health messages should be given due emphasis in the educational objectives.

The objective of the general educational programme is not different from what is stated above. According to the head of the National Curriculum and Pedagogy (interview: December 20, 2000), the general objectives of Health Education at a macro-level are to enable students to understand the contribution of science and technology to social life and develop scientific thinking so that they can challenge problems they face in life. It also enables them to learn about hygiene and first aid to develop awareness of health knowledge to care for themselves and the community. The head of the English panel also elaborates this idea when responding about the objective of including health-related topics into English in Eritrean secondary schools, "Health-related topics are included in the English syllabi to raise the students' awareness about health related issues while teaching the English language" (interview: December 20, 2002).

According to the information from the English panel, the topics included in the English syllabi were graded 74% and above to be interesting topics (English Panel, English Syllabus development Survey, 2002). The head of National Curriculum and Pedagogy also indicated that a situational analysis of the health of school children in Eritrea was conducted. As a continuation of the study, the curriculum department is preparing supplementary materials for Health Education so that teachers will have access to different teaching materials in addition to what is already included in the textbooks. Thus, the government of Eritrea is giving due emphasis to Health Education. This is because Health Education is an instruction that addresses the physical, mental, emotional and social dimensions of health and it enables students to develop health knowledge, and positive attitudes to learning Health Education and skills.

The State of Eritrea gives due emphasis to Health Education at least at a macro-level even though there is no document to refer to the curriculum integration policy and its implication except what is written in the textbooks and the information from the people working in the curriculum department. As far as implementation is concerned, the perception of students and some teachers is that due emphasis is not given to

Health Education and it is not taught in relation to its advantages and needs of the students in particular and to society in general. Thus, it seems that there is a gap between what the government says at a macro-level and what really happens on the ground. The focus of this research will revolve around looking at the gap between the two realities raised above.

When the educational system of a country is centrally structured (top-down), at the meso-level there are curriculum developers (meso literally means in between). This means in an educational system, which is organised from the top-down, there are curriculum developers in between the top authority and the curriculum implementers. These experts could be outside the school community (like the one who developed the Eritrean English curriculum). This particular outside expert had integrated health-related topics into English. However, he did not communicate why he integrated the specific health-related topics into English, what its advantages and disadvantages were, and how it could be taught. Thus when I asked the people in the National Curriculum Development Division (at macro and meso-level), they all said that there is no document on curriculum integration or about the integrated subjects such as Health Education. However, we see integrated themes in our textbooks and curriculum integration being practised at school level. In fact, it is occurring without sufficient recognition.

Teachers did not take any training or orientation and they were not familiar with any strategy to implement an integrated curriculum. They teach these subjects without having much knowledge about how to teach them and without even having detailed knowledge about the subject content itself. English teachers for example may not have enough knowledge about Health Education and how best it could be taught even though their contribution is undeniable. They teach the subjects because they find them integrated into the subject they teach. If teachers did not have any training in how to teach these subjects, and if they did not participate in its integration process, how will the intended message be taught? Will the teachers give due emphasis to the integrated subjects (Health Education as in our case) while teaching English? This will also be one of the concerns of the research.

1.5. The Purpose of the Study

After independence, Eritrea reformed its curriculum and in its recent curriculum Health Education is not given as a separate subject. Instead, it is integrated into English and science. This is not even given as a subject, but health related issues (topics) are included in English for two purposes: for teaching the English language and transmitting the health messages in order to increase the students' awareness on health related aspects. English teachers who have not taken training on how to teach Health Education perform this activity. Thus, there is a dilemma as to whether Health Education is taught effectively or not; whether students are learning what they should learn about Health Education in secondary schools. Therefore the aim of this study is:

- To assess the curriculum integration policy of the MoE of Eritrea;
- To evaluate the emphasis given to Health Education by English teachers in Eritrean secondary schools;
- To investigate what problems teachers face in implementing the integration of Health Education in to English;
- To explore whether what the MoE of Eritrea intended about Health Education corresponds with what teachers teach and what students learn;
- To investigate a means by which the curriculum integration policy of the MoE of Eritrea can be amended to facilitate more meaningful implementation.

1.6. Rationale of the Study

Health Education is one of the most important subjects that should be taught in schools, especially in countries like Eritrea where there is shortage of qualified health professionals to teach the people about Health Education. In such a case, it is the school (where students who represent their families in particular and the community in general) can get the chance to learn Health Education, and schoolteachers can contribute to acquaint the students with Health Education or health-related issues.

Health Education is important because it enables learners to keep themselves conscious of health-related issues and to have a healthy and safe lifestyle. Teaching

students Health Education enables them to keep healthy, clean, improve their eating habits, etc. It enables them to keep themselves safe in their homes, in schools, and their surroundings. Moreover, learners can share ideas with their families and care for others if they are taught Health Education.

Here it should be noted that as the majority of the people in Eritrea, 80%, are illiterate, the schools have the responsibility of teaching the students and making them teach their families and the community. Thus teaching the students means teaching the families and teaching the families means teaching the community. The reason why it should be taught in an integrated fashion instead of being taught as separate subject is explained after defining the concept 'curriculum integration' in the following sections.

Shoemaker (1989: 5) defines an integrated curriculum as:

> ...education that is organised in such a way that it cuts across subject matter lines, bringing together various aspects of the curriculum into meaningful association to focus upon broad areas of study. It views teaching and learning in a holistic way and reflects the real world, which is interactive.

This definition indicates that integrated curriculum unifies different ideas and does not see things in isolation. Thus it is a broader area of study. According to Jacobs (1989: 61), the integrated curriculum:

- Permits students to see the interrelationship of subject disciplines and the interdependency between subject areas and enhances the retention of subject knowledge of content;
- Promotes collegiality among teachers as they must plan together to produce viable products;
- Represents a curricular approach which supports the innovative practices.

It is evident that curriculum integration helps teachers to see the relationship between subjects and its importance in broadening their knowledge. Moreover, it helps them collaborate and work in groups. This is a shift from the traditional approach of teaching where the teachers have their own territories.

The National Association of Secondary School Principals Report (NASSPR) (1998: 2) also elaborates the above ideas. According to the report, the integrated curriculum brings the following benefits to students:

- Basic skills are taught that apply to real life, allowing students to make connections;
- Students are encouraged to work in groups, promoting a sense of community and classroom unity;
- Students' self discipline is better;
- Students develop a better attitude toward school.

The above quotation indicates that curriculum integration is important not only to teachers but also to students. It also helps the students to work in groups and this helps them to develop better relationships and to have a positive attitude towards learning.

The report further explains the benefits of curriculum integration especially to teachers:

- Teachers by working co-operatively with students in a team approach, experience fewer disciplinary problems;
- Teachers get to know students better;
- Teachers feel less isolated, having more opportunities to be collegial, etc. (NASSPR, 1998: 4).

The above quotations tell us that integrated curriculum is helpful to both students and teachers in the teaching/learning process. It enables them to see the relationship between various subject matters and it also reflects the real world. Moreover, it helps them to be co-operative and this results in a healthier classroom environment.

On the other hand, advocates of separate subject teaching say:

> Traditionally, subjects have been taught as separate entities because this enables students to gain systematic, in-depth knowledge of selected study fields in preparation for future careers and personal development. Separate subjects make the curriculum more manageable. For example, knowledge can be arranged in logical hierarchies that coincide with the developmental stages of students, and teachers can specialise in certain subjects (Jacobs, 2000:111).

Moreover, as Ross and Gray (1996: 4) put it; "The structure of disciplines, their internal organisation of ideas and principles could be lost in a merger. Making

connections horizontally might make it harder to connect vertically". This means there could be a lack of focus when integrating several subjects and it might be difficult for students to see the relationships of the subjects.

From the above quotations it is clear that there is a real debate between advocates of curriculum integration and its opponents who advocate teaching separate subjects. In my opinion, teaching a separate subject is the same as 'clapping with one hand'. I believe that subjects should be taught in an integrated fashion and to the real life of students, because this makes them more practical. Although the supporters of teaching separate subjects advocate for it, it is not ever possible to teach a separate subject; whether we like it or not, there will always be some elements of integration during the teaching and learning process. For example, if you take the English class, there could be no pure English that can be taught to students. When we start teaching English, in one way or the other we will relate it either to other subjects or with the students' daily lives or at least to the background knowledge of the students. In a similar manner, supporters of integration point out "problems in the real world cannot be compartmentalised in to one discipline. Solving a problem in water quality would require knowledge of science, Mathematics, Economics and Political Science" Glatthorn, (2000: 79). Moreover, Vars (1991) as cited in Glatthorn, (2000:79) points out "more than 90 studies comparing integrated curricula with traditional curricula have concluded that students learn more with integrated approaches." Finally, they argued, "preliminary research on the brain suggests that students learn better when learning is holistic, not fragmented" (ibid.: 79).

In my view it is good that the MoE of Eritrea has integrated Health Education into English in its secondary schools as per the advantages of integration mentioned earlier. However, in my experience as a secondary school English teacher for 17 years and Head of English Department for three years, I see English teachers considering Health Education as if it were given to enhance teaching English without giving much emphasis to the health messages that should be addressed. Here the dilemma is whether what the MoE intended in terms of Health Education, what teachers teach and what students really learn match or not. Thus as a professional teacher, I am interested in evaluating the current status of the integration of Health Education into English in Eritrean secondary schools.

1.7. Significance of the Study

When we see the Eritrean curriculum in general and the English curriculum in particular, they have limitations. Experts develop the curriculum. Teachers, students, parents and the community have little participation in the development of the curriculum so it may not represent the needs and interests of the society. Another limitation could be that in Eritrean secondary schools, one kind of curriculum and the same textbooks are used all over the country, yet it has diverse ethnic groups and different cultures and different backgrounds. Thus it may be difficult for teachers to contextualise the curriculum, which does not take this diversity into account in different situations.

Moreover, we see most of the students failing at the end of their secondary schools (in the matriculation) and additionally what they learnt could not help them in the world of work.

> The present High School education system of Eritrea is very wasteful. Not only is the chance of continuation to college level education for those who completed High school very narrow but also the nature of education is such that graduates from the high school are not well prepared for the job market (MoE, 2002: 13).

The evaluation report during the parliamentary meeting held on October 2002, also indicated that the ten years since independence were considered a waste as very little happened in education and the President of the State of Eritrea called citizens to work for its improvement and to do further research.

When we come to the English curriculum in particular, the Eritrean Curriculum Development Division in collaboration with the British Council and a foreign expert developed it in 1995. At that time there was little participation of teachers and no participation of students and the community in its development. Teachers were merely implementers and no evaluation was done in terms of its development and implementation until the curriculum survey was conducted in 2002. The English panel asked for feedback from teachers, and because it was too late, little formative change was made. Even though Health Education is one of the most important subjects which

enables students in particular and the community in general to develop a healthy and safe lifestyle, little emphasis is given to its development and its integration into English. In general, little research has been done on the English curriculum, particularly on the integration of Health Education into English. Thus, hopefully my research can be a springboard for those who want to do further study in this area and contribute towards the improvement of the Eritrean curriculum in general and the Health curriculum in particular.

1.8. The Statement of the Problem

The main research question is "How is Health Education currently integrated into English in Eritrean secondary schools?" In other words the research question aims at answering the question of whether what the MoE of Eritrea intended in terms of the integration of Health Education into English matches with what the English teachers teach and what the students really learn. The research tries to assess the degree of match between the intended curriculum, the implement curriculum and achieved curriculum. Thus the main objective of the study is to assess a response to the following questions:

1. What is the goal of the curriculum integration policy of the MoE of Eritrea?
2. How much time/space do English teachers give to Health Education?
3. How do English teachers interpret the integration of Health Education into English?
4. What are some of the difficulties in the fuller integration of Health Education into English? How can some of the difficulties be addressed?
5. What is the degree of match between what the MoE of Eritrea intended and what the students learn?

1.9. Scope of the Study

In order to conduct this research, I chose one secondary school, which is found in the Central Zone, in Asmara. It has 1265 students and 45 teachers. It is situated on 3500 square meters. In doing my research I was confined to evaluating the integration of

Health Education into English in Eritrean secondary schools with special reference to the secondary school chosen. I chose the school because I had worked there previously; I know that all the English teachers are experienced teachers. In their longer time experiences, they have worked in different regions of the country and I believed that they could share a great deal of information about my topic with me. Besides, as Health Education is a vast subject, which deals with different aspects of life, it would not be manageable to study the topic in more than one school. The time and money available for collecting the necessary data also limited the scope.

Therefore in order to do deeper investigation about the problem at hand I decided to do my research in one school, which is found in the central part of the city. The location of the school has also helped me to get an opportunity to visit the school as frequently as possible.

In doing my research my informants were the Head of National Curriculum and Pedagogy, Head of the English Panel, English teachers, Head of the Health Club of the school, and students from the school. I interviewed all my informants and I also did classroom observation with three English teachers to see what the English teachers say and what they practically do in class. I observed three out of the five English teachers teaching Grades Eight, Nine and 11 because the Grade Ten teacher had already taught the health-related topic – Sport - earlier, and the other one was teaching the same grade as I had already observed. I also did documentary analysis of the health-related topics included in English and Biology textbooks of Grades Eight through 11. I did this to see whether the health-related topics are horizontally and vertically integrated or not. (For detailed explanation of these terms see chapter 2).

1.10. Limitation of the Study

In conducting this study I faced some limitations: The first was the shortage of time and resources. There was not enough time to conduct as many observations I would liked to. Due to shortage of time I observed three teachers teaching only one health-related topic each. Had there been enough time I could have observed them teaching other health–related topics so that I could have seen their consistency in focusing on

the integrated subject - Heath Education. While I was collecting the data, it was examination time, accompanied by semester break. Moreover, health-related topics are found here and there in the English syllabi. Some of them were taught before I went there and some of them are scheduled too far towards the end of the year so that it was a problem to arrange class observation because it distorts the pre-planned annual lesson plan. However, I appreciated the teachers' willingness and the school administration's co-operation so that I was able to gather the data which enabled me to write my research.

Finally, I was led to understand that teachers regarded me as if I was part of supervision. I had the strong sense from the conversations that I had had with the teachers that they did not behave in the usual way and did more thorough preparation. Moreover teachers were reserved in expressing their ideas, especially the limitations about the curriculum. They emphasised the strong points, and did not address the weaknesses.

In this chapter, I have tried to explore the background and the context of the research, curriculum during colonisation and after independence. In addition, I have tried to see language in education policy in Eritrea, Health Education in Eritrean secondary schools, the purpose of the study, rational of the study and significance of the study. Finally, the statement of the problem, its scope and its limitations are discussed.

The next chapter will deal with the literature review or the theoretical aspects of the research.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

In this chapter, I will first try to define the term curriculum, explain curriculum development models, the curriculum development process, and the teachers' role in the curriculum development process. Moreover, I will explain the concept of curriculum integration, models of curriculum integration, and the benefits and its barriers for the formation and implementation of curriculum integration. In addition, the Eritrean curriculum integration policy in education will be discussed. Finally, the integration of Health Education into English in Eritrean secondary schools will also be discussed.

2.2. Curriculum Defined

Although there are different meanings of 'curriculum', I will base my explanation on Marsh and Print's definitions to discuss the Eritrean curriculum and curriculum integration. "Curriculum is a document which includes details about goals, objectives, content, teaching techniques, evaluation and assessment and resources"(Marsh, 1997: 4). Print (1999: 9) also defines curriculum as " all the planned learning opportunities offered to learners by the educational institutions and the experiences learners encounter when the curriculum is implemented."

The above definitions of curriculum put forward that curriculum is a process that takes place at different phases: curriculum design, curriculum dissemination, implementation and evaluation. At each stage of the curriculum development process different activities are performed to achieve the desired objectives. For example during the curriculum design phase, curriculum developers make decisions about the contents to be included, the ways these contents should be presented and evaluated.

In this regard Armstrong (2003: 293 says, "Curriculum is a set of decision making processes and product that focuses on the preparation, implementation, and assessment of general plans to influence students' behaviours and insights." Curriculum development is " the process of planning learning opportunities intended to bring about certain desired changes in pupils, and the assessment of the text to which these changes have taken place"(Print, 1999: xviii) adds.

Wiles and Bondi (1993:3) add that:

> Curriculum development is a process whereby the choices of designing a learning experience for students are made and then activated through a set of co-ordinated activities. Curriculum development for a professional is a logical process that begins with clear goals and proceeds in an if-then manner until finished.

From the above explanation, we see that curriculum development in one way is a process that begins with specific goals and that continues with the other stages. These include formulation, teaching strategy, production, classroom research, implementation and evaluation in order to ascertain the achievement of the predetermined goals. On the other hand, we see that the curriculum development process begins with clear goals and continues with the other stages in an if-then manner, which means it changes as situations change. Finally, we see that the curriculum development process includes the experiences learners encounter during the implementation of the curriculum. These different definitions of curriculum lead us to recognise that there are different models of curriculum development. These can be seen in the next section.

2.2.1. Curriculum Development Models

Before I discuss the curriculum development process, it is vital to explain the curriculum development models so that we can understand the base for classification of the curriculum elements or curriculum development stages. There are three models of curriculum development. They are the rational model, the cyclical model and the dynamic model. The rational model, sometimes called objective/classical/means-end model, "emphasises the fixed sequence of the curriculum elements, beginning with

objectives and following sequential pattern from objectives to content, method and finally evaluation" (Print, 1999:64). In this model, the objectives serve as the basis for initiating the subsequent elements, and evaluation is used to ascertain the degree of achievement of those objectives.

As this curriculum model is logical and sequential, it provides curriculum developers with a useful base for planning and devising curricula. In addition, it is a straightforward and time saving model for meeting the curriculum task. In other words, as the goals and objectives of a rational model are pre-determined, it has a clear starting point and final goals. Thus, there is no confusion for the curriculum developers as to where to start and where their jobs end.

On the other hand, the rational model has certain limitations: The weakness of this model comes from the unpredictable nature of the teaching/learning process. This model has predetermined objectives, but in reality, the learning process may not match with the objectives because situations may change during its development or through time. Overemphasis on formulating measurable outcomes has also caused significant problems for the rational model because this model prescribes specific objectives to be achieved. In reality however, learning often goes beyond these specified objectives because of the ever-changing world. For example, at this time we are teaching our students that AIDS is incurable, but if advances are made in this regard in medicine, it will be mandatory to update our curriculum. In other words, pre-planned outcomes may cause discrepancies during curriculum implementation and evaluation because teaching/learning situations are always in continuous change. Finally, the rational model is frequently criticised because its proponents do not adequately explain the source of their objectives (Kliebard, 1970; Skilbeck, 1979; Brady, 1981; Marsh, 1986 as cited in Print, 1999:69).

The second model of curriculum development is the cyclic model. This model is an extension of the rational model. It is "essentially logical and sequential in approach. However, the cyclical model sees the curriculum process as continuing activity, constantly in a state of change as new information or practice becomes available" (ibid.:69). In the cyclical model, the stages in the curriculum development process are

interrelated and interdependent, however, unlike the rational model there is no clear demarcation among the curriculum elements.

The cyclical model has strengths when compared with the rational model. The various elements of curriculum are seen to be in a continuous motion and it is able to cope with new situations and consequently respond to changing circumstances. In other words, this model is flexible in that if a situation changes in one stage, changes are made in the subsequent stages. It accepts a degree of interaction between various curriculum elements. For example when curriculum developers are considering contents, they may also suggest ideas about teaching methodologies, though these teaching strategies come later in the curriculum development process. Another strength of the cyclical model is that it is less rigid in its application, and it is more relevant to the school situation and hence more appropriate to curriculum development by teachers.

On the other hand, the cyclical model has limitations. The first limitation of this model is that, as it shares the logical and sequential approach to curriculum development with the rational model, there is a possibility of being ignored by curriculum developers. This means that although this model makes continuous changes according to situations, it shares the rigid logical and sequential nature of the curriculum development process with the rational model, especially at its earlier stage - identifying the goals and objectives.

The third model of curriculum development is the dynamic/interactive model. This model offers an alternative view of the process of curriculum development. Proponents of this model (Walker, 1971; Skilbeck, 1976; Macdonald and Purpel, 1971 as cited in Print, 1999:75) argue that:

> The rational and the cyclical models do not reflect the reality of curriculum development in educational organisations. The curriculum process they contend does not follow a linear sequential pattern. Rather, curriculum development can commence with any element and proceed in any order.

The above quotation indicates that curriculum developers in this model can visit and

revisit the different elements of curriculum development until they are satisfied with the final product of the curriculum. It also shows us that this model offers considerable flexibility to the curriculum developers so that they can modify or update the curriculum in relation to the ever-changing world.

The dynamic model views the curriculum development process as flexible, interactive and modifiable. As Print (1999:80) puts it, "Dynamic model allows for flexible movement within the curriculum process so that developers may move about in any order of events, trace their steps and proceed in whatever way they find preferable. This lack of constraint is prized highly by many developers."

Although we have seen the strengths of the dynamic/interactive model, it also has certain limitations. First of all, it lacks direction. In this regard, Print (p.81), says, "How do you know where you are going if you pose few or no objectives?" This shows that there is lack of emphasis given to construction of objectives and the direction they can provide in the development of a curriculum and this makes curriculum developers waste their time meandering around the curriculum elements.

In the above section, I have tried to explain the three curriculum models, their strengths and limitations by comparing and contrasting the three models. Therefore, curriculum developers should choose the appropriate model for curriculum development assessing their strengths and weaknesses for a particular context. However, this does not mean that only one model is appropriate. Thus, it is on these explanations that the next discussion of the curriculum elements or the stages of the curriculum development process is based.

2.2.2. Curriculum Development Process

The curriculum development process is a project that requires a relatively long time. The time the curriculum development process takes varies depending on the nature of the programme, on the level of perfection aimed at by the curriculum developers and instructional facilities available and on the intensity of the work. In other words, the range of time for the curriculum development process depends on the social,

economic, and political development of one's country. Besides, it depends on the type of curriculum policy employed by the government: centralised, decentralised and the kind of human resources available for enhancing its production. It also depends on who is involved in the process and how they are involved in the process.

The curriculum development process has different stages and at each stage, the curriculum developers perform particular tasks. Parallel with these, particular types of evaluation are needed to support the successful development and use of the new curriculum. According to Lewy (1977:16), there are seven stages of the curriculum development process: determination of general aims, planning, tryout and revision, field trial, implementation, quality control and evaluation. Gibbson, 1977 (as cited in Reid, Hopkins and Holly (1994: 113) also indicates that there are seven stages of the curriculum development process: identification, formulation, teaching strategy, classroom research, production, implementation and evaluation.

Curriculum does not operate in a vacuum. It is influenced by values, trends and forces prevailing in the society. The overall educational and organisational system employed in the schools and the social, economic and political background of the country influence the development of a specific curriculum or school subjects. Therefore, before developing a curriculum in a given subject, decisions should be made concerning the issues such as the major goals of the educational system, the overall framework of the school programme, organisational structure of the school and so on.

The task of the people in the curriculum departments depends on the philosophical frameworks, educational ideology and the curriculum development model they adopt during the curriculum development process. For example, we see that the rational/classical approach to curriculum development (as explained earlier), follows the objectivist ideology and its followers consider curriculum as product. They see curriculum as the generation of objectives or outcomes to be achieved at some later stages in the learning and teaching process.

In the rational approach, the aims and objectives of the curriculum at macro level are set by professionals and experts who believe that they have sufficient technical knowledge to produce the desired product. In this approach, the role of interested

groups such as teachers, students and the community in the curriculum development process is not taken into consideration. The task of the curriculum departments is to develop a curriculum that fits these preliminary specifications (the aims set by the professionals or experts).

Similarly, if we see this stage in the Eritrean context, we find that the major goals of the educational system, and the organisational structure of the schools are set by the government authorities at the top. The role of the curriculum developers as stated above is to develop a curriculum, which matches with the general goals. According to Reid *et al* (1994:112), this stage "establishes a clear purpose for curriculum. It is the rationale; if there is no purpose or rationale, then there is no point in proceeding."

The interactive model on the other hand, considers curriculum as a process. It sees curriculum design as the generation of principles and procedures which guide teachers' practice throughout the teaching and learning process. Its followers accept that every classroom is unique. The interaction between teachers and learners is entirely unpredictable and there is no surety about what the actual learning outcome in fact will be.

The second stage of the curriculum development process is planning. Once the general educational goals are set, curriculum departments are asked to translate them into specific curriculum activities. At this stage, decisions are made concerning the objectives of a particular subject, its content, the teaching-learning strategies to be employed and the means by which the ideas are transmitted. Subsequently, the curriculum developers have to prepare the first draft of the instructional materials to be used in school and at the classroom level. "The formulation stage involves developing new ideas or improving old ones already developed which promise to fulfil the purpose already identified for the curriculum" (Reid *et al, 1*994:115). This includes writing the text, preparing demonstration materials, and devising student activity plans and so on.

The third stage is the try-out and revision stage. Governments must prepare educational materials that suit the needs, interests and abilities of the students. For this reason, curriculum developers must seek evidence about the relevance and quality of

the curriculum. Thus, it should be tested before it is approved for use on a large-scale basis. In this step, it is testing the material to ascertain whether the desired learning is taking place or not. Moreover, it is observation of the actual learning procedure itself to check whether the proposed procedures are followed and to identify failures and difficulties so that amendments can be made. This can be made by carefully selecting trial classes and teachers. The try-out is frequently carried out as soon as some portions of the programme are ready for use. Thus during this stage students may learn some portions of the new programme before the full course has been completed. It is a stage where a modified version of the curriculum is developed.

The fourth stage in curriculum development process is field trial. This stage is similar to what Reid *et al* (1994:122) call classroom research. According to them, the purpose of classroom research is "to field-test the curriculum in the classroom, and refine it through regular improvements." In this stage, the operation of the curriculum is tested in a large scale, in the whole educational system, and the curriculum developers have little room for variation. This means the curriculum at this stage is fully developed and amendment is hardy possible and if flaws exist, they have to be reported back to authorities at the top (if the model is rational). However, if the model is interactive, amendments are made any time and at any stage of the curriculum development process.

The fifth stage in the curriculum development process is implementation. According to Jordaan (1989:392-400) as quoted in Carl (2000:169), there are two types of curriculum implementation: macro-implementation and micro-implementation. The former level is "application of policy and curriculum initiatives as determined at a national level by curriculum authorities" (ibid.:169). This comprises a broad curriculum or other core syllabi designed at a national level, distributed and applied countrywide. The latter level of implementation refers to the implementation of the core syllabi at school and classroom level. At this level, teachers' participation is in syllabus interpretation; subject curriculation and lesson curriculation etc are high and this includes the implementation of specific lessons in a specific classroom.

In the implementation stage, although it is not part of the curriculum development

process, first teacher-training programmes must be adjusted before teachers start to teach the new curriculum. Otherwise, the desired goals may not be achieved. In this regard, Adam (1978: 29) says, "New instructional materials and methods cannot be used effectively in schools until teachers have acquired the necessary skills." This implies that orientation to teachers about a new curriculum is important if it is to be successfully implemented. Moreover, training teachers would also enable them to monitor the curriculum, identify flaws, and to diagnose the learning difficulties they might face.

If we see the fourth and fifth stages in an Eritrean context, the former stage is not practised. No field trial was conducted before the implementation process. The Curriculum Development Division in collaboration with the British Council prepared the English textbooks from Grades Eight through 11. Then they were given to English teachers without any training as to how to deal with the new curriculum and no modification was made for seven years. In this regard, the head of the English panel said, "No special training is given to English teachers especially on how to teach Health Education or the health-related topics, except the general English methodology" (interview, December 20, 2002).

The sixth stage in the curriculum development process is quality control. The curriculum that has been successfully introduced into an educational system and has been well received by teachers and the society may fail to reflect the needs and interests of the society due to various reasons: these may be due to political, social and economic changes. For example, if we look at Eritrea's case, its curriculum during colonisation by the Ethiopians was supposed to be relevant to the people. However, when Eritrea was liberated the so-called relevant curriculum could no longer be relevant in the new system. This means that in developing a new curriculum, the new curriculum may work in some areas partially or fully but not necessarily in others. Thus, the quality control process tries to see the relevance of the curriculum in a given situation/context.

