THE IMPLEMENTATION
OF THE CHILD-TO-CHILD (C-T-C)
APPROACH TO HEALTH EDUCATION IN KENYA: A CASE
STUDY OF KAVETA PRIMARY SCHOOL, KITUI DISTRICT

BY
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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university

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This work is dedicated to my parents Julius Nyamai Ngoo and Mary Nyamai, for their efforts to educate me.

And

My daughter and best friend Mercy
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ABSTRACT

This study examined the extent to which C-T-C (Child-to-Child) pedagogical approach was being applied to teaching and learning of health education at Kaveta primary School of Kitui District. The study sought to establish levels of awareness and implementation of C-T-C approach among pupils, teachers and the community members of Kaveta primary school. It also sought to establish the C-T-C activities that were being implemented, benefits to the school and the community, challenges encountered in implementation of the activities and how the challenges could be addressed. C-T-C approach underscores the importance of children in transmitting health messages to their peers and the community to create a healthy society.

The study adopted the design of a case study and was qualitative in nature. Data was collected in Kaveta Primary School, in Kitui District of Kenya. This school was among the pioneers in the district where C-T-C activities were introduced. Subsequently, it acted as a nucleus from where the activities were spread to other schools in the district. This meant that teachers in the school, and the surrounding community, had been exposed to the C-T-C activities for a long time. Ideally, therefore, they were thought to be better placed to offer in-depth responses that related to the concerns of the study.

Sampling was done purposively. The sample for the study included 61 pupils of the case study school (the whole standard seven class), 15 siblings and peers, 10 teachers, 10 parents, 3 C-T-C officials, 5 health education officials, and 3 education officers. In total 107 informants were sampled and provided information for the study. Open ended interviews, focus group discussions (FGDs), free listings, and observations were used for collecting data. Qualitative procedures for data analysis and presentation were used to present the study’s findings.

The study found out that some pupils, teachers and members of Kaveta primary school community were aware of C-T-C as an approach to teaching health education. The level of awareness, was however not uniform. At the school level, only a few pupils (mostly girls), and volunteer teachers actively participated in C-T-C activities. These were the
pupils and teachers who belonged to the C-T-C club. Awareness in the community was mostly among children (mostly girls) and their mothers. What this meant was that awareness of C-T-C approach was not total, as was expected at the inception of the project.

In terms of implementation, the study found out that the pupils, teachers and parents were involved in various health promoting activities at the school and the community level. These activities seemed to have a positive impact on the personal hygiene of individual pupils, their peers and parents, and in the cleanliness of their schools compound and homes. One important impact of the C-T-C activities was that through school gardening, the level of nutrition and food sufficiency in the school had improved. Overall, the study found out that the C-T-C approach had to an extent changed health practices, and health seeking behaviour among the pupils and their parents.

The study, however, established that the successful implementation of C-T-C pedagogical approach to teaching and learning health education was faced with certain challenges. These included the constant confusion within the school of C-T-C activities with female gender roles; the nature of health education in the primary school curriculum which health education is not a subject of its own but integrated in other subjects; lack of finances to support C-T-C activities; Lack of adequate teaching and learning materials; lack of follow-up and poor coordination of the C-T-C programmes by the various ministries and C-T-C club leaders.

Given the crucial symbiotic link that exists between health and schooling issues, the study recommends the following: firstly, full integration of health education into all examinable subjects. Alternatively, the Ministry of Education should explore possibilities of introducing a separate subject to cater for the teaching of health education. The study also recommends that C-T-C activities be integrated and financed through a centralized system, as is the case with other curriculum activities. Finally the study recommends the introduction of locally relevant materials, the training of teachers in C-T-C approach, and that health education learning and teaching should be made compulsory for all pupils.
CHAPTER ONE
INTRODUCTION TO THE STUDY AND STATEMENT OF THE PROBLEM

1.1 Introduction and Background to the Study
Child-to-Child (C-T-C) refers to an approach of teaching health education that puts the child at the centre of learning and transmitting health messages to fellow children and the community. The approach encourages children to participate actively in the process of learning and facilitating what is learnt. In most traditional African societies, a similar approach was used in child rearing where older children took care of their younger siblings. The contemporary approach extends children's responsibility to older children and the rest of the community.

The C-T-C approach was conceived in 1979 by the Institute of Child Health, London, to mark the international Year of the Child (IYC). The concept has since grown from the mere recognition of the central role older children play in caring for their younger siblings to an approach to teaching health education, which could be used with children. Indeed, in the last two decades the concept of C-T-C has evolved and developed from sibling care to "child power" (Aarons and Hawes, 1988). The purpose of teaching children in primary school the basic health and development concepts is to improve their health knowledge and that of their parents and the community as a whole.

C-T-C approach rests on several assumptions. Some of the assumptions are that education becomes more effective if it is linked closely to total health and well being of the children. Also that learning in school should be closely linked to the child's life
outside school, and that children have the necessary will, skills and motivation to help and educate each other, and should be trusted to do so. Through C-T-C approach, children are able to discuss their own health problems based on their own knowledge and experience. This enables them to develop more inquiry-based attitudes towards learning in other subjects as well (Aarons and Hawes, 1988).

Children being the most vulnerable and voiceless group of the world's population need to be recognized in health matters. (Carnegie and Hawes, 1989). Indeed, they need to be listened to rather than being represented by the adult members of the society. This is their inalienable right as per the United Nations Convention on the Rights of the Child (CRC), (1989) and its recognition in Kenya in the Children's Bill of 2001.

Although the original aim of C-T-C was to teach and encourage children to concern themselves with the health and well being of younger children, experience has shown that older children are also beneficiaries. While learning health through C-T-C approach is fun and enjoyable, the older children also acquire skills to identify and solve problems and gain attitudes of confidence and self-reliance. They can learn from their teachers and also from each other and in the process become competent, reflective, concerned, and participating citizens. The family and community also benefit from C-T-C activities because children are involved in researching their needs, bringing information about good health, and childcare practices into the community. They also act as implementers of health innovations (Cowley, et al, 1981). C-T-C activities, therefore, represent an
approach to health education in which children are most active. It emphasizes children as partners within the family and the community in promoting better health practices.

The need to integrate health education into the curriculum of primary schools, and use children as prime partners in such programmes has been due to various concerns. First, has been the policy of emphasizing preventive rather than curative approaches to health care systems in order to switch control of health knowledge from the professionals to a majority of the people (Sanders and Carver, 1995). Second, there has been the realization that the school, as a socializing agent is a crucial medium through which sustainable knowledge can be created (Huckle and Sterling, 1996). In this respect, it has been acknowledged that schools can be used to socialize both children and the community on critical health education concerns related to development. Third, there has been an appreciation from policy makers that school children are effective in passing health messages and health practices to the community. Since children are part of a family they can influence their younger siblings, and may be more informed than their parents (Child-to-Child Trust, 1992). This is because in the Third World, it is common to have parents who are illiterate whose children have gone through formal education. In this respect, the concerns of the C-T-C approach complement the movement towards “basic education for all” (BEFA), which, during the 1990 Jomtien Declaration, confirmed health skills as life skills necessary for all.

Lastly, there has been a strong appreciation from governments, policy makers and NGOs of the crucial linkage between health and education. A sustainable curriculum or programme for children in the primary schools of developing countries is vital, not only
to the children, but also to the communities where they are nurtured and where they will continue to live as adults. On the other hand ill health has a negative impact on education. The burden of disease in a given setting can reduce the impact of education in several respects. Poor health and malnutrition of pupils affects pupils’ participation and performance in school. This has adverse implications in the long-term sound economic development of any country as it increases educational wastage and adult illiteracy.

The move to integrate C-T-C health education into formal education programmes and use children as partners in this process began in 1978 at the conference of Alma Alta, in the then U.S.S.R. During this conference, Primary Health Care (PHC) and Child Survival and Development (CSD) were launched as strategies to bring health care within reach of all people of the world by the year 2000. The Alma Alta Conference was a preparation for the International Year of the Child in 1979. It was from these two events that two concerns relating to children's health and education were raised. The concern was as to why children were left out of health care concerns, yet they formed a substantial percentage of community members. The second concern was to explore the special contribution that children could make to improve the health of the younger children at home, of their peers, of their families and of their communities (Hawes, 1992).

In 1988, a decade after the idea of C-T-C was mooted; a consultative meeting was convened in Paris. The meeting was jointly organized by UNESCO, UNICEF, International Catholic Child Bureau, (ICCB), and the Institute of Education, London. While the core concern of the meeting was to address issues of quality of pre-primary and
primary education, it was unanimously agreed that the C-T-C approach which was hitherto used in public health teaching had developed into a pedagogical method in its own right. It was agreed that it henceforth be employed as a method of teaching subjects other than public health at the primary and pre-school levels (UNESCO-UNICEF, 1989).

It is against this background that member countries of the World Health Organization (WHO) and UNICEF started to emphasize the primary school as an avenue through which pupils could acquire knowledge, skills and attitudes needed for them to contribute productively to solving everyday problems of health. This was to be made possible through the launching of “education for health” programmes in primary schools. With these commitments, the responsibility for health education in schools, once managed by the Ministry of Health was taken over by Ministries of Education and Health (Child-to-Child Trust, 1992).

In Europe, the idea of C-T-C and teaching health education in schools finally gave birth to the establishment of the European Network of Health Promoting Schools, (ENHPS), in the 1990. This was an alliance of education and health, which among other things aims to create within schools, environments conducive to health, work together to make schools better places to learn and work and make pupils and school staff take action to benefit their physical mental and social health. In the process, they gain knowledge and skills that improve the outcomes of education (International Planning Committee, 1999). In Africa, C-T-C was launched in 1979, in the English speaking countries to coincide with the International Year of the Child (IYC). It was not until 1984 that the approach was

In Kenya interest in the health and health education of school children has always been emphasized in policy documents. For example, hygiene was traditionally an important part of the primary school curriculum, which was catered for through the teaching of science and nature study subjects. Voluntary organizations also organized health education programmes in schools (Hawes, et al, 1992). The limitations of these programmes were that they targeted a few primary schools, often urban based, and children, on their part, were seen as consumers not actors in socializing others into good health practices.

After the International Year of the Child (IYC), interest in C-T-C approach to health education started to develop in Kenya (Abidha, 1993). Such interest was manifested during the curriculum revision and change to the present 8-4-4 system of education. Curricular changes in subject content were meant among other things to accommodate health education. Subsequently, in 1988, the School Health Action Project (SHAP) was initiated, as a strategy for health promotion among school children and for prevention of communicable and non-communicable diseases (Mwaura, 1996). SHAP was based on the belief that schools and their communities could identify problems and take effective action to improve their own health. It was planned under the C-T-C approach. The project
was supposed to be introduced in every district from which the practice would be taken to every primary school in the country. The purpose of the project was to develop an understanding of health education concerns in schools, in homes and within the community (Carnegie and Hawes, 1989).

In terms of approach, from 1979, C-T-C in Kenya has emphasized four main ways to teaching health education. That is, through direct teaching, especially in science lessons; emphasis of health messages in other subjects; the life and organization of the school; and activities which teachers and children undertake-both individually and collectively, at home and in the community (Hawes, 1993).

Since its introduction in Kenya, few evaluation studies on C-T-C and health education have been undertaken in some districts. The studies, among other things established that relevant and usable reference materials for C-T-C trainers and teachers were not adequate. Specifically lacking were those that linked health education and the C-T-C approach to the needs of their school and community and the demands of the local syllabus. Second, the studies indicated a need for materials that were related to the needs of the local environment. This was due to the fact that materials in use were all developed from the headquarters in London. Thirdly, the studies suggested the need for continuous advocacy to help publicise and spread the C-T-C approach (see, Hawes et al, 1992, Mwaura, 1996). These studies however, provided a bird’s eye view of the challenges that were confronting the successful implementation of the C-T-C activities in different schools of Kenya.
1.2 Statement of the Problem

The success of C-T-C approach to teaching and learning health education within the school depends on how pupils and teachers accept and implement it. C-T-C is an approach that emphasizes the role of children as trainers in achieving healthy lifestyles in the school and the community. From the time C-T-C approach was introduced in the district, no comprehensive study was conducted to give a holistic picture of the state of the art and the level of implementation of the approach. Therefore it was imperative to undertake this study to give an understanding of the success and challenges of the programme.

This study sought to investigate if pupils, teachers, and community members were adequately aware of C-T-C approach, whether they implemented C-T-C activities in the school and the neighbouring community, the benefits of C-T-C approach to the school and the neighbouring community, challenges that faced the successful implementation of the approach and opinions on how the implementation of C-T-C approach to health education could be improved. The study focussed on the implementation of C-T-C approach in Kaveta Primary School, in Central Division, of Kitui District.
1.3 Study Objectives
The overall objective of this study was to establish the levels of awareness and implementation of the C-T-C approach to health education in Kaveta primary school of Central Division, Kitui District. The specific objectives of the study were to find out:

a) Whether, teachers', pupils' and community members awareness of the C-T-C health education project.

b) How pupils and teachers of Kaveta primary school utilized C-T-C to teaching and learning health education.

c) The activities that existed in the school and the community for the promotion of C-T-C and good health among the pupils of Kaveta Primary School.

d) From teachers, pupils and community members the benefits of C-T-C approach to teaching health education.

e) The challenges that pupils, teachers and community members faced in the utilization of C-T-C approach to health education.

f) How in the opinion of teachers, pupils and community members the challenges could be addressed.

1.4 Research Questions
The following research questions guided this study:

a). Were pupils, teachers and community members of Kaveta primary school aware of the C-T-C approach to teaching health education?

b). How do pupils and teachers of Kaveta primary school utilize C-T-C to teaching and learning health education?
c). What activities existed in the school and the community for the promotion of C-T-C and good health among the pupils of Kaveta Primary School?

d). What, according to the teachers, pupils and community members, were the benefits of C-T-C approach to teaching health education?

e). What, in the opinion of the teachers and pupils, were the challenges facing the successful utilization of C-T-C to teaching health education?

f). How, in the opinion of teachers and pupils, would the challenges be addressed?

1.5 Significance of the Study

The C-T-C approach to health education is important because it empowers children to be partners in delivery of knowledge and practices for health promotion at school and in the community. This study was significant in that its findings, conclusions and recommendations will be useful to policy makers in the Ministry of Education in making decisions regarding the modification of health education approach. In particular curriculum developers will be able to make informed decisions in developing teaching and learning materials for health education. Teachers’ attention will also be drawn to the best methods and practices in the C-T-C approach and the other current health education methodologies. Furthermore parents and health managers will be informed as to how primary school pupils can be useful in health education both at home and in the school. The study will also add knowledge to the existing body of knowledge on health education in primary schools. Therefore, interested researchers on health education in primary schools will have a base for research. Thus pupils who are the implementers of C-T-C approach to teaching health education will get information on how they can handle the challenges they face.
1.6 Scope and Limitations of the Study
This was a case study; therefore it was conducted in only one school in Kitui district. Its findings may therefore not be fully generalized to the wider Kenyan context because of differences in socio-economic characteristics. However, while findings may be typical of Kaveta primary school and to a certain extent the Central Division of Kitui district, they may, with caution, be applied to other primary schools with similar characteristics.

1.7 Assumptions of the Study
The basic assumptions that guided this study were that teachers and pupils appreciated the goals of the C-T-C project. It was also assumed that the school administration would facilitate the study by cooperating with the researcher. This would enable them to respond to the questions raised by the researcher and that the study respondents would provide adequate data upon which the findings, conclusions and recommendations would be based.

1.8 Conceptual Framework
The basic conceptualization that guided this study was that of the child as a receiver and provider of basic education for health, within a school environment and in the community. The school is conceived as a powerful agent of socialization, helping in transmitting social values, norms, attitudes and skills (Olatunde and Ademola, 1991). According to psychologists, children are born with innate capacities for growth and development. The extent to which a person will effectively grow and develop is a function of the interaction between the person and the immediate environment. A commutative relationship exists between various aspects of human development. Health
as one of these aspects is closely associated with one’s physical, mental and psychosocial performance (Scotney, 1976). It is within this understanding that health is viewed as a state of being physically, socially, emotionally, mentally and spiritually fit. The quality of a person’s health on the basis of the aforementioned indicators has a direct correlation with school participation and the quality of life. It also has a positive correlation to an individual’s potential for economic productivity (Seers, 1979).

Traditionally, health was understood as a commodity for sale, only practiced by professional health providers, not as a social asset to be enjoyed by the majority. Within this understanding curative care took prominence as opposed to preventive care. However, health care is expensive and does not usually give responsibility to the health receivers (Scotney, 1976). It is within this understanding that children have come to be appreciated as part and parcel of the participatory health communities to reduce its cost. Children’s health is a critical component of basic education. Basic education encompasses basic literacy and numeracy skills. C-T-C approach to health education aims at giving children basic health knowledge. This entails basic understanding of the causes and effects of diseases, an understanding of how to sustain a healthy environment and how to operate effectively within such environments (Child-to-Child Trust, 1992). Ideally, therefore, a healthy lifestyle is as much a matter of socialization in such values a responsibility, which has been placed in the schooling system.

Three aspects of health are important in any health education programme. These are:
• personal health. This entails teaching how to care for one's physical, mental and emotional health.

• societal health, which gives one responsibility over the health of others at the family and community level.

• environmental health. This entails taking responsibility for the health of one's environment (Jensen, 1997).

It is conceptualized that if school children are successfully socialized through the three levels, an educationally sound and healthy society ensues. It is on this basis that the C-T-C approach to health education seeks to have children take responsibility and apply school knowledge to home and community situations. Figure 1 presents a schematic illustration of how C-T-C health education concept is designed to operate.
Fig 1. A schematic Diagram Illustrating how C-T-C Health Education Concept is Designed to Operate.

