

**ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES**

**THE STATUS OF PUBLIC PRIMARY SCHOOL  
PHYSICAL PLANTS IN ADDIS ABABA**

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**May, 1999**

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PHYSICAL PLANTS IN ADDIS ABABA**

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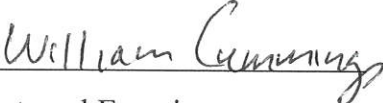
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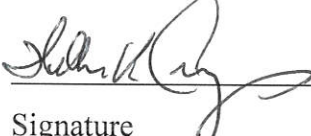
  
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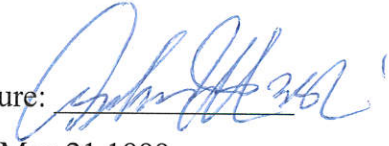
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This thesis has been submitted for examination with my approval as a university advisor.

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## ABBREVIATIONS

The following acronyms appear in the text as stated here under.

AASA - American Association of School Administration

MOE - Ministry of Education

TGE - Transitional Government of Ethiopia

DF - Degree of Freedom

PMAC - Provisional Military Administrative Council

$R_s$  - Rank Correlation

$\sum d_i$  - Summation of Difference

## ABSTRACT

The purpose of the study was to make a survey on the current status of public primary schools in the city of Addis Ababa.

The needed data was obtained by means of questionnaires distributed to 30 school principals, 28 members of school administrative committees, and 210 teachers working in public primary schools randomly selected from five study "Zones" of the city.

The data was analyzed using both descriptive and inferential statistics. Accordingly the research revealed the following results.

Most of public school physical plants were found to be inadequate to implement various school programmes because they were not primarily designed for educational purposes, and even those which were designed for educational purposes were built without overall assessments and appropriate design. In addition, more than half of the public schools did not have legally acceptable school map and plan.

In this study, school principals and teachers showed much similar perception with regard to evaluating the adequacy and comfortability of school plants than members of school administrative committees.

Public school physical plants were not located according to their functional relationships and on sites comfortable for teaching-learning processes. Hence, the school compounds, the classrooms, staff-rooms and offices were not convenient for teaching-learning processes and administrative activities. Almost all public school physical plants were by far below the standard set by the MOE.

Public schools lack the necessary repair and maintenance, for the reason that the responsibility was left to school administrative committees. Almost all of the respondents indicated neither the educational offices nor the surrounding community involved in repair and maintenance of public schools.

Most of these schools did not have educational facilities like libraries, laboratories, space and facilities for subjects that require practical activities.

The main financial sources for public schools were found to be school fees. The participation of school committees, parents, the surrounding community in the affairs of public school physical plants was insignificant.

There are no clear-cut policy statements and general guidelines about the organization and administration of public schools.

If these problems are to be met forth rightly and directly, then careful planning and study are necessary. If successful solutions with successful answers are to be arrived at, cooperative action is desired between professional educational staff, the board of education, other community agencies and all citizens of the community.

# CHAPTER ONE

## THE PROBLEM AND ITS APPROACH

This chapter deals with background of the study, statement of the problem, significance of the study, scope of the study, the research design and methodology, definitions of key terms, and organization of the study.

### 1.1 BACKGROUND OF THE PROBLEM

For a long period of time religious institutions such as Churches and Mosques were used as the main educational settings. The control of religious organizations over school declined with the shift of people's loyalty to the state (Teshome, 1979: 9-10). As time goes on, the complexity of educational contents and the need of systematic education necessitated the establishment of modern and secular education, which in turn necessitated the need for erection of physical plants. Thus, along with the government schools, different schools like private, public, mission, community, etc., emerged with different forms of organization depending upon countries ideologies and level of development (Teshome, 1979:80).

School plants are the necessary factors for the success of any educational activities. However, most schools of developing countries are simply erected without making an overall assessment. Accordingly, in Ethiopia the establishment of schools formally for teaching-learning process was not a recent phenomenon. In spite of the fact that religious institutions provide education since long before, there were no well equipped definite physical settings for educational activities. Instead, learners gather around the home of chief priests, or the Churches or the Monasteries and the Mosques. The contents of education provided by these religious institutions were largely religious (Teshome 1979:10-18). That is the focus was the teaching of the scripture of the Bible and the Koran. The method of instruction was rote

memorization which may not need a well established physical plants. The outputs of such educational institutions were mainly to serve the religious centers (Imbakom, 1970:Xiii). Therefore, there was no much contribution in preparing individuals for other social purposes. In other words, there was no familiarity with modern education to solve the practical problems of the society.

The introduction of missionaries to the country gave highlights to the people for modernity. Anderson (1967:3) stated, "it is to a large extent through these schools that education in modern sense has been introduced into the country." Later, the establishment of a central state power with its permanent seat at Addis Ababa encouraged the development of modern education. The need for modernity and diplomatic relations with the civilized outside world highly demanded educated and trained individuals in various areas (in language crafts, commerce, etc.). Such needs, together with the other social needs for modernity gave rise to the development of modern education with modern school physical plants (Teshome, 1979:20-24).

In Ethiopia, schools are mush-rooming at relatively high rate, especially since 1974 when there was a massive expansion of education allover the country. During this time the teaching learning activities were carried-out in the confiscated old houses, in which most of them were not primarily designed for educational purposes. In urban areas many of the school plants were residences of top government officials, feudal lords and military compounds. Among these, the confiscated private schools were the main centers in providing education along with the government schools.

Like the other developing countries, Ethiopia has a number of educational problems. For instance, irrelevancy of curriculum, shortage of teachers both in number and quality, lack of readiness and interest of the learners, the educated unemployment, the poor status of school physical plants and its utilization are some of the major problems that hinder the development of education in the past years (TGE, 1994:93).

Therefore, the present day of providing satisfactory school facilities is much more complicated and far more expensive than at any previous time in the country.

The increasing urbanization of many communities have made small schools obsolete in many areas (Fischer, ND: 253). The demand for modern education programme, increasing density of the population, individuals right to learn and similar development indicate that within a few years of time there will be no school enrolling fewer students than they occupy by now (Perkins and Cocking, 1957:221-222). The importance of school plant is beyond the concept of being considered as a shelter. Schools must be designed to provide adequate and appropriate facilities useful to the success of each learner in his/her live time. Therefore, thoughtful thinking or planning is required for school plants whenever educational goals are formulated. Tonigan and others (1964:1) stated, "it is necessary to understand the nature and importance of educational planning before going on to specifics of programming the need for a new educational plants." This statement indicates school physical plant must be the reflection of its educational programme, for this reason due consideration has to be given for the school plant as it is for other teaching-learning activities.

Starting from their emergence, like other schools, private schools that were made under the control of the public are contributing much by enrolling a significant number of students. According to the report of MOE (1985E.C) the number of private schools has been increasing until it reached 1099 in the whole country in 1966 E.C. In these primary schools there were 3506 teachers and 134,719 students when the proclamation No.54/1975 was decreed to transfer them to public ownership. In Addis Ababa alone there were 807 teachers and 31,042 students in these private schools (Zemenu, 1971:23). During the academic year of 1997/98 there were 2648 teachers and 141,703 students in Addis Ababa public schools (document of Addis Ababa Education Bureau).

The fact that population growth is inevitable in the following decades forces to think about school physical plants in general and public schools in particular. It is not possible to provide the necessary buildings and facilities as required to implement different school programmes as it should be and also school sites are not easy to find, and are increasing difficulties to obtain, the financing and construction of school building should not be considered only as the sole responsibility of the public whose children are attending in school. In addition, the financial support offered by those outside the school is partially dependent upon their financial ability, their understanding on school's needs and commitment to its programme (World Bank, 1996:233-234).

While the standard of a good education is highly affected by the kind of school physical plant facilities, the conditions of most public schools is very questionable. Many buildings are old and obsolete, not only functionally but also physically. In connection to this Perkins and Cocking (1957:22) stated the following:

*they are not only or cannot be adopted to the expanding needs of new and growing curriculum; but they are also tired and worn-out and used up that they are unsatisfactory for any kind of teaching old or new; they are unhealthful and unsafe. Hence they have to be replaced.*

It must be noted that the school plant built to meet today's needs and functions is quite a different one from those built in the past. Unless school plant needed to provide educational opportunity for children is built on time, the right to education for those children is gone forever.