The final stage in the curriculum development process is curriculum evaluation. "It is concerned with gathering evidence to describe and make judgements about the values, or worth of curriculum plans, processes and outcomes, as a basis for developing and

improving them" (Preedy, in Middlewood and Burton, 2001:89). Throughout the process of curriculum development and implementation, a variety of problems, questions, and dilemmas arise. In order to cope with these problems, a need to conduct an evaluation at each stage often arises. Curriculum evaluation according to Print (1999:xxii) is "the process of delineating, obtaining and providing information useful in making curriculum decisions and judgements."

According to Reid *et al* (1994: 123), there are two types of evaluation: formative and summative evaluation. "The former is concerned with providing ongoing information to improve the quality of the curriculum. Summative evaluation is concerned with providing judgement on the success of the curriculum." The formative aspects of evaluation occur at classroom research stage. The final stage is more concerned with how good the curriculum is after it has been implemented for a period of time. Middlewood and Burton (2001:90) have also made a distinction between "formative, which enables adjustment to be made during the course of an activity or programme, and summative evaluation, which examines the activity in its entirety after it has been presented or finished."

There is also another classification of evaluation: Product and process evaluation. According to Middlewood and Burton (2001:93), product evaluation "focuses on a specific aspect, the immediate outcomes, usually in the form of students' performance." This type of evaluation tends to focus on the immediate and easily measurable outputs such as students' results, subject syllabi and attendance rates. However, it does not give emphasis to outcomes such as the social, spiritual, political development etc of students, which cannot be easily measured. It only stresses the pre-planned outcomes, neglecting the unplanned outcomes and the contextual aspects of the curriculum. The process evaluation on the other hand, "focuses on the perspective and interpretations of participants, on qualitative rather than quantitative data, taking a subjective phenomenological stance rather than a rational, quasi scientific one" (ibid.:94).

Although there are seven stages discussed in this part, it does not mean that the curriculum development process strictly passes through these stages in a linear

fashion. In this regard, MacDonald and Green (1994:1322) state that there are no fixed procedures that the curriculum development process follows:

> Curriculum authorities have often advocated the specification of objectives as the first step, but there appear to be neither logical nor empirical reasons requiring any particular sequence in which these components must be planned. Curricula are best constructed not in a linear fashion like a brick wall, but rather woven like a tapestry.

The above ideas match with what the dynamic model says about the curriculum development process. Proponents of this model believe that the curriculum development process can start from any stage and that there are no predetermined goals of the curriculum because of the uncertainty of the ever-changing world. They also emphasise that there is no component of curriculum that works in isolation. All aspects are interrelated and interdependent, as stated before.

2.2. 3. Roles of Teachers in Curriculum Development

Teachers play a pivotal role in successful curriculum change. In reality, however, changes to curricula are frequently designed almost exclusively within ministries of education or specialised institutions. There is little direct involvement at primary and secondary school levels although teachers are some times assigned to curriculum development institutions or form part of curriculum development commissions or teams. Teachers generally tend to be regarded more as conveyors than designers of curriculum, although as implementers of the curriculum their contribution to the success of change is undeniable.

In this regard Marsh (1997:139) says:

> Centralised curriculum development is controlled by a central education department, either on a national or provincial level. In centrally controlled curriculum decisions about what is to be taught, how it is to be taught and how it is to be assessed are made by senior politicians and administrators of the department.

On the contrary, decentralisation spreads to schools, where school based curriculum development is emphasised. The closer that curriculum development gets to the school level, the more teachers are concerned about the development of the

curriculum. At the classroom level, teachers are involved in decision making about the curriculum when they select textbooks and other learning materials, and design their own lesson plans and teaching approaches in translating theories and instructions into practice. They can be even more deeply involved by being given the chance to participate in the writing and design of textbooks and other teaching materials. Although teachers' involvement in curriculum development at classroom level is high, in decentralised curriculum development, there could also be participation of other agents. According to Jacobs (2000:110),

> A decentralised system is one in which control over the curriculum is shared by the department, teachers, students and local community. Although decentralised structures vary in their division of power, at least fifty percent of the decision-making is vested in teachers and students of each particular school.

Teachers are the important figures in all the curriculum development processes. Kelly (1982:240) explains the need for teachers' involvement in curriculum development as follows: "The individual teacher has a make and break role in relation to the attempts made by outside body to bring about curriculum change. It is the individual teacher who has the task of bridging any gap that might exist between curriculum theory and practice."

The role of teachers in curriculum development should be significant because these are the agents supposed to make changes. Teachers' involvement in curriculum development goes from the formulation of curriculum policy at macro level to curriculum development at classroom (micro-level). In other words teachers should participate in all the curriculum development levels even though their degree of participation may vary from one level to another.

In regard to this (Carl, 2000:16) says,

> The teacher must have at his disposal specific curriculum skills and knowledge, which enable him to be effectively involved in a classroom and outside it. The teacher must not only be able to do micro curriculation within the classroom, but preferably also become involved in curriculum development activities outside the classroom.

The degree of teachers' participation in curriculum development, however, depends on the nature of the government system. If the government educational policy is centralised, teachers' participation in curriculum development is limited. They should see if there is a space for variation during implementation. In some case teachers remain passive implementers of what is intended at macro level. In another situation, there remains space between what the curriculum developers at the top (ministry level) intend and the implementers. Thus, teachers get a chance for variation, modification and change of the curriculum.

A participatory approach to curriculum development on the other hand, will permit the involvement of various stakeholders other than top level policy makers and specialised education personnel: parents, employers, religious and community leaders, and students themselves. The systematic approaches to curriculum development can facilitate participation by various stakeholders at different stages and levels of involvement. Teachers participate in a multiplicity of curriculum activities at a classroom level. These are the very substance of their daily tasks and include such activities as selection of specific content, selection of teaching strategies, and so on.

In recent years, however, teachers have become increasingly involved in a broader curriculum decision-making process at different levels. At the regional and at state (national) level, curriculum decision-making (such as involvement in major curriculum projects), typically involves few teachers, although some teachers participate in syllabus committees. At the school level however, staff are becoming more responsible for a vast array of curriculum decisions. The number and complexity of these decisions vary between states according to the devolution of curriculum control. In essentially more centralised states such as Eritrea, curriculum remains vested largely with the state authority. Schools and teachers in these states are more concerned with adaptation and implementation of the centralised curricula than participating in curriculum development.

However, regardless of the state in which one teaches, it has become obvious in recent years that all teachers are participating more in curriculum decision-making at school level. The nature of this participation may be seen in the various roles that teachers

adopt in the decision making process. Teachers may participate in any combination of the following curriculum decision-making roles.

As an implementer or receiver, the teacher's role is to apply curriculum developed elsewhere. In this role, the teacher has a minimum responsibility and involvement in the curriculum development phase of the curriculum process, though nevertheless a significant role in the application phase. In this phase, teachers play a vital part in the implementing and evaluating of the curriculum. A typical example of the implementer role could be found with implementation of centrally devised curriculum such as that of Eritrea. Here the major curriculum role is to pass on to the students what has been provided in the syllabus.

Alternatively, the teacher could adopt the role of an adapter or modifier. Here, an externally developed curriculum is interpreted and changed to meet the needs of a particular school population. This modification has occurred because teachers on the school's staff perceive that the curriculum concerned does not adequately meet the needs of their students. A Health Education curriculum for example may be appropriate in some schools, but cause resistance in others. In the latter case, staff may adapt the written (intended) curriculum they receive in some ways. Indeed some centrally prepared curriculum documents are deliberately constructed in a way that provides teachers with options to adapt or modify the curriculum to the context of the school.

Another role of teachers is that of assessors of curriculum. In this role teachers should understand the need for assessment in a teaching and learning process and try to integrate it into the process. This can be the first understanding of the purpose of the assessment and how the teachers give feedback, interpret and use the results for the betterment of the learning programme. In order to do these activities, of course, they need to have the necessary competencies. These include practical competencies, which include making decisions of which possibility to follow and perform from certain alternative ways of assessment, to judge learners' competencies and performances in a fair and reliable manner.

Secondly, teachers should have foundation competencies to be assessors. These enable them to assess strengths and weaknesses of assessment approaches in relation to learners' age, learning environment: social, economic, political etc. Moreover, it helps them with the language and content to be applied in assessment tasks especially to those sensitive issues such as gender and culture. Finally, teachers should have reflexive competence. This helps them to adapt changes and unpredictable/unforeseen events and investigate their courses to adjust them accordingly. All these competencies contribute to the improvement of the learning programme.

Yet another role of teachers in curriculum development is teachers as researchers. In recent years increasing numbers of teachers have become involved with action research, a role which has made them involved both with curriculum research and curriculum reflection. (Smith and Lavat, 1991:185) explain the concept of action research as:

> A process of change aimed at the improvement of an individual's, or group's own practice. It is not engaged in because some one else is forcing you to change or because there is evidence provided by some one else that should change. It is a process entered into by us because we wish to improve our own practice, and understand in a more critical manner the reasons and basis for such practice, and the contexts in which it takes place.

The above quotation shows us that teachers can actively participate in researching their own profession starting in their classrooms. They contribute to the curriculum from its first stage, designing up to evaluation not only as implementers but also as change agents. They identify the problems, discuss their causes with their colleagues and assess the ways the problems can be solved. In other words, teachers can do better in researching their own jobs than an outsider because these people may have more detailed information than the researcher from outside. Thus, teachers' participation in curriculum development (from its development to its implementation) and their effort to evaluate it is necessary for the improvement of the curriculum.

If we want to see the role of teachers in curriculum development, first we have to see this in the context of the educational system of a given country. For example, if the educational system is structured from the top down or if it is bottom up the role of

teachers in the curriculum development process will differ. In order to see these differences let us examine the two ways of understanding curriculum development: syllabus-centred and alternative (pedagogical) approaches. In the first case, curriculum is developed by experts outside the school environment and then given to teachers to deliver it to the students. In this approach, "the teacher is closer to a technician than a professional educator and the students are regarded as relatively powerless" (Warhurst, Grundy, Laird and Maxwell in Hatton, 1994:167). When we see this in relation to the Eritrean context, it is quite similar. Experts at the top (even some foreigners) develop the curriculum in Eritrea, and then it is given to teachers to implement it without much knowledge about it. The teachers depend on the curriculum and the students depend on the teachers.

Similarly, the alternative or pedagogical approach accepts the importance of policies and syllabi developed by those with expertise outside the school, but "acknowledges the central place of both teachers and students in engaging with the content and process of learning the construction of the curriculum" (Warhurst, 1994:167). According to this view:

> Curriculum construction is dynamic and an on going process in which teachers, students, and *milieu* all exert a powerful influence on the teaching/learning process. Power is shared with students. The knowledge that students bring with them to the classroom is recognised as a critical factor in each learner's construction of the meaning, as teachers' professional knowledge and judgement (ibid.: 167).

Teachers as curriculum developers should plan, design, implement and evaluate the curriculum themselves, not others. The curriculum which teachers implement should not be prepared by people outside the community of the school because it is the teachers themselves who play a role in the teaching/ learning process.

> All well-found curriculum research and development, whether the work of an individual teacher, of a school, of a group working in a teachers' centre or a group working within the co-ordinating framework of a national project, is based on the study of classrooms. It thus rests on the work of teachers. It is not enough that teachers' work should be studied; they need to study it themselves (Hatton, 1994:201 quotes Stenhouse, 1975:143).

Carl (2000:4) also substantiates the above idea stressing that teachers are core elements (agents) of curriculum development as follows:

> Teachers dare not stand on the periphery and be onlookers in regard to things which are done for them, and decisions taken for them; they must be active participants in the process of curriculum development. Successful design, dissemination, implementation and evaluation depend in the final analysis on the teachers and therefore they must be at the heart of the process.

The levels at which curriculum development may take place can be summarised as follows:

- The broad community's philosophy of life and therefore its attitude to education;
- Governmental level through educational legislation;
- Syllabus development;
- School curriculum;
- More complete and comprehensive subject curriculum development;
- The classroom (micro-curriculum development) (ibid.: 266).

Although teachers' participation is important in all levels of curriculum development, the responsibilities and degree of involvement vary from level to level. It is relatively little in the upper- (macro) level and it increases as they go to the lower level - the classroom level.

2.3. Curriculum Integration

Although the concept of curriculum integration may mean different things in different situations, it can be understood by categorising it into two: integrating while retaining the separate subjects and integrating two or more subjects (Glatthorn, 2000:78). The former category is further classified into four sub-categories: correlation, integrating skills across the curriculum, unified curricula, and informal integration.

The first case (correlation) refers to developing curricula of two related subjects, subjects that lie under the same umbrella, for example, Biology and Health Education, Physics and Mathematics, and History and Geography, so that the subjects share

common concepts. Moreover, this type of integration helps the contents of the subjects to support each other. For example, the students read about the "Sea" in their English class while they are also studying this in their Economics class (the economic advantage of having a sea). In the second case, curriculum integration refers to developing curricula that are more cohesive thus ensuring that curriculum is not confined to one subject. For example the four English learning skills: reading, speaking, writing and listening should not be limited or be left to be taught in an English subject only. Teachers of the other subjects should also teach them.

In the unified curricula, curricula are not prepared for each subject in isolation. Instead, it stresses a holistic approach to curriculum development - developing a curriculum for two or more subjects together as one. For example, instead of developing curriculum for Physics, Chemistry and Biology separately, the curriculum developers prepare one curriculum of a unified science curriculum. In the last category, the informal integration, the process takes place at classroom level. In this case, the teacher, in order to enrich the subject s/he teaches brings in content from other subjects.

The other way of classifying curriculum integration is integration of two or more subjects. This is further classified into three: subject-focused integration, theme-focused integration and project-focused integration (Glatthorn, 2001:78-79). In the subject-focused integration model, the curriculum developers begin with one subject and then add contents from related subjects. For example, if the curriculum developers want to develop curriculum for Health Education, they can add contents from Biology, Chemistry, etc for better scope of the subject.

In the theme-focused integration, the curriculum developers begin by identifying major themes to be covered that would be of interest for the students. Then they choose content from any subject that supports the theme. For example, if the theme of the curriculum is to teach students the importance of Health Education, the curriculum developers can organise the contents from Biology, Chemistry, mass media, and so on so that the contents can be adequate for the students.

The third model is project-focused integration. In this model, curriculum developers identify a complex project that would involve the students. For example, if the MoE

wants to train students who can provide health services to students in the school, in completing this course the students must have a clear understanding of the subjects related to the project and the curriculum should be developed to fit the objectives of the project.

It is from these different types of curriculum that the meaning of the concept of curriculum integration emanates. Therefore the meanings given to the word curriculum and the phrase curriculum integration are given as follows: "An integration is a philosophy of teaching in which content is drawn from several subject areas to focus on a particular topic or theme" (McBrien and Brandt, 1997: 55). Rather than studying mathematics or social studies in isolation, for example, a class might study a unit called "The Sea", using mathematics to calculate pressures at certain depth and social studies to understand that coastal and inland populations have different livelihoods.

"Curriculum integration is a way of organising learning in which engagement with an activity or problem draws upon more than one subject or discipline" (Hills, 1985:175). According to Hills, curriculum integration is the unification of activities, problems and programmes of different subjects into one. For example in our English textbooks, we find a reading passage entitled "Eritrea and the Sea". From the reading passage, students can learn that Eritrea is located along the coast of the Read Sea, which is something related to Geography. Additionally, in the same passage when they learn the language item in the same unit about 'Conditional Sentences', it tells them that if they throw rubbish into the sea, the sea will be polluted, the fish will die, it will be dangerous to swim, etc. This directly relates to Health Education.

In this regard, the Further Educational Unit (1994:31) says, "Curriculum integration involves making connections between the various elements of learning – between the subjects (components) of a programme, between activities in an institution and outside it, and between past, present and the future." This indicates that curriculum integration can be developed by making connections between different subjects and activities at different times and it goes beyond what students learn in class in a specific period of time. For example, when a schoolteacher starts his/her lesson at the beginning of the year, s/he asks his/her students how the semester break was. Then,

s/he asks them what they have learnt in the previous year to relate it with what they are going to learn in that year. This shows that curriculum integration helps us to see things from different angles and different aspects of life and at different times.

Yet another classification of curriculum integration is the vertical and horizontal integration and their differences are explained below:

> Vertical integration is organising the curriculum over a number of years so children study age or grades level appropriate material that becomes increasingly difficult or more complex. Horizontal integration on the other hand means that the various subjects or topics studied at one grade level should relate to one another or have some degree of integration (Van Horn, 1997:9).

This quotation tells us that integration could be either integrating different subjects that students learn in one grade level or one subject through different grade levels. For example, what students learn in English in Grade Eight, should be related with other subjects of the same grade level. On the other hand, what students learn in Grade Eight English, should relate with what they learn in the succeeding grades in English.

Ingram (1979:2) further elaborates the phrases vertical and horizontal integration as follows:

> Vertical integration is integration over time and involves the articulation of teaching and learning at different stages of development. Horizontal integration on the other hand aims to harmonise the various dimensions of the curriculum or various educational agencies such as home, school, and the mass media.

According to Ingram's explanation, integration goes beyond what students learn in school. It could mean the connection students make between what they learn in school and what they experience outside the school. For example if students learn about interviews in their English class, they will try to relate this when they see a person being interviewed in television in their homes.

The phrase curriculum integration refers to "a set of educational practices which have been developed largely on the basis of the teachers' dissatisfaction with the increasing fragments of the curriculum" (Ingram, 1979:20). This means that teachers feel uneasy about the dissociation of what is experienced in life, the practical difficulties raised by

the proliferation of knowledge, and so on. "Curriculum integration can also refer to the linking of all types of knowledge, contained within the curriculum plan" (Ornstein, and Hunkins, 1993:238). This quotation shows that there is no subject as such to be taught without relating it to other subjects or without linking it to our daily activities. For example, if we are teaching a lesson in Grade Ten, we have to integrate it with what the students learn in Grade Nine and its application to the daily life of the students.

Perkins (1991:7) also advocates teaching for transfer and thoughtful learning when he states:

> A concern connecting with integrating ideas, within and across matters, and with elements of out-of-school life, inherently is a concern with understanding in a broader and deeper sense. Accordingly, there is a natural alliance between those making a special effort to teach for understanding and those making a special effort towards integrative education.

This view supports the notion of curriculum integration as a more meaningful method, which includes not only integration of ideas within the same subject but also ideas in different subjects in different levels. It also refers to the integration of ideas taught in classroom with students' daily lives outside the school.

Kelly quoting Pring (1971), lists five meanings or definitions of curriculum integration:

> First he speaks of 'expediency integration'; the purpose of which merely is to insure effective learning; secondly, he suggests that there is a social integration; whose purpose is to promote adjustment; thirdly, he offers us 'meaning-based' integration, the intention of which obviously is to assist pupils to achieve a meaningful organisation of their experience; fourthly, we have 'motivation–based' integration, whose concern is to arouse the interest of pupils and to get them launched on a worthwhile enquiry; and lastly, there is concern or 'needs-based' integration, which is the form of integration we have when we set about the identification and exploration of those important social issues, which have so often been the focus of scheme or integrated studies (Kelly, 1982:79-80).

It is on the above concepts of curriculum integration that our discussion is based. The MoE of Eritrea also introduced this policy because the integrated curriculum helps

students to develop an ability to see the link between different areas of learning. It enables its students to use the knowledge and skills developed in one field to learn in another and to relate their learning to real life. In other words, students need the ability to apply the existing knowledge in a new situation in order to function effectively in an environment of continuous change. What students learn in one field of study can help them not only to facilitate learning in other fields of study but also see them in relation to their applicability in their daily lives.

2.3.1. Benefits Of Curriculum Integration

The integrated curriculum can help teachers in different ways: it can help them to cope with the ever-changing world and update their knowledge regardless of their field of studies. For example, if an English teacher is teaching a reading lesson about an innovation of a new medicine to his students, on the one hand, he is teaching his students reading skills and he is also acquainting himself with the new medicine though the topic directly refers either to Health Education, Biology or Chemistry. Teachers learning new material for themselves and teaching it to students at the same time may help the teachers to adapt to the integrated approach of teaching.

According to Ingram (1979:44), "The integrated approach is more readily adaptable, more open to change than the subject teaching." Given the limited time available for teaching integrated subjects, a broader range of disciplines can be covered if the curriculum is organised around key concepts from related areas. Thus Ingram states "integration can provide a very useful service in returning the mind to the basic principles of the varieties" (ibid.:45). This means if the integrated subjects have a natural relationship like for example, Biology and Chemistry, they could be taught as Biochemistry instead of separately. Thus integration focuses on the common ideas and avoids overlapping of ideas and this is the same as the unified curriculum as explained earlier.

The integrated curriculum helps students to develop an ability to see the links among different areas of learning. It enables students to use the knowledge and skills developed in one field to learn in another and to relate their learning to real world

situations. In other words, students' background knowledge is important to learn about a new situation. For example, if an English teacher is teaching literature to his/her students and if s/he first tells them the biography of an author: his/her date of birth, date of death and so on, and if s/he finally asks them how old the author was when s/he died, the students could apply their mathematics to calculate the author's age at the time of his/her death.

In general, the potential benefit of the integrated curriculum is that it could reduce the compartmentalisation of knowledge. It helps students to get an opportunity to explore interconnections among subject areas they are studying. It also adds meaning and relevance to learning as students discover fascinating and compelling relationships between disciplines; it also facilitates the assimilation of new information. If we see this in relation to the example given in the paragraph above, students might at first be surprised to apply Mathematics in an English class but later they will realize its relevance and the benefit of curriculum integration.

2.3.2. Barriers to Curriculum Integration

The integrated curriculum is useful for students and teachers for enhancing the teaching and learning process as mentioned in the sub heading "Functions of Curriculum Integration." However, it has certain limitations: the most serious problem of curriculum integration is not sufficient understanding of the importance of the role of teachers in planning and development of curriculum. As Kelly (1982:24) notes, " It is the individual teacher who has the task of bridging any gap that might exist between the curriculum theory and practice." However, if the curriculum is developed by expertise outside the school, the teachers tend to be reluctant to implement the curriculum change. Thus, they refuse to implement the curriculum integration programme because they consider the integrated subjects as an additional burden over and above the core subjects they teach.

Integrating subjects that have no obvious relationship like Health Education and English can also be a significant problem in curriculum integration. "... no logical problems are created when we wish to integrate subjects but only when the integration

of separate disciplines is involved. The development of what is being called 'integrated science' does not raise logical problems since all the subjects to be integrated fall within the same form of knowledge" (Kelly, 1982, 61-62).

Kelder (1993:78) also supports Kelly's idea. In his opposition to the integration of literature to medicine, he says, "The cultural engendering of the two disciplines have distorted their value to one another and complicated the pedagogy in the emerging field." Kelly and Kelder's ideas indicate that it is a problem to integrate subjects which do not lie under the same umbrella, or if they do not have obvious relationships in their structure. For example, it is better to integrate History into Geography than to integrate History into Biology because they do not belong to the same category. This refers to subject-based integration as explained in the curriculum models above.

In my opinion, however, this should not be a problem because English operates on two different levels: it is taught as a school subject and it is also a medium of instruction. Therefore integrating Health Education into English may facilitate the teaching/learning process. In this regard, Farley (1981:170) states, "Consideration of language for learning is not confined to a slot on the time table generally called English. Language and learning are inextricably related, to the extent that educational success is often primarily a linguistic success." In Eritrean secondary schools, English is used across the curriculum and as it is medium of instruction every subject in secondary school is taught in English. Thus, the use of English facilitates not only teaching Health Education but also the other subjects. This shows that students may learn clear health messages from English teachers because English teachers might have a better language competency. Beside, different activities in language teaching such as debating, drama, reading, writing, and so on, which are the main activities in an English class, can be better ways in which Health Education can be taught.

Another problem of curriculum integration is the lack of interest of students towards the integrated subjects. If the teaching and learning process of a certain educational system is examination oriented, and if the integrated subjects are not examined for entrance into higher institutions, colleges and universities, students may not have the interest to learn the integrated subjects. This may lead to the negligence of teachers in emphasising the importance or value of the integrated subjects. This is also true in the

Eritrean context. Health Education does not usually appear in examinations as a subject, thus students and teachers are reluctant to engage fully in the teaching and learning process. In this case it should be noted that students should be convinced that they are not taught for exams, but for their own development. They learn in class so that it can help them to make appropriate behavioural change, update their knowledge, and be competitive in the world market.

Yet another problem of curriculum integration is the lack of teachers' training on how to deal with the integrated subjects and ongoing teacher development. A curriculum, which contains a collection of different types of knowledge and is taught on a subject or even discipline basis is similarly divisive and a potential source of confusion for the growing children. The children are confronted by different views of the world and of their lives and reality. If there are no teachers who are sufficiently skilful to evaluate these different modes of understanding, insecurity, and loss of purpose can result. Moreover, lack of teachers' training and ongoing teacher development may cause problems in managing students in class. If teachers are not well trained, students tend to misbehave in class. In regard to this, Elliot and Place (1998:144) say, "Teachers who lack effective skills in their presentation may often become the cause for students' misbehaviour."

2.4. Curriculum Integration Policy in Eritrea

The curriculum is obtained either from the top authority or from all the stakeholders at the bottom depending on the government structure. This means the policy at a macro level gives the framework for the specific curriculum policy to be developed and implemented. For example, the Eritrean educational policy is a base within which the curriculum policy lies. The general objectives of the education system, as outlined in the government's macro policy are listed as follows:

- To produce a population equipped with the necessary skills, knowledge and culture for a self reliant and modern economy;
- To develop self-consciousness and self motivation in the population to fight poverty, disease and all the attendant causes of backwardness and ignorance;

- To make basic education available to all (from Grade 1 – Grade 7); (MoE, 1995).

These general objectives aim to create a united, prosperous and democratic nation by producing citizens who:

- Have various needed skills and commitment to work together to construct the economic, environmental and social fabric;
- Have a love of and respect for the nation and all peoples within it, regardless of sex, ethnic group, age, religion or profession. This includes producing citizens who are fully literate in their mother tongue and who know and wish to preserve the best aspects of their culture whilst changing those negative aspects, including working towards the achievement of gender and ethnic equality;
- Have a respect for democratic institutions, and who fully and efficiently participate in the democratic process, including developing and defending the basic human rights of children, women and men;
- Are guided by and adhere to the highest ethical principles;
- Have a deep knowledge of and respect for the environment and the need for its restoration,
- Have the ability to wisely use scientific processes and development so as to develop self sufficiency in food and modern service and industrial sector based on the principles of environmental sustainability;
- Have the opportunity to develop their full creative potential in all aspects (ibid..1995).

The Eritrean curriculum policy bases its general aims on the educational philosophy and the general aims of the educational macro policy. Thus, the general aim of the National Curriculum should:

- Promote a sense of unity, collective identity, and loyalty to the nation;
- Contribute to the development of self-reliance and modernity;
- Provide necessary knowledge, understanding and skills, attitudes and values, which could serve as a foundation for continuous learning and productive work in adult life;
- Foster the total development of the individual learners' potential including those with special needs;
- Develop self confident, creative, and investigative personalities;
- Support the development of moral values including co-operation, tolerance, mutual understanding and service to others;
- Contribute to the development of democracy and social justice;
- Promote the study of science and technology along with the development of an informal concern for the conservation of the environment, nature and natural resources. (ibid., 1995).

This shows that educational policy and curriculum development cannot be seen in isolation from each other. The stakeholders of both educational policy and curriculum development depend on one another for information and the means for improving the education policy in general and curriculum development in particular. Their final objective is to achieve the aim of the educational policy as stated above.