- School/Classroom environment
  - Centre for C-T-C Approach

- One child
- Group of children working as peers and siblings
- Peers and Community Members

- Delivering Health messages
- Teaching Health skills
- Demonstrating
- Working together

- Younger and older siblings
- Peers
- Family
- Community

Benefits

- To Individual Pupils
- To Schools
- To the Community

- Improved personal health
- Improved National health
- Sustainable environmental health
- High levels of national development
The schematic diagram illustrates how C-T-C concept operates in a school situation. The school being a socialization agent exposes pupils to the C-T-C approach to teaching health education. In classrooms and in the school compound, children interact with each other as peers and as siblings.

As children play on their own, they are able to share the health knowledge that they have acquired through reading C-T-C books and also from lessons in which health education is integrated. Thus, they are able to apply it in their day-to-day lives. This enables them to deliver health messages to younger and older siblings, peers, family and the community as a whole. At the same time, when children are working and playing together they are able to get new insights which they use to teach each other.

Since children mostly have the necessary will and skills to communicate, especially amongst themselves, they are able to deliver health messages, teach health skills, demonstrate and work together with their siblings, peers, family and community. Through this interaction, personal, community and national health is improved, school participation, retention and performance rates improve, environmental health is improved, and as a result national development is achieved. As this is the whole rationale of the C-T-C approach, the concept illustrated here guided the methodology and data analysis of this study.
1.9 Operational Definition of Terms

Child- To-Child (C-T-C): An approach to Health Education, which recognizes the role of a child as a receiver and provider of health knowledge through interaction.

Community: The immediate physical surroundings of the school and its inhabitants. This acts as a catchment area of the school in terms of pupils and also supports the physical development of the school.

C-T-C teachers: These are the teachers who were in charge of C-T-C club in the case study school.

C-T-C pupils: These were pupils who were members of C-T-C club in the case study school.

Hawthorne Effect: Modified behavior of a subject in a study that does not represent their normal behavior patterns.

Health: This study will adopt the World Health Organization (WHO, 1946) definition of health as “a state of complete physical, mental and social well being not merely the absence of disease.”

Health Education: The process of instruction and acquisition of health knowledge aimed at increasing awareness of self, change of attitudes and acquisition of skills to enhance individual and communal well-being.

Health Promoting School: A school that had a C-T-C club.

Primary Health Care: Preventive, curative and rehabilitative services that are availed to individuals and their families and which involve communities in making decisions as well as taking action to improve their own health.

Health education Day: Wednesday of every week was the school's health education Day, C-T-C teachers taught pupils health education. Children also taught each other about good health practices.

Leaky Tins: These were containers that had been placed in different strategic places. They were constantly refilled with water for pupils to wash their hands before meals and after using latrines.

C-T-C Motto: Health for All and All for Health.

Malnutrition: Condition brought about by improper nutrition.
CHAPTER TWO
REVIEW OF RELATED LITERATURE

2.1 Introduction
This chapter focuses on the review of literature related to health education and particularly to C-T-C. The reviewed literature is presented under the following sub-topics: C-T-C and education for all, An overview of health education in Kenya, The history of C-T-C approach, Health education and its influence on school participation and performance and Summary of literature review.

2.2 C-T-C and Education for All
To achieve basic education for all, the school curriculum and the needs of the community should not be kept parallel. This can be achieved through C-T-C approach because education from school will reach the communities using students as agents. When the two diverge, the society suffers (Child-to-Child Trust, 1992). What children as a group communicate among themselves is different from what can be communicated between children and adults.

It has been realized that the C-T-C approach has implications on participation of a child in health activities and areas of development due to good communication channels. The knowledge they get from each other improves nutrition, personal hygiene and avoids pollution. What they learn amongst themselves is transferred to others if there is good communication among them. Through the C-T-C health education approach, health status of school and the community can be improved. Children and adults will adopt better
preventive health measures instead of waiting to treat diseases when they occur (UNICEF, 1997).

The attitudes of children towards good health are improved as their responsibility is increased. Teachers will also realize how much responsibility the children will assume. This responsibility will be both in school and the society. It will also strengthen relationships among children of different ages therefore promoting health education in the community. This shows that through C-T-C approach parents will be closely involved with the school as partners in health activities.

The influence of C-T-C in supporting the achievements of EFA goals can be appreciated by looking at the relationship that exists between health education and schooling. Health education typically addresses three types of factors that influence healthy behaviour and can be modified by educational means. According to Green (1991), these factors are:

a). Predisposing factors, such as knowledge, attitudes, beliefs, values and perceptions.

b). Enabling factors such as skills and resources necessary for individuals to carry out an action. These may include decision-making skills, peer resistance skills and access to specific health services or resources.

c). Reinforcing factors that support and reinforce the behaviour after it has occurred.

The above factors according to Kolbe et al. (1985) magnify the relationship that exists between health status of young people and educational performance and achievement. In total this relationship determines the extent to which EFA goals can be achieved. For
example, a child who suffers from an ailment or hearing or vision problem cannot benefit fully from the educational process.

2.3 An Overview of HE in Kenyan Primary Schools
Kenya has since independence emphasized the role of good health in national development. The achievement of this goal (good health) has been a shared responsibility of various ministries that have dealt with issues of public health and education from time to time. For example, at independence, the then Prime Minister, Jomo Kenyatta, in a preface to a book on health education by Holmes noted that, “if people do not enjoy full health, then their country cannot make full use of it’s economic potential. For this reason, it is important that all people should be educated in the ways to obtain and maintain good health”. (See preface by Jomo Kenyatta, to Holmes Book, 1964).

The above statement from the Prime Minister perhaps underscored the importance that education was going to play in achieving good health for all in Kenya. As a follow up, when Kenya became a republic, teaching of health and healthy issues was a crucial feature of the curriculum of primary schools. Curriculum subjects such as nature study and home science were avenues through which health education was taught to pupils. Extra curricular programmes such as pastoral care programmes were introduced, later in the 1970s to reinforce efforts at achieving good health among pupils. This was supposed to translate to the same in their homes and communities. Emphasis on good personal hygiene was also encouraged through frequent inspection in school assemblies, and setting of special days on which pupils cleared the school compound and cleaned their
classrooms. Throughout these exercises, there was emphasis that the pupils needed to carry these practices to their homes.

The teaching of health education has, however, been indirectly integrated in other curriculum subjects and extra-curricular activities. There has never been any specific curriculum subject to teach health education. The same has applied to teachers training. There has not been a programme to train teachers to teach health education in primary schools. This therefore means that other curriculum subjects have often overshadowed health education. This was the situation by 1979 when C-T-C approach to teaching health education in primary schools of Kenya was introduced.

Following the launch of the C-T-C approach in London in 1977 as indicated in the background, it was agreed that a meeting for the Kenya region be held at Kenyatta University College in 1979 to plan the various C.T.C. activities in primary schools. The meeting had three objectives (Otaala and Mworia, 1979);

(a) to share knowledge of the work that had been developed in relation to the C-T-C programme.
(b) To identity activities which could be considered of a priority nature for immediate implementation.
(c) To plan strategies for implementation of other C-T-C activities in future.
At the meeting, five major areas where Kenyan children were at risk and that required educational interventions were identified. These areas were, malnutrition, infection, poor housing, lack of safe water and basic sanitation, and inadequate care. It was also noted that since a majority of Kenyan children went to primary schools (free primary education had been declared), schools and their teachers remained very powerful instruments of change, particularly in rural areas (Otaala and Mworia, 1979).

An important outcome of the Nairobi workshop was that teaching of health education through the C-T-C approach was more or less institutionalized and accepted in Kenyan primary schools. Mechanisms were put in place to collect, synthesize and publish books on health education in simple, graded language, which could provide appropriate reading materials and at the same time pass on health messages. The responsibility for this was given to the Kenya Institute of Education. The responsibility for teaching health education has, however, been shared by the Ministry of Education and that of Health, through AMREF, and the Department of Public Health.

The major concern is that later curriculum changes that took place may have eclipsed the consensus of teaching health education through C-T-C. Core to the changes was the introduction of the broad based 8-4-4 education curriculum, which later, in the 1990s, was again drastically reduced. Whereas, at its inception, curriculum content was broad, covering most aspects including health education, the reduction phase, did away with subjects taught. Though the Ministries of Education and Health still emphasize aspects of health education in schools, a clear picture of what happens at the school level needs to
be established. This is because, there has been a noticeable tendency of schools concentrating on examination oriented teaching to the exclusion of everything else that makes a whole person. The present study is in a way a response to this concern.

Discussions on the implementation of C-T-C approach in primary schools on a trial basis began between 1986 and 1988 (Kitsao, 2000). In the discussions it was agreed that health education methodologies, which emphasize children's activities for both preventive and curative healthcare were an important part of primary schools health education (Hawes et. al, 1992). In Kenya C-T-C project is concentrated in the primary school level, in which it is based under the current 8-4-4 system of education. It is integrated in different subjects and also extends outside the classroom to the families and communities.

2.4 The History of the Child-to-Child Approach
C-T-C is a product of both the 1978 Alma Ata Conference and the 1979 international Year of the Child. Professionals in education and international health formulated the concept and used it to address health needs and promote health-related activities in schools, families and communities (Child-to-Child Trust 1992). A network of concerned individuals also started to support the approach. The supporters included presidents, top bureaucrats, professors, doctors, teachers, health workers, social workers and, most important of all, the children themselves (Hawes, 1993).

The major motivation behind the C-T-C approach to teaching health education was the realization that despite several decades of international activities and rational efforts,
many developing countries were still faced with a whole range of problems, the most serious of which are illness and disease (UNESCO – UNICEF 1989). At the Alma Alta Conference, therefore, the international community made a commitment to ensure for each individual a state of health that could enable him/her to be self-supporting, and to be economically and socially productive member of his/her community.

The C-T-C approach was based on four principles. These are: the notion of the importance of primary health care, conviction of the ability of children, as members of a community, to propagate messages and actions of public health among peers, their families and communities; the conviction that in public health education, every lesson must be accomplished by practical health care action and the need for common action by educators and health workers. (Aarons and Hawes, 1988).

In practical terms, the C-T-C pedagogical approach was to be operationalised in primary schools through channels such as:

a). Formal programs which form part of the established school system, and in the communities they serve.

b). Pre-school programmes.

c). Independent groups and organizations such as scouts, guides and youth movements;

d). Refugees and displaced or homeless children;

The above channels and activities are important to note, as some of them are the focus of this study, with a view to establishing the extent to which they had been implemented in the case study primary school.

Since 1978, the programme has achieved a lot due to the commitment and the innovative thinking of both the coordinating team and many local organizers and participants. The concept of C-T-C is similar to that of PHC, which enjoins all community members to take interest and action to preserve their own health and that of others (Child-to-Child Trust, 1993). C-T-C is seen as an alternative approach to education that links the home, the school and the community. It reinforces the principle that the roles of the teacher and the learner are interchangeable and that learning is not confined to the classroom. It can be done in other venues such as the family and community (Hawes, 1988).

Originally the term was written as Child-to-child (C-T-c) to denote that messages were transmitted from older children in school to their younger siblings at home. By 1981, the term had changed to Child-to-Child (C-T-C). The capital C reflects a shift of focus, as from sibling care to "child power", whereby both younger and older children are seen as major actors in health education (Carnegie and Hawes, 1989).

As the concept took root, many people saw the possibilities of children being able to reach beyond their younger siblings to the rest of the community. From the family point of view, children would be educated so as to have a good understanding of what health means, how to achieve it and how to contribute to development and then take these
messages to their homes (WHO, 1978). By 1988, the concept had gained a different perspective, which was wider, that is, Child-to-People outreach. This involves spreading good health messages to: younger children, same age children, to their families and their communities (Bonati and Hawes, 1992).

In 1990, the Jomtien World Conference on Education for All (WCEFA) revealed that education in the traditional sense of institutional learning was becoming increasingly elusive to millions of people (Abidha, 1993). Children were recognized as partners in education and health in school and community (Kitsao, 2000). C-T-C approach was seen as a powerful means in the transmission of BEFA in accordance with the declaration and strategies of Jomtien (Abidha; 1993). The term C-T-C has come to embody all, representing Child-to-Sibling and Child-to-Adult members of the family and the community and in such a situation children become teachers in their community. This approach has spread to many parts of the world, and wherever it is found, there is a partnership of health and education workers in developing the same central ideas on health (Kitsao, 2000).

C-T-C concept has had official recognition and support in Kenya. A seminar on C-T-C was organized by Basic Resource Centre at Kenyatta University (BERC) in 1979 to introduce the approach to Kenya. This program received substantial support from the NCCK, DANIDA, AMREF and UNICEF. A research done after the establishment of the programme in Machakos District found that the project could work within the basis of the 8-4-4 curriculum. Health activities were included in several subjects that are offered in
A significant feature that was discovered is that involvement of community members and local administration could improve health standards in the community. Feeding and deworming programmes were found to be particularly crucial.

### 2.5 Health Education and its Influence on School Participation and Performance.

Despite the concern and interest shown in health education in primary schools, not many studies are available that provide empirical data on the levels of awareness, and implementation of approaches to health education that are being used. However, there are studies that point towards the importance of health education in schools. Some show what schools are doing to be entry points to health education in the society.

Different models of health education have been operationalized in different countries and schools. The C-T-C pedagogical approach is one such approach, which is part of the wider comprehensive health education model. First articulated at the beginning of the 20th century, the comprehensive school health model combines teaching about health, with school and community health services and intervention in the school and community environment (Stone, 1990). It seeks to create a health supportive learning environment which promotes the level of health necessary for students to perform effectively and achieve academically; recognizing that for schools health is not an end in itself but a means to achieve educational objectives.

On the basis of the above observations Kolbe (1986) suggests that a comprehensive school health programme should include;
a). Integrated efforts of school and community agencies.
b). The school physical education programme
c). The school food service programme
d). The school counselling programme
e). School programmes to protect and improve the health of staff.

Studies that have analysed the effectiveness of school health education programmes, including those utilizing C-T-C pedagogic approaches, have on the whole analysis have had positive results. For example, a study in USA by Connell et al., (1985) concluded that students exposed to health education curricular administered by classroom teachers showed significant positive changes in health knowledge, and attitudes, compared to those without exposure. Another study by the Metropolitan Life Foundation (1988) supported the above findings. The study established that pupils exposed to health education programmes were more likely to make an effort to improve their health, identify unhealthy foods and identify risky factors such as HIV/AIDS. The concerns and conclusions of the above studies will to a degree be replicated in the present case study to enhance their degree of generalizations or disapprove the same, given the different contexts where the studies have been carried.

A study carried out by the Stone and Perry (1991), has given a general indication on the status of health education worldwide. The study concludes that;

a). There is low priority given to health education approaches in some countries.
Most countries offer health education in some form at the primary level, generally taught by classroom teachers.

Most countries have integrated health education with other subjects and do not have a separate health education curriculum. Integration of health education is more acceptable given universal concerns about inadequate curriculum time.

The present case study on Kenya is an attempt to analyse the status of health education and barriers to its successful teaching.

Tones and Tilford (1994) in a study done in American schools sought to provide evidence of the capacity of schools in the provision of health education. They observed that in the school setting, to achieve outcomes associated with various health education approaches, health has to be improved through effective provision of several years of basic education. This according to them will ensure that the population acquires basic health knowledge. However, this study was limited because it only considered the approaches that could be used in the provision of that basic knowledge. The current study will focus on a specific approach to health education (C-T-C) and its implementation in the school and the community.

Other studies conducted in the USA in 1985, evaluating school health education have important implications for the present study. In the study 30,000 subjects were involved. The study found out that health education taught in schools helps children to improve their health issues, knowledge and attitudes. The study also shows that by having knowledge about health issues children are unlikely to be involved in practices that are
hazardous to their health such as drug abuse and irresponsible sexual behaviour (Hawes 1992). The present study investigated whether pupils and teachers in Kaveta Primary School implemented the good health practices they learned from health education using the C-T-C approach, both in school and at home.

A case study done by the C-T-C review team in Malvani, on the outskirts of Bombay, India, in 1987 was also important to this study. Health workers and educationists with the aim of developing methods for delivery of PHC conducted this research in schools. This being a low-income suburb, the concern of the team was to develop an effective health education programme for the community, thus reducing the need for curative interventions. Children were used as communicators and change agents.

The findings of the Bombay study indicated that there was a very enthusiastic response during the first year. As many as 617 child-volunteer health workers were trained. The early enthusiasm wore off later and between 1982 and 1983 the number of volunteer health workers fell to 106 and by 1985 there were only 28 (Aarons and Hawes, 1988). This study is relevant because according to C-T-C Workshop held in October 1986, supported by the Aga Khan Foundation, there has been a decline in the implementation of the C-T-C activities to health education. Possible causes of decline discussed included the fact that the programme activities conflicted with other priorities such as income generating activities, domestic responsibilities and school homework. This study sought to investigate awareness and implementation of C-T-C approach to health education and to find out possible reasons to its under-implementation.
A study by Berhane (1996) in Akeleguzai Province in Eritrea, examined primary school health education. The main objective was to examine the importance of helping pupils to gain understanding and skills that can change their habits and attitudes in order to change the conditions that cause poor health. The findings show that indicators of poor health conditions were high infant mortality rate, high under five-mortality rate, high maternal mortality rate, low life expectancy, low primary school enrolment rate and very low adult literacy rate. The study found out that there was need to use various methods of teaching health education like lectures, posters and flip charts, demonstrations, group and individual discussions, especially in both clinics and schools. The introduction of health related topics into the syllabi of different subjects in the curriculum and encouraging pupils to practice what is learned, was another avenue suggested. These were suggested as means of promotion of good health. The study was relevant to this study because the same methods of teaching health education are emphasized. This study investigated whether pupils and teachers in Kaveta Primary School were aware of the activities in C-T-C approach to health education and whether they implemented them in both school and community.

A series of case studies conducted in West, East and Southern African region, and presented at the meeting organized by UNESCO/UNICEF in Lome, Togo were the first to shed some light on the status of C-T-C activities in the region. The overall aim of the meeting was to assess the C-T-C concept in terms of public health education, as well as its application, evaluate the experience gained, and to recommend effective inter-agency
cooperation in the development of the approach. While the case studies noted the expansion that had taken place in a period of ten years (in terms of material development and capacity for utilizing C-T-C approach), some barriers and challenges to the approach were identified (Tay 1989: 72).