Most public primary schools in Addis Ababa are not on performing their functions effectively. Very many reasons could be listed down, but it is not the purpose of this study to identify and analyze each factor. However, the student researcher believes that inappropriate school physical plant is one of the major factors which hinder the proper functioning of school at any level. In connection to this Devis and Lovels (1981:1-2) stated:

*Without a building, a site and the necessary educational equipment, it would be difficult if not impossible, to administer an educational program. The building level is where things happen. Without a well designed and functional structure, it would be difficult to fulfill inspiring and idealistic educational objectives.*

Therefore, a well designed and appropriately cited schools are one of the major factors for success of educational programmes. In light of this view, both the government and the community are responsible in minimizing the prevailing problems in public schools.

Eventhough, a number of research works were carried-out and are still going on, in order to find solutions to educational problems in Ethiopia, the inadequacy and inappropriateness of public school physical plant is the one which is not fully addressed. However there are certain indicators. For instance, Zaudneh (1971:7) has stated the characteristics of private schools which are now called public schools as, "shabby buildings, leaking roofs, dark classrooms, lack of water supply and toilet facilities". On the other hand, Tesfamariam (1987:6) in his study about "Rural school design in Ethiopia, Focusing on Primary Education" indicated that most existing schools, the majority of which were built traditionally with mud and wood are physically in a bad condition and not conducive for learning; and they were also originally built without architectural design.

The study of Tesfamariam stressed more on the design and the construction of primary schools in the country rather than the total aspects of school physical plants and has sated nothing about public schools. On the other hand, the study of Zaudneh focused on the conditions of private schools before 1974. With the exception of the above study there is no even a single study that indicates the status of Public Primary Schools in Addis Ababa.

All in all, eventhough, most schools are not well equipped with all the necessary facilities, the magnitude of the problem varies from region to region, town to town

and school to school. The problem of school physical plants is multifaceted and pluralistic in public schools than others. Therefore, since public schools in Addis Ababa contribute much in implementing or realization of educational objectives of the country, studying their current function and status may help to strengthen their effectiveness.

In general, the student researcher has observed the present conditions of some public schools, which of course, attracted him to conduct study about their present status believing that some existing problems of public school physical plants will be identified and at last, a conclusion and certain recommendations will come forth based on the assessment of the findings.

## **1.2 STATEMENT OF THE PROBLEM**

The school physical plant with its necessary facilities is equally important as that of professional skilled manpower and other variables that are needed to implement school programme. Whenever, the quality of education is raised, it is equally important to consider the school physical plants, for the fact that the realization of various school programmes are affected by school physical plants. In the case of Ethiopia, it is true that the country's economic capacity cannot allow to have quality school plants.

Devastating the situation there is a mismatch between the demand of education and the existing physical plants. This problem largely attributes to the shortage of financial support provided for schools in general and public schools in particular. However, this fact should not make us to refrain from looking into the problem of school physical plant and its utilization, if education is believed to be as one of the most important needs of the society.

Therefore, to assess the present status of public primary schools in Addis Ababa, the study seeks answer to the following basic questions.

1. Are the present school physical plants comfortable and adequate to implement various school programmes, and allow both the present and future expansion?
2. Are the buildings and other physical facilities located according to their functional relationships and remote from different sources of noises, air pollution, and other destructive factors?
3. What is the role of Addis Ababa Education Bureau and communities in the construction and maintenance of public school physical plants?
4. Who is responsible for the proper management and functioning of public schools?.

### **1.3 SIGNIFICANCE OF THE STUDY**

According to the feeling of the student researcher the study is significant:

1. Since public schools affairs depend for the most part on the support of the people, it is to aware the community and concerned authorities the complex situations in public schools.
2. Because one purpose of the public schools is to contribute and to strengthen the educational system of the country; the need to study the problems is very important for the fact that the future trend of educational system appears to be more complex.
3. The study may point-out solutions and gives some hints for concerned authorities to tackle with the prevailing problems.
4. Might be helpful for individuals who are interested to carryout deeper research on the problem.

### **1.4 SCOPE OF THE STUDY**

The study is delimited to the status of public school physical plants in Addis Ababa. Delimitation has been made because the research would not be manageable if all public schools are included.

### **1.5 LIMITATION OF THE STUDY**

Throughout the process of conducting the study, the researcher faced many problems. The major factors that have a direct impact on the study are stated as follows:

1. Due to shortage of finance the researcher is only limited to gather information through questionnaire.
2. Uncooperativeness of principals to respond to items that demands time to check documents, like the total area of school compound, instructional classrooms and offices, play-grounds, and number of student seats in each grade level and other facilities. Therefore, it is not possible to get necessary information as required.
3. Uncooperativeness of some school principals to fill-in the questionnaires.
4. Due to shortage of domestic reference materials related to the study, the researcher has been forced to rely on foreign sources.
5. The reluctance of some respondents to fill-in and return the questionnaires 42(13.55%) have done so.

### **1.6 THE RESEARCH DESIGN AND METHODOLOGY**

The major purpose of this study was to assess the status of public school physical plants in Addis Ababa. Thus to attain this purpose, a descriptive survey method was designed. Accordingly, the following techniques and procedures were employed to collect and analyze the data.

#### **1.6.1 SAMPLING TECHNIQUES**

In Addis Ababa, there are 118 Public Primary Schools. Found in six Zones. For the study, five zones were selected purposely (Zone one, two, three, four, and five). Out of 118 public schools a total of 30 were selected from the five zones according to their relative distribution based on quota sampling technique. The selection of schools from each zone was done at random. Accordingly, from Zone one five, Zone two seven, Zone three four, Zone four eight, and six schools from Zone five were the samples schools of the study (For further information refer to annex part I).

With regard to the selection of the respondents, all of the principals and members of the school administrative committee were included in the study because of their manageable size. While, the selection of teachers to represent the populations was done randomly.

All in all, 30 principals, 28 school administrative committee members, and 210 teachers were involved in the study. The schools considered in the study are:

- |                                |                             |
|--------------------------------|-----------------------------|
| 1. Birhan Hiywot               | 16. Nigat Kokeb             |
| 2. Letena Colonel Abdisaa Aaga | 17. Alem Birhan             |
| 3. Kidus Giyorgise             | 18. Yelibbe Faana           |
| 4. Africa Birhan               | 19. Mehal Ginfile           |
| 5. Dagmawi Birhan              | 20. Ras.Abebe Aregay        |
| 6. Meskerem Aand               | 21. Yekatit Sidest          |
| 7. Abay Minch                  | 22. Atse, Na'od             |
| 8. Firehiywot Kutir Aand       | 23. Dejach Belay Zeleke     |
| 9. Tinbite Ermiyas             | 24. Kadamawi Minilik        |
| 10. Meseret Hiywot             | 25. Addis Ababa Kutir Hulet |
| 11. Agazean Kutir Aand         | 26. Hibret Belijennet       |
| 12. Firewu Le-bizuhan          | 27. Yekatit Silsa Sidest    |
| 13. Hizb Timihirt Bet          | 28. Kest-Demena             |

- |                         |                             |
|-------------------------|-----------------------------|
| 14. Agazean Kutir Hulet | 29. Gulelle Faana           |
| 15. Kallitti Bulbulaa   | 30. Firehiywot Kutir Hulete |

### **1.6.2 Data Collecting Instrument and Procedures**

The instruments used to obtain descriptive information on the current status of public schools were a survey questionnaires. In order to insure whether the questionnaires were free from vague and unclear items, draft questionnaires, which have four parts and a total of 97 items were prepared in Amharic, and field tested with school principals, teachers, and members of school administrative committees in Hibret Beljinet and Dejach Belay Zeleke public schools. As a result, four items were left out, the instructions and options of five items were rephrased with the relevant inputs obtained from the respondents.

The revised questionnaires which included 97 items were distributed to 30 school principals and members of school administrative committees and 250 teachers selected from 30 public schools from five Zonal Educational Departments. The revised questionnaires called on the respondents to address the following six major areas:

1. Respondent background information.
2. The adequacy and comfortability of school physical plants to implement various school programmes.
3. The location of school buildings.
4. The role of parents, educational offices and the surrounding community in strengthening public schools.
5. The school site; and
6. The role of the school community for effective utilization of school physical plants.