After these policies are set at macro level, what is left is the organisation of the curriculum. This part is divided into three: Subject integration, spiral approach and integrating theory and practice (MoE, 1995: 7). The Ministry of Education of the Government of Eritrea in its Curriculum Development Division's report indicates, "Until now we are following a single subject approach in our curriculum because subject integration needs an expertise both in its preparation as well as its implementation. However, we are moving towards it slowly" (ibid.:7). Moreover, it elaborates the introduction of curriculum integration in its curriculum policy: "In reparation of our new curriculum, subject integration will be a guiding principle (ibid.:8): integration is a holistic approach for the purpose of creating all-rounded personalities," it adds.

In the recent curriculum of Eritrea, Health Education is not given as a separate subject. It is integrated into English and Biology. In addition, it is given in collaboration with the National Union of Eritrean Youth and Students (NUEYS), National Union of Eritrean Women (NUEW), Ministry of Health (MOH), and Health Club in the secondary schools. The Health Club in the School in which I conducted my research for example, is a mother club within which the other clubs lie. The Health Club organises the other clubs to teach health issues in the form of drama, debating, general knowledge competitions, etc through their respective clubs. Teachers teach Health Education in Eritrean secondary schools in class. In addition, it is taught outside the class by teachers, professionals, and trained students (peer teaching) and the mini-mass media in the school.

2.5. The Integration of Health Education into English in Eritrean Secondary schools

Before I discuss the integration of Health Education into English, it is necessary to define the word health and the phrase Health Education.

> The word health comes from the same root as the words hale and whole. Its etymology suggests the way our development should be measured. Body, mind, feelings, and spirit are all part of one whole. They do not act on one another as subject and object. They are inextricably interwoven, as fabrics of interaction (Read, 1997:20).

The above quotation shows that the word health does not refer to one aspect of life. It refers to different aspects, which are interrelated to one another. Downie, Tannahil and Tannahil (1996:9), Read, 1997, Ewel and Simnet, 2000) quote The World Health Organisation (WHO), "Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity."

In the widest sense Health Education may be defined as "the sum total of all influences that collectively determine knowledge, belief and behaviours related to the promotion, maintenance and restoration of health in individuals and communities" (Read, 1996:27-28). These influences comprise formal and informal education in the family, in the school, and in the society at large, as well as in the special context of health service activities. "Health Education is communication activity aimed at enhancing positive health and preventing or diminishing ill-health in individuals and groups through influencing the beliefs, attitudes and behaviours of those with power and the community at large" (ibid.: 28), Read adds.

"Health Education is any combination of learning experiences designed to predispose, enable, and reinforce voluntary adaptation of individual or collective behaviour conducive to health" (MacDonald and Green, 1994:2567). They also clarify that Health Education typically addresses three types of factors that influence health behaviour and can be modified by educational means. These are predisposing; enabling and reinforcing factors. Effective Health Education programmes combine learning experiences directed at all the three sets of factors:

- Predisposing factors include knowledge, attitudes, beliefs, values and perceptions. The defining characteristic of the predisposing factors is their motivational force before the decision to take a given health action;
- Enabling factors are the skills and resources necessary for individuals to carry out an action. These may include decision–making skills, peer resistance skills and access to the specific health services or resources;
- Reinforcing factors support and reinforce the behaviour after it has occurred, increasing the likelihood that the behaviour persist. They are particularly important where the assumed causes of behaviour are largely social, such as peer influence (MacDonald and Green, 1994:2567-2568).

Health Education views health as more than the absence of diseases and uses all educational opportunities for health: formal and informal, traditional and alternative, inside and outside the school. It harmonises all the health messages and empowers students to act for healthy living and promote conditions supportive of health. Moreover, it establishes a basis for lifelong learning and promotion of health. Furthermore, it fosters interaction between schools, the community, parents and local services finally to insure a healthy school environment.

Health Education deals with different aspects of our lives. Unlike other disciplines, it has short-term and long-term objectives. Its immediate objectives include improving present eating habits and reducing the risk of diseases and injury. The long term objective is to enable students to keep conscious of health knowledge, to continue applying proper health practices in their own lives and to teach others constructive health habits and participate in activities that enhance health conditions in both the local community and the broader world. In short, as Ehlers (2000: 28) states, "The purpose of Health Education is to help people change their lives."

Health Education is an essential component of any programme to improve the health of a community and it has a major role in promoting:

- Good health practice for example, sanitation, clean drinking water, good hygiene, breast feeding, infant weaning and oral hydration;
- The use of preventive services: for example immunisation screening, antenatal and child health clinics;
- The correct use of medication and the pursuit of rehabilitation regimens, for example, TB and leprosy respectively;
- The recognition of early symptoms of diseases and promoting early referral;

- Community support for primary health care and government control measure (Hubley, 1984:1054).

"The key decisions that form the basis for any planning in Health Education are decisions over what the desired changes should be, where the Health Education takes place, who should carry it out and how it should be done" (ibid.:1054). As stated above the first step in planning any Health Education is to decide what the key problems are and what should be taught. This is because sometimes well meaning attempts to introduce new practices may fail if they are incompatible with the beliefs and practices. Changes, which are advocated by health educators who are based centrally, may be unrealistic locally, so a comprehensive strategy of Health Education both locally and nationally is necessary.

Any proposal for change should:

- Be simple to put in to practice with the existing knowledge and skills in the community;
- Fit with the existing life style and culture and conflict with the local beliefs;
- Not require resources of money, material and time that are not available locally;
- Meet a felt need of the community;
- Be seen by the people to convey real benefits in the short term, not in the distant future (ibid.: 1054).

To achieve success, Health Education programmes need to be flexible and modify their advice to fit in with people's circumstances. For example, education about nutrition should be on the foods that are available locally, aids for disabled made from local materials, latrines built with traditional methods. If the change that you wish to promote cannot be modified easily to fit in with the local community, it will be hard to promote it. It may be wise to start with a simple change that does fit in and meets an immediate need, and once that has been accomplished, and the benefits are apparent, the good will and trust generated may help in achieving a more difficult objective.

For Health Education to be effective, it should be:

- Entertaining and attract the community's attention;

- Use clear, simple language with local expressions and emphasise short term benefits of action;
- Provide opportunities for dialogue and discussion to allow learners' participation and feed back on understanding and implementation;
- Use demonstrations to show the benefits of adopting practices (Hubley, 1984 1054).

School Health Education is classroom instruction that addresses the physical, mental emotional and social dimensions of health. It develops health knowledge, attitudes, and skills; and is tailored to each age level. It is designed to motivate and assist students to maintain and improve their health, prevent disease, and health related risk behaviours and provides students with knowledge and skills they need to be healthy for a lifetime. To achieve these goals, schools must be selective in developing and implementing a curriculum.

The Health Education curriculum includes a variety of topics such as personal health, family health, community health, consumer health, environmental health, sexuality education, mental and emotional health, injury prevention and safety, nutrition, prevention and control of diseases and substance use and abuse. In order to teach such a complex set of topics, Health Education needs qualified and trained teachers.

When we come to the integration of Health Education into English, health-related topics are included in the English textbooks of Grade Eight through Grade 11. The distribution of the topics is explained as follows: In the English textbook of Grade Eight, there are eight units out of which three are related to Health Education. The first is unit one, "Food and Diet". This unit deals with nutrition, which is one aspect of Health Education. Unit 3 is "Eritrea and the Sea". Under its sub-unit 'Dangers to the Sea', it tells us about polluting the sea and its consequences. The third unit is Unit 8,' AIDS and What I Believe', which aims at making students aware of AIDS, and how it is transmitted, that it is incurable and how it can be prevented.

When we move to Grade Nine, out of the eight units, similar to that of Grade Eight, three units deal with health-related issues. The first is Unit 2, "Childhood". This unit explains the rights of children, child abuse, early sex and its consequence to health. The second unit is 'Crime and Punishment'. It deals with the types of crimes, how they are developed, punishments and its consequences for health. Finally, Unit 7, like that

of Grade Eight, 'The Environment and You' aims to make students aware of how they should keep their environment protected from pollution.

As far as the Grade Ten portion is concerned, there is only one unit, Unit 1, 'Sport'. This is an important aspect of Health Education even though physical education is taught as a separate subject in Eritrea. Similarly, there is only one unit related to Health Education in Grade 11. It includes the following in its sub topics: ' Talking about Avoiding Accidents, Reading about Accidents, and Listening and Writing about Road Safety'. This unit in general enables students to be conscious of avoiding accidents and tells them what to do and what not to do in order to avoid accidents. It teaches them safety measures in life.

2.6. Conclusion

In the above section, I have tried to explain the meanings of curriculum and curriculum integration, the benefits of curriculum integration and barriers for its implementation. Moreover, the concept health, Health Education and the characteristics of effective Health Education have been addressed. Thereafter, I have tried to outline the health-related topics included in the English secondary textbooks to come to the main concern of the mini-thesis, "Evaluating the Integration of Health Education into English in Eritrean Secondary Schools".

In the next chapter, the research methodology employed to conduct the study will be discussed.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

Before choosing the right research method and data collection strategies, it is important to take into consideration the kind of information needed, the user of the information, whether the information is recent, and the availability of the sources. This is because the reliability, validity and stability of information for research depend on the research design and research methodology employed to conduct the research. "The nature of the research inquiry and the type of information required influence both the approach the researcher adopts and the methods of data collection used" (Bell, 1993:6).

Methodology as Hitchcock and Hughes (1995: 20) state " refers to the whole range of questions about assumed appropriate ways of going about social research." Silverman (2001:1) defines methodology as "a general approach to studying topics and the choice of methods (tools) of the overall research strategies." Therefore the quality of research depends on the methods, the research techniques used to collect, interpret, and analyse the data. It is also affected by the researcher's background knowledge about the subject to be studied. In general, as Wellington (2000:22) suggests, "No one can assess or judge the value of a piece of research without knowing its methodology."

Thus, in this section, I will explain the research methods I used to conduct the research, the differences between qualitative and quantitative research methods, and the research paradigms on which I based my argument in the research. Moreover, I will try to discuss the case study method with its advantages and disadvantages. The qualitative data collecting techniques which underlie the case study method: interviews, observation and documentary analysis will also be discussed because they are the techniques I applied to collect my data. Last, but not least, this part of the research will deal with the ethical considerations of the research.

3.2. Research Methods

There are two kinds of research methods: the qualitative and the quantitative. In qualitative research, "there is an emphasis on process, or how things happen, and a focus on attitudes, beliefs and thoughts - how people make sense of their experiences as they interpret their world" (Baumgarther and Strong, 1998:174). Qualitative strategies enable the researcher to record and understand people in their own terms. In other words, they help researchers to collect first hand information.

Researchers may apply either qualitative or quantitative or both (mixed) methods depending on the type of data they are looking for in their research problem. In reality, whether one uses the qualitative or quantitative method depends on the nature of the research question. Questions in quantitative research focus primarily on quantity (how much, how many, etc) whereas qualitative research focuses on quality (the nature of something and its essence) or kind and tries to answer questions such as how, why, what, etc.

In analysing data, the qualitative and the quantitative approaches have similarities and differences. Both approaches involve inference. In both cases researchers examine raw empirical data to arrive at conclusions. During data analysis, all researchers compare and contrast the data gathered using different techniques. In other words, they triangulate their respondents, methods applied, and the data collected. Even though there are similarities in analysing qualitative and quantitative data there are also differences: "quantitative analysis is highly developed and builds on applied mathematics. By contrast, qualitative data are less standardised" (Neuman, 2000:418).

Moreover, quantitative analysis begins after all the collection of data are completed and simplified into a manageable size, but in the qualitative approach, data analysis begins with the data collection. In addition, in the quantitative approach, the researcher analyses data by looking at the particular elements, first in isolation and then s/he tries to see the data in combination with other elements. In the qualitative approach, on the other hand, the researcher usually works with rich descriptive data, collected by using different methods, as explained earlier. This strategy is usually

contextual in nature. This means it focuses on the individual case in its specific context of meaning and significance. The overall coherence and meaning of the data is more important than the specific meaning of its parts.

The further differences between qualitative and quantitative research methods are given in the following table:

Table 1. Quantitative Vs Qualitative Research Methods

Quantitative Research Methods	Qualitative Research Methods
Use experimental and quasi experimental design and statistical techniques to collect numerical data	Use anthropological and sociological methods to understand the social phenomena. Data are in the form of words and phrases
The goal is hypothesis testing, prediction and confirmation	Hypothesis generation, understanding or discovery
They are predetermined and structured	Flexible, evolving and emergent
Researchers distance themselves from the people they are studying in order to maintain objectivity	Researchers actively engage with subjects
Researchers use methods that provide factual, reliable data, that are usually generalizable to a large group (population)+	Researchers generate richly detailed data about the group being studied and provide contextual understanding. Results are generalized to a reference population

Source: Baumgarther and Strong (1998:175-6)

In conducting my research, I applied the qualitative research method. I used this method because qualitative research methods "permit the evaluator to study selected issues, cases, or events in depth and in detail.... Quantitative methods on the other hand, use standardised measures that fit diverse various opinions and experiences into predetermined response categories" (Patton, 1987: 9). Another point that should be noted about qualitative research is that " qualitative data provide depth and detail through direct quotation and careful description of programme situation, events, people, interaction and observed behaviours" (Patton, 1987: 9).

Moreover, as Berg (1997:6) says, " a simplistic explanation of qualitative techniques might lead researchers to believe in the adequacy of any procedure resulting in nominal rather than numeric sorts of data." Another reason I chose the qualitative research method can be seen from the context and the data collecting procedures I employed and the scope of my research. As Hammersley (1993) cited in Scott and Usher, (1999:92) points out "qualitative research takes account of the process of social interactions in the natural setting. It deals with events and things as they occur in their environment." During the course of my research, I made direct contact with my respondents: the English teachers, students and the people from the curriculum department division. I believe that this allowed me to collect the necessary data and evaluate the status of Health Education in Eritrean secondary schools. Why and how I made direct contact with all my respondents is explained under section 3.4.2.1.1.

Moreover, "it is asserted that qualitative research is more appropriate to the countries with high rates of illiteracy" (Crossley and Vulliamy, 1994:440). Here it should be noted that Eritrea has an illiteracy rate of 80% (MoE, 2000). Thus, although I conducted my research in a school where all my respondents are literate it is possible to collect data even from illiterates by using qualitative research methods.

According to Denscombe (1998:208), qualitative research methodologies such as the case study are "naturalistic and are more convenient to use them in small-scale research." Thus, I argue that this is one of the reasons for choosing qualitative research to conduct my research. Besides, qualitative research enables us to discover answers to questions through the application of systematic procedures.

> Qualitative procedures provide a means of accessing unquantifiable facts about the actual people researchers observe and talk to or people presented by their personal trace. As a result, qualitative techniques allow researchers to share in understanding and perceptions of others and explore how people structure and give meaning to their daily lives (Carl, 2000:7).

The qualitative research method is used to collect data related to informants' opinions, feelings and perceptions that cannot be expressed numerically. In my research, I did not collect quantifiable data. Similar to Berg's idea, qualitative research enabled me to access unquantifiable data from what I observed, and to gather the necessary data by

talking to my respondents and sharing ideas to examine the gap between the intended curriculum, the offered curriculum and the achieved curriculum: the planned, what is practised by teachers and what is learnt by students.

3.3. Research Paradigm

"Paradigm is a way of looking at the world. It is composed of certain philosophical assumptions that guide and direct thinking and action" (Mertens, 1998:6). The type of research method and the kinds of data to be collected depend on the research paradigm to be employed. In this regard, there are three possible types of research paradigms: the positivist, interpretivist, and the critical social theory. Their differences and similarities in conducting research will be discussed below:

"Positivism is an approach to social research which seeks to apply the natural science model of research to investigations of the social world" (Denscombe, 2000:239. This paradigm is based on a number of principles, including a belief in an objective reality, and knowledge that can be directly experienced and verified between independent observers.

> All investigations, even the social sciences, must adopt the same fact-based standards of objectivity that the natural science use; in other words, only the evidence of the sense, precisely and rigorously measured, may be used - ideas formed in the mind such as values, beliefs and feelings have no place in serious study (Kelly, 1989: 69).

The methods of the positivist paradigm rely heavily on quantitative measures, with relationships among variables commonly shown by mathematical means. Followers of this paradigm believe that everything that exists can be measured. In this approach, mathematical analysis and statistical significance are held in the highest regard. In this type of research, education and schooling, "is considered the object, phenomena, or delivery system to be studied. Knowledge gained through scientific and experimental research is objective and quantifiable. Reality in this perspective is stable, observable and measurable" (Merriam, (2001:4).

The task of the researcher according to the proponents of this paradigm is to produce knowledge which is scientifically verifiable and that can be used to ascertain the achievement of the pre-planned educational goals. Another aspect of the positivist paradigm as Carr and Kemmis (1986:15) put it, is that " in positivist educational research it will be recalled that the researcher is merely an instrument by which research is undertaken; he stands outside the progress of science as an objective or disinterested observer."

The interpretivist approach on the other hand is "the foundation of social research techniques that are sensitive to context, that use various methods to get inside the ways others see the world, and that are more concerned with achieving an empathic understanding of feeling and world views than with testing laws of human behaviour" Neuman (2000:75). It is characterised by a belief in socially constructed, subjectively based reality, one that is influenced by culture and history. Nonetheless it still retains the ideas of researcher objectivity, and researcher as a passive collector and expert interpreter of the data.

> In this type of research, education is considered to be a process and school is lived experience. Understanding the meaning of the process or experience constitutes the knowledge to be gained from an inductive, hypothesis - or theory generating, (rather than a deductive or testing) mode of inquiry. Multiple realities are constructed socially by individuals (Merriam, 2001:4).

In the above quotation we understand that the interpretivist paradigm, unlike the positivist paradigm, does not see the world as objective reality. Its followers believe in a common understanding of concepts and the existence of unquantifiable realities such as social values, feelings and beliefs. Moreover, it generates conclusions based on the facts and concepts under discussion but like the positivists it does not test the pre-planned hypothesis. It considers the possibilities of uncertainties in order to reach certain conclusions. "This paradigm sees curriculum as a form of inquiry which is reflective and deliberative and which results, not in the production of theoretical knowledge, but in morally defensible decisions about practice" (Carr and Kemmis, 1986:30).

In addition, according to Devine and Heath (1999:200 as cited in Travers, 2001:8), the differences between positivist and interpretivist paradigms are explained as follows:

> The positivist view aligns itself with a particular view of the mechanisms and assumptions of the natural science, underpinned by a belief that only that which is grounded in the observable can count as valid knowledge. In contrast, the interpretive paradigm... stresses the dynamic, constructed and evolving nature of social reality. It rejects the positivist notion of knowledge being grounded in the objective and tangible, and instead seeks to understand social reality through the eyes of those being studied.

From the above quotation it is clear that the positivist paradigm posits that valid knowledge is only what can be observed, proven and scientifically tested. Its followers consider those observed or studied as objects. On the other hand, the interpretivist paradigm believes that valid knowledge and social reality are not static; they are always in an ever changing process and its followers treat the researched as subjects, not as objects of the research process.

Critical social theory, in contrast to the positivist perspective, states that there is a difference between observing nature and observing people. Unlike the positivist perspective, critical social theory views people not as passive receptacles of what ever data or information is transported to them, but as intelligent actors who assess the truthfulness, completeness, sincerity and contextual realities of the message they receive. In other words, they are not containers to be filled. Critical social theorists believe that they cannot be mere observers; by their presence they influence, and the social, political and the context of the situation under study influence them.

The proponents of critical social theory accept the view of the interpretivist. "Both of them accept that individual practitioners must be committed to self-critical reflection on their educational aims and values" (Carr and Kemmis, 1986:31). Unlike the interpretivist perspective, the critical social theory requires the researcher to address not only the matter of mutual understanding, but also the matter of emancipation of the organizational actors from false unjustified beliefs, assumptions and constraints. "The outcome of the critical research, therefore is not just the formation of informed practical judgements but theoretical accounts which provide a basis for analysing

systematically distorted decisions and practice, suggesting the kind of social and educational action by which these distortions may be removed "(Carr and Kemmis, 1986:31).

The social-critical paradigm relates to a concern "with questions of power and control and epistemology as social constructions with benefits to some and not to the others" (Muffoletto, 1993:4). In critical social research, "education is considered to be a social institution designed for social and cultural reproduction and transformation. Knowledge generated through this mode of research is an ideological critique of power, privilege, and oppression in areas of educational practice" (Merriam and Simpson, 1995 as cited in Merriam, 2001:4). Furthermore, in critical social theory, researchers may deduce theories, but they are not offered as 'externally given' and 'scientifically verified ' propositions. Rather, they are offered as interpretations, which can be proved by self-understanding of practitioners under conditions of free and open dialogue

For the purpose of this study, I applied critical social theory because it is "a critical process of enquiry that goes beyond surface illusions to uncover the real structures in the material world in order to help people change conditions and build a better world" (Neuman, 2000:4). It promotes a critical consciousness that is expressed in political and practical action for change. Moreover, it aims at increasing the closeness between the actual problems encountered in a specific setting and it is used to explain and resolve the problem. As a particular research perspective it is " concerned with the political beliefs of both the investigator and the subjects, the purpose of which is to discover what should be done to the world of those being studied" (Reason and Rowan, 1981; Graham, 1991; Henderson, 1991 as quoted in Baumgarther and Strong, 1998:179).

In Eritrea, the educational policy is highly centralised. The curriculum is developed by expertise at the top. The role of teachers for curriculum development is insignificant and there is no participation of students and parents in any of the curriculum development processes. As Carl (2000:3) states, "it is critical that the teacher be empowered in order to be a fully fledged and effective curriculum agent." Thus, the goal of critical social theory goes beyond the other two approaches, and

empowers participants in identifying problems and making them explicit by raising their collective consciousness. Researchers in the critical social paradigm engage in social critique and they question the status quo. In general, it focuses on the oppositions, conflicts and contradictions in a contemporary society and it helps to eliminate the cause of alienation and domination.

As Carr and Kemmis (1986:197) state, "The critical approach to education aims to generate action in others and gives rise to conditions to replace one distorted set of practices with another hopefully less distorted set of practice." Moreover, educational research framed within this paradigm will seek to transform the educational situation, not merely to improve its effectiveness or efficiency. It will seek to expose social or historical factors that contribute to inequality and marginalization, not merely to enhance interaction between a teacher and class. Based on the above reasons, I applied it to examine my research topic.

3.4. Qualitative Research Methods

"Qualitative research is an umbrella concept covering several forms of inquiry that help us understand and explain the meaning of social phenomena with as little disruption of the natural setting as possible" (Merriam, 2001:5). This quotation indicates that there are a wide variety of methods that are common in qualitative measurements. In fact the methods are largely limited by the imagination of the researcher.

Qualitative research always requires that the researcher explores and sensitively interprets complex data, and avoids pre-emptively reducing the data to numbers. It always requires that researchers record growing understanding, in summaries, comments or memos or field notes. It usually treats the data as records of ideas about these research events and reflection of them. In qualitative research the researcher is likely to have changing and growing rich records built up from literature reviews, interviewing, observation document analysis and other events.

3.4.1. Case Study

My research topic is 'Evaluating the Integration of Health Education into English in Eritrean Secondary Schools'. In order to investigate the status of the integration of Health Education into English, I applied a case study method to conduct my research. I used this method because it is "particularly appropriate for individual researchers because it gives an opportunity for one aspect of a problem to be studied in some depth within a limited time scale" (Bell, 2001:10). The time for data collection was not only very short, but it was also examination time and semester break. So, given that there was a very short period of time, I chose the case study method as the most appropriate way in which to do my research. I wanted to do detailed investigation with the limited time I had. In this regard, Baumgartner and Strong (1998:132) say, "Case study research typically involves studying a person or an event in great detail and describing what is found." Besides, as Denscombe (2000:40) states, "The case study approach can fit in well with the needs of small-scale research through concentrating effort on one research site (or just on a few sites)."

Moreover, as Johnson (1994:20) and Yin (1994:13) say, a case study is "an enquiry which uses multiple sources of evidence to investigate a contemporary phenomenon within its real-life context, where the boundaries between phenomenon and context are not clearly evident." The two quotations above indicate that a case study is used to study such problems where there is clouded vision of the demarcation between what is said and what is practised. In other words a case study is used to investigate the practicality of what is planned and the problems and solutions if it is otherwise.

Similarly, my research tries to see the match between what the government says at the macro-level about the integration of Health Education into English in Eritrean secondary schools and what really happens on the ground - at a micro-level in depth taking one school as a reference. Of course, in order to investigate the real situation, I used different research techniques within the short period of time.

As Vulliamy (1990:14) says, "The case study method in evaluation usually involves studies of much shorter duration. Typically they rely on tape-recorded interview, and

the collection of documents and, where observation is included, it tends to be limited and not have a comprehensive scale." Unlike other research such as ethnography, the case study takes a shorter time for collecting first hand and documentary data. It is also suggested "a beginner researcher can build successfully on the small-scale project. A small-scale research is manageable as well as encouraging. Moreover, it requires short time and space" (Hopkins, 1995:47). However, due to the time limit, the data might not be comprehensive.

The case study method has advantages and disadvantages: "Case studies give 'in-depth' information, showing how processes work, patterns are lived out, the ideal is converted to the real, change occurs, and many other important areas which 'fall through' when using surveys and other techniques" (Kane and Brun, 2001:116). As far as its disadvantages are concerned, "They are more time-consuming than most people expect and require a mix of research skills. They do not give a representative picture but rather a detailed understanding" (Kane and Brun, 2001:116). In other words, since case study focuses on limited events, situations or particular persons, it is difficult to generalise out of the limited number of items. In case studies, since the researcher selects the area for study and decides which material to present in the final report, it is difficult to crosscheck information and there is always the danger of distortion; there could be a possibility of false generalisation.

In order to explore the degree of match between what is said about the integration of Health Education into English and what really happens at classroom level, I have applied different research techniques. "Case studies are also strategies in that they use interviews, observation, and documentary materials to provide insights into how and why something works or does not work in real-life, over time" (ibid.:116). In this regard, Bell (1993:8) says, "A case study can be described as an umbrella term for a family of research methods that have a common decision of focussing on inquiry around an instance."

In a similar way, I have used the three data collecting techniques mentioned above because using a variety of techniques can be used for triangulation. Triangulation is "the process of using multiple data collection methods, data sources, analysis or theories to check the validity of the case study findings" (Gall, 1996: 574). They also elaborate, "Triangulation helps to eliminate biases that result from relying exclusively

on any one data collection method, source, analysis and theory." Triangulation is using a number of (usually three) different techniques and/or collecting evidence from a number of perspectives and then comparing and contrasting them. This "allows the teacher/researcher to check for points of agreement, disagreement and difference in the data" (Elliott (1991: 82-83) as quoted in Hatton, (1994:178). Therefore, I applied these techniques not to rely on one technique only and also to crosscheck the validity of the data collected using the three techniques.

3.4.2. Qualitative Research Techniques

In this section the three qualitative research techniques, interview, observation and document analysis will be discussed. Moreover, the types of interviews, their advantages and disadvantages, why they are selected as data collecting techniques and how sample interviewees are selected will also be discussed. In addition, the advantages and disadvantages of observation and document analysis will be dealt with. Finally, the procedures employed to conduct the interviews, classroom observation and document analysis will also be addressed.

3.4.2.1. Interviews

In order to collect the necessary data for my research, I applied interviews, observation, and documentary analysis. I have applied interviews to collect my data because as Rose and Grosvernor (2001:111) say, " Interviews have the potential to yield valuable insights into people's life experience, attitudes, opinions and aspirations." Interviews involve gathering information through direct verbal interaction between the interviewer and respondents, but there could also be non-verbal messages accompanying the verbal interaction and they need to be interpreted with the verbal elements.

There are three types of interviews, which differ in the extent to which questions are determined and standardised beforehand. They are unstructured, semi-structured and structured. This classification indicates to what extent the interviewees are free to express their views and the role of the interviewer during the conversation.

In regard to this, Blaxter, Hughes and Tight (1997:154) say:

> At one extreme, the interviews may be tightly structured, with a set of questions requiring specific questions, or it may be very open-ended, taking the form of a discussion, In the latter case the purpose of the interviewer may be simply to facilitate the subject talking at length. The semi-structured interviews lie in between the two.