These were;

a). Lack of continuity owing to low morale and low level of turnover of teachers, overworked teachers, financial and material constraints, new programmes separated from the existing school programme, and declining drive after initial enthusiasm.

b). Logistical constraints on the implementation of programmes

c). Insufficient co-operation between the different sectors and ministries, especially at the highest level (since implementation is increased by dominant administrative structures, working practices, budgets etc.)

d). Cultural sensitivities linked to beliefs and customs, methods of communication both as regards content and “protocol” (i.e. when one allows a child to speak and to say things contrary to the wishes of his/her parents).

The case studies suggested for some innovations to confront the above challenges. These included:

a). Integrating the C-T-C approach into the existing school programme, the educational system and community programmes;

b). Replacing small-scale projects by enlarged programmes that would cover schools at national level.
c). Adopting a “Triangle Approach” that is, getting messages across through the children backed by direct communication with the parents (the community) with the support of the media.

d). Capturing and retaining the support of parents and the community.

e). Producing books in sufficient numbers that are stimulating;

f). Ensuring the re-orientation of a large number of leaders. (Tay, 1989:73)

The challenges identified above and the strategies to address them will be partially reflected in the present case study. Since, from its inception, the C-T-C approach was envisioned to result in high standards of health among the population by the year 2000, the present study is timely in terms of establishing the level of awareness and implementation of the approach in Kenya. The case studies presented at the Togo meeting therefore provide the present study with useful parameters to evaluate the success of C-T-C approach as envisioned in the original plan of action.

In fact, a seminar held in Nairobi, in January 1993, again to discuss the status of C-T-C approach in Africa noted that an audit of C-T-C approach needed to be done both nationally and in the region (Hawes et al, 1993) to;

a). Find out where successes have been noted and recorded and to describe models of good practice;

b). Describe known areas where difficulties have been experienced and to assess reasons;
c). Note and subject on what criticisms have been made of C-T-C approach and discuss how valid they are and how they may be overcome;

d). Assess whether the introduction of C-T-C approaches may have wider implications such as prevention of dropouts, success in examinations results or health and environmental effects within communities.

The present case study is partly a response to the above recommendations, particularly in terms of addressing difficulties in the implementation of the approach and success noted so far.

A study by Mwaura, (1996) examines strategies towards empowering children for healthy living and education. The study was carried out in Nakuru District of Kenya under SHAP (School Health Action Project). SHAP was initiated in 1988 for promotion of health education in schools. The main goal of the project was to improve children’s health, growth and development and create in them active agents for promotion of healthy behaviour in themselves, their homes, schools and community as a whole. Other objectives of SHAP included the creation of awareness as to causes and prevention of communicable and non-communicable diseases in the school population and neighbouring communities, to mobilize school community by establishing health clubs, to provide appropriate water and sanitary services in schools and surrounding community, to promote accessibility to and rational use of safe water and for development of cultural and modern supportive audiovisual materials to disseminate health information to the community. The study found that C-T-C approach could be
used to effectively empower pupils to live healthy lives in both their schools and their communities.

The findings of the study helped the present study in the sense that health activities that were used by SHAP were related with C-T-C projects activities that were being implemented in schools where the project was launched. This present study investigated the awareness and implementation of C-T-C health education activities in primary schools in Kitui District and specifically in Kaveta Primary School. The relevance to this study is based on the belief that schools and the communities could identify and take effective action to improve their own knowledge about health and practice (Child-to-Child Trust, 1992).

Some studies were conducted in four pilot schools that were used to launch C-T-C programme in Nairobi and Machakos districts (Predmore and Smith, 1996). These studies were conducted in primary schools in Nairobi and Machakos. In Nairobi the studies were conducted in Dagoretti and Muslim primary school and in Machakos the studies were conducted in Kalawa and Mutembuki primary schools. The findings of the study indicated that C-T-C approach could be used to improve the health status in both school and the community. These studies are relevant to this study because the analysis of the findings shows how health messages could be passed from school to the neighboring communities using C-T-C approach in an effective way. The findings also show the impact of health education to pupils who were exposed to it using C-T-C approach, and
the limitation of C-T-C materials in schools and its implications to implementation of C-T-C activities.

However, a critical look at the locality of the schools that were investigated differ with the present one in that they were in Nairobi, which is the capital city and the neighboring Machakos District. The experiences of pupils in these schools are different from rural schools in dry areas where the project was also launched, like Kitui District. Therefore this study sought to investigate the experiences of pupils and teachers, who are involved in C-T-C activities away from the main urban towns.

Kitsao (2000) sought to identify specific activities of the C-T-C approach in promoting health education among primary school pupils in Masii, Machakos District. The sample for the study was drawn from standard seven pupils. The study found out that C-T-C approach could be applied in primary schools to enable pupils to translate knowledge about health that they acquire in classroom into health practices both at school and home. Findings of this study show that young children were taking care of their younger siblings in a better way through the knowledge that they had acquired through C-T-C approach. The study also found that pupils needed encouragement from teachers and parents in order to internalize and put into practice the health messages learned in school (Kitsao, 2000).

However, the level of implementation may differ due to specific teacher, school and community variables. Since these differ from one community to another, this study was
necessary to enrich the existing knowledge on the same direction. The study sought to establish whether C-T-C project activities are implemented in primary schools in Kitui District, through a case study of Kaveta primary school.

A recent study done in Kenya is that of Muia (2001). This was a case study of Kangundo D.E.B in Machakos District. His aim was to analyse the influence of health education on the health care seeking behaviour of primary school pupils. The study observed that health education enhances pupils' awareness and skills on how to lead healthy lives. He suggested that to enable pupils to put into practice the health education knowledge and skills they acquired, an enabling environment should be created and there should be zeal to acquire more knowledge of health education that is relevant to community needs. Though aspects of the study reflect the concerns of the present one, the locality differs. His study was also not based on investigating the efficiency of any given approach to health education. The current study will specifically consider the implementation of the C-T-C approach amongst pupils, teachers and community members.

2.6 Summary of Reviewed Literature
The preceding review of literature shows that countries consider the teaching of health education to be part and parcel of any schooling process in particular, and in general, important in the long-term development of any country. In developing countries teaching of health education is more important given the prevailing high rates of disease and ill health among the population. The underlying factors in including health education teaching in the school curriculum is in the symbiotic relationship that exits between education and health. Literature reviewed has shown that good health improves school
participation, performance and achievement among children. Teaching about health on the other hand ensures, in the long term, a healthy population that is able to profit from educational provision. It is in this context that health education is seen as an important facet in achieving the goals of EFA.

As regards the use of C-T-C pedagogical approaches, literature reviewed, especially in Africa, shows that the method has become widespread over the years. The advantage of the method is in its utilization of children to teach and transmit health messages to their peers and the community. However review of literature has also pointed out that an exhaustive “audit” of the method in terms of suitability of teaching materials, the level it is appreciated by teachers, pupils and the community, and its impact vis-à-vis the envisioned goals has not been done. More importantly, and especially as regards Kenya, the introduction of C-T-C pedagogical approach took place at a time the primary school curriculum was broadened under the 8-4-4 system of education. This means that though education policy encourages the teaching of health education, in practice there is bound to be differences in the levels, access to C-T-C materials, and local customs practices and attitudes towards healthy lifestyles. However, such varied differences from one school locality to another have not been addressed in the literature on C-T-C approach. This is despite the fact that they are important determinants of awareness and levels of implementation of the approach in different school settings.

The present study therefore, took a case study approach, qualitative in orientation, to address the above concerns. Despite its limited degree of generalization, a case study had
the advantage of eliciting in-depth responses on awareness levels and attitudes of the various informants towards the C-T-C pedagogical approach. This was a central concern of the study, and the results therefore will enrich existing findings from other case studies, which consequently may be used by other studies to present a holistic comprehensive picture about the status of C-T-C in Kenyan primary schools.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Study Design

The research design of the study was that of a case study, mainly qualitative in orientation. Emphasis was on in-depth collection and analysis of data from different triangulated sources. Qualitative research refers to a set of methods, techniques and procedures, which provide a means of accessing unquantifiable facts about the people researchers observe or talk to (Berg, 1989). The justification for using qualitative research was due to the fact that the approach allowed the researcher to formulate open-ended questions through which a wide and deeper range of responses was sought.

The qualitative research techniques also made the research process flexible in the sense that it allowed room for further probing which is a value not available in quantitative research (Chambers 1992). Finally, qualitative approach was chosen because qualitative procedures, apart from providing a means of accessing unquantifiable facts about the research subjects, it also allowed the researcher to share in the understanding and the perceptive worldview of the respondents. The study was also evaluative in the sense that it evaluated the implementation of the C-T-C approach in Kaveta Primary School in Kitui District. Patton (1990) observes that many evaluative questions lead to a collection of a qualitative case data.

3.2 Study Locale

The study was carried out in Kaveta Primary School, Kitui District, Eastern Province of Kenya. The school is situated three kilometers from Kitui town. Since this study sought
to gather information on the implementation of C-T-C approach to teaching health education, one school was focused on because of the in-depth nature of the study. A single case sought to describe the unit in-depth and detail, in context and holistically (Patton, 1990). Through this adequate data was collected.

The school was purposively chosen because it is one of first schools in the district in which C-T-C project was launched. It has a high enrolment figure of 534 pupils and also an extensive and diverse catchment area compared to other primary schools in the division. Most of the pupils in Standard Seven and Eight are boarders, thus the interaction levels were high. Therefore, this school was selected because a great deal would be learned from the informants.

Kitui is one of the 12 districts in Eastern province of Kenya, which covers approximately 20,555 square kilometers. The choice of Kitui District was occasioned by the fact that it is one of the areas in which the C-T-C project was launched in several primary schools. According to C-T-C News, 2001, Kitui District was one of the most active districts in the implementation of C-T-C activities. However, there was no evidence of any conclusive study that had been conducted to prove this.

In comparison with other districts in Kenya, Kitui district is a rainfall deficit region, and is therefore prone to frequent droughts and crop failures. The district has very few natural water sources such as rivers and springs. Accessing clean water for household consumption is therefore a major welfare and development challenge.
The Central Division was chosen because the project was introduced in many schools there as compared to other divisions in the district. The central division of the district, where the case study school is located occupies an area of 765 square Kilometers and has the smallest farm area but with the biggest number of rural households (GoK 2001).

In terms of provision of health facilities, the district had one hospital per 180,000 people, and one health centre per 56,600 people (GoK, 1999). The general picture is that health facilities in the district are inadequate relative to population (see table 1 below).

Table 1 Health Institutions by Division

<table>
<thead>
<tr>
<th>Division</th>
<th>Hospital</th>
<th>Health Center</th>
<th>Sub H/C</th>
<th>Dispensary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Chuluni</td>
<td>-</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Kabati</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Mutitu</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Mutomo</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Yatta</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>8</td>
<td>14</td>
<td>28</td>
<td>54</td>
</tr>
</tbody>
</table>


As a consequence of this, and other socio-economic factors, the district experiences high mortality rates compared to other districts in the country. The most predominant diseases in the district are malaria, respiratory diseases, skin diseases, intestinal worms, diarrhoea, bilharzia, anaemia and urinary tract infections. A well-planned and executed public health education programme can reduce the incidence of these diseases considerably.

Malnutrition has also been rampant in Kitui district over the years. This is due to inadequate and invariable food crop production, due to unfavourable and unreliable
climate. Besides inappropriate child feeding and childcare practices contribute significantly to high mortality rates and malnutrition (GoK 2001). A combination of the above factors therefore makes a sustainable health education program an urgent need in the district. In this regard, it is important to note that the C-T-C approach was initiated in the district’s primary schools in 1996. Map 1 and 2 show the position of Kitui district in Kenya and the position of Central division in Kitui District.
Map 1: Location of Kitui District in Kenya

Scale - 1: 5,000,000

[Map showing the location of Kitui District in Kenya]
3.3 Target Population

The target population for this study was pupils in the school, although after piloting only Standard Seven pupils were sampled for in-depth interviewing. Teachers, parents, educational officers, health officers, siblings and peers were also targeted.

Standard Seven pupils were sampled as the pilot results showed that they comprehended the interview questions better. They were relatively mature, had been exposed to C-T-C approach to health education for a longer time and had gone through most of the health education curriculum. Standard eight pupils were left out of this study because their time was limited, due to pre-occupation with preparation for KCPE exams. Information was also collected from C-T-C teachers and other teachers in the school. Parents whose children were members of the C-T-C club and key educational and health officers especially those who worked hand in hand with teachers and pupils were also included in the study.

Pupils who were members C-T-C club were interviewed in order to give information on how the club was run, the activities that were implemented and the constraints to the implementation of the C-T-C approach activities. The club members also gave suggestions on how the implementation of C-T-C activities could be improved.

3.4 Sample Size and Sampling Procedure

Informants for the study were purposively sampled. In purposive sampling the researcher has a responsibility to select a sample that provides the information that is required (Mulasa, 1988). Purposive sampling was used because the information sought could only
be provided by specific people who were directly involved in the specific programme. The overall sample size was determined as fieldwork went on, though an initial sample had been drawn. This was done because according to Patton (1990), there are no rules for sample size in qualitative studies. The sample depends on what the researcher wants to know, the purpose of the study, what is useful and what can be done within the available time and resources (Patton, 1990). Hence as the study progressed, some respondents who were not included in the initial sample were drawn in as it was discovered that they were key to certain information for the study. However at the end of the study the researcher had sampled 111 respondents. Sampling was done as follows:

a) Pupils

The researcher targeted standard seven pupils. This was because most of them were members of C-T-C club. They were the key informants, and therefore, gave insights on the implementation of C-T-C approach in the school. All the 61 Standard Seven pupils were therefore sampled. From this group, 7 boys and 7 girls were purposively sampled as key informants for in-depth interviewing. Some of them were leaders and others members of the C-T-C club, thus they were at the forefront of C-T-C activities.

Since C-T-C involves children sharing health information with their siblings and friends, efforts were made to have as key informants sample pupils who had at least a sibling. The siblings were also interviewed in their homes. Where the siblings were not available one of the child’s peers was interviewed.
b) Siblings and peers

Fourteen siblings and peers of the pupil key informants were purposively sampled and were followed up to their homes where they were interviewed individually by the researcher. Their responses were used to crosscheck responses provided by the sampled pupils. Parents were used to verify the pupils' peers. Interviews with peers and siblings were conducted because C-T-C is a health project that is supposed to link the school and the community. Therefore, data collected was meant to ascertain whether C-T-C activities were implemented at the community level.

c) Teachers

The Head Teacher in the case study school was interviewed as a key informant. It was assumed that being the senior administrator in the school, he had important information about the project activities in the school. Four teachers who were teaching subjects in which HE has been integrated, such as, science, home science and G.H.C in Standard Seven were also sampled as key informants. They were sampled because they were the ones who were concerned with the C-T-C project activities. They were individually interviewed as key informants too. Six other teachers who were not directly involved with C-T-C activities were randomly sampled and joined the four teachers in a FGD. In total 11 teachers constituted the sample in this study.

d) Parents

Parents were chosen as informants to capture the link of C-T-C activities in both school and home. Three boys and three girls were randomly picked as a basis of identifying parents to be interviewed. The parents were then visited by the researcher and were requested to come to school to participate in the FGD. The visit gave the researcher a chance for doing observations in their homes. They were included in the study because of
their role as key actors in the health education of their children. Parents provide guidance, and are in a position to explain how their children translate health messages learnt in school to good health practices at home. Ten parents (Four male and six female) participated in the FGD. Parents were interviewed to establish whether C-T-C activities were implemented at the community level, the constraints and how it had benefited them as individuals, families, and as a community. They also gave suggestions on how the implementation of the approach could be improved.

e) Education Officers

Educational officers who work hand in hand with the school administration were purposively sampled. Three educational officers who visited health-promoting schools frequently were sampled in this study. They included the DEO, APSI, and the TAC-Tutor.

f) Health Education Officials:

Five out of ten health education officers assigned to work with community-based programmes in Central division were also interviewed. They were involved in this study because being in charge of health education in the community, they had useful information on health education and C-T-C.

g) C-T-C officials

The C-T-C project had three officials at district level. The officials were in charge of the overall coordination of C-T-C activities both in the community and in primary schools in the district. They also acted as an important link between the schools and the National Office. The three officials were sampled for the study. They were interviewed as key informants in order to give their views on the implementation of the C-T-C approach to
health education, challenges and recommendations for improving the implementation.

The number of respondents sampled was as summarized on table 2 below:

**Table 2**

Respondents sampled in the study

<table>
<thead>
<tr>
<th>Sample</th>
<th>Male</th>
<th>Female</th>
<th>Total no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupils</td>
<td>28</td>
<td>33</td>
<td>61 (std. 7 class).</td>
</tr>
<tr>
<td>Siblings and peers</td>
<td>8</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Teachers</td>
<td>5</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Parents</td>
<td>4</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>C-T-C officials</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Health education officials</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Key educational officers</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total respondents</strong></td>
<td>51</td>
<td>56</td>
<td><strong>107</strong></td>
</tr>
</tbody>
</table>

3.5 Instruments for Data Collection

The main research instruments that were used for this study were Focusse Group Discussions (FGDs), interview guides, free listings and observation checklists.

a) Focusse Group Discussions (FGDs)

FGDs were based on the principle of small group dynamics. FGD sessions comprising 6-12 participants sharing some common characteristics, such as parents and teachers, were used. The FGDs were based on carefully selected semi-structured questions that guided
the discussion. The justification for using FGDs was that responses offered by groups are not necessarily the same as the sum of people speaking alone (Budd, 1981:16). Through the group interactions the researcher sought to gain insights to the implementation of the C-T-C activities, as the discussants argued points, corrected one another, gave exemptions and supported their points with examples from their own experiences. FGDs for parents, teachers and pupils were conducted separately to enhance freedom of expression.

b) Interview guides

Interviews were held with teachers who in addition to their normal teaching load had extra duties related to C-T-C project, selected pupils, their siblings and peers and key educational officers who worked hand in hand with the school administration. In addition to teachers working with the C-T-C project, other teachers teaching health related subjects in standard seven were interviewed individually. Interview guides for teachers, pupils and educational officers were different, and were held at different times. Much of the information sought through the interview sessions was almost similar. The purpose was to crosscheck, confirm and validate information from the different sources. These instruments and methodological triangulation helped the researcher to collect in-depth information for the study.