In the first, the third and sixth parts of the questionnaires, multiple choice-type of items were prepared. While, the items of the remaining parts of the questionnaires were prepared in the form of likert-type attitude scale and the level of agreement was indicated on a five point scale ranging from “very poor” to “very good”, and “strongly disagree” to “strongly agree” respectively.

### **1.6.3 METHOD OF DATA ANALYSIS**

Based on the nature of the basic questions and the data collected the following statistical tools were used.

To know the general characteristics of the respondents percentages were calculated.

To know the proportion of school principals, teachers, and committee member who have the same view about the adequacy and comfortability of school physical plants first percentages were calculated and then chi-square test was made.

To determine the proportion of the total respondents who have the same judgments, percentages were calculated. This was simply done by adding the same responses given for each item concerning the status of public school physical plants, and then dividing by the total number of respondents.

To assess respondents views about school sites the same procedure of analysis were used as in above.

Percentages were also used to compare the similarities and differences within and among groups. Further more, percentages were also calculated for items that were prepared in the form of multiple-choice types.

Chi-square test was used for each item in the questionnaires that were supposed to be measured on nominal and ordinal scales, to determine whether the responses were statistically significant. Chi-square test statistically significant when  $\chi^2(\text{table value})$  is less than the calculated value of  $\chi^2$ ; and insignificant when it was greater than the calculated value.

In addition, Spearman's Rank Correlation was used to determine the level of the ranking agreements on items related to the within and external factors that affect teaching-learning environment.

In all the above cases, the existing differences were tested for statistical significance at  $\alpha=0.05$

### DEFINITION OF KEY TERMS

For the purpose of clarity and consistency in the study, the definition of the following terms are given below.

**Public School-** a school owned by the public in accordance with article 3(1) of the public ownership of private school. Proclamation No.54/75(Negarit Gazetta.1975).

**Private School-**any school established by any person or persons for the purpose of providing formal education from grade one and above. Private schools do not include foreign community schools or mission or similar schools Proclamation No.54/75(Negarit Gazetta,1975).

**Status-** is a mark of the amount or recognition honor and acceptance given to a person, organization or other condition(Good, 1973:445).

**Physical Plant-**the land, buildings, and improvements of campuses, athletic fields, and other plots used for the activities of a school, includes buildings for instruction and administration, libraries, gymnasiums, power

plants, and other buildings and the equipment and furniture of such buildings( Good, 1973:422).

**School plant**-the physical property belonging to a school consists of grounds, buildings and equipment(Good, 1973:515).

**School site**-refers to the grounds on which the school building is located. It also refers to residences of pupils, availability of utilities, development of various work, play, parking and landscaped areas and similar items(Landes and merle, 1962:3).

**School programme**-the entire offering of the school, including the out of class activities, and the arrangement of subjects and activities (Good, 1973:448).

**Policy**-is judgment derived from some systems of value and some assessments of situational factors operating as a general plan for guiding decisions regarding the means of attaining desired objectives(Good, 1973:428).

## **ORGANIZATION OF THE STUDY**

The study is organized in to four major chapters. Chapter one deals with the problem and its approach. Chapter two deals with review of the related literature. While the third and the fourth chapter deal with presentation and analysis; and summary, conclusions, and recommendations of the study respectively.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

This section deals with the views of authorities in the field of education about school plants. Accordingly, the whole of this chapter devoted to the Need and Nature of School Plants, the Nature and Importance of Maintenance, School Site, Major Components and Facilities of School Plant, Financing of School Plant and its Effective Utilization.

## **2.1 THE ADEQUACY OF SCHOOL PLANT**

### **2.1.1 The Need and Nature Of School Physical Plant**

School plant is one of the major factors that determines the quality of education. Hence, school plant plays the role of hindering or facilitating any educational programme that is provided in school. School is an institution in which students learn ideas, knowledge and practice. Thus, school cannot exist without adequately designed and constructed building, if it is hoped to provide education for citizens in real sense.

School plants have direct impact on school activities depending up on their adequacy for various educational needs. The concept of School Plant is more than erecting building. As Hunt and Pierce(1958:45) Stated, "The term plant includes the school site, landscaping, playground and other lands, and classrooms, corridors, lighting and sanitary facilities of the building." Therefore, school plant includes many components, not merely limited to buildings.

The need for modern education necessitates adequate school plants. Technological advancement, introduction of new subject and new methods of teaching, curriculum change, increasing need for modern education, the concept of education for all, etc., call for additional new schools and strengthening the existing physical plants both in quantity and quality. Moreover, the need for additional school buildings continues, since there is an increase in student population and increase needs and interests of society for education (Perkins and Cocking 1957:236). Population explosion which

is more common in developing countries requires more schools with their necessary facilities. However, most of the school age children in these countries are out of schooling because of shortage of schools and some social factors specific to a given country.

At this time, the complexity of the present world, in one way or another, demanded societies to have education to cope-up with the changing world. Besides, the introduction of new courses, methods and techniques, etc., to educational system require every community to have adequate and comfortable school plants. The fact that school plant is the space interpretation of school curriculum in its physical expression; the size, proportion, location and relation of learning space influence the type and the quality of instruction. The school site and buildings are a part of the school plant which either facilitate or hinder the school programme (Knezevich, 1969:451-452).

Since school plant starts and ends with the pupil, it should be designed to satisfy the pupil's physical and emotional needs. His/Her physical needs are met by ensuring a safe structure, adequate sanitary facilities, balanced visual environment, and space for his/her work and play. His/Her emotional needs are meet by creating pleasant surrounding, a friendly atmosphere, and an inspiring environment (Kennedy, 1982:73).

There are many factors that contribute to the inadequacy and shortage of school physical plants. Knezevich(1969:450) states, "natural growth of birth rate, the expansion of educational programme and population mobility are the main causes for the shortage of school buildings." According to this author, in most cases, shortage of school buildings may be caused by high birth rates and continuous expansion of curriculum. In addition, in urban areas, the mobility of population especially from rural to get better services also causes shortage of school buildings. In relation to what Knezevich has stated, Fischer (ND:58) states, "planning school plants for

greater urban centers involve problems caused by the concentration and congestion of the big cities; and in large caused by factors indirectly related to density of population such as: sociological, cultural and economical. "Moreover, these problems are complicated by lack of experience in providing universal education for diversified population. In general, according to these authors poor school physical plant planning also has a significant contribution to the shortage and inadequacy of school plants. As it is indicated by Kennedy (1982: 73), the sole objective of building school is to realize the proper implementation of the designed curriculum. This intern, requires a close and intimate relationship of school and community to decide on the kind of school plants needed. Emphasizing on the importance of designing school plants to meet both the needs of today and tomorrow, Stoddard (1957:47) has the following to say:

*The endeavor to plant and construct buildings and grounds adequately to meet the constantly increasing development; in curriculum and instruction have led not only to especially creative designs for construction currently under taken but also to arresting forecasts of what the future plant will be like.*

Therefore, at any cost, school plants should meet both the present and future needs of the community. This is because of the unique nature of school, i.e., it continues as long as society exists and demands for learning.

Many authorities have indicated, schools that have unplanned buildings, worn-out desks, narrow and dark rooms, and with no toilet facilities, etc., cannot claim to have facilitated educational activities. (Wilmer, 1980:20). Conducive school plants are highly important next to qualified personnel and school programmes. In a well facilitated school plants, teachers and students are motivated to teach and learn effectively. In connection to this Wilmer (1980:23) has emphasized on its role as follows:

*School plants and school teaching facilities influence the process of developing the students' intellectual ability and observation. The effective utilization also influence the efficiency of teacher-student co-operative activities.*

Thus, nowadays, it is impossible to expand and promote formal education system without erecting adequate, comfortable and appropriate school plants that have the necessary school facilities and equipment. The type and size of school plant is basically determined by the nature and scope of the school programme. On the other hand, the kind of school plant and its capacity to accommodate various school programmes determines the success of the designed curriculum. In connection to this Herrick and Others (1956:27) stated:

*The school plant is a teaching aid, as in a library book or a piece of science apparatus. All teaching aids including the school plant, have value to the schools only in so far as they serve the instructional purposes at hand. Thus the nature of the desired instructional program should determine the type of physical plant to be provided. This is the most important principle in the whole school-plant planning field.*

As it is stated above school buildings are of no use unless they meet curriculum needs and the demand for increasing use of schools for different purposes at the local level where the community lives and other needs than do traditional academic subjects. The function of school physical plant is not only limited to the school children, but it further extends to community services. For instance, school facilities like recreational centers, playgrounds, libraries, classrooms and the like are used by the community members. In addition, various social meetings, fraternal gatherings, etc., can also be held at school (Stoops, 1981:224).