For the purpose of this research, I have used the semi-structured interview because it is a "flexible and adaptable way of finding things out" (Robson, 1997:228). In this regard, Kane and Brun (2001:115) also say, "Semi-structured interviews have clear pre-determined focus but flexibility in how the questions are put and allowance for open-ended discussion of answers." In the semi-structured interview questions may not follow exactly in the way outlined on the schedule; questions that are not included in the guide may be asked as they pick up on things said by the interviewer.

However, the interviewer in the semi-structured interviews does follow a script to a certain extent. This script or interview guide serves as a checklist during interviewing and ensures that the same information is obtained from different respondents. However, there is flexibility. In addition, in a semi-structured interview, it is easy to avoid misconception or misunderstanding of questions. The researcher can make amendments or clarification if the respondents are not clear with the question(s) asked on the spot. S/he also is able to read the respondents' facial or gestural expressions in reaction to his/her question.

Interviews can be held with individuals, but also with groups such as the focus group. In my research, I interviewed the personnel in the Department of the National Curriculum, teachers, and the head of the Health Club individually and the students in a focus group interview. I interviewed these different people because I wanted to crosscheck what each person or group had to say about the research problem with what I observed during the classroom observation and what is written in the textbooks or in the document.

3.4.2.1.1. Sampling Methods and Conducting Interviews

Before I started collecting my data, I selected my research site and informants using the purposive sampling method. In the purposive sampling method, Cohen and Manion (2000:103) say, "the researcher handpicks the cases to be included in his sample on the basis of his judgement of their typicality. In this way he builds up a sample that is satisfactory to his specific needs." Thus I deliberately chose the specific secondary school in which I conducted my research because the teachers in the school are experienced and the school has enjoyed a good reputation since the Italian colonisation. Moreover, due to its location, the school is under frequent supervision and support. Thus, with the shorter time I had to collect the necessary data, I thought a deeper insight about the problem could be made in the sample school.

I also deliberately chose all my informants: The Head of the Curriculum and Pedagogy, the Head of the English Panel, the English teachers of that school, Grade Eleven students of that school, and the Head of the Health Club of that school. I chose these people as my informants because I believe that they could contribute meaningfully to the research.

In conducting the interviews, my key informants were the Head of the Curriculum and Pedagogy and the Head of the English Panel. I chose the Head of the Curriculum and Pedagogy because I thought that he could share with me a great deal of information about the curriculum policy and curriculum documents at a national level. I also chose the head of the English Panel, because he is the one who coordinates all the activities related to English curriculum, at national and at school levels through the head of the English departments of each secondary school. Moreover, I chose the Grade 11 students as my respondents because these students had passed through all the health-related topics and they could share with me ideas about how their teachers taught the topics and whether the teachers gave due emphasis to these topics or not.

In order to conduct interviews with these two key informants, I first went to their offices. It was on one day because their offices are in the same building. I met each of them individually in their respective offices and I told them that that I was going to conduct research on "Evaluating the Integration of Health Education into English in

Eritrean Secondary Schools" and that I needed their cooperation to gather the necessary data for the research. Both welcomed me, and then we scheduled time for an interview. Finally, I interviewed each of them in their respective offices.

The second informants of the research were the English teachers of the school. As I explained before, they were selected deliberately because they are all experienced teachers who can contribute much towards the research. Their educational background and years of experience are given in the table below:

Table-2. Educational Background of Teachers

Teacher	Qualifications	Grade taught	Years of Experience	In-service training
ET-1	B.A	8	20	No
ET-2	B.A	9+10	27	No
ET-3	B.A	9	16	No
ET-4	B.A	10	30	No
ET-5	B.A	10+11	27	No

Source: School record

B.A.: Refers to Bachelor of Arts
ET: Refers to English Teacher

After I had completed the interview with the Head of the Curriculum and Pedagogy and the Head of English panel, I went to my research site. I met the school principal and I first told him that I wished to conduct my research in their school and I told him my topic. I also told him that I would like to do my research mainly with English teachers, the head of the health club and some students. He was very cooperative and arranged a meeting with the English teachers.

In my first meeting with the English teachers, I told them that I was to conduct research on the topic "Evaluating the Integration of Health Education into English in Eritrean Secondary Schools". However, at the beginning, every teacher was surprised and one of the teachers told me that they do not teach Health Education and that I had

better arrange the programme with Biology teachers. This response enabled me to understand that teachers were teaching Health Education or health-related topics without realising that this is what they were doing. They were dealing with them with the understanding that they were only teaching the English language. This was also a common experience for me because before I came to the University of the Western Cape I had never recognised that health-related topics are integrated into English so that teachers are expected to teach students about the health messages that they should learn.

However, I told them that I had been an English teacher for seventeen years and I know that there are some health-related topics such as 'Food and Diet', 'HIV/AIDS' and so on which we teach in the English class. Then they all realised that they are in fact teaching the health-related topics. After that I told them the purpose of the study and arranged the time for interviews, after the approval of their acceptance to be interviewed and to be tape-recorded. I scheduled the interview to be conducted in two weeks time. I arranged the time for each teacher to be during his free time and that the duration of the interview would be 30-40 minutes for each teacher. Before the interview, a conducive venue was also arranged. The assistant principal left his office for me to use until I had finished collecting my data (almost for two months).

Thereafter, although the semi-structured questions were drafted before I went to Eritrea to collect data, I made slight changes because my supervisor commented that they were a little bit difficult to analyse. Based on this comment, I tried to simplify the questions. I chose semi-structured questions because I wanted to obtain comprehensive data and because they permit a more valid response from informants' perception of reality. Above all, I wanted my respondents to be free to express their views on the one hand, and on the other hand, I did not want them to go too far from the interview schedule. Finally, every teacher was interviewed individually according to the time schedule. The teachers' interview questions are in Appendix-A

After I finished my interviews with the teachers, my second informants were the Grade 11 students. As explained before they were selected using the purposive sampling method. They were deliberately chosen to be students from Grade 11 because these students had seen the textbooks used in the secondary school.

Moreover, they were students who have good academic standing and who can express themselves and share ideas. The teachers and the school principal helped me to identify these students.

I chose a focus group interview because I wanted them to be at ease while they sat with their friends. "A focus group interview is nothing more than a planned, relaxed discussion among a small group of people on a specific topic" (Denzin and Lincoln, 1998:55). In addition Seidman (1991:3) says, "If given a chance to talk freely, people appear to know a lot about what is going on." In a focus group interview, unlike the one-on-one interview, information can be obtained more quickly as only one interview must be scheduled. More importantly, the group setting allows individuals to generate ideas from using others' ideas as cues. Moreover, "The focus group interview has the advantages of being inexpensive, rich data, flexible, stimulating to respondents, recall aiding, and cumulative and collaborative, over and above individual responses" (Seidman, 1991: 3).

In general, the focus group interview has the following benefits:

- They allow researchers to observe a process that is often of profound importance to qualitative investigation - namely interaction;
- They allow researchers to access the substantive content of verbally expressed views, opinions, experiences and attitudes; and
- They provide a means for accessing intentionally created conversation about research topics or problems.

On the other hand, the focus group interview has disadvantages. One of its disadvantages is that the members of the group may not trust one another especially while discussing sensitive issues and when they are heterogeneous groups. They may be reluctant to discuss as freely as needed and this may lead to some concealing of the real information. Moreover, the researcher is not able to guide the interview as easily as in an individual interview and the data collected could be difficult to analyse.
In order to do my focus group interview, similar to that of the English teachers, the school principal called them for a meeting and I told them the topic and the aim of my research. Unlike the teachers, the students told me that they learn Health Education mentioning some of the topics such as HIV/AIDS, Pollution, Balanced Diet and so on.

Then we decided to conduct a focus group interview for about an hour and a half. Unlike the English teachers who were interviewed individually, I called the students to the same venue and asked them semi-structured questions in-group. They were interviewed in Tigrigna, their mother language. I did this because I wanted the students to express their ideas without language problems; I did not record the information but I only took notes because if the students knew that I was recording their ideas they might not have expressed their ideas as freely as needed.

Another respondent I interviewed was the head of the Health Club of the school. I chose her to be my respondent because she coordinates the other clubs in the school to actively participate in promoting health-related issues in the school. In a manner similar to that of the English teachers, I first went to her department's office (Biology department) and I introduced myself to her. I then told her that I was doing research in the school and I needed information from her on health-related issues. She was co-operative and accepted my request. Finally, I interviewed her for one hour in the same venue and I asked her about the contribution of the club to Health Education and the roles the club plays in raising the students' awareness about Health Education.

3.4.2.2. Observation

The third data collection technique I employed was classroom observation. I used this technique to countercheck or triangulate what the head of the English panel, and English teachers say and what is planned in English textbooks, with what really happens in the classrooms. This technique also helped me to see whether there is consistency between what is planned and what really is on the ground. "Observing and trying to interpret what we observe is native human activity. It also evokes feelings and emotions of a researcher about what is observed" (Babbie, 1995:3). "The major advantage of classroom observation as a technique is its directness. You do not ask people about their views, feelings or attitudes, you watch what they do and listen to what they say" (Robson, 1995:190). In general, I used the observation technique of data collecting to see the teaching strategies, which the English teachers apply to teach the health-related topics in an English class. "If you systematically watch what happens, you will be using an observation technique" (McNiff *et al*, 2000:93).

On the other hand, observation has disadvantages. In the first place, it has an ethical problem. Some times, the observed are unaware that they are under observation. This is when the observation is either done hidden, or using other electronic devices. Moreover, if one wants to collect data by observation, s/he needs time and effort so that s/he collects relevant information. Another problem of the observation technique is bias in the selection of the appropriate data from what s/he observes. The researcher may be biased to his/her own perception while choosing the relevant data. Yet another disadvantage to mention is that the presence of the observer affects the dynamics of the situation s/he is observing.

In many cases, it is important to the study that subjects be directly observed, but unaware they are being observed. The observers' presence might cause a change in the subjects and inhibit them from reacting in the natural way. If they knew that they were going to be observed while performing any activity, they might get nervous and feel intimidated, or hyperactive in their behaviour and not perform to their true ability. Similarly in my case, the teachers felt very different during the observation from when I first met them. At the beginning they were not even conscious that they were teaching Health Education/health-related messages or issues but during the observation things had changed. They now seemed very conscious that they were teaching Health Education and presented the lessons very well.

Taking these limitations into account, I observed three out of the five English teachers while they were teaching one health-related topic each included in the textbooks. I observed Grades Eight, Nine and Grade 11 teachers. I did not do classroom observation with any Grade Ten English teacher because there is only one health-related topic in the textbook and it is Unit 1 about 'Sport'. This unit had been already taught before I went to Eritrea to collect my data. Moreover, this topic is given in Physical Education, which is taught as a separate subject in our curriculum.

In order to conduct classroom observation, similar to the interviews I called another meeting of the English teachers via the school principal and I told them that I wanted to do classroom observation and that I would like their co-operation. They were all willing and there was no opposition. The second step was to schedule the time. This was a little bit difficult because the health-related topics are found here and there in

the textbooks: some of them are already taught and some of them are too far scheduled towards the end of the year. However, due to the co-operation of the teachers and the school principal, I arranged convenient times for classroom observation for each teacher.

There are two types of observations: the checklist and the category system. A category system is a "system that unlike checklist, uses a relatively small number of items, each of which is more general than a typical checklist item" (Walker, 1985:136 cited in Robson, 1995:207). Therefore for the purpose of this study I first prepared a checklist of my own and started to do the observation. However, I found that the checklist did not exhaust all the activities that were taking place during the classroom presentation. Then I changed my mind and I used the category system so that I could get a chance to jot down the activities performed by the teacher and students during the teaching/learning process. In order to put this into practice I used the lesson plan format as a guide to my observation. The lesson plan format has seven parts as indicated in Appendix D.

I then started to observe what the English teachers do while teaching health-related topics at each stage. In other words, I tried to observe the real teaching and learning activities performed by teachers and students in a given lesson. I tried to observe what teaching /learning aids are used to facilitate the teaching /learning process. Here it should be noted that at each stage of the observation, I was taking notes of what each teacher does at every stage of the lesson plan and every teacher was photographed. This took place for three consecutive periods (one period is 40 minutes). I photographed the observation because as McNiff *et al* (2000:103) say, "Photographs can be used as evidence that an event has taken place."

In addition to the classroom observation, I also did school compound observation to see whether the students apply what they have learnt in class or not. This specially refers to how students handle their toilets, classrooms, and school compound. Moreover, I tried to see how teachers help students to be aware of health-related issues outside their classrooms i.e. if they post posters, charts and pictures and so on.

3.4.2.3. Document Analysis

In qualitative research, the researcher is the main producer of field notes and transcripts, but information produced elsewhere can also provide useful data. Qualitative researchers most likely use the documents to enrich the data gained from interviews and observations. Thus the third research technique I applied was documentary analysis. Document analysis is "the extensive collection of records, documents, library collections or mass media materials that have been amassed" (Mouton, 1996: 142). The documentary analysis method uses materials collected for other purposes: censuses, surveys done for other projects, school records, departmental figures, textbooks and even reference books.

The advantage of using documentary materials is that they are almost quicker and cheaper to use than to collect primary data (Kane and Brun, 2001: 111). In addition, documents can provide valuable information that may not be accessible by other means. For example, they can provide information about things that the evaluator cannot observe because they took place before the evaluation began. "The researcher can not be in all places at all times; therefore, documents and records give the researcher access to information that would otherwise be unavailable" (Mertens, 1998:324).

On the other hand, Kane and Brun (2001:111) argue that document analysis as a technique of data gathering, has disadvantages:

> The disadvantage is that because they have probably been collected for another purpose, they may have a different focus, or even have gaps or hidden flaws. Another disadvantage is that people tend to place too much trust in record material, simply because it is on paper. Once immersed in secondary materials, people tend to lose sight of their aims, gather too much data, and become too comfortable at the desk to do any necessary primary data collection.

The above quotation clearly shows that relevant data may not be collected by applying the documentary analysis. The documents might be outdated, or they might be faulty, because what is written on paper does not necessarily mean it is correct.

Moreover, researchers might lose the focus of their research if they are concentrating too much on secondary materials. In other words, they might be reluctant to collect the primary data.

I used documentary analysis to evaluate the secondary English textbooks focusing on the topics related to Health Education. These aim at assessing to what extent the topics are vertically and horizontally integrated in the English textbooks. Moreover, it helped to explore whether the topics are logically sequenced; and whether they are relevant to each grade and age level of students or not.

3.5. Ethical Considerations

When we are doing any research we should be bound by ethical considerations. "Ethics in research should be an integral part of the research planning and implementation process, not viewed as an after thought or a burden" (Mertens, 1998:23). The first thing we should consider when we think of research is negotiating access. Before undertaking the research we should contact the concerned authorities and check their acceptance and access to their information. Besides, we have to update the authorities if there are changes throughout the research time. Participants should also be asked permission and kept well informed about the research. In other words, authorities and participants should know what the research may and may not do.

Another aspect of ethics in research is confidentiality. A researcher should not report any information collected from the authorities and the participants without their permission. If s/he reports, it should be in the public domain and within the law. In addition, the names of the people or places should not be mentioned unless the researcher has specific permission from them. Sometimes, even giving participants fictitious names may bring confusion and problems. These names may belong to other people somewhere. Therefore, a researcher should write either initials or codes. In short, ethical consideration is part of any research methodology.

Thus, in order to conduct my research I was bound by the ethical considerations of research. Before I started to collect data from my respondents, I explained the purpose of the study and I informed them what kind of information I needed from them. Moreover, I told them that their input was important to my research. The respondents have the right to answer the questions voluntarily and leave them without answering if they wish not to answer them. Finally I told them that the information they provided me would be kept confidential and no report would be prepared that identifies their views and reveals their identity without their permission.

In this chapter, I have tried to explain the research methods in general and the qualitative and quantitative research methods in particular. I have also tried to distinguish the differences between the qualitative and quantitative research methods. The research paradigms upon which my argument depends are also discussed. Thereafter, the qualitative research method, which I have used to conduct my research case study, its advantages and disadvantages are discussed. Finally the research techniques I applied to collect my data are discussed.

The next chapter will deal with data presentation and analysis.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1. Introduction

Qualitative data analysis is a term applied to a wide range of methods for handling data that are relatively unstructured and considered not appropriate to be reduced to numbers. These methods (ethnography, case study, action research, etc) all have their own techniques and literature. The researcher who uses these data usually seeks to gain new understanding of a situation, experience or process. S/he learns from the detailed explanation that people give in their own words, or that the researcher records in the field notes from observation, or which s/he discovers in documents.

According to Mouton (1996:162), "Analysing data usually involves two steps: first, reducing to manageable proportions the wealth of data that one has collected or has available; and second identifying patterns and themes in the data". This means in analysing data, first the raw data are reduced into smaller parts so that it can be easy to process and then classified into main ideas putting the common data together. "Data analysis consists of examining, categorising, tabulating, otherwise recombining the evidence, to address the initial propositions of the study" (Yin, 1989:105). Wolcott (1990:32) also advocates "beginning with basic data sorting, creating categories sufficiently basic or broad or comprehensive to accommodate all the data." Thus, in order to analyse the data collected by using different techniques, I first classified the data into the following themes:

1. Contribution of English to Health Education
2. Emphasis given to Health Education
3. Strategies applied to teach Health Education
4. Level of integration of Health Education into English
5. Problems in teaching Health Education
6. The status of teachers' training and ongoing teacher development

This chapter will deal with the presentation and analysis of data collected using different techniques: interviews, observation and document analysis. It will also deal with the comparison of data collected using the three techniques based on the literature review.

In analysing the data related to the above themes, first what the people in the National Curriculum Department, teachers and students said about health-related topics will be worked with. Then what the teachers said in their interview will be cross-checked with what they really did in their classroom while teaching health-related topics in an English class. Thereafter, to see to what extent the health-related topics or Health Education are vertically and horizontally integrated into English and Biology, and their adequacy and relevance to the students' age and grade level, document analysis (the English textbooks) will be discussed and analysed. Finally, the need for teachers' training and ongoing teacher development in relation to the problems which teachers encounter while teaching Health Education/health-related topics will also be analysed.

4.2. Contribution of English to Health Education

The contribution of English to Health Education can be viewed in a number of different ways. As a subject in the school curriculum, English shares common concerns with Health Education and contributes to it in a number of respects. English in the wider sense can offer support to Health Education across the curriculum, in terms of method and in terms of the relationship between language and learning. We should note that language and learning are closely related. As explained in the previous chapter educational success is directly related with linguistic success. In other words, the better teachers manage the language, the better they can present the lessons and the better the students' language skills the better they can grasp the learning process. Farley's comments on the contribution of English to Health Education remind us "the very use and existence of language implies relationships" (Farley, 1981:135) and the main focus of Health Education is to enable students to create relationships among themselves, their families and with other people in the community.

Moreover, English and Health Education share common characteristics: both cross the conventional curriculum boundaries in the process of teaching/learning situations. In this regard, Dixon (1975) as quoted in Farley (1981:171) says, "There is a similar cross-curricular concern in that neither English nor Health Education have easily demarcated content boundaries." This means both English and Health Education are integrated subjects in nature. In addition, as English is used to teach/learn Health Education, equally Health Education perspectives can serve to sharpen and refine work in English. In other words, health-related issues can be used to teach the English language.

In his book "Growth through English", Dixon (1975) as cited in Farley (1981:170-171) suggests that historically there are three models of English: skills, the cultural heritage, and personal growth.

- The skills model was ideally suited to the task of preparing a literate population, concentrating as it did on selected elements in the process of using language such as correct spelling, vocabulary and punctuation habits;
- Cultural heritage model offers a link between language and life by means of the study of literature;
- The third model, personal growth, implies a shift of emphasis towards the learner and his needs and experiences.

From the perspective of skills, English can contribute to Health Education in three ways: the English teacher sets out to make a deliberate contribution to the Health Education of his/her students, whether in normal lessons or as part of a team effort in curriculum time set aside for the purpose of teaching Health Education. The second contribution is understood in that the normal concerns of English inevitably lead to sharing of common ground with health, social and personal education. The third relates to the fact that English is a language for learning, regardless of the subject. In other words, English is used to teach other subjects as well. For example in the Eritrean context, English is taught as a subject and it is also used as a medium of instruction from junior through secondary school. It is used dually in teaching Health Education: Health Education is taught being integrated with English and at the same time, it is used as a medium of instruction to teach Health Education.

Another thing that students learn from Health Education is developing confidence. So if they learn English to develop one of the English language skills: speaking, listening, reading and writing, they are developing confidence. As the students master the skills, they develop confidence and this is part of personal development, which is one aspect of Health Education and if they want to develop such skills, there is no reason why, for example, health-related reading material should not be used when teaching the English language.

In other words, lessons that have health themes can be developed for teaching English. For example, if students are meant to learn the speaking skill, situations that can help students to play the roles of a doctor and a patient can be created. At this time, the 'patient' will ask questions about health-related issues and the 'doctor' can give explanations or answers to the patient's questions. In this case, students can learn two things at the same time: in the first place, they are improving their speaking skills and at the same time, they are learning about the health issues.

From the above explanation we can see some of the reasons why Health Education/health-related topics are integrated into English. In regard to this, my first respondent was the head of the national curriculum and pedagogy. I first asked him, "In Eritrean secondary schools, there is no Health Education as a subject. How do students learn about health issues?" In answering this question, he told me that there is no Health Education as subject but it is taught being integrated into English and science. Then I asked him whether there is a curriculum policy or written document which deals with its integration and how teachers manage its integration into other subjects. He responded that there is no policy or document about Health Education in particular except the health-related topics included in the textbooks.

The next question relates to why the MoE integrated Health Education or health-related topics into English in Eritrean secondary schools. Both the head of the English panel and the head of the national curriculum and pedagogy responded that the main reason for integrating Health Education or health related topics into English is to raise students' awareness on health-related issues while learning English. The teachers, however, answered this question in different ways. For example the first English teacher (ET-1) related the reason why these topics are integrated into English with the

physical development of the students. He told me that the health-related topics are included in the English syllabus because they enable the students to know about their physical development. From ET-1's response we see that he is relating Health Education to Biology rather than to English.

On the other hand, ET-3 answered the same question relating Health Education to its importance in learning the language. He responded to the question in terms of health-related topics being included to teach the language skills; that is to improve their vocabulary, their listening, reading, speaking, and writing skills. In this regard, he said, "I think the health-related topics are integrated or included into English to enable students to develop their vocabulary related to health and these will help the students in listening, reading, speaking and writing." This refers to skills development, which is one aspect that Health Education shares with English. Even when he was responding to the question as to whether students learn things other than language skills, he emphasised the importance of Health Education instead of its relation with English. "They learn a lot. At least they can learn something. For example, they can learn the importance of Health Education and how to care for themselves."

In answering the same questions, ET-4 said that the health-related topics are integrated into English because they are related to their daily lives and they are important in their educational activities. Unlike the other two, ET-5 has related Health Education or learning health-related topics to the students' health and its impact on education. He tried to explain the impact of being unhealthy or its consequences for learning, focusing on each health-related topic. In regard to this, he said:

> Of course, 'Food and Diet' is part and parcel of the life of the students. Unless they get a balanced diet and they are well fed, they will face problems. And in relation to AIDS, AIDS is becoming a serious problem in our country [Eritrea] and especially these students see it in some parents, their relatives, friends being infected by HIV/AIDS and its bad consequences, and some children have lost their parents, and due to this, there is a certain problem even to continue their education.

From the above quotation we see that the English teacher is relating health to education or learning. He explained the impact of health problems in the learning

process. He emphasised that if students do not have good health, or if they do not have a conducive learning environment, it is difficult for them to learn. In other words, the healthier the students, the better they can learn.

One of the teachers (ET-2) answered the question why health-related topics are integrated into English in a similar manner to how it is explained under the sub-topic "Contribution of English to Health Education". He explained that like Health Education, English has no border. It cuts across the curriculum. In regard to this, he said, " Well, in my experience, English goes across the curriculum and there is no subject I can say that English does not touch. So, one of the subjects English touches is Health Education." I also agree with what ET-2 said because if we see this in relation to the Eritrean context, English is taught as a subject and it is used as a medium of instruction. Thus, the effective teaching of all subjects in the secondary schools is influenced by the mastery of the English language.

In addition, ET-2 stressed the importance of Health Education and even recommended additional topics to be included in the English textbooks:

> Health Education is one of the most important subjects, I can say crucial at this time. Sexually Transmitted Diseases (STDs) for example, are widely spread at this time especially AIDS, which is killing many of our youths. Therefore, health-related topics are included in the syllabi because they are important. First, we cannot live without health. So it should be covered or included in the curriculum. In my part, I can say the MoE should in fact add more health-related topics than those, which are already included.

In answering to the question why the government included some health related topics into English syllabi, the students said that they are included into English mainly to help them to develop their language skills, especially their reading and speaking skills and enrich their vocabulary. Some times, their teachers tell them some information about health issues in sort of advice. However, they said that due emphasis is not given to health in an English class and the students always thought that they are meant for teaching English.

From my observation, however, the English teachers tried to present the health-related topics in a good manner. They have the language competency to express the necessary information to students. They communicate with the students and they could make the lessons as attractive as possible using different examples and using various teaching and learning aids and this clearly shows the contribution of English to Health Education. This is also substantiated by what ET-1 said when he was asked whether English teachers help students in learning Health Education or not. He said that a teacher teaches effectively if he commands the language. Therefore English teachers can contribute a lot. He also said that because of the command of the language, they could understand what is written in the textbooks better than others and they can also convey health messages to students dramatically better than other teachers.

4.3. Emphasis Given to Health Education or Health-related Topics

Health Education is one of the important subjects that should be taught to students from kindergarten through to Grade 12. Students need guidance that both educates and informs them about health issues. Learning Health Education enables them to set positive examples for society and lead healthier and safer lives. To develop positive attitudes towards Health Education, students should start learning Health Education at even earlier ages - especially about those sensitive issues such as HIV/AIDS.

In this regard, the Joint United Nations Programme on HIV/AIDS (UNAIDS), (1997:7) states,

> All experiences to date have proved that the HIV prevention and other health promotion programmes for children should begin at the earliest possible age, and certainly before the onset of sexual activity. Effectively this means that age appropriate programmes should start at primary level. This has two important benefits. First, education starts before sexual activity does, thus preparing the students to cope with future risk activities. Second, the education reaches children before many of them have left or drop out and this is particularly so, in many countries, for girls, who tend to leave at a young age.

The above quotation tells us that students should learn about health issues as early as possible. It shows that children should be conscious about health hazards before they start to engage in those activities which can cause risks to health. The quotation also tells us that schools are the best places for teaching health but it should be before students drop out or leave schools.

As far as the emphasis given to Health Education/health-related topics is concerned, at a macro-level, health-related topics are supposed to be integrated into English and Biology textbooks and both teachers of English and Biology teach them. In answering to the question whether the government gives due emphasis to Health Education or not, both the head of the national curriculum and pedagogy and the head of the English panel said that due emphasis is given to health Education or health-related issues. However, as mentioned earlier, there is no written document as to why it is integrated into English and Biology and how teachers have to manage the topics. Both the head of national curriculum and pedagogy and the head of the English panel confirmed that there is no written document specifically about health in the secondary school curriculum except those topics integrated into English and science. Here it seems difficult to say that due emphasis is given to Health Education if there is no clear policy about its integration into other subjects and its implementation.

When we see this in terms of the teachers' views from their responses to the interview, three of the English teachers told me that they teach the health-related topics in an English class because they find them in the textbooks and because they think that they are important for the students' daily lives. The other two teachers said that they give equal emphasis to health as to the other topics in the textbooks. From this, I think it is not difficult to guess that the English teachers at least know the value of Health Education or health-related topics. In regard to this the two teachers and the head of the English panel said that the health-related topics are given equal importance like the other topics in the English syllabi. For example ET-3, in answering the question how much time and space he gave to health-related topics, said, " I give equal time to these topics. I do not say these are health-related and these are not. I give enough and equal time."