Interview guides were both structured and semi-structured. The researcher sought in-depth information on the levels of awareness and implementation of the C-T-C approach to health education. In structured interviews, the researcher had an agenda that was used
to ensure that the basic points were covered. The questions were however tailored to suit the individual or category of persons and to the circumstance (Kane, 1995).

c) **Free listing**

Standard Seven pupils were asked to list activities that they undertook through the C-T-C project and in their C-T-C clubs and cite constraints to implementing them. The researcher and the pupils then discussed the information listed. Through this, reliable in-depth information relating to the study was generated.

d) **Observation Checklists**

Observation was done both within and outside the classroom. Observation was also done in homesteads and in the community. The aim of classroom observations was to ascertain the extent to which teachers related curriculum content to health issues. Classroom activities geared towards transmitting health messages to pupils were also observed. Outside the classroom, the school's physical condition was observed. Other extra-curricula activities were observed to ascertain how useful they were in teaching health education to the pupils. In both cases, checklists were used to collect both qualitative and quantitative data related to the study. At home and the surrounding school community, observation on the general hygiene of the physical environment was done.

### 3.6 Data Collection Procedure

The first stage for fieldwork for the study was to enhance the validity and reliability of research instruments. This was done through a pilot study to pre-test research instruments. The pilot study was carried out at Ngiini Primary School in Kitui district. This was one of the schools in which C-T-C project was initially launched and in which an active C-T-C club existed. Research instruments were administered to different groups
of respondents to test the extent to which they could be understood and elicit the required responses during the main study. Following the results of the pilot study, it was decided to exclude lower primary pupils from in-depth interviews, as they seemed not to grasp the details of the interview. Also teachers who were not actively involved in C-T-C activities were included in the final sample. This was because the pilot results showed that due to the integration of health education in various subjects, non C-T-C teachers also had information relevant to the study.

Pre-testing also helped in clarification of areas of ambiguity, as each research instrument was scrutinized, problem areas identified and modified. Respondents were given a chance to comment on the instruments, The researcher then made the necessary changes. Also throughout the study, there was triangulation of methods of data collection, sources of data, and use of different types of data. This facilitated crosschecking, and verification of data that was generated.

Actual data collection involved several processes and was done in various stages in order to ensure all necessary information was collected. First, the researcher obtained a research permit from the Ministry of Education, Science and Technology (MOEST). The first week was spent gaining entry into the field. This involved establishing contact and rapport with pupils, teachers and the key education officers.

The selected school was visited in order to make arrangements for data collection with the Head Teacher, pupils, and teachers. The researcher explained the purpose of the study
to them and sought informed consent from all respondents before data collection commenced. All respondents were assured of confidentiality in the handling of the information given.

Data collection commenced with the researcher familiarizing herself with the school environment and creating rapport with all the respondents. Observations of the school and community environment were then done using an observation checklist. The aim of the observation was to establish the hygiene conditions of the school and the surrounding community among other things. The researcher was able to observe the physical condition of the classrooms, the school environment, and also the interaction among pupils, teachers and parents. As much as possible, much of the observation data was collected in the early days of fieldwork before "Hawthorne Effect" could influence subsequent responses and actions by respondents.

The second stage of fieldwork entailed in-depth semi-structured interviews with pupils, teachers, education officers, and C-T-C and health officers. Prior arrangements were made with the head teacher and other teachers in the school to arrange for the various interviews. Free listings with pupils were also done during this time.

FGD with parents was conducted in the third stage of the study in the school compound. The C-T-C patron facilitated this by assisting the researcher pick a random sample of pupils from the class register, whose parents were sampled for the FGD. The researcher accompanied the pupils individually to their homes to explain to the parents the purpose
of the study, then requested them to come to school for discussions. Interviews with the siblings and peers were conducted at their homes on weekends during this period of the study. Lastly, before finishing fieldwork, the researcher ascertained that all the necessary data had been collected and gaps filled. Overall, three months were spent on fieldwork.

3.7 Data Analysis

Data collected was mainly qualitative in nature. Therefore, data collection, analysis and verification were done simultaneously during the study period. Generally, the analysis of qualitative data is complex and does not always form a distinct stage in the research process. There was, therefore, a concurrent process of data collection and analysis that allowed the analysis to guide data collection ((Miles and Huberman, 1994). By doing so, the researcher was able to control the processes involved.

During fieldwork, field notes were perused each day to find out the emerging patterns. Each interview or FGD was content analysed and emerging themes identified. Consequently, data analysis began shortly after data collection commenced and continued during data collection and beyond (Fitterman, 1989). Errors in the field were undone, as instrumentation was adjusted to suit the context within which fieldwork took place. At the end of it, data was analysed and fitted into the various themes that had been developed according to the objectives and research questions of the study. Except in a few instances where data was summarized in tables and boxes, most of the data was qualitative and has been presented as such in the study.
CHAPTER FOUR
PRESENTATION AND DISCUSSION OF RESEARCH FINDINGS

4.1 Introduction
This chapter presents the findings of the study. The chapter commences discussion on the study locale, where observational and background information about the study locale is given. This is important because it shows the social-economic profile of the locality where the school was located. This helped the study to capture certain factors that influenced health practices both in school and the community. The findings are presented in the following sub topics, related to the concerns of the study:

a. Description of Kaveta Primary School and C-T-C club.

b. Pupils’ and teachers’ awareness of C-T-C approach to teaching health education in Kavêta primary school

c. Awareness of C-T-C Approach Among the Neighbouring community Members.

d. Nature and levels of implementation of C-T-C activities at Kaveta primary school and the neighbouring community.

e. Benefits of C-T-C approach to pupils, teachers and the community of Kaveta primary school

f. Challenges that faced the implementation of C-T-C approach to health education in Kaveta primary school.

g. Teachers’ and pupils’ opinions on how the challenges could be addressed.
4.2 A Description of Kaveta Primary School and C-T-C club

4.2.1 A Description of Kaveta Primary School

The study was carried out in Kaveta Primary School in Kitui district. This school is one of the oldest schools in Kitui District, which was established in 1959. The school is located within Kitui town, next to the main road and therefore it is accessible. In September 2002, when this study was undertaken, the school had a population of 554 pupils: 266 boys and 288 girls. The school had 15 teachers, five male and ten female. It was two streamed from Standard One to Seven but one Standard Eight stream.

The school had a spacious playing ground. It had a total of 17 classrooms, including the nursery and the pre-primary classroom (see plate 1). All classrooms had lockable doors. Most windows had metal frames and glass windowpanes while others had wire mesh. The floor for all classrooms was cemented which made cleaning and maintenance of basic hygiene easy. On the front of the lower primary school block, the C-T-C club motto was written on the wall (see plate 2). Classrooms had a reserved space where resource materials for teaching and learning C-T-C approach to health education were kept. Some of the health information charts had messages on balanced diet, locally available herbs, healthy daily routine, disease prevention measures, and treatment for common ailments. The kitchen and the food store were constructed about two hundred meters from the classrooms.
Plate 1: Front view of some of the classrooms of Kaveta Primary School

Plate 2: View of the C-T-C motto written on the front wall of the lower primary school block
In terms of health services, there was a dispensary in the nearby shopping centre where pupils sought treatment when they got sick. The district hospital is three kilometres from the school therefore; pupils were able to access health services, within a reasonable walking distance.

The school community depended on rainwater that was collected and stored in three water tanks. There was a school garden that was maintained by the C-T-C club with the help of other pupils who were not members of the club. Pupils reported that the garden provided vegetables for the school feeding programmes and sometimes for selling when there was a surplus.

In terms of sanitary conditions, the school had 12 toilets for boys and 12 for girls. They were cleaned everyday by pupils. It was however noted that some of them were almost full. There were 'leaky' tins that had been placed in strategic places in the school compound. The C-T-C headquarters provided "Leaky" tins to all health promoting schools. Pupils washed their hands there after visiting toilets and before handling food. However, the researcher noted that the "leaky" tins were small and required constant refilling. At times pupils who wanted to wash their hands got disappointed when they found the "leaky" tins empty.

The school had two separate dormitories for both boys and girls. Standard Seven and Eight pupils cleaned the dormitories every day. The teacher on duty inspected the
dormitories to ensure that they were clean, safe and that all beds were well spread and neat. There was a mosquito proof screen on the windows that ensured safety of children from mosquitoes. However it was noted that the dormitories were not spacious enough.

4.2.2 History of C-T-C clubs in Kitui District

C-T-C project was initially started in 1996 by a Danish lady called Lisellotte Christensen in three divisions of Kitui district. The divisions involved were Central, Voo and Kabati. She started clubs in eight pilot schools, Kaveta primary school being one of them. C-T-C approach according to her was supposed to be started with children in school and then move out to those out of school (C-T-C Project, 1997).

Initially there was total support from the C-T-C headquarters in Nairobi and other well-wishers, especially those interested in community health. Activities that were initiated were made to be part of the then Kitui Integrated Development Project (KIDP). Both KIDP and C-T-C ensured that the activities were implemented collectively (C-T-C Project, 1997).

When the clubs were initiated all Health Promoting Schools were receiving funds from Save the Children Fund, DANIDA and other Community Based Nutrition Programmes (CBNP). Most C-T-C activities then were implemented in four pilot schools in the central division of Kitui district. The first C-T-C training session was held in 1997 for all selected implementers from the pilot schools in Central division. After this implementation expanded in the two other divisions (Voo and Kabati). By 2002, five divisions in the district had at least one HPS. Reasons for not having the clubs in all
divisions in the district, was that the entry points of the C-T-C project were the Community Based Organizations (CBOs), therefore C-T-C Project reached only those places where CBOs were established (C-T-C Project, 1999).

By September 2002, the approach had been introduced in 158 schools in five divisions of the district. In each school two teachers and the head teacher were trained to be facilitators and implementers in their schools. Other people involved in training were Tac-tutors, Public Health Technicians (PHTs), Water officers and Agricultural officers. They were trained because they work closely with the school and community and these were targeted by the approach. Health officers were targeted to do the monitoring of hygiene and sanitation work, thus they supported C-T-C activities in the community (C-T-C Project, 1999).

At the time of this study, it was established from teachers and pupils that another approach to teaching health education had been introduced in the district. It was implemented in conjunction with C-T-C approach in the HPSs. This was Participatory Hygiene and Sanitation Transformation (PHAST). It was a new approach to health education where children used tools in form of drawing to identify problems, causes and barriers to good health in the society. This approach had been piloted in HPS in Central division. The implementers used the Malaria route, AIDS, Fecal oral route, and the sanitation ladder to teach community members how they could avoid catching diseases.
Teachers and C-T-C officials pointed out that after the first phase of the project and on entry to the transition period, there had been very little support for the existing C-T-C clubs in schools. Mostly support was from well-wishers in the community who found the club useful to the community. At the time of the study C-T-C was registered as an independent NGO but under Health Sector Support Programme (HESSP) - DANIDA.

4.2.3 Description of C-T-C Club in Kaveta Primary School
The C-T-C club in Kaveta primary school was initiated in 1996. This was the first school in which a C-T-C club was initiated. According to pupils and teachers, during that time the club was popular among pupils, teachers and parents and the enthusiasm for implementing C-T-C activities was high.

In September 2002, when this study was conducted, the club had a total of 20 members, all girls (see plate 3). Pupils and teachers said that boys were not interested in the club membership but they participated in the implementation of C-T-C activities.
Plate 3 C-T-C club members with their patron.

The main objective of the club was to ensure good health and safety in the school and in the community. This was the reason why their main strategy was to capture and sustain the community support in the implementation of C-T-C approach activities. The main objectives of C-T-C are listed in Box 1 below.

Box 1  Goals of C-T-C club

- To make education meaningful and life oriented
- To prepare children to solve their day-to-day health problems
- To make the school clean
- Educate parents on how to keep themselves clean
- Educate the community members on how to take care of their homes
- Teach neighbours how to feed their animals
- To prevent diseases in the community.

From the data in Box 1, it can be deduced that C-T-C project was not only targeting the school but also the community. Teachers and pupils said that it was the responsibility of
C-T-C club members to ensure that the school compound was clean and there were no health hazards in both the school and the community.

C-T-C club had rules that were not only meant for the club members but for all pupils in the school. It was however learned from pupils and teachers that those who abode most to the rules were C-T-C club members. This was because if some members did not abide to the rules, the other members punished them heavily. C-T-C member commented that:

*The rules are not for us alone, but we have to give the best example to those who are not C-T-C members.*

The rules were meant to ensure healthy habits in both school and the community (see Box 2) and also to improve interaction among pupils, which enhanced teaching and learning healthy behaviour amongst the pupils.

**Box 2  Rules of C-T-C Club.**

- One has to lead an exemplary healthy lifestyle to enable others to emulate
- Be smart all the time
- Keep nails short and clean
- Be cooperative and obedient
- Encourage the young ones if you are a leader in the club
- Do not be too close to boys lest you be involved in bad behaviour meaning-sex.
- Ensure that utensils in the house are clean to avoid flies
- Ensure that the home environment is clean
- Teach people at home good health practices at any opportunity.
- You should not litter
- Do not share personal effects

C-T-C girls said that boys regarded C-T-C activities as more related to girls' domestic activities and not boys' work. This could be one of the reasons as to why boys were not members of C-T-C club.
4.3 Awareness of C-T-C Approach

4.3.1 Awareness of C-T-C approach to health education in Kaveta Primary School

To begin with, the study wanted to establish if pupils and teachers of Kaveta Primary School were aware of the C-T-C approach and linked it to the teaching and learning process in health education. All teachers interviewed in Kaveta Primary School, including the Head Teacher were aware of the C-T-C approach to health education. They were also aware of the C-T-C club and its aims and objectives. During the interviews and the FGD, 6 teachers recalled the C-T-C approach motto and its objectives. They said that this information reached them through seminars in which they were taught about the importance of C-T-C in both school and the community.

Teachers also said that they had passed the health information that they learned to their families and communities for they had found it very beneficial. However, it was noted that some of them, especially those who were not C-T-C teachers, could not describe the approach and its objectives conclusively.

Out of the fourteen Standard Seven pupils sampled for interviewing, ten indicated that they were aware of C-T-C approach to health education. They said that they got the information from C-T-C books that they read and also from C-T-C seminars that they attended. Some were able to state the C-T-C motto, aims and objectives of the club and its importance both to the school and the community. It was noted that those who could not recall the Motto and the objectives of the club were those who were not members of C-T-C club. It was also noted that girls were more aware about C-T-C than boys.
In the school staff room, the researcher observed that there were calendars from C-T-C headquarters for the years 2001 and 2002. They had pictures of children with special needs participating in the C-T-C activities. These perhaps showed some level of awareness in terms of accessing up-to-date information about the approach.

4.3.2 Awareness of C-T-C Approach Among the Neighbouring Community Members

In this context, community members of the school included parents, peer, siblings, education officers, and health officers. Together they formed a school community whose input to the success of the C-T-C approach was crucial. They also provided an important link between the school and the community in terms of realizing the relationship between health and education. The awareness of this group of people of C-T-C approach to health education was therefore crucial to this study.

Besides, C-T-C approach was supposed to go further to the community level. Therefore, parents were involved in order to facilitate teaching health education both at home and in the community. Since good health through C-T-C was the aim of the schooling process, it was thought necessary to establish the community members' level of awareness. Information on this was acquired through interviews, FGD with parents and pupils' peers, and interviews with health and education officers.

Parents, siblings of the selected pupils and their peers who were interviewed said that they were aware of the C-T-C approach to health education. Parents who participated in the FGD said that they were aware of the C-T-C approach to health education. However,
one parent (male) said that he had heard of the approach but could not explain what it was all about. He stated:

*My wife and children are the best people to tell you about this. Actually I can’t say I know much about it.*

Other parents in the FGD were aware of the approach, as they were able to cite the objectives of the approach in schools and also in the community. The siblings and peers who were interviewed were aware of C-T-C approach. However, they did not know the objectives of C-T-C fully, or misunderstood them. One girl, a sibling to one of the Standard Seven boys who were sampled stated that:

*C-T-C is about singing and dancing. It’s also about going to different places to visit others and dance with them*

Other children also related C-T-C approach with song and dance. This showed that there was lack of information about what the various C-T-C activities were intended to achieve. One of the siblings (a six years old girl, in nursery school) of a C-T-C club member was able to state the C-T-C motto. She also mentioned four activities that were implemented in the approach. Asked by the researcher where she learned that from, she stated that:

*My sister teaches the whole family about C-T-C in the evening. She teaches me songs and plays. We sing the songs with my friends when we are playing.*

She said that she had been involved in the CT-C activities at home. However, she was not able to give any examples. This indicated that though the sibling knew what C-T-C was, some of them did not know its importance in the community. The mother was also aware of the approach. She said that she got C-T-C approach information from her daughter and other children in her daughter’s school. She said they were also taught about C-T-C
during parents meetings. In a different home, the researcher talked to one sibling (a boy), who said that he had heard her sister talk about C-T-C but did not bother to know what it entailed. However, the mother said that she was aware of the approach and had been involved in the activities at different levels.

From the FGD with parents, the researcher noted that people in the community were aware of the approach and they made efforts to pass messages to each other about it. It was also explained by different respondents that the health education campaigns by pupils, teachers and C-T-C officials had increased the awareness of the community. Parents understood the essence of the approach as opposed to pupils who seemed to know the word but did not know the objectives of the approach. In the final analysis, responses from parents, siblings and peers showed some level of awareness.