#### **2.1.1.1 City Plan and School Plant**

A school house not only depends on its setting, but it is itself a part of the setting, and the setting is a part of a school. Students play and learn both inside and outside the school compound (Caudill, 1954:115). This means the learning of students is not limited to a classroom, but also the school site and the surrounding community as

well offer the learners as out-door laboratories. To assure the best possible function of school plant the school planners must work hand in hand with city planners. This is because the zoning of community projects is decided by city planners, therefore, if it is hoped to increase the effectiveness of school programme, the cooperation of school and city plan is mandatory.

All community projects are interrelated; no single one can be properly developed without its being related to all the rest. Therefore, education must be an integral part of the city or regional plan (Engelhardt, 1970:257). Schools are belong to the public and must serve the interests of the communities to which they belong. In all cases planners must consider the necessity of integrating school plants planning with the broader community planning. The school house is one of the most important buildings the community has. The school serves not only the education needs, but also the social, cultural, and recreational needs(Caudill, 1954:15).

To assure the best possible integration of education with other community functions and to promote efficiency and safety in the location and use of school facilities, the planning of school building programmes should be closely coordinated with other aspects of community development. Therefore, the adequacy of school plant is also affected by the extent to which school is integrated with city plan.

## **2.2. THE NATURE AND IMPORTANCE OF BUILDING MAINTENANCE**

The maintenance of building is the process which starts from the first day building begins to give service. The type of materials with which the building is made, the site chosen and the skill of personnel who are involved in the construction determine the

amount of maintenance cost required during the life time of the building. Building constructed from inferior materials by untrained personnel in the field and unsuitable site need frequent maintenance programme than those constructed appropriately. Since most schools in developing countries are constructed poorly due to various factors, their adequacy for school programme is questionable (Seely, 1984:1).

The primary aim of building maintenance is to keep the building to its initial state in order to carryout its purpose accordingly. School buildings need continuous maintenance. The wear and tear that is caused by nature(rainfall, strong wind, sun light, etc.) are common for all buildings. But, unlike other buildings, school buildings serve many pupils, teachers and the community at large throughout the year(Baker and Peter, 1963:43). Since number of schools and facilities are increasing year after years, it is necessary to give regular maintenance in order to get longer and adequate service out of them. Regular maintenance can also reduce the cost and the rate of deterioration.

### **2.2.1. Kinds of Maintenance**

Johns and Morphet (1965:559-560) have classified maintenance in to planned and unplanned. Unplanned maintenance is the type of service for buildings to prevent natural disaster. These type of maintenance are not regular and they happen without the conscious awareness of the organization. On the other hand, planned maintenance includes preventive and corrective maintenance. Corrective is provided after certain part of the building is damaged and it is too costly in terms of resource. Preventive maintenance is given before the building deteriorates, and it is more economical, easy and takes less time. Further more, Amarine(1982:326) has indicated the following points as a precondition for a well designed preventive maintenance:

1. Adequate records of all items included in the programme.

2. Inspection on regular basis.
3. Well qualified inspectors; and
4. Necessary administrative procedure for fulfillment and follow up programme.

On the other hand, Candoli and Others (1984:229-273) classified maintenance as: preventive, periodic, recurring and emergency maintenance. Preventive maintenance focuses on the programme for servicing machines, systems and structures devised to prevent a breakdown of the total system or any one of its parts. Its aim is to enlong the life of any piece of material, a structure or an operating system. For the success of preventive maintenance, accurate control records and schedules are necessary. Periodic maintenance is designed to accomplish the maintenance of materials within a given days. It is used to maintain teaching materials. Besides painting, repairing, and the like are included under this category.

Recurring maintenance is associated with day-to-day operation of equipment's and utilizing facilities. This programme can serve when periodic maintenance is disfunctional. In this kind of maintenance, operation can fully applied regardless of the age of the equipment on use. Emergency maintenance look after fixed and repairing requirement which became out of use for certain period of time. the difference lies only in the time they engage in the operation of maintenance.

All the types and the kinds of maintenance are of no use without a sound maintenance programme. A well organized maintenance programme demands a sound planning with the necessary resources like any other school activities it should have short, medium and long-range plan. The maintenance programme as any planned activity starts after sufficient information about the cost, work to be done and the number of qualified personnel to carryout the programme are known. Bunchanan (1983:61) in connection to the need of information has stated the following:

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*Any planned maintenance system is deciding in advance the item of the building and equipment to be maintained, it tells how each item of the building is to be maintained and how is the frequency to be maintained, the method of administering the system and methods of analysing the result.*

In general maintenance is a continuous process that requires a sound planning in order to up-keep the service of school plant as required.

### **2.3. SCHOOL SITE**

Schools were simply erected anywhere and often had small size. The problem of site selection emanates from lack of knowledge and understanding of the purpose and uses of the site and what it implies by the way of space, topography, and other site features (Herrick and others, 1956:236). Lack of detailed maps on topography, inadequate plan for school establishment and the settlement pattern forced the school planners to select poor school sites. This problem is more prevalent in urban than rural areas, because in urban areas it is not simple to get appropriate school site due to unplanned settlement patterns and inadequate space which forces planners to select a site which is unsatisfactory (Engelhardt and Others, 1949:30). Expressing the importance of adequate and appropriate school site, Alcott (1982:16-17) states:

*We should recognize that the growing children need play-grounds in the appropriate site which is safe from accident and enable them to develop their emotional and physical development.*

Since schools are places where the overall growth of children take place, sites should be selected after considering several factors. There is no universal criterion for selecting and evaluating school sites. However, many authorities suggest school sites should be attractive and suitable for the occupants as well as school activities. Expressing the importance of site, Derby (1971:30) states:

*To select a site which is inappropriate is the same as making error as omitting important element of the physical-plant. The schools that have well constructed buildings, but erected on unsuitable and unattractive site, actually represent a considerable waste of public funds.*

Eventhough there are no universal criteria, there are certain factors to be considered when selecting sites. These are: suitability for school programme, suitability as a place of construction, location and attractiveness(Herrick and Others, 1956:237). In addition to these McClurkin (1964:437) indicated, size of school age population is used as a criterion to select school site.

How well planned and constructed a school building is, ignorance of such factors leads to failure in the effectiveness of school. Inappropriately and unfavourably sited schools also result in greater wastage of human, material and financial resources.

### **2.3.1 Major Factors to be Considered in School Site Selection**

#### **2.3.1.1 Location**

Among the important factors necessary for site selection, the location of school plant plays a significant role in promoting or hindering the school programme. In deciding on the location of school building, attention must be given to accessibility and environment(Herrick and Others, 1956:237).

##### **2.3.1.1.1 Accessibility**

Accessibility refers to the proximity of the school to the population center of the area to be served, the characteristics of roads and streets around, land feature, and the like

(Landes and Marle, 1962:1). Advance selection of sites usually enables to secure land which is free from structures, and frequently this is not given due attention in site selection.

The evaluation of an existing or proposed site as to its accessibility requires first of all a knowledge of the boundaries of areas to be served by the school. This requires examination of such diverse factors as density of student population, desired maximum and minimum size of school, capacity and enrollment of other school buildings in the school system, travel distance and provisions for transportation, existing layouts of streets and other public facilities, proposals of official planning agencies, and the like (Herrick and Others, 1956:238). These limits must be adjusted in light of any adverse conditions along the routes of travel.

Schools are located to serve a given known areas, so that the site should be readily accessible to all who are to be served by the school. Above all no children is unduly fatigued upon arrival at school. American Association of School Administrators (1949:34) noted the following maximum limitations have to be considered reasonable for normal circumstance, when traffic hazards, population density, or road conditions do not necessitate modifications. These are:

1. Walking distance - elementary school pupils, three quarters of a mile; and secondary school pupils, two miles.
2. Traveltime - elementary pupils, thirty minutes; and secondary pupils one hour.