On the other hand, English teachers did not have any training on how to deal with these health-related topics. Moreover, there is only one small health topic each included in the English textbooks for Grades Ten and 11. Here the emphasis given to health-related topics becomes unclear. If teachers are not trained on how to teach Health Education, and the topics included in English textbooks are not adequate, it seems to me that the emphasis given to Health Education is less than it should be.

Unlike that of the teachers, the students' responses as to whether English teachers give due emphasis to the health-related topics or not, indicated that teachers give more emphasis to the language items such as grammar, than the messages of the health-related topics. The students also told me that because their teachers did not stress the health-related topics and some times even skip them at all, especially in Grades Ten and 11, this results in lack of students' interest to learn the health-related topics. They also told me that they studied these topics for the sake of learning. They studied these topics only to do the exercises in the textbooks, like for example in Biology they studied them for examinations. After the examination they are all forgotten. According to the students' responses, they did not learn the health-related topics to know about Health Education in detail even if they might contribute towards positive behavioural changes in their lives. Even teachers themselves did not motivate them to learn these topics in order that students might benefit in their daily lives.

As explained in the literature review, health does not mean the absence of disease. It is a term which encompasses the physical, mental, and social aspects of life. In other words, it refers to good health practices, to the preventive (safety) measures people should take, to the proper use of medication, to how people care about themselves and others and to how students share ideas with their families and others. But when we come to the teachers' views, they are not even aware of the other aspects of health. When they were asked whether they give due emphasis to health-related topics/Health Education or not, most of them saw this only insofar as it refers to preventive measures.

The English teachers speak about the specific topics related to health and how it helps to avoid diseases or how to protect themselves from these diseases. But I think they are not conscious, even when they are teaching English, that they are teaching health-

related topics/Health Education. For example, if an English teacher asks his/her students to discuss, in groups, any language item, and allows them to introduce each other in their first meeting, this is forming relations among students and forming good relationships with peers, other people and the community is one aspect of Health Education.

During the teaching and learning of English, students can learn about how to avoid issues which affect their health, their emotions, such as stress, shyness, and solving problems in groups. For example if one of the students feels shy to speak to his/her friends and is stressed whenever there is group work and they are required to speak to one another, s/he will try to avoid this problem through continuous discussion with his/her friends and of course, by the help of his/her teacher. This is another aspect which Health Education focuses on but which may not be raised as a separate health-related topic in an English lesson. In other words, if an English teacher is teaching a reading passage to his students and if the reading passage is health-related, he is teaching the students not only to improve their reading skills, but as the same time, he is teaching them about the health issue in the reading passage.

English teachers said that as long as there are health-related topics in the textbooks, they teach them. Time is allotted for them while they are preparing their annual and their weekly lesson plans. In this regard, ET-1 said, "Since the topics that I could mention, like 'AIDS', 'Food and Diet', etc are in the text itself, and since we teachers are advised to have annual lesson plans, plus weekly lesson plans, we teach it [Health Education] allotting time. It is already entangled in the curriculum." From this we can see that the health-related topics are already included in some forms in the textbooks, usually as reading passages. However, the time given to Health Education/health-related topics is very little. According to ET-1 it is estimated to be eight hours per year (this particularly refers to Grade Eight). He said, "It takes five or six periods in half a semester and another five or six periods in the second semester." One period according to Eritrean time schedule is 40 minutes. This indicates that less time is allotted to Health Education or health-related topics especially in the higher secondary where there are fewer topics.

The above ideas tell us that the lessons to be taught are pre-planned and they have their own time limits. Teachers cannot go beyond this time line set in advance. In most of the teachers' responses, there is a phrase "as far as they are in the textbooks..." This phrase by itself shows that teachers may not take their own initiative to elaborate, go in-depth to deal with health-related topics and help students to be aware of their lives, their families and their society. This is because of the overcrowded curriculum and because the teachers' curriculum activities are centrally controlled. In the textbooks, students are expected to learn many things, and at the same time, teachers should finish the portions given in the text books in accordance with the pre-planned annual lesson plans, regardless of the situations or problems teachers and students can encounter during the teaching and learning process. In addition, school principals and inspectors also go around to schools and check whether teachers' weekly lesson plans coincide with the annual lesson plan. This shows how the curriculum is centrally controlled.

From my observation, however, I saw the English teachers try to teach Health Education, allotting enough time and transmitting the health messages that students should learn. As far as the topics included in the textbooks are concerned, those included in the textbooks (especially at the lower secondary level), have detailed explanations and exercises for the students to learn the health messages. However, the topics are inadequate in the higher secondary levels (See appendix F).

A survey, which aimed at assessing the relevance of the English syllabi, was also conducted in 22 schools by a group of English head teachers from the respondent schools. Among the specific aims of the survey was to see whether the topics included are interesting or not interesting to students. In their evaluation as to whether the topics are interesting or not interesting, they graded the health-related topics as given in the table below. Even though it is difficult to quantify how interesting a topic is, according to their measurement, we can at least guess that the topics are relevant and interesting to students. However, saying interesting or not interesting is not enough to evaluate texts. The way the texts are prepared and their understandability by the students should also be taken into account. According to the Syllabus Development Survey's evaluation, the percentages obtained are as follows:

Table- 2. English Syllabus Development Survey

Topics and Grade	Respondent schools	Interesting No of Schools	%	Uninteresting No of Schools	%
Grade Eight					
Food and Diet	22	19	88	3	12
Eritrea and the Sea	22	19	88	3	12
AIDS and What I Believe	22	18	84	4	16
Grade Nine					
Childhood	22	17	74	5	26
Environment and You	22	19	88	3	12
Crime and Punishment	22	17	76	5	24
Grade Ten					
Sport	22	15	68	7	32
Grade 11					
Avoiding accidents	22	17	76	5	24

Source: MoE, English Panel, Asmara, 2002

From the above table we see that 74-88% of the schools found the health related topics included in the textbooks interesting. For example, in the survey conducted in 22 schools, the topic 'Food and Diet' was evaluated to be interesting by 19 schools, which is equal to 88%, and out of the 22 schools 15 (which is equal to 68%), said that the topic 'Sport' is interesting, etc. In general from the table above we can say that the health related topics included in English textbooks are interesting for students.

4.4. Teaching Strategies Employed

Children start to learn Health Education at home. Most of the time attitudes of children towards Health Education are profoundly affected by parental and home influences. Whether recognised or not, Health Education constantly takes place. In addition to parents at home, the peer groups, the media and schools can also shape the youngsters' attitudes and knowledge of health. However, while a child's life style may be largely shaped outside school, the influence of the individual teacher and the

cumulative influences of the schools are profound. If we try to see this in an Eritrean context, most of the people in Eritrea are illiterate; they do not have knowledge about what good health constitutes so that they could provide guidance for their children in this regard. The only way their children can learn about health is from their teachers in schools.

Often, a particular teaching strategy will naturally flow into another, all within the same lesson. In addition, excellent teachers have developed the skills to make the process seamless for the students. Which teaching strategy is right for a particular lesson depends on many things; among them are the age and developmental level of the students, what students already know, and what they need to know to succeed with the lesson. The content of subject matter, the objective of the lesson, the availability of time, space and material resources and the physical setting or physical school environment also influence the choice of the teaching strategy.

Health Education in its modern context requires a co-ordinated or integrated approach, because the integration itself depends on the contribution of traditional subjects such as English and Biology, which are unlikely to lose their authority. This means even though health-related topics are taught being integrated into English and Biology, English and Biology still remain separate subjects. Most subject areas contribute aspects of Health Education, either intuitively or deliberately, and some subjects are traditionally guardians of various health messages, for example, Biology. English is also among the subjects which contribute to the teaching of Health Education.

One of the main issues being addressed in this mini-thesis is therefore how effectively Health Education/health related topics are taught in an English class, but before I go into the effective teaching strategies, it is important to explore the meaning of teaching. Teaching can be understood as "the constant stream of professional decisions that affect the probability of learning: decisions that are made and implemented before, during and after interaction with the students" (Hunter as quoted by Quina, 1989:4).

The next thing that needs mentioning are the teaching strategies employed to deal with the health-related topics. Health Education can be taught in existing clinics, health centres, and hospitals; but every encounter between a health worker and the community is an opportunity and health workers need to allot sufficient time for this. However, in a case such as Eritrea this is impossible because Eritrea is one of the countries which suffers from a lack of educated health workers. Let alone to have time to teach the people about Health Education, people are often not even getting enough medication on time. Therefore it is preferable to teach Health Education in schools although the co-operation of the Ministry of Health and other organisations is helpful.

"Schools have long been promoted as a major setting of the provision of Health Education" (Tilford and Tones, 1994: 121). This means, in the recognition of the significance of early learning of health-related knowledge, attitudes and behaviours for the future health, schools offer a convenient way of teaching a significant proportion of children and young people over an extended period of time. They also indicate that "while schools in most countries will have included for differing periods of time, some health teaching, however minimal, planned efforts to develop comprehensive programme of Health Education are recent" (ibid.:122). Schools provide an opportunity to reach the students and their parents and this later, potentially, can reach the whole society.

Health Education is most effective when the teacher:

- Conducts a needs analysis as a first step in deciding what the needs of the students, school and community are;
- Creates a comfortable, supportive, co-operative and healthy learning environment;
- Involves his/her community;
- Builds on what the students know;
- Progressively returns to a number of key health topics throughout a child's schooling;
- Facilitates learning through a variety of modalities (students doing, seeing, reading, etc) which are student centred and task–based;
- Includes social aspects of health alongside the physical and mental issues. (UNESCO, 2000).

The above quotation tells us that the Health Education teacher first of all should make an assessment of what the students' needs and interests are and create a conducive learning and teaching atmosphere so that the students can learn Health Education or health-related topics without any difficulties. In addition, since the students are part and parcel of the community, the community should be involved in the teaching and learning process of Health Education. Teachers should also consider the students' background knowledge in teaching Health Education effectively. Last, but not least, s/he should apply different teaching strategies to teach the key health related topics throughout the students' school life. "A method is a way of sensing thinking, acting feeling and being. If the method works, it will create access for students to think, to feel, to sense, to act and to be in ways that formerly appeared closed to them" (Quina, 1989:170).

A most useful method to teach Health Education is to provide demonstrations where the advantages of adopting the recommended practices are clearly shown and the techniques and skills concerned may be practised. Such demonstrations will be helped if satisfied users - for example successful users of family planning programmes and patients having recovered from diseases like TB and victims of HIV/AIDS - can tell people to learn from the victims that they should not participate in such unhealthy practices. Another teaching strategy that can be applied in teaching Health Education is role-play. Role-play provides an opportunity for students to assume the roles of others and thus appreciate another point of view. It provides an opportunity for students to practise skills and introduces problems or situations dramatically. On the other hand, role-play might not be appropriate for a large group and some people may feel threatened. Nowadays, drama is emerging as one of the best ways of communicating both with urban and rural communities. Using folk media and drama is becoming more and more valuable for teaching Health Education to students.

Yet another strategy to teach Health Education is using teaching and learning aids. These may include leaflets, charts, posters, flash cards, flip charts and flannel graphs. The use of these teaching/learning aids is in order to capture the student's attention and hold their interest while the teacher explains the points. Leaflets are also useful, to help students to remember the main points. The students need to take part actively in

any discussion or demonstration on health-related issues and the teacher can encourage this by asking questions and inviting responses from the students.

From the teachers' interviews, I came to understand that teachers apply both the traditional and modern approaches of teaching health-related topics. One of the traditional methods of teaching they applied is the lecture method. Nowadays the lecture method is considered an outdated method of teaching and one with certain limitations. Some of the major arguments for its shortcomings are that students have too short an attention span to concentrate on the lecture, especially if the teachers are not trained or skilled orators. Moreover, if the lecture carries on for too long, it can become a monotonous form of lecture. However, the lecture method is not totally negative; indeed, for a quick overview, for summation, and for describing relationships, it is sometimes indispensable.

In relation to the traditional method, I came to see two things: when I interviewed the teachers, none of them said that they used the lecture method. However, some of them indirectly told me that they apply the lecture method. For example, ET-2 said, "...we find these health-related topics in the textbooks, but we do not teach the health-related topics as a subject but while teaching English we give advice to our students without giving much space for discussion about the prevailing conditions: STDS, and other diseases." This indicates that the teachers applied the lecture method in teaching the health-related topics. In addition, when I did the classroom observation, even though they were applying the communicative approach of teaching more than the traditional method, to some extent they were applying the lecture method. They employed the traditional lecture method during the introduction and summing up of the lessons and these were not boring. However, I feel that they may have been too short. Teachers do this mainly to save time. They tell the students facts about the health-related issues and instruct them to do or not to do certain things. Most of the time they enumerate their advantages or disadvantages or procedures to be followed, etc. If they allow the students to find out the truth or solutions themselves and conduct detailed discussions, they think that they are taking much of the time of English, which is their 'main concern'.

The second teaching strategy they applied is small group discussion. In small group discussion, maximum participation of all students and development of role skills are key elements. As a teaching strategy, there is flexibility provided. Some students learn content best in a leadership role, some through organisation of notes and some give and take of the round robin procedure. In this strategy there could be a good division of parts: some can draw pictures, doodles or mind maps and still others can give oral summaries.

All teachers I observed applied the small group discussion method. They gave their students questions, which encourage them to discuss issues with their friends, and each teacher went around the class to help students and to check students' activities during the discussion. In the group discussion, however, a few students dominated the discussion while the majority were passive listeners. Similarly, during their discussion with their teacher, the teachers (almost all of them) were dialoguing with very few students. Even though the exercises were good for discussion the teachers focus on few students who raise their hands to answer or ask questions, but they did not give chances to most of the students. This may have been, as it is explained above, because of the shortage of time allotted to health and the pressure that teachers should finish the syllabus on the given schedule.

One teacher was applying humour as a teaching method. While he was teaching them about 'AIDS' he was telling them how shy students were during his times. He told them that they were even afraid of sitting with girls during their times, but now he told them that there is no such a gap between male and female students; they discuss issues together; they sit together, etc. He said all this in order to encourage students to participate during the discussion, focusing on the female students because they were not participating as frequently as the boys were. He was telling them that there is nothing to be shy of these days and that they should express their opinions equally with the boys. He said that it is their right to say what they feel about these issues and he added that it is because they are equal that condoms are prepared not only for males but also females showing the female condom box. In regard to this, Quina, 1989:150) says, "In teaching any society, humour can be injected to increase rapport. Even the so-called boring subjects can be more interesting and enjoyable through the use of humour."

Another teaching strategy which teachers were applying, is the Socratic method (question and answer). This method has been recognised in the Western tradition as a powerful instrument of teaching. The questions asked in the teaching and learning process can be used to assess students' background knowledge, to focus attention, to aid the organisation and recall of information and to frame the whole lesson. It provides the basis for independent learning. This method fosters critical thinking, evaluation and knowledge application in students and it is frequently used in assignments and class discussions. As far as the English teachers are concerned, they were applying this especially during and after the discussion.

I also asked the students what teaching strategies teachers employ in teaching the health-related topics. They told me that the teachers usually lecture to advise students about the health-related issues especially about serious diseases such as HIV/AIDS and that sometimes they use the question and answer method. In addition, the students told me that their teachers give them advice about health-related issues either at the beginning or at the end of the lesson, but usually it is very short and they were not given chances to discuss health issues in an English class. This contradicts with the teachers' responses about the strategies they employed and what I observed in the classroom.

In order to crosscheck what the teachers and students had said in the interview with what the teachers were really doing in the class, I did some classroom observations. I tried to observe if they introduced the lesson and if teachers present the objectives of the lesson clearly. I also attempted to see the teachers' and students' activities in the teaching and learning process. From my observation, the teachers usually determined the students' tasks or activities and the teachers fully depended on the exercises given in the textbooks but students were free to express their own ideas. The ways the three observed teachers presented the lessons, their similarities and differences are explained in detail as follows:

4.4.1 Classroom Observation-1: AIDS and What I Believe (Grade Eight)

According to the Regulations Concerning Students' Discipline, in Eritrean schools students stand up when their teacher or another guest comes to classroom and when they want to ask or answer questions (MoE, 1997: 5). These are among the thirty Golden Rules of Students' Discipline Policy. Thus, the students stood up when I first entered the class for observation. This shows respect for their teachers and other people. This is a kind of tradition that the students grow up with. The assumption is that through such actions, students can grow up respecting their parents, teachers, their community and this enables them to be healthy and productive citizens.

In my first observation, the English teacher came to class with rolled posters in his hands. Then he raised the AIDS Red Ribbon and asked the students what it means, in order to bring the students' attention to the lesson. After that he wrote the topic 'AIDS and What I Believe' on the blackboard and he explained the seriousness of AIDS, people dying of AIDS compared with people dying in wars. At this point students were alert to learn about AIDS and they clearly knew the objective of the lesson.

After that the English teacher put the posters on the blackboard and students started to read points for discussion from the posters on the blackboard. They discussed the points in groups in their mother tongues though it was an English class. Some minutes later, the teacher gave a few students chances to express their ideas one by one. He asked them whether they agree/disagree with ideas given for discussion or not and why they agree/disagree. He also gave them chances to express their opinions about the myth and misconceptions about AIDS; their attitudes towards AIDS and AIDS infected people.

Finally, he led his lesson to a conclusion in a sort of question and answer method, but before he passed to the conclusion students asked him why AIDS is written 'Aids'. "Why not all in capital letters because if it is written in small letters it may mean assistance?" The teacher explained some of the rules of capitalisation but he did not tell the students that AIDS stands for Acquired Immunity Deficiency Syndrome and

HIV stands for Human Immune Virus. After this, the English teacher concluded the lesson giving advice to the students about AIDS. He again stressed that AIDS is incurable and since the students are too young, he told them that they should not exercise sex by emphasising the importance of abstention.

In the second period, the English teacher asked the students questions related to the previous lesson to check their understanding of the objective/message of the lesson. He asked them, "You are all very young and you did not start exercising sex, did you? But why do you need to learn about AIDS?" Their responses were as follows:

- *We will grow up tomorrow, so we need to know about it before.*
- *Because it is transmitted not only by sexual intercourse and we have to know about it*
- *We have to learn at least part of the lesson in this grade as an introduction* [To understanding HIV/AIDS]
- *We have to learn about AIDS because one day it will protect our lives etc.*

At the end of the observation, the teacher summarised the preventive measures for HIV/AIDS: to say no for sex, have faithful partners and use condoms. He emphasised the proverb 'prevention is better than cure'. He advised them to say no for sex to prevent HIV/AIDS. He also told them that the other options are applied when they are mature but they should know them in advance because they are useful for their future lives. From my observation the students are too young and I later checked their ages from the register. It ranges from 13-16, the majority being 14/15 (see appendix E) and I think it is because of their ages that in his advice to the students, he was emphasising 'SAY NO TO SEX'.

In Eritrean secondary schools teachers do not have problems in talking about how HIV is transmitted, AIDS condom use and delaying sex. This is because the Government of Eritrea and its people support the idea of preventing HIV/AIDS and they do not accept early sex. So teachers are also confident in discussing these issues. However, when it comes to talking about sexual intercourse, mentioning the sexual organs and varieties of sexual behaviours, they feel less confident. Here, there is

cultural influence, which is one problem of teaching and learning about Health Education not only for the students but also the teachers. Students, especially girls, were not at ease to discuss the topic with boys and even to see the male and female condoms; they were not at ease during discussion time. Even the teacher himself was culturally influenced and he did not demonstrate how to use the condom although he had brought it to class as a teaching aid.

Most of the time the teacher was translating the ideas into the students' mother language though it was an English class. Using the mother language is useful. As Bane (1990:26) says "A pupil's understanding of a new topic depends on bringing what s/he already knows to bear on it, since our ability to understand a message depends on the resources we bring to it." However, the reason the teacher was translating the lesson into the students' mother tongue on the other hand may mean that this lesson is a little bit difficult for the students to understand the context. The points presented in the text were beyond the level of understanding of the students (Grade Eight) and the students were stuck to express their ideas although the teacher encouraged them to discuss the health issues. Discussing HIV/AIDS is a crucial issue and students should know about it even at elementary schools. However, the concepts that AIDS is incurable, the ways it is transmitted and how the HIV destroys the white blood cells, etc. are complex concepts for the students to understand easily, and I think why the teacher was translating some of the ideas in the students' mother language is to break this barrier.

4.4.2. Classroom observation 2: Crime and Punishment (Grade Nine)

In observing the second English teacher, I used the same format/procedure to observe what the teacher did in class in teaching health related topics. First he entered the class, cleaned the blackboard and he wrote the topic 'Crime and Punishment'. Then he asked the students what crime means. After listening to the students' ideas, he also asked them to tell him some crimes that can be committed and he started to jot them down on the blackboard. He wrote words such as theft, pickpocket, and robbery with violence etc. Later, he wrote words like vandalism, capital punishment, corporal punishment etc. In other words, he started to teach the lesson by defining the new

words in the text. In clarifying the word pick pocketing, he demonstrated this by placing two students in front of the class and made one of them take the other's wallet from his pocket systematically. Then he made him shout and become unhappy because he lost his identity card and some money.

After this the English teacher told the students to discuss the pictures in their textbooks (Hicks, 1997: 82), which show different kinds of crimes being committed. The teacher was going round the class to help students during the discussion. The teacher told the students to elect their spokesperson, which students should play the leadership role and the teacher gave numbers to the groups.

Later group leaders started to report the ideas discussed by the group one by one and the teacher asked the class whether they had comments on the report back or not. The class continued until all the spokespersons had finished presenting their group's views. Finally, both the teacher and the students categorised the crimes according to their seriousness. Here the students answered in chorus when the teacher asked questions to confirm to which group the crimes belong.

Finally, the teacher asked the students what the message of the lesson is, what they had learnt from the lesson and why they were learning the lesson, 'Crime and Punishment' and what relationship it had with health. Several students answered the question in a variety of ways. Some of their responses were:

- *We learn this lesson because it teaches us not to commit crimes*
- *We learn this lesson because it tells us that if we commit crime there is punishment*
- *If we are corporally punished, part of our body will be damaged*
- *If we commit crime, we will be punished and if we are punished, we get even mentally sick* (They gave example of getting mad in prisons) etc.

The most important point which students raised in my observation during the discussion was the television (TV) programme in Eritrea known as ' medeb keisa'rere', which means 'before it becomes worse'. This programme is a programme

where people who have committed crimes confess in public in the TV programme. The students in their responses told their teacher that if they committed crimes they would be seen in the 'medeb keisarere' TV programme, which may make it difficult to come back to school. They tried to explain the psychological problems which may arise from committing crimes and this is what Health Education really deals with.

At the end of the period, the English teacher closed the lesson advising the students not to commit crimes. He stressed how serious committing crime is to their lives. He also told the students that crimes begin from small things and later can develop into serious problems. He gave an example such as scratching a blackboard, writing on the walls, taking friends' learning materials, etc. He added that they seem simple at the beginning but these are the activities, which may later lead to committing serious crimes unless they are corrected from the start.

4.4.3. Classroom observation 3: Avoiding Accidents (Grade 11)

The third English teacher introduced the lesson by asking questions:
What are accidents? How can we avoid accidents? He asked them these questions to bring the students' attention to the lesson topic. Students then tried to explain/define accidents as: something bad in life, hazardous to life, danger, unexpected danger, etc. The teacher continued asking the students what the risk areas are where accidents could occur and the students tried to respond that they could be laboratories, crossing roads, and accidents at home especially in the kitchen. Then, the English teacher asked the students to form groups and list the risks/accidents at home, in the lab, and accidents in crossing roads and in the kitchen. Then the students discussed and listed the accidents that can occur in the mentioned areas.

After all these, in the second period, the English teacher introduced the safety measures by using a question and answer method (Socratic method). He introduced these by using conditional sentences, which is the grammar item to be taught in that unit beginning the sentences with 'What will you do if.... The questions he asked were:

What will you do if you are working with poisonous chemicals?
What will you do if you want to cross a road?
What will you do if fire caught your house? etc. This led him to summarise the safety measures for avoiding accidents.

Finally, exercises were given from the textbooks on conditional sentences (Hicks, 1997:73). The third day the teacher discussed with the students the exercises given the previous day and he asked them other questions to check their understanding. Some of the questions he asked were: Why do you need to learn about avoiding accidents? What did you learn from the lesson? etc. and the students' responses were:

- *We have to learn about accidents before they occur;*
- *We must learn how to prevent ourselves from danger/accidents (*stressing prevention is better than cure)
- *We have to learn about avoiding accidents because it will help us to save our lives*

After this, the lesson was changed to other language items and there was no mention of health.

As far as the relevance of the health related topic to the students is concerned, the lessons are important for the students but they seemed a little bit too simple for more mature (Grade 11) students. This topic could have been better had it been given at the lower secondary level as students are introducing themselves to a new environment and coming from their junior level to secondary schools. Their schools may probably be a little farther from their homes. Besides, unlike the junior secondary schools, these students may learn in laboratories and they need to know the safety measures. In this lesson there was nothing that the students did not know. As a result the students lacked interest in learning the topic and they were a little bit over relaxed in answering and asking questions and some of them seemed a little bit bored. There was no curiosity to learn from the topic. This may be because the lesson was lower than the students' level of understanding or capacity. This lesson, which aims at raising the students' awareness about risks when crossing roads, catching fire and electricity and working with poisonous chemicals etc. may be more appropriate for the lower secondary students (Grades Eight and Nine).

Another problem could be that health-related topics would not appear in the matriculation in an English exam. Since the students were Grade 11 who were preparing for the matriculation, there was a lack of interest on the part of students. The focus group also told me that they did not have much interest in the health-related topics and the teachers did not have an interest in teaching Health Education either. This seems to indicate that our curriculum tends to be examination-oriented rather than towards knowledge and every-day life issues.

After completing my observation, my supervisor fortunately came to Eritrea, Asmara, where I was gathering my data. I told her that I had done classroom observation of the English teachers and about the data I had gathered during my observation and in the interviews. She advised me to revisit the school in which I had conducted my research to see if changes had been made after the observation and interviews. Thus I revisited the school and I found that the school had made certain changes. The Health Club of the school had posted charts, posters of health-related topics on the walls of the school and in the library. In my first visit, there had been no health-related posters or charts on the walls in the school compound and these are the things which help students to raise their awareness about health

Another very impressive thing I came across in my second visit was something written on a cartoon near the gate of the school: 'CLEANLINESS IS THE MOTHER OF HEALTH'. This seemed to indicate that the school had started to be more conscious of the need of Health Education in the school.

Another development in the school was that the school had organised a programme and arranged time for a guest speaker on the topic 'Crime, Youth, and Health'. The guest speaker was from the Eritrean police, from the Department of Crime Protection. He gave a speech on the given topic for all the students in the school in two shifts. In his speech, the police official stressed the theme ' You are the Future'. He told the students that if there is crime, there is no stability and if there is no stability, there is no development. Therefore, it is the students that should cooperate with the police so that they can prevent crime. The official also advised the students to respect their teachers, parents, and their community to behave properly if they are to lead a

peaceful life. He added that if they violated these actions, this would lead them to committing crimes and among the crimes he discussed were:

- Promiscuous sex
- Sexual abuse
- Abortion
- Theft, etc.

After the explanation of the different kinds of crimes, he continued with the consequences of committing these crimes. In the first place, he said that the consequence of promiscuous sex is that the youth would easily be exposed to fatal diseases like AIDS. He also explained to the students that AIDS mostly affects the productive part of our society and this damages not only the individuals but also the whole society. Moreover, he explained that if people commit crimes, they might spend their golden times in prisons. He added that students should protect themselves from such evils and it is after they protect themselves that they can protect other people and their society.

In the case of abortion, he added that the youth could suffer from infection, sterility and there might be suicide. In his speech, he was integrating the themes of preventing crimes and health with the age level of the students. The official concluded the speech advising the students to obey the rules and regulations of the school, the community and respect their country so that they could be healthy and productive citizens. The principal of the school also added that the students should distinguish between what is good and what is bad for their lives, their families and the society in general.