The researcher also interviewed two officers in charge of children’s health in Kitui District Hospital. Both said they were aware of C-T-C approach to health education but had not been working closely with the programme that supported the project. One of them referred to it as “the health club of primary school teachers”. The above statement from a person in-charge of children’s health was an indication of lack of close cooperation between the school and some officials in the community on matters relating to teaching health education. The officers however indicated that they were aware Of C-T-C and that at some point they had worked with the coordinators and children to pass information on malaria, typhoid and diarrhoea to the community. They also said that health workers in the district hospital, especially those who worked in the community,
had used both PHAST and C-T-C approaches and found both useful in passing health information to the community.

Asked how information on the C-T-C approach reached them, the officers explained that they got it from the coordinator for C-T-C in Kitui District and other C-T-C officials. Probed further, they said that they had been trained as implementers and facilitators of C-T-C approach in the community. They indicated that C-T-C facilitators were supposed to have certain qualities and skills. The skills and qualities, as given by the two officers are summarized in Box 3 below:

**Box 3 The Qualities of a Good Facilitator:**

- Guiding personnel
- Enabler to those implementing the activities.
- Developer of C-T-C activities.
- Catalyst in the implementation of the C-T-C activities.
- Motivator
- Advisor

The officers also explained to the researcher that other members of staff in the hospital were trained as monitors of hygiene and sanitation work in the community. The C-T-C office and other NGOs that were concerned with community health then had organized the training. However, they admitted that after training, no follow-up was made and that most of the hospital staff were not using the approach, though they were aware of the C-T-C clubs in primary schools.

The deputy DEO in the district indicated during interviews that he was aware of the approach and he had been trained as an implementer. He said the C-T-C coordinator
constantly consulted with the DEO and other officers in the district education office to seek assistance to revive C-T-C clubs in primary schools. He understood the essence of the clubs and added that he had been in the frontline in encouraging pupils to join the clubs.

4.4 Nature and Levels of Implementation of C-T-C Activities at Kaveta Primary School and the Neighboring community

This section discusses how awareness about C-T-C was translated into practice through implementation of various C-T-C activities at school and community. Levels of implementation were sought through two research questions. The first question sought to know how in practice teachers and pupils of Kaveta primary school were utilizing knowledge on C-T-C approach to health education. The second question sought to establish activities at school that promoted the basic concerns of the C-T-C approach to health education. Data on the levels of implementation of C-T-C activities was elicited through observations, interviews, free listings and FGDs with different categories of respondents. Both formal and informal activities in the school and community were used to estimate the levels of implementation. The activities were:

a) C-T-C health education, Teaching/Learning materials in the school
b) Nature of interaction among pupils and teachers during C-T-C activities
c) Nature of interaction between parents and the school
d) Activities that promoted health education and a healthy environment in the school.
e) Health promotion activities in other schools.
f) Health education activities in the community
g) Income generating activities.

h) Advocacy and training activities.

4.4.1 C-T-C Health Education Teaching/Learning Materials in the School

Each classroom had a resource corner where pupils displayed various teaching and learning materials for the C-T-C, health education approach and its importance to the children and their communities. Also, in the office of the patron for the club, there was a library of C-T-C books. The books ranged from storybooks on health, C-T-C handbooks, first aid guide to C-T-C news and magazines.

During observation it was noted that pupils exchanged C-T-C books after classes with the help of the C-T-C patron and the pupils (girls) in charge of the club. It was also established during interviews with teachers that pupils who were not members of the C-T-C club read the C-T-C books. The teacher confirmed that they also participated in the C-T-C activities. It was also established from interviews with teachers and pupils that the club had not received new books for a whole year. This lapse made some pupils lose interest in the club.

In all upper primary classrooms, there were C-T-C calendars with the C-T-C motto and pictures of children implementing C-T-C activities. Most pupils in Standard Seven explained all the activities and said they had participated in the activities. Teaching/learning materials of C-T-C approach were therefore available though some of them were not up-to-date. For example for two years no new C-T-C books had not been supplied.
4.4.2 Nature of Interactions

a) Interaction among Pupils and Teachers During C-T-C Activities

There was interaction between children of different ages in Kaveta Primary School. The C-T-C teachers encouraged this. Pupils from upper primary classes were seen holding the smaller children's hands and assisting them to use latrines and 'leaky' tins. Children of different ages also played together during their free time. However, it was observed that while boys and girls from Standard Seven and Eight interacted freely with smaller children they did not freely interact amongst themselves. Girls from standard six to eight assisted small children to use the toilets and to wash their hands but boys did not. The C-T-C girls said that boys regarded C-T-C activities as more related to girls’ domestic activities and not boys’ work. This explained why boys were not members of the C-T-C club.

During assemblies, pupils were inspected by their teachers on whether their school uniform was clean, whether nails were cut and whether their hair was short and well combed. It was in the assemblies that teachers emphasized the importance of cleanliness, hence serving as an important forum for teaching health education. The four teachers concerned with C-T-C club fully interacted with the rest of the teaching staff-room. They had been trained as implementers and facilitators of C-T-C activities. During their free time in the staff room, they discussed different issues with the other members of staff.
After classes, pupils concentrated on cleaning up the school. C-T-C members organized themselves in groups to do their daily activities. It was noted that some teachers not on duty and not C-T-C officials, also participated in organizing the pupils. The interaction between them was observed to be collegiate and that of mutual support.

b) Interaction Between Parents and the School

During the time of this study, it was observed that parents came to school for consultative meetings with the Head Teacher and other teachers. Some parents were also observed working in the school compound. Some were clearing bushes and mending the school fence, while others were planting trees and watering them. It was explained that these parents could not pay school levies for their children, thus they compensated through manual work. Some parents came to school to report their children's absenteeism from school and also to explain to the teachers why their children were absent. On a parade speech, the Head Teacher emphasized this rule by saying:

*If your parent does not report to the teachers why you are not in school, don’t come here, if you do, come with one of your parents and evidence for the reason for absence.*

The head teacher explained to the researcher that this was done to avoid truancy and other forms of indiscipline

4.4.3 Activities that Promoted Health Education and a Healthy Environment in the School

At Kaveta primary school there was a C-T-C health club. The club had several activities that were geared towards promotion of good health in the school. Most of the activities that were implemented were meant to ensure that health information was understood well
by children and transferred to the community. It is through these activities that children sensitised each other about their health and safety. Data on this was mainly elicited through observation and interviews with pupils and teachers.

Teachers explained to the researcher that as they taught other subjects, they integrated health education using the C-T-C approach. For example, the science teacher for Standard Seven said that he taught health education topics with examples from C-T-C approach so that pupils could apply the knowledge in their daily lives. The researcher also noted the health information materials that were placed in strategic areas in the school including classroom walls. Information on locally available herbs and how they were used were pinned on the walls. Interviews with pupils revealed that they were aware of and well versed in their use.

Every morning C-T-C pupils organized cleaning of the school compound. Pupils and teachers explained that classrooms, offices, kitchen and stores were cleaned daily under the supervision of C-T-C officials and school prefects. The latrines were cleaned using water and ash. Burning grass was inserted into the latrines. Pupils explained that this was done to avoid breeding of flies.

Pupils and teachers in charge of C-T-C provided health knowledge by placing health education posters and charts in strategic places. These places included classrooms walls, the main notice board, the staff room and the head teacher's office. Messages on these posters included charts on balanced diet and healthy personal daily routine. There was
also the C-T-C logo, which showed children passing health messages to each other. Charts showing locally available herbs and diseases that they cured were also displayed. The school had also established a resource corner in each class where pupils displayed posters, charts and other teaching materials. Pupils, teachers and the C-T-C coordinators said that these materials were also used in the community health campaigns.

During FGDs with pupils, C-T-C club members were able to explain to the researcher most of the information on the charts without referring to them. The C-T-C patron, other teachers and pupils explained that this was as a result of the experience they had acquired from regular use of the charts in teaching other pupils, teachers and the community. One pupil commented:

*I teach my mother, my father and my sisters using these charts at home. In school I teach the other pupils and also teachers and visitors. I know everything that is in them.*

Every Wednesday, before classes began, C-T-C members had an arrangement whereby one of them would go to the lower primary classes to remind them of the daily healthy routine. This was done in form of a song. The theme of the song was to remind the children that they should wake up early in the morning, wash their faces, take a balanced diet, change their clothes (underwear), brush their teeth then go to school. This constantly reminded them the importance of their health and education. During one of the sessions that the researcher observed, it was noted that immediately the C-T-C pupils entered the class, pupils started to sing the song immediately. The pupil later inspected the young pupils' clothes, hair and nails. Then they recited the C-T-C motto together. The C-T-C
patron explained that this had highly improved the physical appearance of their pupils. A C-T-C official (girl) noted that:

Pupils enjoy the health education sessions. They learn to be neat because they do not want to be disappointed during inspection.

Probed further, they explained that younger pupils longed to be the ones to do the inspection. They told them that they could only do so by joining the C-T-C club and being active implementers. Teachers explained that this was an effective way of encouraging pupils to join the club. They also pointed out that this was useful in encouraging younger children to participate in C-T-C approach activities and also to be responsible for their own health.

Peer teaching was also encouraged by pupils and teachers who were involved in C-T-C activities during pupil’s free time. This was taken as a way of increasing pupils’ C-T-C awareness in the school. Pupils said that during their free time they taught each other the importance of C-T-C health education approach to themselves and also to the community as a whole. They also encouraged each other to implement the C-T-C approach.

It was the duty of C-T-C club members to ensure that younger children in the school were well dressed. The researcher noted that pupils who had not tacked in their blouses and shirts were called upon by C-T-C officials and reminded to do so. The C-T-C patron, while addressing pupils at parade commented that:

I don’t want to see lower primary school children with hanging blouses. C-T-C members, you know that is your duty.
Next to the latrines for both boys and girls were placed ‘leaky’ tins from which pupils were supposed to wash their hands after using the latrines. Teachers, pupils and parents said that C-T-C club members had been very useful in encouraging other pupils to wash their hands after using latrines. However, it was observed that though most of the pupils remembered to wash their hands, younger children often forgot to do so. To confirm if the pupils understood and appreciated this, the researcher asked one of the C-T-C officials in Standard Seven why they washed their hands after visiting the latrine. The girl explained:

_This is important because there are germs and eggs from flies. These can make us sick._

During interviewing the head teacher noted that every time there was a parents meeting, pupils used the charts in their resource corners to pass health education information to their parents and other visitors. Pupils also implemented environmental health activities. The activities were aimed at ensuring that the environment they lived in was safe. Teachers and parents said that every time it rained, C-T-C members and other pupils, especially boarders drained off all stagnant water in the school. Pupils explained that they did this to prevent the breeding of mosquitoes in the compound. It was also the C-T-C members’ duty to ensure that there were no bushes around the compound where mosquitoes could breed. The head teacher explained that pupils did not need to be reminded to do so. He stated that:

_C-T-C club members were brought equipment by day scholars for clearing bushes in the compound. When there is need for this, they organize themselves and clean the compound._

Pupils confirmed this by saying that it was their responsibility to ensure that there was a healthy environment in order to have good health for all, which was their motto.
In order to encourage pupils and teachers to participate in the C-T-C activities, the school had a health theme every term that all teaching and non-teaching staff had to reinforce. During the course of this study, the school’s health theme was “Immunization for all”. Most school community members expressed their commitment to the theme. Teachers and pupils said that they reminded parents to take their children to be immunized against different diseases using birthday cards that were designed by the C-T-C club members and also by placing charts in strategic places where people could read them. Some of the charts that were used to campaign for immunization were found in the classroom resource corner for Standard Seven.

Popular activities like song, dance, role-play, games and drama were an important medium of health education in this school. For example, plays were used to illustrate people’s attitudes to immunization, games to understand what it is like to be blind and role-playing to explore how to say no to people who offer cigarettes and drugs (See plate 4). Pupils made up stories that related health problems to real life. There were pictures in the main C-T-C resource room that pupils used to develop understanding of health problems and solutions.

Messages from the C-T-C motto, the rules and goals, were used to compose different songs. This made them easier to remember. The C-T-C patron explained that the songs had also helped in modification of pupils’ behaviour. He noted that:

*These songs were used to ridicule those who failed to take a shower everyday, those whose clothes were dirty and those whose homes were not well kept.*
The researcher noted that there was a song that had been composed for those who urinated on their beds. This was discussed with some C-T-C club teachers and other teachers, but they did not seem to understand that this would have negative psychological consequences to the pupils concerned.

Plate 4: C-T-C Club Members Involved in a Health Dance.

Pupils in school arranged to have all rubbish put in a rubbish pit in the school compound. Pupils explained that initially, they used to put the rubbish near the fence and burning could be done once in a while. However, the researcher observed that pupils sometimes used latrines as rubbish pits. Though this was highly discouraged by the C-T-C patron during the interview, he said that his efforts yielded little fruit. He attributed this behaviour to what pupils did habitually in their homes.
C-T-C club pupils collected herbal medicine from locally available herbs. Some of the herbs had been preserved and kept in the patron’s office (also the deputy head teacher). During the interview, the researcher noted that C-T-C members were well versed in the use of the herbs. It was also observed that there were some herbs that pupils had planted in the school garden. A pupil (boy) had this to say about herbal medicine:

*When I fall sick, I first try the herbal medicine that our teacher taught us about. If it does not work, I seek medical treatment from the hospital. We always use herbs together with the First Aid Kit when one of us gets hurt in our school.*

Teachers confirmed that pupils regularly used herbal medicine that was available in the school compound. They noted that they encouraged pupils to tell each other about any new developments they had discovered in herbal medicine. One of the pupils proudly displayed his hands that had been healed of a skin disease by a fluid from a local herb called “Kiluma”.

From the foregoing discussion, it was noted that most activities done in C-T-C approach were informal. This was attributed to the fact that during formal classroom teaching, health education was limited to the mention of a few examples in the subjects to which it had been integrated. Also girls were more active in implementation of the C-T-C activities than boys. The activities had generally increased C-T-C awareness in the school and also in the community as children passed on health information to their families. The participation of girls more than boys was due to the fact that C-T-C activities are seen to be more related to traditional female roles.
4.4.4 Health Promotion Activities in Other Schools

C-T-C club members were involved in activities that targeted increasing C-T-C awareness in the neighbouring schools. Since the C-T-C approach is geared towards health for all, there were activities that aimed at transferring health knowledge to other children outside their school. Regular and special schools were targeted. In the regular schools, pupils aimed at sensitizing more pupils and other community members about the importance of using preventive measures for health care. In special schools, activities were geared towards encouraging children with special needs to participate in health care and also to be responsible for their own health and that of their communities. These activities are discussed below:

a) Health Education Activities in Regular Schools
This section discusses activities done by pupils of Kaveta Primary School in other regular schools in the neighbourhood. C-T-C club members and teachers in Kaveta primary school carried out activities that aimed at encouraging awareness and the implementation of C-T-C activities in other schools. This was done by organizing exchange visits to different schools. Some schools that were targeted were aware of the approach while others were not. During the visits, pupils exchanged ideas on activities that they had implemented in their schools. Also new insights on C-T-C approach were exchanged. They shared experiences on the challenges they encountered and shared ideas on how they could be overcome. Schools that did not have C-T-C clubs were also visited. Pupils performed songs with health themes, drama and dance on such occasions. Teachers and pupils said that they learnt a lot from each other in most occasions. Most of the songs
were memorized and were used to teach health education in other schools. A C-T-C female teacher noted the following about the visits:

*Every time we visited a school, our pupils came back with a new activity to be implemented in the club. For example, we had not been dramatizing C-T-C activities until we visited a neighboring school that did that. Our children learned from them.*

Pupils also narrated stories containing health education messages to each other during the visits. The Standard Seven English teacher said that this activity had improved their written and spoken English. Their handwriting had also improved. Jokes and drawings containing health information were exchanged. The C-T-C club chairperson, a girl in Standard Seven sang a C-T-C song whose theme was to break the C-T-C news to those who had not heard about the C-T-C approach. The researcher observed that in the Annual Reports that were sent to the headquarters by the C-T-C coordinator, most of the pupils' drawings, songs, poems and jokes were acknowledged. The coordinator noted:

*By publishing these activities, we aim at acknowledging the pupils efforts and also encouraging them to put more effort in participating in C-T-C approach activities.*

During the exchange visits, pupils and teachers said that pupils from the visiting and the host school were involved in tree planting. The head teacher, the coordinator and the educational officers said that this activity had been of great benefit to the school and also the community. Most schools that had a C-T-C club had fruit trees that provided fruits to pupils. The DEO noted that:

*We had tried other means to have trees planted in our schools. The exchange visits managed to achieve what we had been longing for.*
Generally it was established that pupils and teachers found C-T-C activities very useful in increasing C-T-C awareness in schools and in the community as a whole.

b) Health Education Activities in Special Schools

Pupils of Kaveta Primary School often visited children in special schools. The schools included; The Kitui School for the Deaf and the School for the Mentally and Physically Handicapped. This activity aimed at making those children feel that they were part and parcel of the children’s campaign for better health. Pupils said that by interacting with children with special needs, they had learned to understand and appreciate them.