Similarly, Hallak(1977:158) stated since children of the rural areas may travel large distance between home and school than urban children, the means of transportation decides how large a catchment areas should be. It is not the distance that children have to travel, but the time and the means of getting from home to school that determines the catchment area of school. The same author further noted, the maximum distance to be covered by children to attend a school varies from country to

country and from region to region. For instance, in countries like Iran, Brazil and Ireland primary school children travel the maximum distance of about two or three kilometers from their home to school.

In Ethiopia as the standard of MOE(1994:18) shows the maximum distance from home to school for primary school pupils is within 3 kms. In general, the location of school site should be reasonably be accessible to serve the greater number of pupils. In other words, schools are to be located in a central place where school age children get equal opportunity to go and come to school. (For more information refer to annex part II)

#### **2.3.1.1.2 Environment**

The building as well as the out-door educational and recreational spaces should be located in most wholesome environment the community affords. Site selection should be made on this basis. The site plan must provide protection against future undesirable encroachments (Engelhardt and Others, 1949:28).

Where ever possible, school be located in a residential or parking areas, rather than a business or industrial areas. Barrooms and other places which might have undesirable influences on pupils should be avoided, and school must be away from busy, noisy, thoroughfares or places where crowds pass to and from work or on other missions. The streets and the residential areas around the school must be attractively landscaped and well maintained. A clean, uncontaminated atmosphere, free of smoke and undesirable odors, should always be sought (Herrick and Others, 1956:139; and Engelhardt, 1970:165). Moreover, Landes and Marle(1962:2) suggest the appropriate environment has to be taken into consideration when dealing with site of schools. These are: water supply; sewage disposal, splid waste disposal; proximity to street; heating acoustics; safety factors, etc.

### 2.3.1.1.3 Remoteness

Remoteness is very important point to be considered in locating school sites. School building so located that they are remote from unnecessary noise, air pollution and other impediments.

When locating school sites, attention must be given to noise causes irritation and emotional strain on the school occupants. Many authorities suggest that external sources of noise out-side the school premise can be reduced by choosing a site which is away from truck routes, rail roads, airports, factories, market places, and other sources of loud, continuos and sharp noise. The school site should also be away from places of amusement, dance halls and other installation. Because these may affect the attention of the pupils and in any way demoralizes or adversely affect the outlook of the students (Engelhardt and Others, 1949:27; Koivula, 1983:11; and Terry and Sterling, N.D:5).

Schools should be located remote from any source of pollution. Educational process needs clean and uncontaminated environment which is free from dust, smoke, and any undesirable odors. Therefore, schools must not be near manufacturing plants, refineries, oil burning power, etc. Emphasizing this point, Engelhardt (1949:29) states:

*Consideration should be given, in the location of the buildings, to the prevention of all the possibility of odors, dust, dirty and smoke being blown towards the building from the streets, unfinished playgrounds, open fields, business and manufacturing districts.*

Similarly, in Ethiopia the following points are considered while locating school site: remoteness from crowded areas, market places, highways, barrooms, industries, topography, dust, water bodies, flood, wind, etc. (MOE, 1994: 18-19). For more information refer to annex part II.

### **2.3.1.4 Topography**

Topography refers to the situation of the land on which the physical plant is to be constructed (Engelhardt, 1970:263). The topography must be conducive for the educational programme. In locating building and play areas topography should be considered. The buildings have to be located on high ground with a commanding view, and play areas on level ground but it should not be so low as to hinder proper drainage and the maintenance of good hard surfaces (Engelhardt, 1949:28). Some subject areas like physical education, agriculture and other educational and recreational activities need a well-drained area where there is no possibility of standing water following the rain storm. Besides play areas should be free from sharp stones, dangerous rock outcrops and any other abrasive materials (Terry and Sterling, N.D:1; and Hallack, 1977:210).

### **2.3.1.3 Suitability to Meet Curriculum Needs**

Basically the scope and the nature of the school programme determine the site to be selected on which the school building is going to be constructed. In turn the kind of school plant and its capacity to accommodate various components to house determine the success of the school programme implementation.

#### **2.3.1.2.1 Expansibility**

The selected site must promote both the present educational programme and the possibility for enlargement of the building to meet the future educational needs (Landes and Marle, 1962:2). Expansibility can be seen from two aspects: the increase in future enrollment of pupils and changing situation of the total technological and social environment. In connection to this Engelhardt and Others(1949:29) stated:

*The site selected by the education service should allow for the enlargement of buildings and recreational areas to meet estimated future enrollments without destroying and without requiring alteration of the initial construction.*

Schools may primarily be designed to accommodate a small number of pupils in a class by considering only the current population trend. But, when the number of enrollee increases it creates problem of enlarging the site. Therefore, the site should be primarily be selected to meet or reduce the future enrollment problem.

The world we live in is dynamic because things change as time goes on. As a result, new ways of doing things, activities and other new scientific investigations can be introduced in to the content of school curriculum which in turn may require additional buildings and facilities. Therefore, the site should also be selected to respond to the demand of the future requirements. The situation of the immediate area has an impact on the possibility of the future expansion. That is if the immediate area is industrialized, or built up, or does not lend any opportunity for future expansion, it will retard the future educational improvements. Besides, it is difficult and costly to enlarge the site in such areas. Therefore, the site should have adjacent open areas which are readily obtainable as needed (Landes and Marle, 1962:79).

In Ethiopia, since there is change and improvement, after the school site had already been selected, to cope-up with such changes, the initial decision on site selection should consider the need for future expansion (MOE,1994:20). For more information refer to annex part II.

### **2.3.1.3 Suitability For Construction**

School site should permit the construction of building at a reasonable cost and at an appropriate place in relation to the other facilities to be developed on the site. The services of an architect and other related specialists are especially valuable in judging a proposed site on this criterion. In selecting school site due attention should be given to the cost of site preparation, cost of utility connections, cost of new improvement adjoining and approaching site (Engelhardt, 1970:269). The site ought

to permit the placement of the building and other facilities in proper relationship to one another.

#### **2.3.1.4.1. Attractiveness**

A final criterion is attractiveness, which is concerned with aesthetic value of school plant. Aesthetic consideration in site selection is concerned with an arrangement of facilities and making the entire plant attractive and pleasing. The school environment must arouse the learning interests of the learners. An appropriate environment, an environment with good aesthetic, thermal and visual conditions, stimulates the pupils to learn better. Beauty has a positive effect on all activities. Herrick and Others(1956:245) in relation to what has been said above stated, ". . . it is not necessary to hide the school building in an old gravel pit or place it in ugly surroundings."

If the school compound lacks natural cover such as shrubbery, flowers, trees, etc., it is highly affects the interests of the learners. In addition, lack of natural covers in school compound hinders an effective teaching of some subjects. All in all, as Yeager(1949:245) indicated". . . the environment should be socially and culturally wholesome, with definite elements of beautify,, and adapted to educational activities."

#### **2.3.2 Size of School Site**

Large enrollment, expanding curriculum the need for recreational areas and the importance of school in community plan are reasons for determining size and characteristics of site. As Engelhardt and Others(1949:27) correctly put it, "Size of site is not so much a function of numbers as it is of the kind of activities and programmes that today's and the future may present." Davis and Lovels (1981:10)

recommended, "Guidelines for school site size must be flexible." Since site size refers to the total area in square meters or acres which is necessary to implement the educational programme, the size of a school site should be so adequate to undertake various activities in addition to the classroom instructional processes.

Eventhough, the programme to be accommodated vary from place to place and from school to school, the site should provide:

1. Space for original building and future expansion.
2. Space for lawns, preferably with no part of the building or any future additional closer than 100 feet from any edge of the site.
3. Space for walks from street, from drives, and parking areas, and from one portion of the building to another, with proper separation of walks from drives and other vehicular areas.
4. Space for drives and parking lots.
5. Space for drives, loading docks, and turning areas, cafeteria supplies, etc.
6. Space for outdoor activities(physical education, athletic, agriculture, etc.) and recreational activities.
7. Space to provide a suitable margin for future expansion of present activities(Herrick and Others, 1956:241).

In addition to what was stated by Herrick and others, Caudill(1954:126) indicated the question of size has a direct relationship with finding an answer to the problem of location. All in all, as different educational authorities have suggested, it is advantageous to select a large site for the future demand for development is unknown.