From this orientation we can see that curriculum integration does not take place only in schools, it can also take place outside the school, it is now happening with the school and the police department. There can also be integration of different themes such as health and crime and ethics. Finally, the orientation was closed by commemorating our martyrs who had fallen in the battlefields for the freedom of their country and their people.

In addition to this, in the conference about AIDS, which was conducted in Asmara, the school was selected from the 17 secondary schools in the Central Zone to prepare

a drama on health-related issues - mainly on AIDS, on the theme of 'ABSTENTION'. However, I could not attend during the demonstration of the drama because it was scheduled to be performed after I had returned to the University of the Western Cape, South Africa.

4.5. The Level of Integration of Health-related Topics into English (Document Analysis)

As explained in the literature review, there are different types and levels of curriculum integration. For this mini-thesis however, I will depend on the health themes integrated in the English textbooks and the classification of curriculum integration into the vertical and horizontal aspects to discuss and analyse the level of integration of Health Education into English in Eritrean secondary schools. In order to assess how the health-related themes are integrated vertically, the health-related topics in one grade level will be assessed in relation to the other topics taught in the other grade levels throughout the secondary school. Thereafter, each health-related topic in each grade level will be seen in relation to Biology to analyse whether they are horizontally integrated or not. I chose Biology as a point of reference because Biology, like English, has contributions in terms of teaching Health Education in schools and more health related-topics are usually discussed in Biology than in other subjects.

As explained in Chapter 2, the English textbooks consist of health-related topics here and there. For example, in Grade Eight there is a topic on 'Food and Diet'. This unit familiarises students with different types of food and how they can improve their eating habits. The Grade Eight Teachers' Guide elaborates the need for diet and the right sort of food as follows:

> .... Do you eat too much food? And do you eat the right sort of food? Some people are ill because they do not eat enough food... But it is possible to have too much of some foods. Too much meat may be bad thing. It gives you too much fat. We also need fats but not too much because it can be bad for the heart. Sugar is not always good. We need some for energy but if we have too much it is bad for our teeth (MoE, 1998: 42).

As you can see from the quotation above, students are learning two things: They are learning about the quantifiers 'too, enough, too much and not too much' and the need for balanced diet and good eating habit, which is a health-related issue, at the same time.

In the second unit, 'Eritrea and the Sea' students learn the differences between ocean, sea and lake. They then learn about the geographical location of the country, the economic advantage of the sea and discuss the dangers to the sea. While learning the conditional sentences (If...then condition), they also learn Health Education. This can be elaborated in the exercise given to the students as follows:

Table 3. Sample of integrated exercise

Use the table below to ask and answer about the future of the Red Sea. What will happen:

If…	we throw lots of rubbish into the sea? oil is poured into the sea? big nets are used to catch fish? more factories are built near Massawa and Assab? (the ports of Eritrea) the population of Massawa increases?
Then	the fish will die the sea will be dirty pollution of the sea will increase

MoE, (1995: 44)

From the exercise given to students above, we see that the students are learning how to construct the conditional sentences (If...then) construction. Besides, students are learning health-related issues: Pollution and the causes of pollution of the sea.

In the third health-related topic 'AIDS and What I believe' students learn two things: First they discuss AIDS and one's feelings about AIDS and secondly they enrich their vocabulary related to health in general and AIDS and feelings about this in particular.

In one of the exercises students discuss what they think and how much they know about AIDS. In these units more exercises about health are given to students. The exercises encourage students to discuss health issues especially about HIV/AIDS, which are dealt with in depth. This may be because of the seriousness of the disease and its consequences on the productive part of the society (For more details see appendix F).

When we come to Grade Nine, in the unit 'Childhood', students learn this topic in order to improve their reading skills and enrich their vocabulary, but they can also learn about 'the rights of children, underage labour, underage sex and its impact on growing children. This can be seen from what a 12-year old girl from East Asia, Thailand, said when she was sold to a man for $200 to work as a prostitute.

> I was put in a dark lorry with other girls from the village. We were in darkness for ten hours on a rough road. And then we arrived in the city. The lights, the cars and the noise frightened me. I had never seen electricity before. That day was the end of my childhood and the start of my shame and unhappiness. I was locked in a house with other girls; men came and looked at us. Oh the shame, and the beating when I cried or said no. No one can understand the misery of the child sold to prostitution (Hicks and Tewelde, 1998:24).

The above quotation shows us how problematic it is for a growing child if his/her rights are not respected and how s/he mentally, emotionally, socially and physically is humiliated. Prostitution by itself is also a main health hazard and from this lesson students learn about the violation of rights of children, and its consequences to children's health, general sense of well-being and of their lives.

As far as the health-related topics included in Grades Ten and 11 are concerned, they are explained in the literature review in section 2.5, as examples for levels of integration. In order to help me see the level of integration and the relationship between each topic within English textbooks and Biology textbooks, the summary of the topics is given below in a table form. The first column of the table shows the health-related topics included in English textbooks from Grades Eight up to 11 and the second column shows the health-related topics in Biology textbooks from Grades Eight up to 11.

Table-4 Health-related Topics included in English and Biology Textbooks

Grade	English topics	Unit	Biology topics	Unit
Eight	Food and Diet Eritrea and the Sea AIDS and What I Believe	2 3 8	---------- ---------- ----------	
Nine	Childhood Crime and Punishment The Environment and You	2 5 7	Bacteria and Related organism	1
Ten	Sport	1	Food and Diet Preventing Diseases Patterns of Behaviours	1 4 9
11	Avoiding Accidents	5	Human Reproduction Ecology - Environment and Population Man's Effect on Human Ecology	13 13 15

4.5.1. Vertical Integration

From Table 4 above, we can see that there are health related topics integrated into English and Biology textbooks throughout the secondary levels. These topics can be used as yardsticks to measure to what extent Health Education is vertically and horizontally integrated into English and Biology and whether the topics are adequate or not. For example in the Grade Eight English textbook, there are three units that deal with health: 'Food and Diet', 'Environment and You' and 'AIDS and what I Believe'. Each unit is explained in detail and there are enough exercises which enable students to discuss health, or deal with health-related topics (See Appendix F for details). In Grade Eight, out of the eight units the three are health-related topics. Thus in regard to coverage I would say it is adequate.

In a similar manner, in the English Grade Nine textbook, there are three units which deal with health related issues: 'Childhood', 'Crime and Punishment' and 'The Environment and You'. These topics enable students to learn the rights of children, the impact of punishment and committing crimes upon health, and to familiarise themselves with their environment and how they can keep it safe and clean.

However, when we come to Grades Ten and 11, we see only one health-related unit in each grade. They are 'Sport' and 'Avoiding Accidents' respectively. Sport is one aspect of health. Although sport (Physical Education) is given as a separate subject in Eritrea, it should be integrated into English because as explained in earlier chapters, students can learn better if the subjects are integrated. As far as Avoiding Accidents is concerned, it is vital that it is taught, because we are surrounded by risks/accidents in our lives. Therefore, I think it is important that teachers play a role in teaching the students how to safeguard their lives and lives of others from health hazards.

If we try to see the levels of integration vertically - that is, the relationships between the health-related topics between the different grade levels - they are weakly integrated. What the students learnt in Grade Eight does not have a clear relationship with what they learn in Grades Nine, Ten, and 11. For example, if we take ' Food and Diet' from Grade Eight, there is no unit or topic which relates to it throughout the other English textbooks at other grade levels. The unit 'AIDS and What I Believe' is not discussed in the other English textbooks either. However, the unit 'Environment and You' is taught in Grade Nine as well, in a slightly more advanced way than in Grade Eight. This shows that there is some continuation of what students learnt in Grade Eight. In general, however, when we see the level of integration vertically, it is loose. The health-related topics in Grades Ten and 11, to begin with, are very few and they are not related to any other topics in the textbooks. The head of the English panel and the English teachers also said that the health-related topics are not vertically and horizontally integrated. All in all, the above explanations indicate that there is little or no relationship between what students learn about health in one grade level with what they learn in the subsequent grade levels.

4.5.2. Horizontal Integration

Another way of integrating subjects is through horizontal integration. This is the integration of health-related topics in one subject in one grade level with other subjects in the same grade level. However, it is beyond the scope of a mini-thesis to see the level of horizontal integration of Health Education with all the other subjects taught in the secondary school. Thus I have chosen Biology, the subject where I

expected more health-related topics to be discussed as a point of reference to see the level of horizontal integration. I did this because Biology is one of the subjects that is laterally integrated with Health Education and contributes to it.

Biology, like English, makes an important contribution to school Health Education. However, the nature of the contribution varies from teacher to teacher and from school to school. Understanding and appreciation of biological concepts fundamental to Health Education and orientation towards to Health Education when planning and teaching Biology can give significance and relevance to school Biology - while not compromising its scientific and broader biological contribution to the curriculum.

Food selection provides an example of Health Education to which Biology can contribute by helping students acquire an understanding of their own body and their functioning. Most of the Biology textbooks in secondary schools include work on the composition of food, the importance of various nutrients and the need for balanced diet, the digestive process, feeding relationships and energy flow. Despite the traditional links Biology has had with Health Education, it is possible to teach Biology, even human Biology, without making a major contribution to Health Education. Recently however, Biology has had an important role to play in the personal and social development of students with which Health Education is concerned. It is suggested that Biology can contribute to Health Education through:

- The development of biological concepts fundamental to an understanding of health and scope for individual choice.
- The promotion of positive self-image
- The development of skills important in decision-making (Hull, 1981: 151).

As far as the horizontal integration of health-related topics that are integrated into English and Biology is concerned, there is a problem of sequencing the topics. For example, the health-related topic 'Food and Diet' in English Grade Eight is repeated in Grade Ten Biology. This is two years later. However, it could have been helpful to students and teachers had the students learnt this topic in English and Biology in parallel so that they could have horizontally integrated what they have learnt in English with what they have learnt in Biology. Similarly, the topics 'Eritrea and the

Sea ' which is taught in Grade Eight, and 'Environment and You', which is taught in Grade Nine English textbooks are both taught again in Grades 11 Biology in two units: 'Ecology - Environment and Population', 'Man's Effect on Human Ecology' and 'Human Reproduction'. This also takes place after three or two years rather than in the same grade.

Thus, from the explanation above, we can see that health-related topics are not integrated horizontally with Biology due to the lack of sequencing the topics across the curriculum but according to the grade levels. The curriculum developers did not follow the simple to complex procedure in developing the health-related topics. For example, students learn about AIDS before they know what micro-organisms are, how they cause disease etc, but later, in Grade Nine Biology, they start to learn about the micro-organisms such as bacteria, virus, and so on.

When we see the relevance of the topic with the age and level of the students, it has certain limitations. In this topic students learn about AIDS and what AIDS stands for. At this level the students cannot understand the concept of immunity and anti-bodies. They also cannot understand how HIV attacks the white blood cells because they did not have any idea about HIV and other disease causing organisms before.

They learn about micro organisms in Grade Nine Biology. Moreover, in Grade Ten Biology under the sub-topic ' Preventing Diseases', they learn about the types of immunities and the causes and methods of preventing diseases. These topics contain the basic concepts that students should know before they learn about HIV/AIDS. However, it is too late for the students to know about immunity and how the viruses attack the white blood cells and how they expose them to certain diseases. This indicates that the curriculum has limitations in prioritising the topics. I think it would have been better if students had learnt about organisms or other disease causing viruses before they learnt about certain diseases. In other words, this indicates that the horizontal integration of Health Education into Biology is too loose. The students also learn about AIDS in Grade 11 Biology. However, this is not the right time for teaching students about such a very serious disease, which attacks every part of society. At this time most students are nearly ready to leave school except for a few who will have the chance to join the university or teachers' training institute.

In addition to the integration made at syllabi-level or in textbooks, teachers themselves also tend to integrate subjects while teaching. For example, the topic 'Eritrea and the Sea' in the Grade Eight English textbook tells the students that Eritrea is located at the coast of the Red Sea and it stretches 1200km along the coast. Moreover, students learn the impact of throwing rubbish into the sea and in the textbook mention is made of the marine life. So this time students are learning four subjects: English, Health Education, Geography and Biology at the same time.

Another way of bringing about horizontal integration is the integration of English, health and Mathematics. In the English Grade Ten textbook, there is a unit 'Sport', as stated before. Under this topic there is sub-topic 'How Healthy Is Your Lifestyle? Then, there are multiple choice questions related to students' health. Students first choose the right letter. These letters are rated and students are told to multiply each letter by its respective rate. Then, they add up the scores. If their score is 18-15, they have a healthy lifestyle. They should be fit. If their score is 14-10, perhaps they should take a little more exercise - they are not active. If their score is below10, they are physically lazy and they should start doing some exercises, or take up playing sport if they want to remain fit and healthy (Hicks, 1997:1-2). In this lesson, students are integrating English, Health Education and Mathematics.

In general I would argue that subjects should not be taught in isolation. Although there is separate subject teaching, in practice it is impossible to teach one subject alone. Teachers, in one way or the other, integrate one subject with other subject(s) or issues or with what students already know or what students are expected to know. When we look at the integration of Health Education or health-related topics into English and Biology, we see more health-related topics in the higher secondary in Biology than in English. Although students need to learn about Health Education, even starting from their primary schools, in reality, the students at higher secondary level (Grades Ten and 11) also need to learn more about health because these are teenagers who are delicate and easily exposed to health hazards and they really need guidance.

Although the horizontal integration of Health Education with Biology is loose in our context, teachers usually integrate other subjects while teaching one subject. For example, the Grade 11 English teacher who was teaching about 'Avoiding Accidents' asked his students what they would do if they were working with poisonous chemicals and the students told him that they would wear goggles, masks and so on. In this case, the English teacher is teaching English, and the safety measures which are related to Health Education, and Chemistry simultaneously.

Therefore teachers in one way or the other are trying to apply curriculum integration into practice in its functional principles and they are to some extent exploiting its advantages over separate subject teaching. However, the problem is to what extent the English teachers apply the integration of Health Education into English into practice, what problems they face and how they challenge these problems.

4.6. Problems in Teaching Health-Related Topics

In this mini-thesis, the problems teachers and students face in the teaching and learning process have been discussed. In answering the question whether English teachers face problems in teaching Health Education or health-related issues, the head of the English panel and three English teachers said that they did not have any problems. In this regard the head of the English panel said, " We have not obtained any negative feedback concerning this issue." The two English teachers and the students; however, had mentioned some problems.

The problem raised by one teacher (ET-1) is lack of teaching materials/aids. When teachers want to make health-related topics lively, they need teaching aids, but they were often not available at schools. For example, the English teacher who was teaching about 'AIDS' wanted to show his students female condoms in class but he could not find the condoms in the school. He had to ask for female condoms from other organisations and finally he found them at the National Union of Eritrean Youth and Students' (NUEYS) office. This confirms what the students told me in their interviews - that is the lack of the school's co-operation in assisting students to facilitate the teaching/learning of Health Education. They explained this idea using an

example. The students said that when they were watching videocassettes, borrowed by the school and even by students themselves, from the British Library in Asmara, there was no one to explain to them even when the students failed to understand the whole message.

Another serious problem according to the students is the time constraints. They said that the time allotted for health-related topics is very short. In other words the health-related topics included in the textbooks are not enough. One teacher estimated the time allotted to health-related topics integrated into English textbooks is eight hours annually. This in fact is a very short time to teach students about the importance of Health Education, raise their awareness about health, and enable them to think about their health and the health of others.

In Eritrean schools teachers teach two shifts for two different groups of students, therefore they are occupied from morning to late afternoon. This worsens the shortage of time for teaching Health Education or integrated subjects; teachers are unable to organise extra time for health-related topics in schools. Another problem related with this might be the improper integration of the health-related topics or subjects. Had the topics been integrated properly taking the age and grade levels of the students (in proper sequence) into account, students would have had even less time to learn the health topics. In other words the better the topics are integrated, the less time they take to grasp the lessons. This means, if students had been introduced to topics earlier in their simplest form in one subject, it would have been easier to learn them in another subject or it would have been easier for them to proceed to more complex concepts.

Another major problem is the lack of teachers and students' interest in the subject. As explained before, Health Education is a subject that does not appear in the matriculation (as a subject). Thus teachers and students do not give emphasis to Health Education or health-related topics integrated into other host subjects. This results in lack of interest of students and teachers in the teaching and learning process. This could be as a result of the examination-oriented curriculum. The students and the teachers give more importance to the subjects, which will appear in matriculation - not to what students benefit from the health-related lessons.

From my observation; however, these are not the only problems. During the assessment, the first thing that needs mentioning is the cultural influence. In Eritrean culture, it is a taboo for example, to mention the genital organs in Tigrigna (one of the Eritrean languages). This highly inhibits students, especially the females, from discussing health issues related to STDs in particular and the human reproduction system in general. Female students feel shy to express or discuss such issues with boys. For example, when a teacher wants to explain that one of the methods of preventing AIDS is using condoms, s/he should tell the students how to use the condom. However, the female students usually do not feel at ease during demonstrations; as a result there is less girls' participation in the discussion than that of the boys.

The English teachers, although they have the language competence, did not teach the health-related topics deeply. They consider their main emphasis is teaching English and because of lack of training they taught them without going into sufficient details. In addition, the teachers could not exploit the teaching materials/teaching aids. During the lesson about "AIDS", for example, the teacher explained the preventive measures, among which one is using a condom. The teacher showed the students the male and female condoms but he did not show them how they are used. This could be related to the teachers' attitude towards teaching Health Education. They consider that the detailed explanation about health-related issues belong to some other teachers. The teachers could also be embarrassed about teaching Health Education - especially those aspects related to sexuality.

Another observation I made is that there was more boys' participation than that of the girls in the teaching/learning process. During the discussion on STDs, there were fewer girls participating, unlike the other health-related topics where there was more or less equal class participation among the boys and the girls. In addition, students in most cases did not take their own initiative except for a very few, to answer or ask questions. The teacher had to insist that they answer questions, and the questions or ideas for discussion were confined to those in the textbooks and to the teacher's guidance. As far as the teachers' differences in teaching the health-related topics is concerned, it cannot clearly be seen because I observed them while they were

teaching different topics and the ways they presented their respective topics varies as described in chapter 4 under section 4.4.

Yet another observation I made is that the textbooks consist of health-related topics, which are well designed to teach both Health Education and English. The English textbooks adopt the communicative approach of teaching throughout. This approach includes involving the students in activities such as group discussion, role-playing, demonstration etc. The health-related topics though they are designed to teach English, also deal with health issues. They have exercises that encourage students to take part in group discussion, exchange ideas, communicate with each other and to express their attitudes and feeling with regard to health related issues such as HIV/AIDS. However, teachers are not well trained in how to manage these topics.

4.7. The Status of Teachers' Training and Ongoing Teacher Development

Teachers' training, both pre-service and in-service, is one of the major factors in successful school Health Education programmes. Education and training are important to inspire and equip teachers with knowledge and skills to make the curriculum exciting and essential. Such training should also include activities to promote the teachers' own positive health behaviours to enhance their role as models for what they are imparting in the Health Education curriculum. Ongoing support to teachers and monitoring of performance is necessary for quality teaching, as is granting teachers of Health Education equal status to teachers of academic subjects.

Teachers' pre-service training does not equip them with the knowledge which enables them to teach for a lifetime in their career. In this regard, Bagwandeen and Louw (1993:1) say,

> A teacher's education does not end with his departure from the university or college of education. As long as knowledge about education continues to evolve and new techniques and devices are established, there will be something new for the teacher to learn regardless of his qualification or years of experience.

The above quotation tells us that although teachers acquire knowledge which enables them to prepare for their future career and effectively play their roles and responsibilities, this does not mean this training is once and for all. Taylor (1982:24 as cited in Bagwandeen and Louw, 1993:2) indicates, "It has been stated repeatedly over a long time that initial training cannot provide 'the fuel and supplies' that a teacher needs for a life-long journey." Training can also be taken for professional development and the reasons for undertaking professional development can be:

- To improve the performance skills of the whole staff or group of staff
- To improve the jobs performance skills of an individual teacher
- To extend the experience of an individual teacher for career development or promotion purpose
- To promote the professional knowledge and understanding of an individual teacher
- To extend the personal or general education of an individual etc. (Craft, 2000: 9).

Teachers need continuous training and ongoing teacher development in order to update their knowledge and familiarise themselves with innovations and cope with an ever-evolving world. When we look at this in an Eritrean context and the integration of Health Education into English, it is quite different. Experienced teachers, as we have seen in the previous chapter, teach health-related topics. However, these teachers did not take any training or orientation on how to deal with these topics.

In the teachers' responses in regard to whether they took training or orientation and the problems they face in teaching health-related topics, there are some contradictions. In their responses they told me that they did not take any orientation on how to teach health-related topics. It would seem that they were teaching these topics unconsciously or unintentionally, assuming themselves that they were teaching only English. On the other hand, almost all the teachers said that they did not face any problem in managing health-related topics. If a new curriculum, like the integration of Health Education into English in the Eritrean context is introduced, I think there will be a need for training. Otherwise they will face problems in implementing the curriculum integration programme introduced by the government.

Cane (1971: 134 as cited in Bagwandeen and Louw, 1993:2) also substantiates the need for training as follows: "...the working life of a teacher is seen to encompass not one, but a host of major revolutions in education practice, so that pre-service teacher education cannot provide more than an introduction to professional work." This will help to acquaint teachers with the new situation, but if teachers are not updated through in-service training, by giving workshops or seminars about new innovations, there will be problems. These problems include lack of in-depth knowledge or the necessary information about a certain topic, lack of the better ways of teaching lessons, lack of classroom management, etc. In short training teachers and ongoing teacher development increase their performance and it enhances the teaching and learning process. In regard to this Lithwood and Montgomery, as cited in Theron (1996: 140) state that change in schools does not succeed if teachers:

- Have inadequate knowledge and information concerning the professional changes;
- Have not all had identical professional training;
- Have not been exposed to in-service training relevant to the proposed changes,
- Do not grant staff the opportunity to participate in and influence the planning of changes;
- Fail to recognize the autonomy of the staff.

4.8. Conclusion

The research has been conducted in one region, particularly in one school, and this cannot represent all the schools in Eritrea. However, from the research findings I could at least guess the trend of the extent of the implementation of curriculum integration programme. I was also able to see to what extent the English teachers are conscious about Health Education or health-related issues. They did not fully recognize that English contributes to the teaching and learning of Health Education/health-related topics although they are aware of the importance of Health Education in general.

In conducting my research, what impressed me is that teachers were not aware that they were teaching Health Education in an English class because they did not take any training or orientation about how to teach Health Education by integrating it into

English. However, after my contact and interviews with them, when I went for classroom observation, every teacher was conscious about Health Education/health-related topics and tried to present the topics in an interesting way. However, there were still limitations such as shortage of time to discuss the topics in detail, integrating this with students' daily lives. From this I would conclude that teachers can implement the integration of Health Education /health-related topics into English if they are given adequate training /orientations and have sufficient time.

On the other hand, when I see the data collected in general, there is a discrepancy between what the respondents said and what really happened on the ground. What the teachers said in my first meeting with them and in their interview and what actually happened in the classroom contradicts. Moreover, what teachers said and what the focus group said varies. One reason for this could be the limitation of observation as a data collecting technique. When people are being observed, it might well be that they do not reveal their real behaviours or characteristics. "A subject who knows he [s/he] is being observed may intentionally attempt to create favourable or unfavourable impressions" Turney and Robb (1971:144). Another reason for the variation could be because different factors affect the implementation of any new curriculum in general and curriculum integration in particular. These could be political, social, economic etc and these are beyond the scope of this mini-thesis. However, this mini-thesis can offer the suggestion of the need for further large-scale research.

In this chapter, in order to help me analyse the data collected using interview, observation, and document analysis, I classified the chapter into six themes. These are: the contribution of English to Health Education, emphasis given to Health Education, strategies employed in teaching Health Education, problems that teachers face teaching Health Education, level of integration of Health Education into English and the need of teachers' training. Data, which refer to each theme, were analysed qualitatively taking the views of teachers, students, and people from National Curriculum Department, the data collected from observation and document into consideration. All data collected using the three techniques were cross-checked under each theme during the data analysis.

In the next chapter, the summary, conclusion and recommendations will be addressed.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This research has aimed at evaluating the integration of Health Education into English in Eritrean secondary schools. In doing this, I suspect that there is a mismatch between what the government says about Health Education at a macro level, what teachers do at school level and what students learn about Health Education or health-related issues. This gap can be addressed by investigating what the officials at National Curriculum Department, teachers and students say about the status of Health Education in the six themes explained in Chapter 4. It can also be addressed by assessing the similarities and differences of each respondent and the reasons for the variations.

Moreover, I suspect that the National Curriculum Department, the teachers and the students themselves do not give due emphasis to Health Education. The people in the National Curriculum Department consider that it is being taught in the secondary schools. However, they did not have curriculum policy, " a written statement of rules, criteria and guidelines intended to control curriculum development and implementation" (Glatthorn, 1987: 2). They believe that what is written in the textbooks is enough as a document to ensure that the teachers teach the curriculum (Health Education as in our case).

In addition to this, English teachers consider that they are supposed to teach only English. They give less emphasis to Health Education/health-related topics. They focus on the grammar and other language items instead. They consider the integrated themes as an additional load over and above what they should teach and they become resistant towards implementing them. The English curriculum during the Ethiopian regime was prepared in a traditional method (grammar method) and most teachers

learnt English using this approach. Now, since there is no teacher development to help them implement the new curriculum, the only thing they can do is to stick to the approach they themselves learnt.

The Eritrean curriculum is an imposed curriculum where its stakeholders did not take part in its design and development. However, if a curriculum or educational change is developed without the participation of its change agents, finally it will not be successfully implemented. In this regard, Fullan and Hargreaves, 1992:22-23) say,

> Teachers should support the educational policy. Educational policy that is not supported by teachers usually ends up as change for the worse or as no real outcome at all. In the end, it is the teacher in his/her classroom who has to implement and bring about improvement where educational outcome is considered; the teacher is clearly the key. Policy formulation that neither understood nor involves the teacher is therefore likely to be policy that fails.

I also feel that teachers were not given orientation/training about how to teach or integrate health-related issues in an English class and that they did not even know that they were doing it. Thus, the teachers need assistance to teach Health Education or health-related topics in an English class effectively or to integrate Health Education into English and other subjects because I believe that without ongoing teacher development it might be difficult for teachers to implement the intended curriculum. As Widdowson (1990:129) says,

> The main purpose of syllabus reform is to alter the perspectives of teachers, shift their customary point of reference and provide them with different sets of guidelines. Unless teachers clearly understand that principles inform these guidelines and how they can be acted upon by means of appropriate methodology, which promotes learning activities, then the new syllabus proposals are likely to remain in the region of wishful thinking and pious hope.

If the syllabus is to be reformed there should be a simultaneous process, which should enable the teachers to change their attitudes towards the new syllabus. They should first of all be informed about the curriculum policy by which they are expected to implement the changes into practice and this can be made possible through training. According to Fullan and Hargreaves (2000:21), "However noble, sophisticated, or enlightened proposals for change and improvement might be, they come to nothing if

teachers do not adopt them in their own classrooms and if they do not translate them into effective classroom practice." In other words, unless there is teacher and professional development and teachers are familiar with the educational change to be introduced, what is intended will remain only symbolic. Therefore, if the curriculum change or innovation is to be implemented effectively, there should be support in the form of ongoing teacher development because "the process of implementation is essentially a learning process. Thus, when it is linked to specific innovation, teachers' development and implementation go hand in hand" (Fullan and Hargreaves, 1992: 1).

The previous chapter dealt with data presentation and analysis. This chapter will deal with the summary of the theoretical aspects and the summary of the findings of the different types of data collected using different techniques, which have led me to draw certain conclusions. Finally, I will deal with the conclusions and recommendations.

5.2. Summary of Theoretical Aspects

As explained in Chapter 2, there are many different ideas about what constitutes curriculum integration. It is based on a holistic view of learning and recognises the necessity for learners to see varieties of important issues combined rather than being taught separately. It is a pedagogical approach which helps students to learn a small set of powerful, broadly applicable concepts, skills, and abilities instead of a large set of weak, narrowly applicable concepts, skills and abilities. It creates a situation where students learn together about a shared concern, and it enables them to see their interests in relation to others' interests. It also reinforces learning about diverse issues and opinions and makes learning relevant to real life situations.