One of the C-T-C teachers explained that initially pupils used to fear children with disabilities, especially the mentally and physically handicapped. However, this attitude was slowly changing. She stated that:

*When we first visited the physically and mentally handicapped children, our pupils were very scared, but today, they talk to them and assist them. This has been a great learning experience for them.*

One of the girls in Standard Seven who was a C-T-C member explained why they cooperated with special children this way:

*They are children like us and they need good health as much as we do. Therefore, we try as much as we can to implement the health activities with them. Most of them are very talented.*

As part of this concern, pupils from Kaveta Primary School participated in a walk in the year 2001 that aimed at financing C-T-C activities that included dance, drama and music shows for the special schools. These activities were performed in the year 2001 annual festivals and from that time, pupils from special schools have remained actively involved.
in implementing C-T-C approach. The C-T-C coordinator said that pupils from special schools participated in annual festivals for C-T-C. They were given presents just like the children from regular schools and this she said boosted their morale. The education officers and health officers who were interviewed confirmed the participation of children with disabilities in C-T-C activities. They added that this was as a result of the encouragement that they received from children in regular schools. A health officer had this to say about special children:

_The children with disabilities are very active especially when they realize that what they are doing is appreciated. I saw deaf children present a health education dance and the meaning came out very clearly. They used both charts and neatly cut messages to pass the messages across._

C-T-C pupils from Kaveta primary school organized clean-ups for the school for the physically disabled. The essence of this was that since most of the pupils could not undertake difficult manual activities, they took it as their responsibility to ensure they were in a safe and clean environment. Teachers and pupils also participated in a workshop in 1998, which was meant to involve people with special needs in C-T-C activities. Messages on the implementation of C-T-C approach to health education were passed to teachers teaching in both regular and special schools. Selected pupils from special schools and regular schools were also trained on the C-T-C approach and how the activities could be implemented.

The coordinator for C-T-C project in the district explained to the researcher that pupils from Kaveta Primary School motivated those from special schools (school for the deaf and for the physically handicapped) to participate in C-T-C activities. They also helped
them to establish resource rooms with different C-T-C teaching and learning materials. Generally pupils of Kaveta Primary School were involved in activities that aimed at both awareness and implementation of the C-T-C approach to health education in the neighbouring regular and special schools.

4.4.5 Health Education Activities in the Community

C-T-C approach aims at encouraging, enabling and supporting children’s participation in health education and development of themselves and their communities. Families and communities are targeted through participatory methods. The approach aims at having children as equal partners in health education and to play a full part in the realization of community health and development. This strategy is also advocated for by Kolbe (1986). He points out that for any education approach to be successful; it has to be fully integrated in the community. Therefore, most of the activities that children were involved in were geared towards realization of good health and development at the community level. Pupils had different activities whose aim was the realization of C-T-C goals in the community.

At the community level, pupils were involved in a variety of health promoting activities. They were involved in teaching non-school going children good health habits, which included: daily body care and the importance of having a clean and safe environment. This was done through visits to the neighbouring community and interacting with children who were out of formal school. Pupils, teachers and parents said that they had improved C-T-C awareness in the community. They also said that this had increased the implementation of activities. The C-T-C patron commented on this:
Out of school children can perform the same activities and can equally learn to be responsible for their own health. Therefore they need to be given a chance. The aim of C-T-C approach is to stimulate and support all children.

Pupils also played with pre-school children. The C-T-C teachers explained this as an important exercise for the development of the whole body. During play, they passed on the C-T-C ideas to the children they played with and they told them to teach other children. This was a very important means of increasing C-T-C awareness in the community. The idea was also encouraged by the Child Development Center in Beijing where they advocated for national competitions for children.

Both pupils and teacher noted that for sometime in the year 2001, out of school children were involved in C-T-C activities. They said that though the activities were few and very rudimentary, the children enjoyed them and appreciated their effort. For example, they would teach them C-T-C songs and dance, and other simple activities like proper personal hygiene and daily care of the home environment. Pupils organized the visits once per term to take health campaigns to the community; educated the community members on AIDS and other preventable diseases; and emphasized preventive health care, which is less expensive and advocated for by the C-T-C approach (C-T-C Trust, 1999). Teaching was done using narratives, song, dance and drama with health themes. Children made an effort of presenting different messages in their vernacular language (Kikamba). This was done because most of the community members were illiterate and that out of school children only understood their first language.
C-T-C club members visited the sick in homes and hospitals once every month. Teachers said that they used pupils who came from around the neighbourhood to identify families that had a sick person. They then sent two-three pupils to visit the sick and advise those taking care of him/her. A girl who was a C-T-C club member stated that:

*We visit them in order to guide them on how to feed the sick with balanced diet and ensuring that the environment was safe for both the sick and also the caretakers. We do this by the use of charts and drawings, which we leave behind to be used by the caretakers.*

During the hospital visits, pupils distributed fruits to the patients especially children and sang C-T-C songs to them. They also told them about C-T-C health education approach. Most of the information was passed through poems and narratives. This increased awareness of the C-T-C club in the district as a whole. The C-T-C coordinating office also arranged open-air market visits at least twice every year. This was meant to teach community members in the market about the importance of good health care. The coordinator and the teachers said that they encouraged this because in the market, women who are the stakeholders of health in their families were the majority group. Through the open-air campaigns, most parents learned the importance of proper diet and proper medical care. There was a popular saying among C-T-C club members that was meant to teach parents the importance of balanced diet. They said:

*Buy beans instead of carrying bread home*

This was meant to make parents aware that it was necessary to buy beans that would give their children proteins than buying them a loaf of bread, which would provide carbohydrates that were available in their staple food (boiled maize). Other activities that
children were involved in included presentation of songs, dance, and drama to those in the market. All these had health messages that were critical to the community.

During parents meetings pupils took the opportunity to teach their parents and other visitors about the best places for construction of latrines. Central division of Kitui District being a densely populated area, there was need to teach the community about the positioning of latrines. They reported that they told parents to build latrines downhill from any water source. This they said was done to avoid contamination. Probed further, they added that they told them to ensure that latrines were situated at least ten meters from any residential house to avoid bad odours and flies. These messages were passed using poems, charts and illustrations. Teachers said this was emphasized due to the regular outbreak of cholera in the Central Division of Kitui district.

Pupils participated in annual C-T-C festivals. This was an activity, which brought together pupils from different schools, teachers and parents. Regular and special schools were encouraged to present C-T-C activities and also to exchange experiences and various insights that they had learned about through the C-T-C approach. Health officers and Education Officers also participated in this activity. One of the health officers had this to say about the Annual festivals:

This is an important event for all of us. Children parents and other stakeholders are involved in the children's activities and all of us have something to learn about our health.

During the festivals, community members were encouraged to attend by ensuring that as many people as possible were aware of the festivals. The C-T-C office announced to
primary school pupils and children were asked to come along with their parents, siblings and playmates. This activity, according to all informants, had boosted the level of C-T-C approach awareness. The coordinator said that during the festival for 2001, there were activities from 26 schools but in the year 2002, the number drastically dropped to 15 schools. He said many schools reported that they were not ready for the festivals. She added that this was due to lack of motivation through financial support, provision of materials and visiting the Health Promoting Schools (HPSs).

4.4.6 Income Generating Activities
Some C-T-C activities were geared towards generation of funds. Pupils and teachers explained to the researcher that C-T-C teachers and the C-T-C officials assessed the situation in each school and set up C-T-C activities for generation of funds. They were supposed also to make the activities as effective as possible by encouraging the school community to participate.

Most of the income generating activities were aimed at making children responsible and self-motivated. Activities were also geared towards transfer of the knowledge to their homes and communities to improve the living conditions and also to create a source of income for the families.

Pupils were involved in poultry keeping using the freelance system. Pupils, teachers and parents noted that in the year 2001 this went well and some of the funds that were generated were transferred to school levies account for the pupils involved. This was a
relief for some parents who were not able to pay levies for their children. One parent commented:

This project helped us because in the year 2001, most of us who had children in C-T-C club paid less school levies. In our home I started poultry keeping and through it we are able to afford other domestic requirements.

The poultry products were sold to local hotels and also used to feed pupils in the school. The researcher observed that there was a poultry house at the school, which seemed well maintained. However, at the time of this study, very few chicken were available. Pupils, teachers and parents explained that most chicken had died from an epidemic, which hit the area in August 2002.

Pupils also had a rabbit-keeping project that brought extra income to the club, until September 2002 when all rabbits perished due to drought. The rabbits also lacked food and medication. Pupils used to benefit from the project in the sense that the rabbit products were used in the school for feeding and some rabbits were sold to pupils and other community members who wanted to start rabbit-keeping projects at home. This was done by the by C-T-C club officials under the guidance of the C-T-C club patron. The club members, at the time of this study, had bought another four rabbits to restart the project. A girl who was a member of C-T-C noted that:

After a short while, there will be many rabbits and we will start selling them to people. This is a great source of funds for our club. One of them goes for fifty shillings.

C-T-C club members in this school also undertook agricultural activities. Children were involved in vegetable farming. They had planted sukumawiki, spinach and cabbages. They had organized duty rosters for watering, weeding and other general care activities in
the farm. Teachers and the administration initiated the activities but they said pupils had proved to be responsible in daily care of the vegetable gardens. A girl in the club said that:

*For anybody to claim membership in the C-T-C club, they have to participate in all activities, including working in the garden.*

Teachers said that this was one of the main activities in the school that generated most of the club’s funds. They added that this activity was suspended when the climatic conditions were not conducive for growing of vegetables. For example, during hot seasons and times when there was an acute water shortage in the school, they did not plant any vegetables. The importance of the income generating activities was that, besides providing funds for tuition, they contributed to the improvement in nutrition and food sufficiency in the school and community. These boosted their (pupils’ and parents’) health.

### 4.4.7 Advocacy and Training Activities

C-T-C officials and other implementers were involved in advocacy and training activities. This enabled many people to understand the C-T-C concept and also to put it into practice. In Kitui, several training workshops were held between 1998-2001 to enhance awareness of the approach amongst teachers, pupils, education and health offices, and the community as a whole. According to teachers, health officers and education officers, workshops were convened and facilitated by the C-T-C coordinator in the district. Institutional participants included AMREF and MYWO in the district. The coordinator said that, in the year 2002, no workshop was held and therefore the project was at a standstill.
In 1999, children from fourteen districts were trained in a national project that was held in Nairobi. A record of the proceedings of the workshop were also found in the district C-T-C coordinator’s office. Ten pupils from Kaveta Primary School and others from other schools in Kitui District were trained. These pupils had trained many other implementers since that time. The head teacher for Kaveta primary School said that he and other teachers in the school benefited from that training which was held in his school. Pupils who had been involved in the national workshop facilitated it with the help of the C-T-C club patron and the other C-T-C teachers. A girl who was a C-T-C club member and had not been involved in training had this to say:

Though I was not one of those who were trained in the national training, through the training; which was held in our school, I am now a trained implementer and I have trained other pupils, parents and teachers.

The coordinator and other C-T-C officials were involved in advocacy activities that were aimed at increasing the number of collaborators. In Kitui District C-T-C office worked under the HESSP – Danida. It was also supported by AMREF – Water and Sanitation Project, Ministry of Health, Ministry of Education and other well-wishers. The Coordinator said it had not been possible to acquire funds from their collaborators to maintain the health clubs, but they were helped in other activities like the annual festivals.

4.5 Benefits of C-T-C Approach to the School and Community

C-T-C- approach aims at improving the quality of life for all people in the society. It aims at using children as agents of change of all community members. The study sought the opinions of pupils and teachers on the perceived benefits of the approach.
Community members in the study sample were also asked about their levels of awareness and appreciation of the project activities. Data on this was elicited through interviews, FGD and observations.

4.5.1 Benefits of C-T-C Approach to the School Community

According to pupils, teachers and parents, C-T-C approach, through C-T-C club had improved the lifestyle of pupils both at home and in school. Pupils were able to identify, prevent and treat common ailments in their surroundings. This was also echoed in the findings of a study conducted by Kitsao (2000). She found that pupils who had been exposed to C-T-C approach to health education were aware of the common ailments in their region and how they could protect themselves and their communities. A C-T-C 14 year old pupil (girl) in standard seven explained that:

Through C-T-C club, we have been taught about most ailments that we can protect ourselves from catching. Also we have transferred this knowledge to our parents and other community members.

Teachers pointed out that it was through this club that pupils learned a lot about disease prevention and treatment. The head teacher explained that he had personally learned from the children.

Pupils also pointed out that through the C-T-C approach, they had learned the importance of personal hygiene. Through books that they read on the C-T-C approach they had the necessary knowledge and a detailed explanation of how they should maintain their personal health. The researcher analysed the books in the C-T-C library (also the deputy head teacher officer) and found out that the books had a lot of information on personal
hygiene. It was also observed that the pupils maintained an adequate standard of physical cleanliness. This was taken to indicate that pupils practice the knowledge they learned into practice. A teacher explained that pupils, especially C-T-C members ensured that hygiene was maintained in the school through daily cleaning and inspection of other pupils.

Teachers also indicated that pupils had acquired knowledge about HIV/AIDS and other STDs through reading C-T-C books. The patron explained that though this was not the only source of knowledge on STDs, the club discussions gave pupils a chance to talk about it and learn more. A teacher (male) who taught a health related subject (Science) in Standard Seven stated that:

*Though this topic is discussed in science, pupils have learned a lot more from C-T-C approach. This is because as they discuss and teach each other, they get more insights on it.*

In the C-T-C approach, there are topics on Children’s Rights. On this, the coordinator, the Patron and C-T-C teachers explained that children were taught how to avoid being abused. The head teacher pointed out that this was a very important topic for young children because they were vulnerable to being abused by both strangers and their own parents. A Standard Seven boy explained that:

*Through reading C-T-C books, listening to the teacher and discussing among ourselves, we know what should not be done to us. We do not allow people to misuse and overwork us, just because we are young.*

Pupils also had knowledge about environmental health. The C-T-C Patron said that this had helped children to maintain the cleanliness of the school and their homes.
The head teacher said that C-T-C pupils were totally responsible for the environmental health of the school. They organized cleaning and supervised it. He stated that:

_This (showing the way the school compound was neat and organized) is the work of the C-T-C club. Teachers do not push pupils to clean the compound; they only inspect it after it is done._

The researcher observed that there were no health hazards in the compound other than the pit latrines that were almost full and not adequate compared to the population of pupils. On the whole, the environment was conducive for teaching and learning. The kitchen, classroom, the dormitory and the staff room were clean.

Teachers and other non-teaching members of staff said that they had learnt from C-T-C and they also ensured that they kept their environment safe. Teachers who taught health related subjects in the school and the head teacher said that teaching health education through subjects that it had been integrated with had become more effective and interesting. The agriculture teacher stated that:

_We try to link the health education lessons to what children do at home. Lessons from the C-T-C club have also helped pupils to understand more and also do it practically as they learn and teach each other, teachers and other community members._

He explained that, teachers felt that they were not just teaching health education for the sake of it, but they were teaching for the benefit of the child, the family and the community. The head teacher said that the C-T-C approach through C-T-C club had changed the appearance of the school. He pointed out that the school was cleaner and greener as compared to the way it was before the club was initiated. Other teachers and
parents also said this was a great benefit to them and their children. A lady teacher said that a tree planting project by C-T-C members had challenged her to do the same in her home.

The Standard Seven English teacher who participated in the FGD with and other teachers pointed out that children had become more fluent, creative and confident in their spoken English. He and other teachers in Standard Seven attributed it to the exposure children had acquired from the C-T-C activities that they implemented.

The school community benefited by acquisition of extra funds through C-T-C, money making projects. For example pupils and teachers said that boarders would eat chicken meat instead of buying beef. Vegetables were also sold in local hotels to raise funds for the club.

The head teacher, C-T-C club patron and other C-T-C teachers noted that in the year 2002, they sold eggs from C-T-C poultry project and the funds acquired were used as school levies for C-T-C club members and needy children. All members of staff benefited by acquiring knowledge from the projects and most of them had the same projects in their homes. The level of interaction according to teachers had improved. They explained that pupils interacted freely amongst each other and also with their teachers. The head teacher stated:

*Nowadays, our pupils are very free with us. When there is a problem, we discuss it freely with them and other teachers and at the end we agree on a solution.*
He added that at the same time discipline in the school was highly emphasized and children understood their limits. Generally, children had been encouraged, empowered and enabled to be responsible for their own health and that of their families. This approach, being geared to development, had also made children active and involved in the school and community development.

4.5.2 Benefits of C-T-C approach to the Neighbouring Community

The general objectives of the C-T-C approach to health education are promotion and preservation of the healthy communities worldwide by encouraging and enabling children to play an active role in the health and development of themselves, other children and their families (C-T-C project, 1999). The C-T-C club at this school had activities that benefited the community.

The key concepts "enabling" and "encouraging" that guided the C-T-C approach implementers were also the key concepts that were being used in community Based Health Care (CBHC) programmes in Kitui District. The activities that pupils were involved in aimed at improving community health. Therefore the approach aimed at benefiting the community through children.

Through Child Health Workers (CHW) knowledge about common ailments and how they could be prevented was transmitted to different community members. C-T-C teachers facilitated this. Children used charts, pictures, songs, poems and drama to teach community members about the treatment and prevention of diseases. Parents and
teachers said that they had benefited from the knowledge that the pupils acquired through the C-T-C lessons. Most parents said that they practiced what they were taught by pupils.

The community members through the C-T-C club pupils and teachers had improved their knowledge of herbal medicine. Children taught the community members about locally available herbs. The head teacher stated that:

*Our C-T-C resource center, where the herbs have been stored is a popular place with the community members. They come to learn more about locally available herbal medicine both for disease prevention and healing*

Pupils said that whenever they got a patient from the community, they would first show him/her herbs in their store that could heal the disease. They then went out to look for it if the patient was interested in using it. Most C-T-C club members said that they had a chart on locally available herbs in their homes. Some said their family members used them and found them effective. Box 4 shows some of the herbs.