### **2.3.2.1 Number of Acres**

Factors affecting the acreage are the number of pupils, the type of school programme and the facilities to be housed when determining the site size of schools (Davis and Lovels, 1981:11). Before, the size for a given school is determined, there must be a local decision with respect to each type of space, quantities and size determined. The shape, topography, nature of the social, and other characteristics of the site may render parts of its difficulty to use effectively, and thus affects the acreage needed. Finally, the design of the building it self and the placement of the building and other facilities on the site have a very definite bearing on how much space they require and thus on the total number of acres needed(Herrick and Others, 1956:241-242).

In Ethiopia according the standards of MOE(1994:20) the site size of primary school is 15000m<sup>2</sup>-25000m<sup>2</sup> based on the projected pupil population, the school programme and the possibility of future expansion.

## **2.4 STANDARDS FOR EDUCATIONAL AND RECREATIONAL SPACE REQUIREMENTS**

Adequate space for various in-school activities is very essential to promote school programme. It is therefore, important to allocate adequate spaces for various activities. Adequate space provides a proper distributions of administrative and guidance responsibilities, conformity for teachers and pupils, and for various academic purposes both for the present and the future.

Engelhardt and Others(1949:28) confirmed space standards must be based on pupil space requirements, and adequate spaces should be provided to accommodate:

1. Floor space for pupil activities in the instructional area.
2. Space for playgrounds and recreational areas.
3. Space to meet community and adult purposes and uses.
4. Space for the housing of school equipment and service facilities.
5. Space for teaching, supervisory, and administrative staff
6. Space for personnel workers, clerical workers, custodians, and service personnel;  
and
7. Space provision for future expansion.

In Ethiopia, The MOE(1994:20-21) set standards for various educational programmes for different school levels. Therefore, the space requirements for various primary school programmes of school level(1-4) or basic primary; and school level(1-8), or complete primary is stated clearly in kindergarten and primary school level standard. For more information refer to annex part II. The number of students in each grade (1-4) is to be 50; while in grade (5-8) is 40. From this standard, one can clearly understand limiting a class size depends up on the activities that students are going to perform.

## **2.5 MAJOR COMPONENTS AND FACILITIES OF SCHOOL PLANT**

School has different components(the school building, facilities, furniture, playgrounds, etc.). Accordingly, this section deals with the major elements of the school plant.

### **2.5.1. The School Building**

School has to be built and maintained in view of the changing circumstances of time, science and population, other wise, it ceases to exist. It is forwarded that by Kennedy (1982:73) if people shape their buildings according to their behavior and

relationships, they may be shaped to some extent by the buildings. School buildings, should therefore be attractive, safe, clean and well suited to the purpose of education.

Most schools in Ethiopia for one reason or another are on sites that were obviously undesirable or had built structure that were hazardous to both children and teachers. Even the longevity of school buildings are affected by the actual factors prevailing during the time when schools are erected. The lack of adequate space creates difficulty of horizontal expansion of the public schools in Addis Ababa. In addition to the lack of adequate space and facilities, the problem is aggravated by the flood of enrollment.

### **2.5.2. Classrooms**

The basic element in every school building is the space where teaching-learning activities are carryout. Teachers and pupils interactions are mostly realized in classrooms. Thus, the character of classrooms must be cheerful, homely and coincide with the interests of the learners as much as possible. Emphasizing this point Gross and Hugh (ND:215) stated the following:

*School must provide adequate space and facilities for all the activities which are necessary to meet each pupil's changing educational needs. The school building must be constructed and equipped to reflect a homey and intimate atmosphere in which pupils may live and work.*

The classrooms must be comfortable in order to invite relaxing atmosphere both for teachers and learners. Since learning activities vary widely in nature, the space devoted to it differs in size, shape and the way in which they are equipped for instruction. some of these spaces are quite specialized in nature, as, for example, libraries, shops, etc. The majority of the learning spaces, however are at the classrooms, in which the learners spend the greater proportion of their school time.

The type of classrooms used for elementary, secondary and tertiary school systems vary in different dimensions. Educational contents, the age variations of the students, and other facilities necessitate educational planners to look for different sized classrooms. In most developed countries, various sized classrooms are more favoured than standard form of classrooms to fulfill their learners needs. On the other hand, the standard classroom usage approach limits the size of rooms, and the number of seats within a classroom (Knezevich,1969:104). For example(6x7) meter-sized classrooms for grade(1-4) and (6.92x7.26) for grade (5-8) is the standard for 50 and 40 pupils sit in 5 rows of 10 seats each; and 4 rows of 10 seats each respectively (MOE, 1994:20). For more information refer to annex part II.

All in all each classroom has to allow light in as much as reflection is needed for the class activity. In connection to this Herrick and others(1956:419) stated the following.

*Ceilings should be as high reflection factor as possible, window design should be such that the top of the glass in the windows is as high as to the ceilings as possible, there by making better use of the ceiling as a reflecting and light diffusing agent.*

Therefore, all classrooms must be designed from the beginning so as to allow sufficient natural light for the proper instructional programmes.

### **2.5.3. Offices**

Offices are used to facilitate the whole educational programmes in school. Administrative activities are carryout in and through offices. Different school and committees work are performed in a separate rooms from other instructional activities. Further more, such rooms are also used to document pupil's files, financial records, result documents, etc. Besides, since instructional activities require continuous interaction among school and out-of school communities, teachers have to get a place where to take rest, discuss with their students as well as parents about

their work and keep their teaching materials safely. Therefore, the necessity of separate rooms are unquestionable. Accordingly, MOE(1994:20-21) set space standards for different offices, staffrooms and stores depending up on their functions. (For further information refer to annex part II).

#### **2.5.4. Laboratories**

Laboratories are important educational facilities in schools for various subjects. In primary schools laboratories are needed to teach subjects such as chemistry, physics and biology. A laboratory room needs storage and preparation rooms adjacent to it for balances, heavy apparatus, glass tubes, chemicals and other equipment(Herrick and Others, 1956:281). In Ethiopia the standard space requirement for laboratory rooms is (7mx15m) i.e., 105m<sup>2</sup> both for basic and complete primary schools (MOE, 1994:20-21).

#### **2.5.5. Libraries**

Libraries are store of knowledge from which one can gets important information. As such, the function of school library is to contribute or to enrich the educational programme of school. It serves to facilitate and support any educational programme. Herrick and Others, (1956:338) stressing the importance of library stated, "the educational process functions in a world of books." In addition, Aallan(1974:14) has the following to say with regard to the importance of school libraries as follows:

*The scope of knowledge has become too vast to be covered extensively within the boundaries of classroom instruction . . . and means provided to meet and stimulate the many interests appreciations curiosities.*

Therefore, school library should be, "easy to get and pleasant to be in" (HM Inspectorate, 1989:4). With regard to the size of library, Whithead A. and other (1948:83) listed the following basic elements in order to determine its size.

1. The size must include reading center capacity for an average size class plus 25% (normally an average size class is thirty pupils).
2. The reading center space amounting 25 square ft. per pupil for capacity determined.
3. An average book shelf capacity of approximately 10 books per pupil enrolled in the school.

In Ethiopia according to the space standard set by MOE (1994:20-21), the size of library is (7mx8m) which has an area of 56m<sup>2</sup> for basic primary, and (12.1mx6.92m) a total area of 83.73m<sup>2</sup> for reading room and(2.42mx6.71m) which amounts an area 16.34m<sup>2</sup> for storeroom for complete primary school(1-8).

#### **2.5.6. School Pedagogical Center**

Nowadays pedagogical center are becoming part of school physical facilities(MOE, 1996:28). The main aim of pedagogical center is to provide an educational support where students take part in producing teaching aids under the guide of teachers. They also serve as research and innovation centers for teachers. Teachers and students use different school furniture and equipment constantly. Books need to be mended; pictures to be mounted; desks, tables, chairs have to be repaired. In most primary schools, repair and maintenance activities are carryout in school pedagogical centers.