On the other hand, curriculum integration has certain limitations. In Eritrean secondary schools, teachers might not have the expected impact on students because they are not sufficiently trained. Consequently, they are less likely to cover the necessary topics - especially the more sensitive topics such as HIV/AIDS prevention. Teachers spend less time on the integrated curriculum or integrated themes and they often overlook sensitive issues, which might make them feel uncomfortable and avoid

realistic situations that would personalise the risk of the young people. In other words, untrained teachers do not implement the integrated curriculum properly.

Another problem with curriculum integration is when the integration is subject-based. Subject-based integration is often fragmented and irrelevant to the real life situation or it could neglect essential learning skills or prove to be beyond the capabilities of the ordinary teacher to teach effectively. This means that if many subjects are integrated into one subject, teachers might not have the capacity to manage or teach all the subjects, especially if there is no teachers' development/training to support them in this regard.

There could also be lack of focus and therefore the flavour of the subjects may fade. Teachers who teach separate subjects are resistant to teaching integrated subjects because, being identified with their subject to such a degree, it is hard for them to 'look over the fence'. They consider it necessary to teach only the subject they studied. Therefore, another problem of implementing curriculum integration could be teachers' resistance to accept the integrated curriculum or the integrated themes because they were not adequately prepared to teach about these topics.

The notion of curriculum integration is not new in the Eritrean schooling system. As a teaching approach, it had been employed even before the independence of Eritrea - that is during the Ethiopian regime. However, its level of implementation was very low. In the English textbooks of that time, there were health-related topics such as 'Smoking', ' Food and Diet', 'Malaria' 'Leprosy' and ' The Medical Value of Honey' etc. integrated into English textbooks. These topics were meant to teach students to improve their reading skills, enrich their vocabulary and to raise their awareness on health-related issues. At that time, teachers did not take any training/orientation about how to integrate Health Education into English and the health-related themes were not given due emphasis.

The teachers (including myself) taught the reading passages (the skill of reading) without giving much emphasis to the health messages (the content of the text). However, unlike the new Eritrean textbooks, the Ethiopian textbooks were prepared in such a way that the traditional method of English teaching was practised. The

teachers had to speak more than the students do and this made the students passive listeners rather than active participants in the teaching and learning process. Moreover, the textbooks were designed with the agenda of the political dissimulation of the colonisers. It consisted more of political issues than other academic, economic, emotional and social issues.

In the recent curriculum of Eritrea, the English textbooks, similar to that of the Ethiopians, contain some health-related topics. However, unlike that of the Ethiopians, the textbooks are prepared in such a way that the teachers and students can employ the communicative approach of teaching/learning English. The communicative approach makes use of real-life situations that necessitate communication. In this approach, the teacher sets up a situation that students encounter in their daily lives and makes them use the language in order to communicate with each other.

Unlike the traditional approach of teaching, which relies on repetition and drills, the communicative approach can leave students in suspense as to the outcome of a class exercise, which will vary according to their reaction and responses. According to Larsen-Freeman (1986:131-32), "In the communicative approach, teachers need to establish student-centred classrooms in which students are seen as more responsible managers of their own learning." In this approach, students' motivation to learn comes from the desire to communicate in meaningful ways about meaningful topics.

Teachers in the communicative approach to classroom teaching will find themselves talking less and listening more. They are active facilitators of their students' learning. In this approach, students are encouraged to participate in the teaching/learning process; as a result they feel confident because of the responsibility given to them to express themselves during the interaction. This development of confidence is also an important dimension that students develop as a result of learning Health Education.

Students can learn useful health-related concepts in the English textbooks. They may get the opportunity to discuss these concepts or health-related issues. For example, in the topic 'AIDS and What I Believe', although the topic is mainly designed for teaching English, the HIV/AIDS themes have several exercises. They help the

students to take part in group discussions, to exchange ideas, share ideas with each other, and express their attitudes and feelings with regard to HIV/AIDS, including the eradication of the myths and misconception of AIDS. In this case, the language communication skills in the lessons could help the students to develop positive attitudes towards learning about health. This change in attitude towards Health Education will help them discuss health issues and encourage them to interact with peers, parents, teachers and their community.

In general, curriculum integration is a teaching approach, which is essential to both teachers and students. It enables them to develop a sense of collegiality and a habit of working collaboratively. This can be implemented more meaningfully if teachers engage in appropriate staff development, which would enable them to make more sense of what it is they are teaching, and to engage with why it is important for their students. Even the so-called experienced teachers need exposure to ongoing teacher development. Long years of working at the same job without updating your knowledge about new innovations in particular and the developing world in general does not result in any progress. As Fullan and Hargreaves (2000:19) say, "Spending year in and year out performing the same role is inherently deadening. Twenty years of experience doing the same thing is only one year of experience twenty times over." This is also true in an Eritrean context. As indicated in Table 2, the English teachers have long years of experience but they have never taken in-service training and this probably means that these teachers have been doing the same kind of job for many years without any change or reflection on their practice.

5.3. Summary of Findings

5.3.1. Contribution of English to Health Education

The findings revealed that there is no written document or curriculum policy at the macro-level that deals with the integration of Health Education or health related issues. Health related topics are included in the textbooks and there is no guide as to how to deal with the health-related topics or Health Education. As a result, teachers have no common understanding about why Health Education is integrated into English. They do not know the common characteristics of Health Education and

English and the relationship between language and teaching. As explained in the data presentation and analysis section, most of the teachers considered the importance of Health Education as the only reason why Health Education is integrated into English. They did not mention the relationship between language and learning.

5.3.2. Emphasis Given to Health Education

The time allotted to health-related topics is very little and teachers cannot go beyond that schedule because what teachers are expected to teach for the whole year is already pre-planned and teachers are expected to follow that annual plan. In other words, the health-related topics included in English textbooks are so few that they cannot help students to gain enough awareness about Health Education. English teachers also give more emphasis to the language items rather than the health issues included in the textbooks.

5.3.3. Teaching Strategies Employed

Even though the English teachers did not take any training or orientation on how to teach Health Education or health-related topics, all the teachers I observed (three of them) presented the topics in a fascinating way. They had applied the appropriate methods of teaching: group discussion, role play, demonstration, presenting lessons using teaching and learning aids, the Socratic Method (question and answer), humour and the lecture method. In other words, they had applied the communicative approach of teaching. They allowed the students to discuss health issues within the limited time they had and they presented the lessons in such an interesting manner that the students clearly understood the messages of the lessons. However, these were not their usual methods of teaching they used to employ; they did this because they knew that they were being observed.

5.3.4. Level of Integration

Health Education /health-related topics are not horizontally and vertically integrated, but they are included here and there in the English textbooks. As a result, there is no flow of concepts or ideas of what students learn in one grade and what they learn in the subsequent grade or grades. The relationship between what students learn about Health Education and what they learn in other subjects, which are taught in the same

grade level, is very loose. When we see the health-related topics taught in one grade level with those taught in other grade levels, almost no relationship between them exists. Moreover, as explained in Chapter 4, complex concepts which students cannot grasp easily at that grade level (Grade Eight) are included in the textbook. In other words, concepts, which are beyond the level of understanding of the students, are integrated into English in the lower secondary schools In contrast, simple but important concepts that should be taught in the lower secondary are taught in the higher secondary (10 and 11). In general, the curriculum designers and developers did not take the age and grade level of the students into consideration while designing and developing the curriculum.

5.3.5. Problems in Teaching Health Education

The findings revealed that one of the major problems in teaching Health Education or health-related topics is time constraints. Teachers do not get enough time to deal with these topics because the time allotted to the health related topics is little and because the overcrowded curriculum does not make it easy for them to take their own initiative to enrich the topics and the curriculum. In addition to this, the teachers are negatively influenced while teaching health issues such as reproduction and sexual intercourse. As the students (focus group) told me and from my own observation, some of the teachers are even shy to mention the genital organs let alone to discuss the reproduction process in detail. Another problem that hinders teachers from teaching health issues effectively is the lack of teaching/learning aids and the lack of detailed knowledge about Health Education. The teachers were not formerly trained to teach Health Education and they did not take any in-service training to update their knowledge about Health Education. Therefore, they lack detailed knowledge about health issues and the skills to teach Health Education/health-related topics in depth.

5.3.6. The Status of Teachers' Training and Ongoing Development

As far as the training (pre-service and in-service) is concerned, the teachers were exposed to neither pre-service nor in-service training on how to teach Health Education. Fullan (1993:289) says, "Educational change involves learning how to do something new. Given this, if there is any single factor crucial to change, it is professional development. In its broadest definition professional development

encompasses what teachers bring to the profession and what happens to them throughout their career." They had taken only the general methodology of teaching English and some of the teachers read magazines, newspapers, and follow TV programmes to update their knowledge about Health Education so that they can help students be conscious about health. However, this might not be possible for all the English teachers because most of the teachers do not have access to these - especially those who are working outside of the capital, Asmara.

In other words, for teachers - let alone those who did not take pre-service and in-service training/orientation - training is always necessary because pre-service training is not enough for the whole life of the teachers' career. As the world is continuously evolving, new innovations and complex ideas are rapidly coming forth. Therefore, to cope with the ongoing changes, lifelong learning is essential to update teachers' knowledge. According to Longworth and Davies (1996: 22), lifelong learning is "the development of human potential through a continuously supportive process which stimulates and empowers individuals to acquire all the knowledge, values, skills and understanding they will require throughout their lifetimes and to apply them with confidence, creativity and enjoyment in all roles, circumstances, and environments." Thus, to keep abreast with the world's development, new techniques of teaching are also needed to acquaint teachers with the new findings so that they will effectively help students to raise their awareness and develop positive attitudes towards learning Health Education or health-related issues.

5.4 Conclusion

Based on the findings from this study, it is clear that there is a gap between what the government (MoE) planned, what teachers do and what students learn about health related topics. Consequently, this gap affects the teaching and learning of integrated health-related themes in an English class. From the data obtained from the people in the National Curriculum Department, teachers, students and the theoretical information, I have come to draw the following conclusions:

At macro-level, the government did not provide curriculum documents, which teachers could use as point of reference as to whether curriculum integration is implemented or not and how teachers can manage the integrated curriculum in class. Consequently, teachers did not have a common understanding as to why Health Education is integrated into English. In other words, they do not recognize the relationship between English and Health Education and languages and teaching.

Health Education is a multi faceted subject. It affects every aspect of our life. It enables students to acquire health-related knowledge, which in turn enables them to secure a good lifestyle. It also enables them to perform better and to be productive citizens. However, the MoE has not given due emphasis to Health Education. The MoE has not included enough health-related topics and has not allotted enough time for discussion of the topics in the textbooks. Not training teachers on Health Education or on how to teach Health Education in an English class also indicates that due emphasis has not been given to Health Education. This in turn has led teachers not to give emphasis to Health Education in their own initiatives.

From the data obtained from the officials in the National Curriculum Department, and teachers' interviews and document analysis, Health Education/health-related topics are not horizontally or vertically integrated and they are not sequenced from simple to complex. They are sparsely spread in the English textbooks; students were not able to trace the flow of ideas or the themes, and they some times failed to understand the health messages. They were not able to acquire enough knowledge about Health Education or health-related topics, which would enable them to familiarise themselves with necessary guidelines to lead them to healthier and safer lifestyles.

All the teachers have not taken any pre-service or in-service training/orientation related to dealing with health related topics. The English teachers, however, consciously or unconsciously, are teaching the topics. They are doing this because they find the topics in the textbooks and as they are part and parcel of the English curriculum, they have to cover them. Therefore they urgently need in-service training/ orientation that will empower them and their students to familiarise themselves with health-related issues and make decisions about their lives on these issues.

Davidoff and Lazarus (1997:137) elaborate the need for teachers and staff development as follows:

> Every teacher comes to school with specific knowledge and skills. However, teachers' learning does not end when they start teaching – in fact this is probably their richest learning time of all! Without ongoing progammes and process to encourage and support staff development, schools become out of touch with educational trends and teachers lose a sense of renewal and inspiration which is such an essential part of meaningful education (both for themselves and for the students).

As far as the English teachers in Eritrean secondary schools are concerned, there are no refresher or renewal courses given from the time that they were employed and from this I dare say that these teachers cannot perform their jobs as effectively as they might have had they had the necessary orientation and ongoing support.

5.5. Recommendations

As stated earlier, the purpose of the mini-thesis is to evaluate the status of Health Education in Eritrean secondary schools and from the data obtained and the conclusions drawn, the following recommendations are given:

In the first place, when curriculum is developed, there should be a written document or policy at a macro-level that deals with its development, implementation and evaluation mechanisms. There should also be at least a guideline, which directs the teachers as to how a new curriculum is to be implemented even though there is no specific rule on how to implement a new curriculum. As explained earlier, curriculum implementation is influenced by different factors so it cannot be controlled or predetermined. However, there could be support for teachers on how they can handle situations and tackle problems while interpreting a new curriculum.

Secondly, teachers do not have a shared understanding on why Health Education is integrated into English. However, they should learn that English and Health Education share common characteristics and that language facilitates the learning of other subjects. In order to do this, teachers should be informed as to why Health Education or health-related topics are integrated into English before they start the job and later continuing professional development should be provided.

Third, the MoE, teachers, and students should give due emphasis to Health Education/health related topics. The MoE or CDD should also allot enough time to heath education/ health related topics and they should provide detailed information on why Health Education/health related topics are integrated into English and Biology. Moreover, teachers should be familiar with the methodological aspects that should be employed to teach Health Education so that teachers will be conscious and give due emphasis to it.

Fourth, teachers should be encouraged to take their own initiative and integrate health issues, which they feel are important for students at each grade level, while teaching English. As the topics included are few, teachers should go beyond the range given in the textbooks. However, before this, the MoE (CDD) should improve the overcrowded curriculum and teachers should get time and space to go beyond the material prepared and take their own initiative to enrich the curriculum. This implies having a less top-down approach to curriculum development (from the MoE), and creating an educational space where teachers are encouraged to respond more immediately and spontaneously to the needs of the students.

Fifth, teachers should try to overcome the 'backward' tradition such as not openly talking about sex, considering mentioning or talking about genital organs as taboo, etc because they hinder the teaching /learning process in particular and the progress of society in general. For example, if teachers are teaching about STDs, demonstrating the use of a condom using a wooden penis, etc, they should be free of shyness or of embarrassment. If they feel so and if they feel uncomfortable, they should acknowledge their embarrassment. Then they should encourage their students to discuss such sensitive issues.

Sixth, as the information gathered from the informants revealed the health-related topics integrated into English are not adequate for secondary school students. Therefore, the MoE should include additional topics so that the students can have a better understanding of the health-related themes. Moreover, the topics should match with the students' age and grade level. Students should start from the basic safety measures and proceed to higher-level or complex concepts. In other words, the health-related topics should be horizontally and vertically integrated into the subjects

throughout the span of the secondary schools, and appropriate to the stage of development of the students

Lastly, as teachers should be the developers and those who put the curriculum into practice, the government or the MoE should train its teachers and acquaint them with the health issues in their pre-service and in-service training or teacher development programmes for whatever new things are introduced. For example, if a government introduces a new curriculum, adopts new teaching methodologies or new subjects and even if it makes formative changes to its existing curriculum, teachers should be updated. In other words, relevant teacher training should be given so that teachers can cope with the ever-changing world and ever-changing approaches to education. Fullan and Hargreaves (1994:4) as quoted in Davidoff and Lazarus (1997:137) say, "Improving teachers and schools is the key to improving pupils." Therefore, if students' knowledge about Health Education is to be improved, teachers should be well acquainted with the necessary information and should be given adequate training about the new curriculum in general and Health Education or health-related topics in particular and the government should provide a conducive teaching/learning environment.

The main shortcomings of the Eritrean curriculum emanate from the lack of participation of its change agents: teachers, students and community in the curriculum development process. As Carl (2000:17) says, " The teacher will not be only a subject specialist but also be able to consider and be involved in general curriculum aspects." Therefore, in order to implement the new curriculum effectively, the teachers should be empowered and get space to participate in the curriculum development process. He further elaborates the place of teachers in curriculum development as follows:

> It is important that those who are involved in the implementation of successful curriculum development should play an active role from the designing and planning thereof to the evaluation aspects. The teacher here occupies a prominent position or rather he [sic] should occupy it, as he [sic] will be the implementer of the relevant curriculum (ibid.: 244).

When there is curriculum change, not only teachers', but also students' participation should be taken into account.

> If we are to be true to the real principles of curriculum reform – 'pupil-centred', a 'negotiated' curriculum, transforming the experience of pupils – then we have to consider the part pupils play in curriculum change. One reason why we fail to root new pedagogies in sustained classroom practice is, I think, because we underestimate the force for conservatism that pupils can represent (Rudduck, 1991:30).

Marsh (1993:32) also substantiates the above idea relating to secondary school students.

> Students, especially at the secondary level, are already participating in leadership positions such as sporting clubs, leisure groups, religious organisations and clubs. These students have already developed effective leadership and communication skills therefore they have the potential to be effective participants in the curriculum-planning activities.

From the above explanation we understand that teachers and students should have a place to play their roles in the curriculum development process if the curriculum is to be relevant and implemented properly. However, in Eritrea the participation of teachers and students as explained earlier is insignificant. As teachers are main agents who know the needs and interests of the students, and students are the beneficiaries, they should be far more involved with the process of developing the curriculum.

Even though the study is limited to one geographical area, it can at least give us some indication of the status of Health Education in Eritrean secondary schools. The study has also revealed issues that need further investigation. As there are no explicit guidelines to facilitate the implementation of the integration of Health Education, and if Health Education in general and the integration of Health Education in particular, are to be improved, further research should be conducted to guide all sectors of education on how to act cohesively in the development of a national policy of Health Education. Moreover, research should be conducted on how teachers can be prepared for teaching Health Education and develop guidelines on how Health Education can be implemented and supported institutionally. In other words, considering that the integration of Health Education into English is not fully implemented, further research is needed on how the integrated curriculum is developed and put into practice and how teachers manage this programme effectively.

Bibliography

Adams, R. (1978). *Educational planning: towards a qualitative perspective.* Paris: UNESCO.

Armstrong, D. (2003). *Curriculum today*. Columbus, Ohio: Merrill Prentice Hall.

Babbie, E. (1998). *The practice of social research*. London: Wadsworth.

Bagwandeen, D. and Louw, W. (1993). *Theory and practice of in-service education and training for teachers in South Africa*. Pretoria: J.L. Van Schaik Publishers.

Bariagabir, T. (1998). *The issue of language and education in Eritrean primary education system.* Unpublished. Asmara

Barnes, D. (1990). Language in the secondary classroom. In Bright, W. (ed.), *Language in society*, 22 (2): 4. Oxford: Oxford University Press.

Baumgartner, T. and Strong, C. (1998). *Conducting and reading in health and human performance.* New York: McGraw-Hill.

Beane, J. A. (1995). *Toward a coherent curriculum.* The 1995 ASCD year book. Alexandria, Virginia: Association for Supervision and Curriculum Development.

Bell, J. (1993). *Doing your research project: a guide for first-time researchers in education and social science*. Buckingham: Open University Press.

Bell, J. (2001). *Doing your research project: a guide for first-time researchers in education and social science.* Philadelphia: Open University Press.

Berg, B. (2001). *Qualitative research methods for social science*. California: Allyn and Bacon.

Bergess, R. (1984). *Strategies of educational research: qualitative research.* London: The Falmer Press.

Blaxter, L.; Hughes, C, and Tight, M. (1997). *How to research*. Buckingham: Open University Press.

Carl, A. (2000). *Teacher empowerment through curriculum development: theory into practice*. Cape Town: Juta and Co, Ltd.

Carr, W. and Kemmis, S. (1986). *Becoming critical: education, knowledge and action research*. London: The Falmer Press.

Cohen L. and Manion, L. (2000*). Research methods in education. London:* The Falmer Press.

Corson, D. (1990). *Language policy across the curricula*: *clevendon.* Philadelphia: Multilingual Matters.

Craft, A. (2000). *Continuing professional development: a practical guide for teachers and schools.* London and New York: Routledge.

Crossley, M. and Vulliamy, G. (1994). Issues and trends in qualitative research: potential for developing countries. *International journal of educational development*, 16 (4), 439-448.

Davidoff, S. and Lazarus, S. (1997). *The learning school: an organisation development approach.* Cape Town: Juta and Co, Ltd.

Denscombe, M. (1998). *The good research guide: for small-scale project.* Buckingham: Open University Press.

Denscombe, M. (2000). *The good research guide: for small-scale project.* Buckingham: Open University Press.

Denzin, N. and Lincoln, Y. (1998). *Collecting and interpreting qualitative materials*. California: Sage Publications.

Denzin, N. K. and Lincoln, Y.S. (1994). Strategies of inquiry. In. Denzin, N.K and Lincoln Y.S. (eds), *Handbook of qualitative research.* Thousand Oaks, Ca: Sage: 500-515.

Downie, C.; Tannahill, R. and Tannahill, C. (1996). *Health promotion models and values.* New York: Oxford University Press.

Ehlers, V. (2002). *Teaching aspects of health care.* Cape Town: Juta and Co. Ltd.

Elliot, J. and Place, M. (1998). *Children in difficulty: a guide to understanding and helping*. London: Routledge.

English Panel, Curriculum Development Division (2002). English syllabus development survey. Unpublished. Asmara: English Panel.

English Panel, Curriculum Development Institute (1995). *English for Eritrea Grade Eight textbook.* Asmara: Adulis Printing Press.

Ewles, L. and Simnet, I. (2000). *Promoting Health Education: a practical guide.* London: Scuari Press

Farley, P. (1981). The contribution of English to Health Education. In Cowley, J.; David, K. and Williams, T. (eds), *Health Education in schools*. London: Harper and Row, Publishers: 170-175.

Fullan, M. (1993). *The meaning of educational change.* London: Cassel Educational Limit.

Fullan, M. and Hargreaves, A. (1992). *Teacher development and educational change*. London: Falmer Press.

Fullan, M. and Hargreaves, A. (1992). *What's worth fighting in your schools?* Buckingham: Open University Press

Fullan, M. and Hargreaves, A. (2000). *What's worth fighting for in your schools?* Bristol: Open University Press in association with Ontario Public School Teachers Federation (OPSTF).

Further Education Unit (1994). Towards a framework for curriculum development. In Preedy, M. (ed.), *Approaches to curriculum management.* Milton Keynes: The Open University Press: 28-37.

Gall. M. D. (1996). *Educational research: an introduction.* New York: Longman.

Gay, R. (1981). *Educational research: competencies for analysis and application.* Toronto: Charles E. Meriel

Gherahtu, T. (1999). *Language policy and practice: national curriculum perspectives and changes in Eritrea* (unpublished). Eritrea: Asmara

Glatthorn, A. A. (2000). *The principal as curriculum leader: shaping what is taught and tested.* California, Thousand Oaks: Corwin Press, INC.

Glatthorn, A. A. (1987). *Curriculum renewal.* Alexandria, Virginia: Association for Supervision and Curriculum Development

Gottesman, L. (1998). *To fight and learn: the praxis and promise of literacy in Eritrea's independence war.* Lawrenceville: The Red Sea Press.

Hammersley, M. (1999). *Educational research: current issues.* London: The Open University Press.

Hicks, R. (1997). *English for Eritrea: Grade Ten textbook.* Asmara: Adulis Printing Press.

Hicks, R. and Tewolde, Y. (1997). *English for Eritrea: Grade Nine textbook.* Asmara: Adulis Printing Press.

Hills, P. (1985). *A dictionary of education.* London: Rouledge and Kegan.

Hopkins, D. (1995). *A teacher's guide to action research.* Milton Keynes: Open University Press.

Hull, T. (1981). The contribution of biology to Health Education. In Cowley, J.; David, K.; and Williams, T. (eds), *Health Education in schools.* London: Harper and Row, Publishers: 136-152.

Ingram, J. B. (1979). *Curriculum integration and lifelong education: a contribution to the improvement school curricula.* UNESCO Institute for Education: Pergamon Press.

Jacobs, .H. H. (1989). *Interdisciplinary curriculum: design and implementation.* Alexandria, VA: Association for Supervision and Curriculum Development

Jacobs, M. (2000). Curriculum. In Lemmer, E. (ed.), *Contemporary education: global issues and trends*. Sandton: Heineman Higher and Further Education Ltd: 96-125.

John, H. (1984). Principles of Health Education: *British medical journal*, 289: 1054-1056.

Johnson, D. (1994). *Research methods in educational management*. London: Longman.

Kane, E. (1996). *Girls' education in Eritrea: in five provinces of Eritrea.* Asmara: MoE and UNICEF.

Kane, E. and Brun, M. (2001). *Doing your own research: choosing your techniques and strategies*. London: Marion Boyars.

Kelly, A. (1982). *The curriculum: theory and practice.* London: Harper and Row Publishers.

Kelly, A. (1989). *The curriculum: theory and practice*. London: Paul Chapman Publishing.

Larsen-Freeman, D. (1986). *Techniques and principles in language teaching.* Oxford :Oxford University Press

Lewy, A. (1977). *A handbook of curriculum evaluation.* New York: Longman.

Longworth, N. and Davies, W. (1996). *Lifelong learning: new visions, new implications, new roles for people, nations and communities in the 21st century*. London: Kagan Page Limited.

MacDonald, M. and Green, L. W. (1994). Health Education. In Hussen, T. and Postlethwaite, T. (eds),*The international encyclopedia of education.* Oxford: Kidlington.

Marsh, C. (1993). *Key concepts for understanding curriculum.* London: The Falmer Press.

Marsh, C. (1997). *Planning, management and ideology: key concepts for understanding curriculum*. London: The Falmer Press.

McBrien, J. and Brandt, R. (1997). *The language of learning: a guide to education terms*. Alexandria, VA: Association for Supervision and Curriculum Development.

McNiff, J.; Lomax, P. and Whitehead, J. (2000). *You and your action research*. London and New York: Routledge.

Mertens, D. M. (1998). *Research methods in education and psychology: integrating diversity with quantitative and qualitative approaches*. Thousand Oaks: Sage Publications

Ministry of Education (1995). *The development of education: national report*. Unpublished paper. Asmara: Ministry of Education.

Ministry of Education (1997). *Regulations concerning students' discipline*. Unpublished. Asmara: Ministry of Education.

Ministry of Education (1998). *English for Eritrea grade eight English teachers' guide*. Asmara: Adulis Printing Press.

Ministry of Education (2000). *Education brief*. Unpublished. Asmara: Ministry of Education.

Ministry of Education (2003). *Concept paper of the rapid transformation of Eritrean educational system*. Unpublished. Asmara: Ministry of Education.

Ministry of Education, Curriculum Development Division (1995). *General orientations on the Eritrean curriculum*. Unpublished paper. Asmara: Ministry of Education.

Ministry of Education, Department of General Education (1997). *Instructional planning*. Unpublished paper. Asmara: Asmara Teachers' Training and Supervision Unit.

Mouton, J. (1996). *Understanding social research*. Pretoria: Jl Van Schaik

Muffoletto, R. (1993). *School and technology in democratic society: equity and social justice*. Paper presented at annual Conference of the Association for Educational Communication and Technology. New York, LA. January, 1993:1- 4

National Association of Secondary Principals, Curriculum Report (1998). VA: National Association of Secondary Principals, 28:1-2

Neuman, W. L. (2000). *Social research methods: qualitative and quantitative approaches*. Boston: Allyn and Bacon.

Nunam, D. (1992). *Research methods in language learning*. Cambridge: Cambridge University Press.

Orstein, A. and Hunkins, F. (1993). *Curriculum: foundation, principles, and theory*. Boston: Allyn and Bacon.

Paice, E. (1994). *Guide to Eritrea*. London: Bradt Publication.

Patton, M. (1987). *How to use qualitative methods in evaluation*. London: Sage Publications.