**Box 4 Locally available herbs**

<table>
<thead>
<tr>
<th>Herb</th>
<th>What it heals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Katyong’i</td>
<td>Cuts</td>
</tr>
<tr>
<td>Kiluma</td>
<td>Chicken diseases, human skin diseases</td>
</tr>
<tr>
<td>Mwaluvaini</td>
<td>Malaria</td>
</tr>
<tr>
<td>Kilungya iteta</td>
<td>Malaria</td>
</tr>
<tr>
<td>Kutu kumwe</td>
<td>Diarrhoea</td>
</tr>
<tr>
<td>Mwenu</td>
<td>Typhoid and amoeba</td>
</tr>
<tr>
<td>Mutaa</td>
<td>Chasing away mosquitoes and fleas</td>
</tr>
<tr>
<td>Mukolokolo</td>
<td>Chest pain and coughing</td>
</tr>
<tr>
<td>Musemei</td>
<td>Chest pains and coughing</td>
</tr>
<tr>
<td>Sisal fluid</td>
<td>Stops bleeding in fresh cuts</td>
</tr>
<tr>
<td>Iia ya mukuyu</td>
<td>Tooth ache</td>
</tr>
<tr>
<td>Kyatha</td>
<td>Stomachache</td>
</tr>
<tr>
<td>Muti</td>
<td>Wounds</td>
</tr>
</tbody>
</table>
Parents said that they had benefited from the C-T-C approach in the sense that they had initiated money-generating activities similar to those of C-T-C club in their homes. A parent (Male) during FGD session held with the researcher said that he was practicing poultry keeping, rabbit keeping and had a vegetable garden. Probed further, he said that he initiated the project with the support of his daughter who was a C-T-C club member. When the researcher visited their home, she noted that the projects were doing well and the compound was clean and well kept. The mother added that:

> Everyday, after school, my daughter checks whether the poultry house and rabbit hatch are clean, she also feeds the animals and waters the vegetable garden. I have been using the income I get to pay for her school levies.

A female parent, who was also in the FGD, said that, her son who was not a C-T-C member used to bring C-T-C books at home to teach his siblings how to keep themselves healthy. She also said that they had the same projects that were maintained by the boy and his siblings. She said that she enjoyed sharing C-T-C ideas with her children and that she shared the health information with her colleagues.

C-T-C pupils had taught parents in the neighbouring community about the importance of family planning. Though this was not the sole source of this information, one of the parents (female) said that it was a challenge especially because it came from children. Probed further about how she had benefited, she stated:

> I have charts on family planning at home, which I got from C-T-C pupils. I have learned from them; I teach other women using them.

Another parent (female) said that she had also learned to prepare the C-T-C special mixture from the C-T-C CHW who visited her in her home. She explained that the
children visited her son when his brother told them that he had a child suffering from diarrhoea. The special mixture meant a sugar, salt and water solution that was given to children with diarrhoea. The teachers explained that this was a common ailment among children in the community. The parent stated:

*This is crucial to all community members. It has saved many children because the ingredients are locally available and affordable*

HIV/AIDS and STDs information had also been passed on to parents and other community members. Pupils displayed the teaching and learning materials that they used to teach the community. Most respondents said that this was crucial information to the community as a whole. Knowledge about how to live with disadvantaged members of the society was of great importance to the community. C-T-C CHW had been very active in practically showing love to the handicapped members of the society so that they could lead normal lives. Some community members said that they had learnt this virtue from C-T-C pupils and their teachers, and that they practiced what they had learned. A man who participated in the FGD stated that:

*We have learnt that children with disabilities can go to school, play work and learn like those who have no disabilities. We have really learnt from our children*

According to the head teacher and the C-T-C club Patron children had interacted with other children who were attending school during a campaign for immunization against polio. It was during this time that most community members learnt to appreciate all people with special needs. A very touching message was passed using song C-T-C club pupils sang to the researcher. The song went like this:

*Fight ideas, bad ideas like: People who are blind or dumb deaf are stupid; people whose bodies do not work properly are useless*
This song accompanied by dance, poems and discussions encouraged many people in the community to take care of and involve people with special needs in active life. One of the C-T-C members advocated that every person could do something including people with special needs.

Community members had also learnt how to keep their environment safe and healthy. Parents and teachers said that community members had learnt how to handle preventable diseases by keeping the environment clean and hazard free. C-T-C pupils, their teachers and other pupils who were not members illustrated to parents how the environment should be kept safe. In the homes that were visited, the researcher observed that most of them were clean and well maintained.

4.6 Challenges Encountered in the Implementation of C-T-C Approach to Health Education

Data on problems encountered in the implementation of C-T-C approach to health education was elicited through free listings, interviews and FGDs. The interviews were conducted with the educational officers, C-T-C officers and teachers. Free listings were conducted with pupils and an FGD was held with teachers and parents. The responses from the informants on the challenges could be classified into four categories:

a). School curriculum related constraints.

b). Financial constraints.

c). Inadequate teaching/learning materials and personnel

d). Gender biases
e). Lack of follow up.

4.6.1 School Curriculum Related Constraints
Most informants pointed out the problem of health issues not being seen to be as important as academics. Teachers, pupils and parents in the school regarded academic work as the most important. This echoes the findings of a study conducted by Stone and Perry (1991). The study found that in most countries, health education approaches were given a low priority. In the current study health education was not allocated time in the timetable, apart from being taught in subjects with which it was integrated. However, C-T-C patron in conjunction with the school administration had set aside an hour every week (Wednesday) for teaching health education to all upper primary school pupils. Also Thursday was the day for clubs and pupils interested in health education went to C-T-C club as others went to different clubs. This meant the health education was not all-inclusive but depended on the interests of particular pupils and teachers.

The APSI also echoed these sentiments. He said that in all schools, academic work took the lead and everything else came later, including the C-T-C health club activities. He stated that:

*I have gone to many educational meetings this year but I have attended only one health meeting. That is, on the Malaria Day. These are decisions that have to be made from the top. Not from the district or division level*

Asked to explain what he meant by the “top”, he said that he was referring to the Ministry of Education, Science and Technology as the main organ that could make health education significant in schools. He also pointed out that since some important subjects
like Home Science and Art and Craft were not examinable, they were not given adequate
time in the school time table, yet they were the subjects to which health education had
been integrated. The TAC-Tutor also added that Home Science was one of the main
subjects through which pupils practised the knowledge that they had acquired through
reading C-T-C books. He added that when this subject was examinable, pupils were
enthusiastic in implementing C-T-C activities because they knew that they were
practising what they would be tested on. He stated that:

> Since home science is not examinable, many pupils, especially those who are not
> club members, do not read C-T-C books. They feel that, they don't have to
> struggle since no one will ask them questions.

During FGD's some teachers, pointed out that the academic workload to be covered each
term was too much. Therefore, they had little time to concentrate on the C-T-C activities.
Teachers who were not actively involved in C-T-C activities were the ones who brought
up this point. A female teacher pointed out that:

> I take these as relaxation activities after the day's serious work. Because there's
> a lot of serious work to be done.

This showed how some teachers did not see C-T-C activities to be of great importance to
themselves, to the pupils and to the community.

A male teacher, who taught mathematics in the school, said that he was very busy with
pupils' academic work; he therefore did not have time to concentrate on C-T-C activities.
He, however, suggested that anytime he was free he would look at what the children were
doing and that sometime he helped the C-T-C Patron to organize the children during the
C-T-C health education session on Wednesdays. The nature of the school curriculum
therefore posed challenges to the teaching of health education in two ways. First, curriculum content that was tuned to examination was too broad as to allow discussion of health related issues. Secondly, the removal of subjects like home science from the list of examinable subjects downgraded health education further, since these were the subjects with which health issues were more integrated.

4.6.2 Financial Constraints

Most respondents cited financial constraints as a reason for under implementation of the C-T-C approach. Most C-T-C activities that pupils were involved in required money for maintenance. For example, in the case study school, the poultry and rabbit project that had not been doing well at the time of this study was due to financial constraints. Teachers and pupils said that it had been difficult to keep the animals because there was no money for buying food and medicine. Hence epidemics killed the chicken and rabbits. At the time of the study, the club had only five layers and all rabbits had died. A fourteen-year-old girl in Standard Seven stated that:

*We work hard to feed the chicken and rabbits that we have, but when an epidemic comes, all of them die and most of the times we have to start afresh*

The head teacher said that most people in the village were not able to give the right medicine to avoid death of chicken during epidemics. He said the drugs were expensive and the club could not raise the money.

Pupils and teachers also pointed out that they lacked equipment for working in the club’s garden in the school. Pupils had to bring jembes and pangas from home to use in the farm. However, some parents did not allow their children to carry farm equipment to school. The C-T-C patron said that some parents whose children were not C-T-C
members had a negative attitude and did not support the club. Some asked him whether their children went to school to work or to learn. Asked whether he tried to encourage them by explaining the importance of the activities, he said:

_I tried to explain to them but they finally said that they would not allow their children to carry such equipment to school._

The problem of lack of human power and lack of money for hired labour to facilitate the implementation of C-T-C activities was also cited. For example, pupils were the ones who fed the animals, cleaned the hatches and poultry house, and weeded the club's garden. They literally did all the activities that were geared towards the implementation of the approach after classes. This was not easy because pupils had their academic workload to concentrate on.

4.6.3 Inadequate Teaching/Learning Materials and Personnel

Responses from semi-structured interviews as well as Focused Group Discussions with informants indicated that there was lack of motivation in implementation of C-T-C approach activities. A discussion to identify the levels of motivation for children, teachers and the concerned officials revealed that this was one of the reasons behind under-implementation of the approach.

Most informants said that there was lack of C-T-C teaching and learning materials. These included C-T-C Newsletters, Books, Magazines, Guides and Identification Badges. The District Coordinator said that the materials that she received from the C-T-C headquarters were inadequate for the schools that had C-T-C clubs. She said this discouraged many implementers, who thought that since the materials were not being
sent, the clubs were not important any more. The effect of this was intensified by the fact that the national office did not send people to go to schools to assess and evaluate the clubs' activities as they did in the previous years and there was no official communication from them. She stated that:

*I personally tried to do this using my own resources and through the support of well-wishers. After some time, I stopped due to lack of funds. Nowadays, I visit schools that are around the town, but I get reports from other schools that the clubs are still in operation. Some schools that I am not able to visit also participated in the annual festivals this year.*

Those who did not understand the essence of the C-T-C approach discouraged pupils, teachers, parents and health education officers who were actively involved in C-T-C activities. Some wondered why C-T-C implementers kept on telling people things that they already knew. Others wondered why they worked so hard without any financial benefit. Some comments, they said, were very discouraging. For example, a teacher stated that:

*A friend told me to continue making the rich richer by working for NGOs that gave me nothing.*

Other teachers said they have received similar comments from some colleagues and also from community members.

4.6.4 Gender Biases

Data obtained during fieldwork indicated there was a misconception among pupils, teachers and parents that C-T-C and health education were activities for the female
gender. This was because most of the activities such as cleaning were traditionally taken to be female roles. Besides, subjects such as home science were seen as girls’ subjects.

The researcher noted that there were no boys in the C-T-C club in the school. Boys on the sampled group, other pupils and teachers explained the reasons for their non-participation variously. Box 5 below summarizes their responses:

Box 5 Reasons as to why boys did not join the C-T-C club

- They felt shy of working with girls
- The work was so hard
- They got nothing out of it e.g. they went for clean ups but no payment was offered.
- There was a lot of singing and they believed they could not sing well
- They did not like drama and dance.
- C-T-C involved baby care. Boys said they were not involved in childcare and that this was work for girls.

The above situation posed a challenge to the successful implementation of C-T-C because the biases excluded other pupils from learning the health messages. They therefore could not be used to implement health education activities both at school and at home.

4.6.5 Lack of Follow-up

There was lack of follow-up for activities that were conducted by the project. Teachers cited examples of some workshops that introduced certain ideas to them about the C-T-C project that were not followed up. For example, they said that they were trained to be implementers and facilitators but for a long time nobody cared what was happening in the field. A teacher stated that:
It is not important to attend a workshop, what is important is the follow up that ensures that what was taught is implemented.

Other teachers said that they were not motivated to implement what they learnt since the initiators were not available. The patron also pointed out that in 1998, forty pupils visited Kwale District in Coast Province to see other pupils who were involved in C-T-C activities. Pupils were very encouraged and the number of club members, both boys and girls rose. The visit was meant to have pupils interact and also exchange ideas. After this, teachers and pupils in the visiting and host schools wrote a report. According to him, everything ended at the visit. He stated that:

After this, no more trips have been organized and our reports have not been collected. Nobody asked us about the report and this was de-motivating to both teachers and pupils.

The C-T-C Coordinator in the district also pointed out that the district office had a problem with lack of follow up by the national office. Probed further on this, she pointed out an example of a trip to Zambia that she was involved in. This involved many other implementers and facilitators from many districts in Kenya and other countries.

The main objective of the visit was to learn how the Zambians had managed to mainstream C-T-C project in their curriculum. She explained that reports on the findings were compiled and sent to the C-T-C headquarters. After this there was no communication from the headquarters. The researcher pointed out that most people involved in this project were de-motivated due to lack of follow up activities.
4.7 Teachers’ and Pupils Opinions on how Challenges to C-T-C Implementation Could be Addressed

The study sought to establish, how in the opinion of teachers and pupils, the challenges discussed above could be addressed. Data on this was elicited through interviews and FGD discussions, with the various groups of informants. There responses fell into the following four categories:

a) Reform of the school curriculum
b) Increase awareness and advocacy campaigns
c) Improvement of financial support to the C-T-C programme
d) Improvement in the organization and leadership of the programme.

4.7.1 Reform of the School Curriculum

Teachers and pupils mentioned the overwhelming demand of the syllabus on the pupils as compared to the time available as a constraint to teaching health education. They suggested if health education was a separate subject, not simply integrated with other subjects, C-T-C activities would be implemented in a better way.

Speaking of the subjects that health education had been integrated with that were no longer examinable, the DEO suggested that home science and agriculture should be examinable. This would make pupils more interested in implementing C-T-C activities. This was because the activities helped them to understand the subjects more by having practical sessions during the C-T-C sessions. He recommended that the Ministry of
Education needed to recognize the importance of health education and treat it as a subject on its own. He reiterated:

*It is not enough to have HE integrated in other subjects. If it was a subject on its own that is examinable, both pupils and teachers would take it more seriously than they do today. The situation is even more complicated now that home science and agriculture in which HE was highly integrated are not examinable.*

Probed further, he explained that it was not easy to convince pupils and teachers to implement a health education approach when they had a lot to cover in the examinable subjects. He pointed out that science did not have enough health education topics and that there was little time allocated for practicals as compared to the subjects in which health education had been integrated. The head teacher and one of the selected parents who also happened to be a secondary school teacher also echoed this. They added that besides teaching pupils to pass examinations, there was need for relating what they were taught to their daily life.

The health officers explained that there was need for the school programme to allocate time for talks on health. They explained how it was difficult for them to access most primary schools. A senior community health officer in the district hospital said:

*It is not easy to access pupils in our primary schools. Most of the times we are given lower primary school children to talk to. It is more meaningful to talk to upper primary school pupils but most of them have too much academic work and health education is not foremost in their priorities.*

The head teacher, education officers and some parents suggested that teachers who taught health related subjects should try as much as they can to incorporate C-T-C activities. They explained that this would encourage pupils to consider the activities to be as
important as their academic studies. On the whole, introducing a separate subject in the
curriculum to teach health education and make it examinable was the most popular
suggestion.

4.7.2 Improvement in Organization and Leadership of the Programme.

Leadership and Motivation problems were cited as a major set backs to the
implementation of the C-T-C approach. Pupils suggested that there was need to have
consistency in leadership of the C-T-C club. They explained that in the year 2001, the
club had had two of their teacher leaders transferred to other schools. The C-T-C
Chairperson (girl) stated that:

When our teachers are transferred, we take time before adapting to the leadership
styles of the incoming ones. Also since our C-T-C patron was transferred to the
school for the deaf, our club has never been the same.

The education and health officers suggested that there was need for C-T-C leaders at both
local and national level to have follow-up activities in the project. This, they said, would
enable them to identify any implementation problems and come up with solutions. One of
the Health Officers said:

There is no need to initiate an activity and you do not follow up to ensure that it is
implemented. That is misuse of resources

They also suggested for the need to improve planning of the C-T-C activities. Probed
further they explained that many unplanned for activities had been initiated and were
unsuccessful. They said C-T-C clubs in some schools were not well organized and some
were not active, yet the C-T-C office had initiated them.
The head teacher and the DEO suggested that there was need for leaders and collaborators to regularly evaluate the project and activities. The officers said that there was no point in spending money to evaluate and not take any action. They emphasized that leaders should not only consider implementation but also do it with a sense of sustainability of C-T-C activities. Pupils and teachers also explained that both evaluation and monitoring should be done regularly and that there was need to write a report to tell them whether they were on the right or wrong track.

The patron of C-T-C club in the school said that both national and local C-T-C project leaders needed to guide and encourage pupils and teachers who were the main implementers. He said:

*They need to understand why they are involved in C-T-C activities in schools and communities. Some think that C-T-C has to do with singing and dancing.*

One parent, who was a businessperson, said that leaders of C-T-C clubs should identify link persons in the community who could assist in extending the C-T-C activities to the community. He gave examples of community health workers, community leaders and youth groups. He explained that using children, teachers and parents was inadequate since this project had many activities that were of use to many people. This, he suggested was also a way of motivating non-school community members to participate.

### 4.7.3 Increasing Awareness and Advocacy

For C-T-C activities to be implemented, pupils, teachers and the surrounding community must be aware of the approach. C-T-C Coordinator in the district suggested that the National Office should supply adequate reference materials and other teaching and
learning materials. This, she explained, could increase the number of people that pupils, teachers and concerned parents reached. She also recommended that there was need to increase community awareness campaigns because from her evaluation, some community members were not aware of the approach. She noted that teachers should ensure their pupils participated in the Annual health education festivals.

A health officer suggested that the national office could increase implementation by supplying teaching and learning materials to different health education stakeholders in order to enable such people to teach the C-T-C health education approach to community members. He stated that:

*Awareness and implementation can be increased if other health stakeholders are given a chance to actively participate in teaching C-T-C approach.*

A C-T-C official suggested that there was need to revive the health education open day in all schools that had a C-T-C club. This was meant to give a forum where pupils, teachers and parents learn and teach health education to each other using the C-T-C approach. He suggested that in such a forum, all people involved should not only be taught about health but also about responsibility.