Above all, the classroom instructions become effective when supported by various teaching aids. Learners can feel comfort and become interested when the lesson is presented in a concrete way. In connection to this John(1967:1957) stated the following:

*The science of education assists with means, the techniques, and tools that will be used to reach the goals evolved through the philosophy of education. It contribute knowledge obtained through experimentation, through measuring, accounting, classifying and comparing.*

In addition to what has been stated above, Herrick and Others (1956:348) considered pedagogy as, ". . . a space where teachers or pupils may find instructional materials not available in each classroom." From this statement it is clear that pedagogical centers can play a significant role in promoting classroom instruction. In Ethiopia, a complete primary (1-8) will have a workshop which has an area of 105m<sup>2</sup> and store 80m<sup>2</sup>; and basic primary pedagogical center will have the total area of 105m<sup>2</sup>.

### **2.5.7. Health Service**

Health Service must get due consideration in organizations like school, because students may be exposed to various danger while they are in school or on the way to school. Basically school provides information for students to enable them to make healthy choice about their lives(Lawton and Gordon, 1993:97). Moreover, Smith(1964:532) provides the following broad concept about health services in school:

*Health Service offered by the school are preventive rather than prescriptive. These services are designed to develop in the pupils an understanding of importance of promoting their health and a knowledge of the ways in which their health can be protected.*

This major objective of health service is to promote the protective aspect of various diseases to inculcate in learners the idea of how to take care of their health. However because of unique nature of school, there is much interaction between and among students during their play time, school activities, etc. Therefore, there is a high possibility to be injured. For this, school must provide first aid, which requires school to have special room, equipment, medicines. White head A, and others(1948:93) stated, "Examination rooms equipped with desk, examination table, chairs, scales, lavatory, stennilizer and sanitary storage cabinets, eye examinations should be provided."

In Ethiopia according to MOE(1994:20) the area of first aid post is 28.35m<sup>2</sup>. In general the availability of health room alone cannot promote school health unless it is equipped with the necessary furniture, equipment and medicines.

#### **2.5.7.1 Sanitation**

Several factors affect the health of pupils, among these: pupil's home environment, school environment and the surrounding environment have a great impact in promoting or hindering school health.

Specifically the presence of adequate water in school is an essential factor for good sanitation. Wastage disposal must get due consideration to avoid contaminated diseases. Cleanliness is of a great importance in prevention of different kinds of infections. Personal hygiene and public cleanliness(sanitation) are both important (Werner, 1985:131). Moreover, health promotion is informing and motivating people to maintain healthful behavior(Mitchell and others, 1987:5). Since school is one of the public service institutions in the community, it has to promote the concept of health in the minds of the learners and plays a significant role in how to keep sanitation.

#### **2.5.7.2. Toilet**

Toilet refers to the bathroom fitter consisting of bowl, usually with a detachable, hinged seat and lid, and device for flushing with water used for defecation and egustion(Stein and Urdange, 1973:149). Toilet is very important in school because it has a direct relationship with health. Herrick and Others(1956:310) concluded, by stating, "the toilet rooms be ample in size and adequately equipped to serve large number of people when the demanded is heavy during intermissions." Further more, the same authors, further noted, toilets should be easily accessible for students and

there should be a separate toilet rooms for both sex(1956:311). Accordingly, in Ethiopia as it is stated by MOE(1994:20-21) there should be 5 dry toiletrrooms of which 4 rooms are for students in basic primary schools(1-4), and 8 rooms for complete primary schools(1-8) and 2 rooms for teaching and non-teaching staff.

In general, eventhough it is not possible to provide one toilet room each pupil, the school should provide clean common toilet which is attractive and healthful; and must allow natural light as much as possible. (White head A and others,1948:94).

### **2.5.8. Furniture**

Change in education calls for many improved materials and educational facilities. Many research works on school furniture depicted, deformities such as spinal cords, stooped shoulders and hollow chests can be caused by inadequate or inappropriate seats (Austin,1975:68). Supporting this view Harrison(1978:224) stated the following.

*Seating in seats that are too high or writing on desks that require one shoulder to be elevated higher than the other as well as crossing the knees or sitting on one foot for a longtime can affect a physical condition of students.*

School furniture contribute a lot for effective teaching-learning process. The suitability of furniture to various school programmes can promote the implementation of school programme. Therefore, the type and kind of school furniture have an impact on the quality of education. While designing school building, the list of the required school facilities must be included (Strevell and Burke, 1959:424).

In Ethiopia the quantify and quality of furniture needed for various educational level is set by MOE(1994:21-22) For further information refer to annex part II).

In general appropriate and adequate furniture for various educational purposes promote the effectiveness of teaching learning processes. For instance, it is too difficult both for teachers and students to participate effectively in school activities. Therefore, for the proper functioning of school the necessary furniture for various subjects and school facilities must be adequate and comfortable. In connection to this Beeby(1980:85) stated the following:

*The health and efficiency of students and the effectiveness of school programme can be affected by the arrangement and by the type of facilities that the school has. The cleanliness and availability of light, ventilation and general atmosphere of the school can affect the efficiency of the teachers and their pupils.*

Teachers' motivation might be maximized in schools that have adequate and convenient school facilities. In schools that have adequate facilities and appropriate staffrooms, teachers might be more active and creative. Obviously, teachers will be more motivated towards their tasks if they are provided with the necessary school facilities the work demand. However, if teachers lack the necessary facilities and are forced to teach where there is no adequate and appropriate educational facilities, then this may reduce their motivation and creativity. Therefore, inadequacy of teaching facilities have a great impact on smooth functioning of school activities.

#### **2.5.9. Teaching Materials and Equipment**

Effective teaching could be done in schools where the conditions of instructional facilities and equipment are improved. Conducive physical plant and skilled manpower have no great importance without teaching materials. Teaching materials by their nature are expected to undertake all or some of the teaching functions. With regard to the functions of instructional materials, Davies(1980:214) stated, "Teaching materials have the role of informing, instructing, reinforcing and assessing instead of a tutor, relieving the part of the load of the teacher."

Children are attracted by new things, and colorful objects that they do not know before, models, pictures, and other classroom objects may help teachers to attract the attention of their students. Some educators and psychologists have explained the school environment has a great value in the process of learning. For instance, Kingsley(1976:206) states:

*It is widely held that learning will not occur unless the learner is motivated by the environment which helps learners to perceive things as they are, be able to see, hear, touch, smell and taste.*

This implies one of the means of creating new interest in the learners is creating pleasant environment by employing appropriate teaching materials and equipment. The use of necessary materials in classroom can help to hold the attention of the students by making learning pleasant, interesting and easy to follow. Lack of textbooks and teaching aids besides the crowded classrooms, make teaching difficult.

Teaching aids are either made at school level under school pedagogical center or purchased to supplement the instructional programmes. On the significance of teaching facilities and equipment in instruction, Knezevich(1969:391) has stated:

*The realization of school curriculum student understanding and applying the content of any subject matter depend on teaching facilities and equipment. Their proper use may increase student skill leading towards critical thinking, creativity, individual instruction, independent study and experimentation.*

All in all, teaching materials, teaching facilities and equipment play a significant role in the teaching learning process.

#### **2.5.10. Playgrounds and Recreation**

As a part of primary education curriculum physical education provides intellectual and physical development of the pupils. It is important particularly for the development of physical fitness and motor skills. Therefore, there must to be

sufficient space to provide areas and facilities for field games like soccer, football, volleyball, handball, basketball, etc.,(Landes and Marle, 1962:19).

Today, it is generally recognized that the growing children needs much play to foster their proper physical and social development, and adult as well needs to play in order to maintain his physical and emotional well-being. School programmes encompass many play activities for children ranging from completely unsupervised free play of a spontaneously formed group on the playground before school hours, at the noon hour to outdoor class in physical education or formally organized field days (Herrick and Others, 1956:251). Similarly diversified educational values can be obtained from recreational activities, through recreation pupils can develop a sense of love, friendship, respect, enjoyment, etc. (Hall, 1966:22). Regarding the educational values of recreation, the same author has the following to say:

*Recreational activities afford excellent opportunities for developing desirable attitudes, learning worthwhile skills, and enjoying pleasurable and meaningful life.*

Physical education and recreation are, therefore helpful in the socialization of participants and develop their body. In general, they add to the some total of human happiness. School premise should have sufficient spaces. Because, most playgrounds and recreational areas are extensively used outside of school hours by children and by adults. This is suite proper and should be encouraged by appropriate site planning. The design of playground and recreation space has to go in line with the plan formulation for the school physical plant. Whitehead A. and others (1948:35-36) suggest a separate play area for the lower (one to two) and upper (three to six) primary schools.