Payne, J. (2001) *Creating integrated curriculum.* Available at http://artsedge.kennedy_center.org/professionalresources/

Perkins, D. (1991). Educating for insight. *Educational leadership*, 49 (2): 4-9

Preedy, M. (2001). Curriculum evaluation. In Middlewood, D. and Burton, N. (eds), M*anaging the curriculum.* London: Paul Chapman Publishing: 89-103.

Print, M. (1999). *Curriculum design and development*. Sydney: Allen and Unwin.

Quina, J. (1989). *Effective secondary reaching: going beyond the bell curve*. New York: Harper and Row Publishers.

Read, D. (1997). *Health Education: a cognitive-behavioural approach*. London: Jones and Bartlett Publishers.

Reid, K.; Hopkins, D. and Holly, P. (1994). Beyond the Sabre-toothed curriculum. In Preedy, M. (ed.), A*pproaches to curriculum management.* Milton Keynes: The Open University Press: 105-125.

Rena, R. (2003). *Eritrean education: historical perspective*. Unpublished. Asmara: Asmara Commercial College.

Robson, C. (1995). *Real world research: a resource for social scientists and practitioner-researchers*. Oxford: Blackwell Publishers Ltd.

Robson, C. (1997). *Real world research: a resource for social scientists and practitioner-researchers*. Oxford: Blackwell Publishers Ltd.

Rose, R. and Grosvenor, L. (2001). *Doing research in special education: ideas into practice*. London: David Fulton.

Scott, D. and Usher, R. (1999). *Researching education data, methods, and theory in educational enquiry*. London: Cassel.

Seidman, I. E. (1991). *Interviewing as qualitative research: a guide for researchers in educational and social sciences*. New York: Teachers College Press.

Shoemaker, B. (1989). Integrative education: a curriculum for twenty-first century. *Oregon school study council*, 33 (2): 1-5.

Silverman, D. (2000). *Doing qualitative research practical handbook.* London: Sage Publications Ltd.

Smith, D. and Lavat, J. (1991). *Curriculum: action on reflection.* Sydney: Social Science Press.

Spring 4Health (1999). *Integrating Health Education.* Available at http://www.directon.net/spring4page3.htm

Taye, A. (1991). *Historical survey of the state of education in Eritrea.* Asmara: Ethiopian Material Production and Distribution Agency (EMPDA).

Teklehaimanot, B. (1996). Education in Eritrea during the European colonisation period. *In Eritrean studies review,* A semi-annual publication of the Eritrean studies Association. Spring 1(1): 1-2. Lawerenceville, New Jersey: The Red Sea Press.

Theron, A. M. (1996). Change in educational organisations. In van der Westhuizen, P. C. (ed.), *Schools as organisations.* Pretoria: Van Schaik Publishers: 135-170.

Tilford, S. and Tones, K. (1994). *Health Education: effectiveness, efficiency and equity.* London: Chapman and Hall.

Travers, M. (2001). *Qualitative research through case studies.* Thousand Oaks, California: Sage Publications.

Turmey, B and Robb, G. (1971). *Research in education: an introduction.* Hinsdale: Dryden

UNESCO (2000). *Science and technology: promoting health in schools.* Paris: UNESCO.

USAIDS (1997). *Learning and teaching about AIDS at school: technical update.* Geneva: USAIDS.

Verma, G. and Mallick, K. (1990). *Researching education perspectives and techniques.* London: The Falmer Pres.

Vulliamy, G., Lewin, K. and Stephens, D. (1990). *Doing educational research in developing countries.* London: The Falmer Press.

Wallace, M. J. (1993). *Training foreign language teachers: a reflecting approach.* Cambridge: Cambridge University Press.

Warhurst, J.; Grundy, S.; Laird, D. and Maxwell, T. (1994). In Hatton, E (ed.), *Understanding teaching: curriculum and the social context of schooling.* Sydney: Harcourt Brace Company: 167-180.

Wellington, J. (2000). *Educational research: contemporary issues and practical approaches*. London: NewYork Continuum.

Widdowson, H. G. (1990). *Aspects of language teaching*. Oxford: Oxford University Press.

Wiles, J. and Bondi, J. (1993). *Curriculum Development: A Guide to Practice.* New York: Macmillan.

Wolcott, H. F. (1990). *Writing up qualitative research*. Newbury Park, CA: Sage.

World fact book (2002). *Eritrea: people*. Available at htt//www.ciagov/cia/publicatio/factbook/geos/er.html

Wright, M. (2001). More than just chanting: multilingual literacies ideology and teaching in rural Eritrea. In Street, B. (ed.), *Literacy, and development: ethnographic perspectives*: 61-77.

Yin, R. K. (1994). *Case study research: design and methods.* Bevery Hills, CA: Sage.

Yin, R. K. (1989). *Case study research: design and methods*. Newbury Park: Sage.

Appendix A

Interview questions for the Head of English Panel

1. How long have you been working in the English Panel?
2. What is you role in the panel?

3. The English Panel has introduced health-related topics like 'Food and Diet', 'AIDS and What I Believe' etc in the English syllabi. What is the aim of integrating these topics into English?

4. How do you think the English teachers interpret these topics into practice? Have they taken any training on how to deal with the health-related topics?

5. Do you think English teachers give due emphasis to the health-related topics?
6. What problems do you think English teachers face while teaching health-related topics in an English class?

7. How are the health-related topics selected to be presented the way they are in the English syllabi? Who selects them?

8. In the recent past, the English Panel has made formative change in the English syllabi. Do you think the teachers have discussed on the health-related topics? If your answer is yes what changes are made?

9. As head of the English Panel, what things have been done for English teachers on how to deal with such topics in particular and curriculum integration in particular?

10. In what ways do you think the integration of Health Education into English will fully be implemented?

11. Other comments

Appendix-B

Interview questions for teachers

1. How long have you been teaching English in secondary schools?
2. Health related topics such as Food and Diet, HIV/AIDS, etc are included in English syllabi in Eritrean secondary schools. Why do you think the MoE integrated these topics into English?

3. How do you teach these topics in an English class or what strategies do you use to teach these health-related topics?

4. What problems do you face in integrating Health Education into English or what problems do you face in teaching Health Education in an English class?
5. Have you ever taken any training or orientation on how to integrate Health Education in an English class?

6. How much time/ space do you give to Health Education while teaching Health Education or in other words do you give due emphasis to Health Education while teaching English?
7. Do you think English teachers help students to learn Health Education in secondary schools or do you think English teachers contribute much in teaching Health Education?
8. To what extent do you think students are learning about Health Education in an English class?
9. Do you think the health-related topics are well graded? Do they match with students' age and grade level? Or in other words do they have consistency?

10. What do you suggest will help teachers to fully implement the integration of Health Education into English?
11. Do you have any other comments you want to add?

Appendix-C

Interview questions for students

1. Do you learn Health Education or health related topics in your secondary school?

2. In what subjects do you learn these health-related topics?

3. Why do you think the government integrated these topics into English?

4. How do your English teachers teach you health-related issues? Or what strategies do they use in order to teach health-related issues?

5. Do your English teachers give due emphasis to Health Education or health-related issues?

6. What problems do you face in learning Health Education or health-related topics?

7. Do you think the health-related topics included English are enough?

8. Do you think the health-related topics included in English textbooks are relevant and match to your age and grade level?

9. What do you suggest for better teaching/learning of Health Education /health-related topics in secondary schools?

10. Other comments or suggestions

Appendix D

Recommended Weekly Lesson Plan Format

1	Preliminary Details School---------- Semester: ---------- Academic year: ---------- Grade and Section: ---------- Subject: ---------- Periods Per week: ----------
2	Chapter/ Unit
3	Topic: Sub-topics:
4	Lesson objectives:
5	Teaching/Learning aids:
6	Teaching/learning activities: a. Introduction: b. Development/presentation: c. Conclusion:
7	Evaluation: lesson's/teachers'/students'

Source: MoE, Department of General Education (D.G.E.), Asmara, July 1997

Appendix F

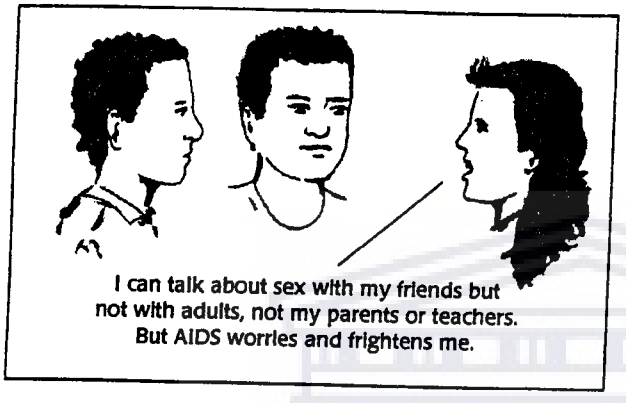
Sample health-related topics (Grade Eight and 10)

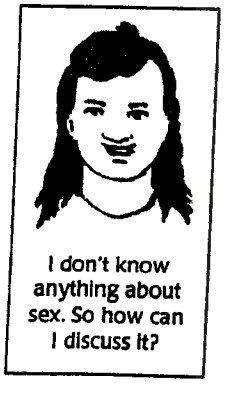
Unit 8 AIDS and what I believe

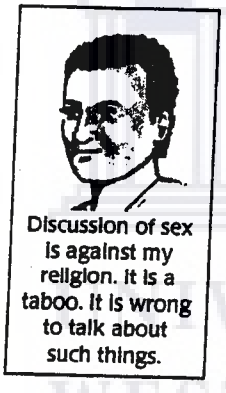
Part 1 Let's discuss

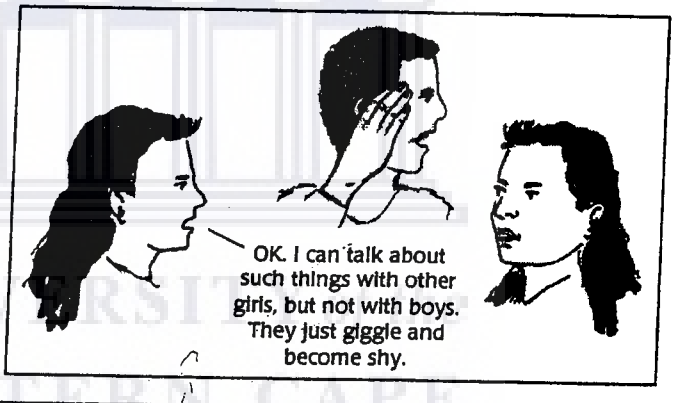
Exercise 1 Discuss

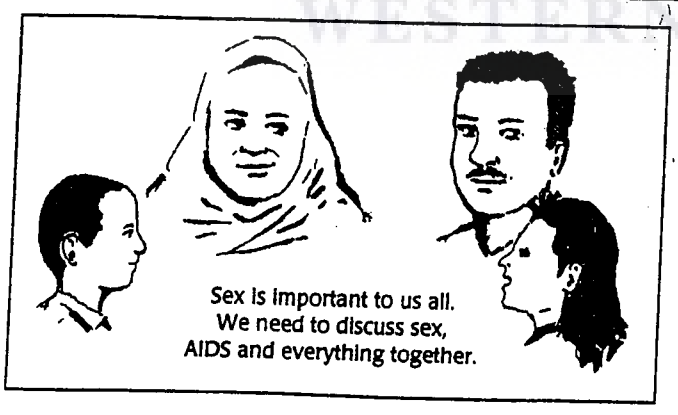
a. Which of these people do you agree with?











Exercise 2

a. Describe each of the people in Exercise 1.
b. Describe your feelings when you talk about AIDS or sex.

Vocabulary

Use these words to describe the people and yourself:

shy, embarrassed, outspoken, rude, silly, brave, innocent, sensible, serious, immoral, moral, wrong, right

Exercise 3 Discuss and write

Check that you understand these words:

taboo, secret, myth, decision, morals

In this unit you are going to discuss AIDS and sex. How do you want to carry out the work and the discussions? In your group make a choice from those given below. We would like to work on this unit:

a. in mixed groups of boys and girls
b. in single sex groups
c. in pairs only
d. using whole class discussion
e. individually, on our own without discussion.

Write: Write up your decision

We have decided to discuss ..... .
This is because we feel that ..... .
I agree/disagree with this decision. I think ..... .

Exercise 4 Read and discuss

1. **What are your values?**

How important are these to you and your future?
Complete this table on your own. Then discuss your answers.

	Very important	Important	Not very important	Not important
a. My family				
b. A happy marriage				
c. Having good clothes				
d. A good job				
e. Music				
f. My education				
g. Having enough money				
h. Sex				
i. Having boy/girl friends				
j. Being popular				
k. Good health				

2. How might AIDS damage the things you chose, ie hurt your family, marriage etc?
3. Compare your answers with others in your group. Try and agree as a group on the answers to two and three.

Exercise 5 Write your conclusion

Here are the conclusions of one group. You may use this as a model. Replace the underlined words with your own ideas and make any other changes necessary. (If you decided in Exercise 3 not to discuss in groups, or if you did not agree with your group, then use 'I' instead of 'we')

We decided that the most important thing for our future is our health. Without good health we will not get any job, happiness or a happy family. We agreed that our health would be destroyed by AIDS.

We agreed that the second most important thing is our education. If we have a good education we can get a good job, money and have a happy family. AIDS might effect our education because if we are ill we cannot study, and of course we would die young.

The third most important thing is music and dancing. AIDS would not effect us immediately. But eventually we would be too ill to dance.

Language note: the hypothetical *would*

Look at the use of *would* in the last exercise. Why do we use *would* instead of *will*? It is because we are talking about something which is not very likely. We hope we don't get AIDS. Therefore we use *would* instead of *will* to show that it is an unlikely event or a hypothetical event. We use will to predict something, or to show that something is likely to happen.

"I think it *will* rain today" but I *would* like to go to America.

Part 2 The written word

Exercise 1 Read and answer

What do you think? How much do you know about AIDS?
Individually and then in groups answer the following by putting a tick ✓ in the box:
(DK = Don't Know)

1. If a girl refuses to have sex with her boyfriend
   a. she doesn't love him. ☐
   b. she should be respected. ☐
2. A person who looks healthy can be ill.
3. AIDS can be cured if treated early.
4. Women are in more danger than men.
5. You can catch AIDS from bedbugs or mosquitoes.
6. A family with AIDS may be bewitched or cursed.
7. AIDS can only be transmitted through sex.
8. There are very few people with AIDS in Eritrea.

	Yes	No	DK
2			
3			
4			
5			
6			
7			
8			

9. Where can you go for advice if you are worried about AIDS or sex?
   a. Your parents. ☐
   b. Your religious leader. ☐
   c. A local clinic. ☐
   d. Other (please specify) ..... .

Word Study

refuses: To say no.

to have sex: There are many ways of saying this. Some rude, some more polite. The polite ways include, 'to make love', 'to sleep with .....'.

respected: To recognise that they are doing the right thing. If you respect someone's wishes then you do what they want. To respect also means to look up to and admire someone.

ill: Sick.

cured: If you are cured then someone or something has made you better.

treated: To give medicine so as to help make someone better.

catch: This word has many similar meanings. You can 'catch' a cold, ball or fish.

bedbugs: Insects that hide in furniture bite people and drink their blood.

transmitted: To pass from one person to another. You can transmit a disease.

Exercise 2 Read and answer

Look at the table and quotes from the *Eritrean Profile* of November 1994.

In Asmara 1 in 12 young people are HIV infected.

Over 4 million people have died from AIDS. That is more than all the Eritreans in the world.

HIV/AIDS in ERITREA

Year	Reported AIDS cases	%
1988	8	0.67
1989	10	0.84
1990	56	4.69
1991	76	6.37
1992	219	18.36
1993	300	25.15
1994 (Oct)	524	43.92
Totals	**1,193**	**100.00**

Over 17 million people have been infected with HIV and these are just the reported cases.

Every day another 6,000 people (1 in 12 young people) become infected with HIV.

1 in 3 prostitutes in Asmara are HIV infected.

a. These figures tell us the number of reported cases. Do you think the real number will be more or less?

b. Which facts or figures do you find frightening?

c. These were all published in the *Eritrean Profile.* Do you believe them?

Exercise 3 Read and compare

Read this interview between the Student Editor of the school magazine and an official from the Ministry of Health:

a. What differences are there between the *Profile's* figures and those given in the interview? How would you explain the differences?
b. Which questions from Exercise 1 are answered by this interview? Were your answers correct?

Editor: Excuse me. I am the editor of our school magazine. Now lots of readers have written to us worried about AIDS. I would like you to give me some information so that I can write a reply to their letters.

Official: Well, I'll try. I am pleased that your readers are worried. We in the Ministry are certainly worried about AIDS in Eritrea.

Editor: Now that brings me to my first question. Is there a lot of AIDS in Eritrea? Some people say that although there is lots in other countries like Kenya or Uganda, we don't have AIDS in Eritrea.

Official: I'm afraid that is just not true. AIDS came later to Eritrea, but it is here now. By 1994 there were over 1,000 people with AIDS. Many of these are now dead, and the others will die soon from the illness. But, far more frightening is the number of people who are infected with HIV. In Asmara, at least 1 in 10 people are HIV. And of course among prostitutes in any town, over half are probably HIV. In 1994 they estimated that at least 60,000 Eritreans were HIV infected. Most of these are young people.

Editor: Wait a minute. This is frightening, but it is also confusing. What is AIDS and what is HIV?

Official: Sorry. I should explain. AIDS is a disease caused by a virus. This virus breaks down the body's immune system.

Editor: What is the immune system?

Official: In our body we have these white blood cells. They defend our body against any germs or viruses. Now the AIDS virus slowly destroys these white blood cells. Then our body cannot defend itself against other germs. So someone with AIDS keeps on falling ill. A slight cold becomes a big illness. AIDS stands for Acquired Immune Deficiency Syndrome.

Editor: I see. But what is the difference between AIDS and HIV? We are very confused about this.

Official: Oh. That is quite simple. HIV is the virus that causes AIDS. HIV is short for Human Immuno Deficiency Virus. That means this virus makes us humans deficient, or have a shortage, of the immune system. So someone who is HIV infected looks well and feels well. But inside, the virus is eating up the white blood cells. One day that person will have no immune system and become another victim of AIDS.

Editor: How long does it take?

Official: No one knows. Some people are HIV but don't develop AIDS for five years. Others develop AIDS in six months. But remember, all the time they are HIV they can infect others.

Editor: Now the question everyone asks. Can you cure AIDS or HIV?

Official: No. There is no cure. Make sure all your readers understand this. Once you are infected with HIV you can not be cured. You will die. It may take a year or it may take ten years. But you will die.

Exercise 4 Reread and simplify

How many questions does the Editor ask? List the first seven questions.
Then write short answers to each question (no more than ten words).

Word study

Exercise 5 Match

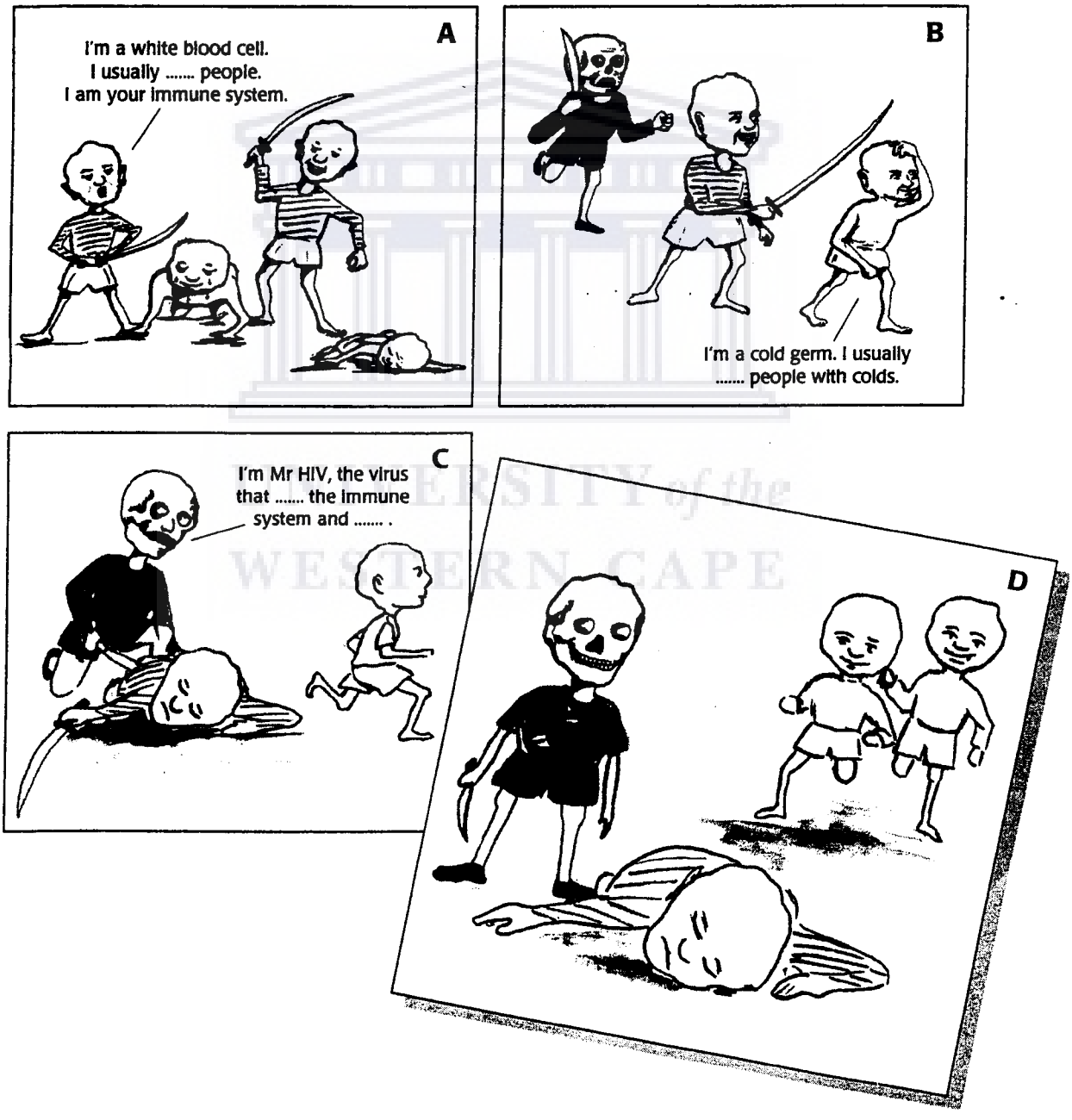
Find each word in the text and then match it to a definition.

Word	Definition
frightening:	to guess, give the approximate number
confusing:	makes one afraid
estimated:	think about something a lot and be unhappy about
worried:	a virus that causes AIDS
defend:	to muddle, mix up the answers
HIV:	protects, looks after

Word	Definition
destroys:	an illness, usually serious
virus:	a germ that causes a disease
deficiency:	to give someone an illness
immune:	to be without or short of something
AIDS:	to break, make useless, no longer existing
disease:	a disease caused by the HIV virus
infect:	to make better
cure:	to be protected against

Exercise 6 Read, label and match

a. Complete the words in these cartoons. You may use some of these words: infect, attacks, causes AIDS, protect



Match these words to the cartoons.

A. HIV destroys the white blood cells and therefore destroys our immune system.

B. Then the germs start to destroy our body.

C. These blood cells protect us. They attack the germs that might attack us.

D. HIV is a virus that attacks white cells.

Exercise 7 Read and summarise

Editor: So it's incurable. That is very sad. What can we do about it? What advice can you give our readers?

Official: It can't be cured. But it can be prevented. No one needs to catch AIDS. Make sure your readers understand the way people become infected. You become infected with the HIV virus by making love to an infected person. The easiest prevention is to say no to any sex at your age.

Editor: Simple but not easy for everyone. You say don't make love. What about kissing or shaking hands?

Official: The virus can only travel from one person to another in the liquids of the body. These liquids include blood and saliva. So HIV can only pass from one person to another if some liquid passes from one person to another. So shaking hands is very safe. Normal kissing is very safe. But normal kissing, if you exchange saliva, may cause a risk. But the big risk is sex. Then of course you exchange lots of fluid, especially if the couple have any cuts or sores.

1. The safest thing is to say no. Avoid sex with anyone. And do not listen to your friends. It is your life not their life. So don't let them persuade you.
2. If this is too much then have one faithful partner. Make sure your partner never goes out with anyone else. Your partner's behaviour puts you at risk. It is so sad when wives catch AIDS from their husbands. Usually these wives have never slept with another man.
3. If you can't stay celibate then use a condom. The condom stops the exchange of the body's liquids. If you don't know about condoms then ask someone. Ask an older friend or at your clinic or a teacher you trust. But sex without a condom is very dangerous.

Editor: But if you trust your partner, and you are not infected then you are safe, aren't you?

Official: How do you know if you or your partner is infected? Do you know who your boyfriend slept with four years ago? Would he tell you the truth if he was HIV? Would he know if he was infected? If you are getting married, and you want to be safe, then both of you should have a blood test, and then wait six months without meeting anyone else. And then stay faithful for the rest of your life. That's the only safe sex these days.

Exercise 8 Summarise the advice

a. The official advised all students on how to avoid AIDS. This advice can be summarised as three slogans – each not more than four words.

Write down each slogan below to complete the summary:

It is easy to prevent AIDS.

....

but if you can't

....

and if you can't do this

....

b. She also gave advice to those getting married. Summarise this advice in ten words:

First ....

Then wait .... before you get married.

c. Work in pairs. Close your textbook and role play the interview. Use your answers to Exercises 4 and 8 to help you.

Word study

Exercise 9 Find the word in the passage and match it to a definition

Word	Definition
incurable:	to get, be given something.
avoid:	I give to you and you give to me.
prevented:	cannot be made better.
receive:	to stop something happening.
exchange:	to act in a way that it does not happen.

UNIT ONE - SPORT

Part 1 How healthy is your life-style?

Exercise 1 Read and answer this questionnaire

1. What do you like to do in your free time?
   a. play a game b. go for a walk c. read a book d. talk to friends

2. Which is your favourite sport?
   a. football, cycling, basketball, running b. swimming, volleyball, tennis
   c. playing cards, snooker d. I do not like sports

3. Do you prefer playing or watching your favourite sport?
   a. I prefer playing it b. I enjoy both equally
   c. I prefer watching it d. I hate doing either

4. How often do you play a game in a week?
   a. every day b. three or four times a week
   c. once a week or less d. never

5. How far do you run in a week?
   a. 2 or more kilometres b. 1 kilometre
   c. less than a kilometre d. I never run

6. If you could choose, how would you like to travel to school?
   a. I'd run b. I'd walk c. by bus d. by car

How fit are you? Add up the number of 'a's, 'b's, 'c's and 'd's you chose. Multiply each 'a' by 3, each 'b' by 2, each 'c' by 1 and every 'd' by 0.

What is your score?

18-15 = you have a healthy life style. You should be fit.
14-10 = perhaps you should take a little more exercise. You are not active enough for your age.
under 10 = You are physically lazy. Start doing some exercise or take up playir a sport if you want to remain fit & healthy.

Exercise 2 Discuss and write

Discuss your answers in groups. Write a report using this outline. Change the word where necessary:

In our group we like to spend out free time ..... or .....
Our favourite sport is ..... . The next most popular is .....
However most of us preferred ..... to ..... .
..... of us played ..... regularly but ..... never .....
None of us ever ran 100 metres and all of us wanted to go to school ..... .

Language focus 1 Comparing likes and dislikes using prefer

Remember prefer is followed by **'to'** not **'than'**

Eg: I prefer Keren to Asmara = I like Keren better than Asmara.
It is usually followed by two '-ing' forms of the verb.
I prefer watching football to playing football. = I like watching football better than playing football

Exercise 3 Practise the language

A. Rephrase these sentences:
1. I prefer reading a book to watching a film. (like)
2. I like eating shiro better than eating zigne. (prefer)
3. I have always liked English more than Maths. (prefer)
4. I think he will want to go out for a meal and not eat at home. (prefer)
5. He always preferred his daughters to his sons. (like)