Teachers suggested that awareness would go together with teaching people about the problems addressed. A female C-T-C teacher said that some parents were aware of the C-T-C approach but were not in position to explain to anybody the problems addressed by the approach. She emphasized the need for intensive community teaching.
The coordinator suggested that there was need to target education administrators and health officers in order to win more support from them. She explained that if such people were taught the benefits of C-T-C activities in Kenya, and their communities in particular, implementation of C-T-C activities could be increased. The head teacher of Kaveta Primary School also underscored the need for targeting head teachers in C-T-C awareness campaigns. He explained that it was because of the support of the school administration and parents that the club was still active in this school.

4.7.4 Improvement of Financial Support for The Programme.

Most respondents in the study cited financial constraints as the main cause of low implementation of the C-T-C approach to health education. Lack of finances was attributed to low motivation, poor leadership and coordination. Teachers, parents, pupils, education officers and health officers suggested some strategies to deal with the financial challenge.

Pupils suggested that the C-T-C national office should support their club financially because parents were not able to pay their fees and also support C-T-C club. One of the informants (a boy) stated that:

*C-T-C office should send money to support the poultry keeping and Rabbit keeping projects. Our parents cannot afford to maintain them and also pay for school levies. Most of our parents are peasant farmers.*

This suggestion was also echoed by other teachers especially those who were actively involved in the club. The C-T-C club Patron reiterated the same but added that there was need for the school to identify other sources of income and stop relying on the project funds. Probed further, he said that well-wishers and community leaders could be targeted
to support the health clubs in schools. He explained that in the year 2002 they fully depended on pupils’ and their parents’ support to maintain the activities. He also pointed out how painful it was to watch the activities that consumed a lot of time and that were beneficial to the community deteriorate.

The C-T-C Coordinator in the district also suggested that financial constraints could be eased by seeking support from well-wishers. Asked whether she had taken measures to do so, she explained that she solicited funds from well-wishers she encouraged them to visit schools that had C-T-C health clubs and fund the District Health Festival in the year 2002. She also said that she occasionally visited the District Education Office and most of the times they supported the clubs. She also worked closely with the SASOL (Sahelian Solutions) Foundation and DANIDA. She added that it was through NGOs that C-T-C activities were being implemented in Kitui District.

One teacher who was not concerned with C-T-C activities noted that there was need for pupils and teachers to work harder in C-T-C projects that they had started. She explained that this would enable them to generate funds to keep the projects going without having to wait for funding from the national office. She said that it was time they became organized and independent.

Most parents insisted that the C-T-C national office should send funds to the school for C-T-C activities. One of them said that there was need for the club to get more funds in
order to motivate pupils by taking them for trips and exchange visits with the local schools.
CHAPTER FIVE
SUMMARY OF RESEARCH FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction:
This chapter presents the research findings, conclusions, and recommendations of the study. It also highlights the major recommendations of the study and suggests areas for further research.

5.2 Summary of the Study.
The core concern of this study was to establish levels of awareness and implementation of C-T-C pedagogical approach to teaching health education in Kenyan primary schools. The research design was that of a case study of Kaveta primary school of Kitui District Kenya. The area of health education and how it is taught in schools was found important to study, because of the symbiotic relationship between health education and schooling. Good health among the population increases educational participation, performance and achievement, thereby reducing incidences of educational wastage. At the same time sustainable teaching of health education in schools inevitably leads to the realization of good health lifestyles at home and in the community. In the overall, this symbiotic linkage influences a country's future development by ensuring high levels of literacy and healthy status among the country's adult population. It is in this respect that teaching health education issues has been made an important component in achieving BEFA. C-T-C pedagogical approach, from the time of its introduction for use in Kenyan primary schools, in 1977, was supposed to facilitate the realization of the above goals. However,
studies have not been carried out to exhaustively find out the extent of awareness of the approach by pupils, teachers and communities and how it is being implemented in primary schools.

To address the above concerns, a case study of Kaveta Primary School of Kitui District was carried out. The study adopted a conceptual framework that conceptualised the school as a centre of interaction and learning. Both pupils, teachers and community members interact here, and the outcomes of such interaction are not limited to pupils' academic work only, but issues to do with their health. The benefits of this interaction (in terms of good health practices) transcend individual pupils and teachers, and are realized at the community level among parents, siblings, and peers. By teaching health education in schools, pupils therefore, become central in transforming healthy behaviours and attitudes, both at school and community. Finally, this leads to the achievement of broad national development goals at the community and national levels. The sample for the study was drawn from both the school and the neighbouring community.

5.3 Summary of Research Findings

The summary of research findings and implications are based on field data and are related to the objectives and research questions that the study raised in chapter one.

On the issue of awareness, the study established that pupils, teachers and community members were aware of the C-T-C approach to health education. A number of activities were observed at the school and in pupils' homes. The activities demonstrated that the level of awareness of the approach and what it entailed was high. In particular, the
collection of resource materials that had been collected by pupils and teachers and stored in classrooms and the organization of health promotion activities both in the school and in the community was a testimony to this awareness.

In terms of practice, and the benefits that had been realized from the use of C-T-C, both in school and the community, the study established that there was a positive attitude to adopt good health practices among pupils. The approach had in particular led to decrease in use of drugs among pupils, and to high standards of personal hygiene, and cleanliness in the school compound. Both at the school and at home, levels of malnutrition and food sufficiency had also improved. This was due to the poultry and rabbit projects that pupils had in school. Poultry and rabbit products were used for school feeding programmes and the rest sold to community members.

The advocacy and training activities had also helped community members in terms of good dietary practices. Besides, the traditional herbs that were prepared and stored by pupils and teachers, were utilized and benefited community members. On the whole, C-T-C practices had benefited pupils, teachers and community members in the adoption of good healthy practices and eating lifestyles. All those were in line with the basic concerns of the approach.

The study, however, found out that the utilization of C-T-C approach in particular, and the teaching of it in general, was faced by several practical challenges. First, the nature of school curriculum meant that health education issues were integrated in other subjects.
Their teaching depended on the availability of time and the willingness of the subject teacher to include them in his/her lessons. Furthermore, subjects like home science, that used to carry bulky information on health education were dropped from the primary school syllabus as examination subjects.

Related to this was the fact that C-T-C activities were seen as part of the school extracurricular activities, like games and clubs. This meant that the activities were not mandatory to all pupils and teachers. Just a few students who had interest in them participated in full, which means that the benefits of C-T-C were not all inclusive. In the final analysis, the use of C-T-C, and the teaching of health education was not given the seriousness it deserved because of the above factors.

Related to the above was the fact that C-T-C activities were associated with the female gender. This was because, traditionally, most of the activities like cleaning, and washing were associated with girls. In fact, in the case study school, only girls belonged to C-T-C club and the few boys who participated particularly did so reluctantly. Consequently, the total impact of the approach was limited to this fact.

Third, C-T-C activities were limited due to lack of adequate teaching and learning materials and funds. Parents and pupil’s income generating activities were financing the few activities that took place. However, funds raised from these sources were inadequate as parents also had to pay for tuition. This made C-T-C activities peripheral in the calendar of schools activities.
Lastly, there was lack of follow up and sustainable linkage between the Ministries of Health and Education at the national, and district level and the school. This lack of coordination led to the haphazard organization of C-T-C activities and teaching of health education issues in schools.

The above findings have implications in terms of teaching of health education and its linkage to other issues of schooling. The first implication was that health education could never be taught conclusively in Kenyan primary schools within the exiting curriculum set-up. This is because, when it is integrated, the issues are not covered exhaustively because they are not examined. But again, creating another separate subject to teach health education may be difficult in view of the congested primary school curriculum and the need to focus on the examinable subjects. The benefits that would accrue from teaching health education, through C-T-C to schools and communities may, therefore, not be realized in full. This in part will limit the extent to which schooling will play its role in national development.

5.4 Conclusions
The study has shown that to a large extent, pupils, teachers and neighbouring community members were aware of C-T-C approach to teaching health education. Pupils, teachers, and C-T-C officials participated in awareness campaigns in both school and community.

Awareness of C-T-C approach led to implementation of C-T-C activities. The Activities were mainly implemented after official school hours. Those who implemented C-T-C in
both school and community were girls and women. This was because C-T-C activities were often associated with the female gender.

Implementation of C-T-C activities benefited both the school and the neighbouring community members. Nutrition and environmental safety had generally improved and both the school and community generated extra funds through C-T-C activities. However, the zeal with which the programme was introduced had slowed down mainly due to administrative and organizational problems. The levels of implementation had been drastically reduced compared to the time the project was initiated.

5.5 Recommendations

Based on this study the following recommendations are made:

a) The study recommends that the Ministry of Education explore for possibilities of introducing a separate subject in the primary school curriculum to teach health education. This is because the subjects in which C-T-C was integrated were no longer examinable. Also due to the fact that pupils and teachers had too much academic work, they did not have time for the implementation of C-T-C health education approach.

b) The study recommends that the Kenya Ministry of Education, in conjunction with the KIE develop a program of in-servicing and training teachers to teach health education using the C-T-C pedagogical approaches. This is because the study established lack of skills to teach as one of the impediments to the successful teaching of health education issues.
c) The study also recommends that the KIE produce locally relevant and available materials to cater for the teaching of health education. This is because the study found out that most materials in use were not relevant to local needs and that they were limited in supply. This meant that not all pupils accessed the materials and for those who did, the materials had been developed in C-T-C London and may have lacked immediate local application.

d) The study recommends that teaching and learning health education be made compulsory for all pupils in Kenyan primary schools. The existing system where C-T-C activities were optional meant that the impact of the programme was not felt equally. This should be an issue of concern because of the linkages between health education and the achievement of schooling goals that were discussed in the study. Hence if learning of health education is optional the benefits accrue to a few pupils and leave out others.

e) Teachers should demystify the fact that C-T-C activities were a responsibility of the female gender. In the case study school the actual only participants of the C-T-C club were girls. Even at the community level, fathers seemed to push C-T-C activities to their wives and daughters. This was a policy assumption as it was based on the fact that most C-T-C activities such as cleaning were traditionally a responsibility of the female gender. However, since issues of good health and positive school outcomes cross -cut gender and age, teachers should make it
mandatory for all pupils to participate and develop positive attitude to activities in question.

5.6 Suggestions for Further Research
Since this was a case study based on one district of Kenya, there are other issues that had not been addressed before and which this study could not address due to limitations of time and methodology. It is therefore suggested that the following areas need further research as regards teaching of health education in Kenyan primary schools.

a) Studies need to be carried out to show the strong relationship that exists between health issues and schooling outcomes. One of the reasons why teaching health education is not taken seriously in Kenyan primary schools is because of lack of conclusive evidence showing how good health contributes to the achievement of schooling outcomes. At the same level, there is no conclusive evidence showing that positive schooling outcomes due to good health are important factors in future national development. Hence such studies will continue shaping the government policy on health education in primary schools.

b) Specifically case studies need to be carried out in different parts of the country on the application of C-T-C approach and problems facing its implementation. This is because issues of health and education are sometimes determined by cultural attitudes, which differ from one community to the other. Case studies will therefore provide useful comparative data on such variations, the challenges they pose to health education and how these can be addressed at a policy level.
c) Research also needs to be carried out on how locally available material on C-T-C approach can be developed and distributed to all primary schools in a cost effective manner.
REFERENCES


APPENDICES

APPENDIX I

Observation Guide

1) General appearance of the school and its environs;
   • Cleanliness and safety of school compound
   • Cleanliness and maintenance of Classrooms
   • Adequacy of water and sanitation
   • Appearance of pupils:
     - cleanliness
     - healthy looking
     - well nourished
   • Pupils uniform-tidiness

2) Interaction between:
   • School administrators and teachers.
   • Administration and pupils.
   • Pupils: -Girls and girls
     -Boys and other boys
     -Boys and girls
     -Younger and older pupils.
   • School community, parents and administrators.

3) C-T-C activities tuned towards transmitting health education messages in the school:
   • Activities implemented by teachers
   • Activities implemented by pupils

4) Classroom activities tuned towards promoting C-T-C health education activities.

5) School community involvement in C-T-C and health education activities.
APPENDIX II
Interview Guide for Pupils

1) Name;
2) Age
3) Sex
4) Class
5) Occupation of parents -Mother
   - Father
6) How many brothers and sisters do you have?
7) What do they do? (if any)
8) Are you a member of the C-T-C club?
9) What are the objectives of the club?
10) What made you to join the club?
11) Are your siblings members of the C-T-C club?
12) What are the goals of the club?
13) What are the rules of the club?
14) What are the roles of members?
15) What specifically is your role?
16) Are you a leader in the C-T-C club?
17) Which leadership position do you take in the C-T-C club?
18) What activities exist in your school to promote the C-T-C approach?
19) Pupil to pupil activities
   - Older pupils to younger pupils activities
   - Younger pupils to older pupils activities
   - Pupils to parents/Family
   - Pupils to community
   - Pupils to children out of school
   - Communal activities
18) Are there any other activities outside C-T-C club that also promote C-T-C approach?
19) What constraints do you face as a club in implementing C-T-C approach?
20) What benefits have accrued to you from the C-T-C club:

- Individually
- As a class
- Family
- School

- Community (Explain)

16) Are there any problems you encounter in learning health education through the C-T-C approach? Explain.

17) Are there any problems you encounter in teaching health education to other people using the C-T-C approach? Explain.

18) What suggestions do you have as to how the implementation of C-T-C approach to health education can be improved?
APPENDIX III

Interview Guide for Teachers.

1) Name
2) Age
3) Sex
4) Level of training.
5) Which classes do you teach?
6) What subjects do you teach?
7) Do you teach health education in any class in this school?
8) Are you aware of the C-T-C approach to health education? Explain.
9) What are the objectives of the club?
10) When was C-T-C introduced in this school?
11) Have you ever been involved in C-T-C club activities?
12) If yes, when did you start being involved in C-T-C?
13) What has been accomplished through C-T-C since it was started?
14) Specifically what has been archived through the C-T-C club?
16) What (formal) activities exist in this school to promote health education using the C-T-C approach?
17) What informal activities exist in this school to promote health education using the C-T-C approach?
   - Pupil to pupil
   - Pupil to sibling
18) Do you teach health education using C-T-C approach?

19) What are the expected methodologies?

20) Have you in any way benefited from C-T-C health education project—
   - Individually?
   - As a school?
   - Community? Explain.

21) Do you face any challenges in teaching health education through the C-T-C approach?

22) What are the challenges?

23) How do you overcome them?

24) What are the challenges faced in the C-T-C club?

25) How do you overcome them?

26) What do you think can be done to improve the implementation of C-T-C approach to health education?
APPENDIX IV

FGD Guide for Teachers

1) What are your names?
2) What are classes do you teach?
3) What subjects do you teach?
4) Are you aware of C-T-C approach to health education?
5) What do you know about it? (Probe further on meaning and objectives of the approach).
6) How did the information about the C-T-C approach reach you?
7) Are your children aware of the C-T-C approach?
8) Have they been in any way been involved in the C-T-C activities? Either in
   - School
   - Family
   - Community
9) What activities have you and/or your children been involved?
10) Who spear headed the activities?
11) Where were the activities based: in school or in the community?
12) What in your opinion are the challenges faced in the implementation of C-T-C approach to health education?
13) Do you think its possible for the challengers to be addressed?
14) How do you think these challenges will be addressed?
15) What recommendations do you have for the improvement of the implementation of C-T-C approach both in school and the community?
APPENDIX V
FGD Guide for Parents

1. What are your names?
2. What are your occupations?
3. How many children do you have?
4. Are they in school or out of school?
5. Have you heard about the C-T-C approach to health education?
6. What do you know about it? (Probe further on meaning and objectives of the approach).
7. How did the information about the C-T-C approach reach you?
8. Are your children aware of the C-T-C approach?
9. What activities have they been involved?
10. Who spear headed the activities?
11. Where were the activities based: in school or in the community.
12. Where were the activities based: in school or in the community.
13. Have they been in any way been involved in the C-T-C Activities, either in
   - School?
   - Family?
   - Community?
14. In your opinion what are the challenges faced in the implementation of C-T-C approach to health education?
15. How do you think these challenges will be addressed?
16. What recommendations do you have for the improvement of the implementation of C-T-C approach?
APPENDIX VI

Interview Schedule for Siblings and Peers

1. Name
2. Age
3. Sex
4. Do you go to school?
5. Where do you go to school?
6. Which class are you in?
7. Have you heard about the C-T-C approach to health education?
8. What do you know about it? (Probe further on meaning and objectives of the approach).
9. Who told you about C-T-C approach?
10. Do you tell other children about the C-T-C approach to health education?
11. Do you have C-T-C club in your school? (For those who don’t go to school ask them whether they join their friend who are in school to implement C-T-C activities)
12. Have you been involved in any C-T-C activities?
13. Where were the activities based: at home or in school?
14. What activities have you been involved in?
15. What benefits have accrued to you: Individually, as a family and Community?
16. What are the challenges facing C-T-C approach?
17. How in your view do you think C-T-C approach can be improved?
APPENDIX VII

Interview Schedule for Educational Officers

1) Name
2) Age
3) Sex
4) Administrative position
5) What kinds of activities do you undertake in your capacity?
6) Are you aware of the integration of health education in the primary school curriculum?
7) Are you aware of the C-T-C approach to health education? (Probe further for any other approaches.
8) What do you know about it? (Probe further on meaning and objectives of the approach.
9) How did C-T-C information reach you?
10) Have you at any moment been involved in the C-T-C activities?
11) What activities were you involved in?
12) Where were the activities based;
   - School
   - Family
   - Community
13) In how many schools in the division was C-T-C introduced?
14) How many schools have the C-T-C club?
15) Explain how C-T-C approach is beneficial to;
   - Pupils
   - Schools
   - Families
   - Community
16) What challenges do you think are faced by those implementing the C-T-C approach to health education?
17) How can the challenges be overcome?
18) How do you think the C-T-C club can be improved?