The playground area has to include different playing games such as basketball, volleyball, football, etc. The size of the playground may vary from community to community. The same authors the minimum unit areas for school with the enrollment capacity of 200 child population is 500 sq.ft per child; and 227sq.ft per child for a child population of 1,700. This shows the size of playground and recreation area is

determined by the total number of enrollment or size of the population. Accordingly, in Ethiopia, MOE(1994:41) has set the space standard for different playing activities. (For further information refer to annex part II.)

In general, lack of fields for various physical education programmes, and adequacy of sport materials, equipment negatively affect the physical and mental development of the learners. Therefore, due consideration must be given both for playgrounds and recreational spaces.

## **2.6 FINANCING SCHOOL PLANT**

Financial provision is a powerful instrument is used to facilitate the educational activities. There are very few problems in any organization whose solutions do not involve financial condition. In connection to this Walford(1984:54) states, "To maintain and perpetuate the important pillars of any educational system such as textbooks, teachers, buildings, equipment, other facilities and school services necessitate to have a sound financial base."

Every thing that the school system is provided by way of personnel services, instructional materials, facilities, equipment, and physical facilities for carrying on educational programmes depend on the amount of finance allocated. The quality of education provided also depend on finance. The question of school finance is a serious problem. In most cases the school plant problem seems to have been treated as emergency matter to be met on a basis of expediency rather than in terms of long-range planning.

In different schools, classrooms and related service areas would become obsolete and have to be replaced or completely renovated each year. This problem is always present and will not be solved by emergency measures which are expected to be used

for two or three years and then discarded. There are schools which are not in a financial position to meet even these ordinary needs. This problem is further aggravated by increased cost, rapid increasing enrollment resulting from high birth rates, with the certainty that enrollment will continue to increase. Building space has already been increased and will have to be increased even more sharply in the near future to care for these enrollments (Morphet and John, 1958:173).

The needs for more and better school plants stand revealed. The will to have them is not enough, unless school plants are financed to meet the demands of the general public. In connection to this Perkins and Cocking(1957:220) stated, "Educational plants costs money. Lots of money. They always have and they always will. But the main question is not whether we can afford them, rather whether can we afford not to have them."

The increased cost, increased enrollment rates, the need of maintenance of the existing school plants, the need of expanding school building, and curriculum reform calls for a lots of money. In addition to these the financial strength of communities varies from community to community. Therefore, the basic question is, "is it possible to provide equal educational opportunities for all school age children in various regions of a given country?" These complicated problems forces any country to plan ahead about school finance. Expressing the uniqueness of education sector from others Perkins and Cocking(1957:229) stated:

*Educational plants, unlike some other construction cannot be delayed. A needed high way which is not built may cause inconvenience. A new store or factory delayed a few years may cause loss of profit to the owners and inconvenience to the customers for a time. But when a school plant needed to provide educational opportunity for children is not built, the right to education for children is gone for ever.*

Hence, providing equal education opportunities for all children is both the responsibility of state and the general public.

The extent to which the community contribute for school directly depends upon the level of their participation in planning school plant. The experience of participation though cost sharing in education has been mixed. As it is stated by World Bank(1996:234) efforts to generate community contribution of cash, material, and labour to school construction is the function of the extent of community participation in different school programmes. For example, community contribution has tended to become more successful in remote areas where the influence of central government bureaucracy is weak. They have been least successful when communities have not participated in the decisions concerning location, design, construction, school management, or educational priorities. The support of parents and other community member through fees or voluntary contributions is motivated by their having a voice in such decisions and confidence in the value to them of the school or programme.

Similarly, Perkins and Cocking(1957:232) stated, ". . . schools are provided for the people-for their children and their community. After best technical advice has been given, communities who have participated in the planning at appropriate governmental level-will dedicate them-selves to pay for good educational plants. The need for finance is a continuous process, it's need never stop after school is planted. Its necessity continues for the proper functioning of school. As Musazzi(1988:708) stated, the use of money is not limited in constructing buildings, but also to buy necessary school facilities, maintenance, etc. that are required by a school to carryout its functions.

In developing countries government is the main provider of education with the necessary school facilities. The fact that government, alone cannot afford to meet the increasing need for education, calls for community contribution in expanding, building and maintaining school plants. Therefore, as most authorities suggested, school finance should be both responsibility of state and local community. Schools

become better both physically and functionally when the government and the community cooperate in financing school.

### **2.6.1. Financing Public Schools**

Since educational finance is, for the most part, a reflection of educational objectives, financial resources must be given a great consideration. For the fact that, public schools do not easily find finance to run their programme smoothly, the quality of instruction in such schools is directly or indirectly shaped by their financial conditions. In relation to the present day increased enrollments, schools and teachers; schools under financial problems cannot provide education as required. This is because the present day instruction needs talented teachers, books, furniture, equipment, materials and other physical facilities which are difficult to have without adequate finance.

According to their purposes, the major objectives of the public schools are to contribute to the educational system of the country. But under such financial difficulty, their contributions are hardly expected since the quality of instruction is determined by the availability of necessary resources. For all these, finance is the crucial and essential resources of school. Therefore, it is important to know where, when, and how the public schools get their financial resource in order to have a sound instruction.

In public school, the plan of budget primarily takes in to account the number of students who attend the public schools as far as they are the only source of financial income. Then the administration of school budget is to show the extent of sources, means and ways of getting, to know the expenditure etc., of the school finance (Walford, 1984:51).

## **2.7 Effective Utilization of School Plant**

The success of school programme and effective utilization of school plant largely depends upon the administration and organization, administrators, school committee, teaching and non-teaching staff members, community and pupils participation in effective utilization of school plant. Accordingly this section deals with these factors.

### **2.7.1. Administration and Organization of School**

In school system unless there is good administration and organization it is not possible to achieve the desired goal. The progress and improvement of school depends upon the organization and administration of the educational system.

Effective administration of school above all demands creation of friendly relationships and understanding among the staff, sufficient provision of necessary educational facilities; equipment, teaching materials and the like. In other words, effective administration is the wise utilization of human, material and financial resources. A satisfactory administration and organization encourages its employees to carryout their duties and responsibilities more efficiently than people under poor administration.

Administration is basically a service activity, an agency through which the general objectives of educational activities fully and effectively realized. Therefore, schools must be administered and organized in such a way that resource available to them are utilized accordingly (Zaudneh Yimtatu, 1987:37)

### **2.7.2. Administration and Organization of Public School**

The administration and organization of private schools before they were transferred to public ownership was left to the individual owners. The primary objectives of these owners were money-making. The organization of private school was similar to government school. In addition, the academic organization was in line with that of the government (Zaudneh Yimtatu, 1971:9).

The condition of public schools was not improved in terms of organization and administration even after they were transferred to the public. This was due to lack of giving emphasis to these schools. The proper implementation of various school programmes requires talented and effective school personnel. Since most public school employees do not have appropriate training in administration, it is difficult if not impossible for such administrators, to run their administrative work and educational programme.

The organization of public school is not different from that of the government schools, both are in line with the regulations and directives issued by MOE with the exception of internal administration (Transitional Government of Ethiopia, 1994:15).

### **2.7.3. The Role of School Principal**

The school principal, as a leader and collaborator plays a significant role ineffective utilization and improvement of school physical plant. He is also responsible to coordinate the work of students, teachers, and the community to improve school environment.

Since up-to-date records of information about the current building status and future enrollment trends is highly significant for the proper functioning of school, the principal is expected to have recorded information. In connection to this Herrick and Others (1956:8) stated, ". . . records will assist the administration to foresee building needs before a crises occurs, and thus for stall hasty planning and construction." Therefore, farsightedness is important to assure adequate planning and to safe the building from danger which may occur due to lack of considering several factors.

Principals occupy the key position in coordinating the efforts of the school and surrounding community to improve the poor conditions of school physical plants. Building maintenance and other school activities for safety factors require the active participation of parents, teachers, students, and citizens, which calls for creative effort of the school principal.

Active principal will provide the school personnel as well as surrounding community with the necessary information about the conditions of school plants and the way of using different school facilities. It is believed that in developing countries because of shortage of finance, facilities, skilled manpower, principals are mostly challenged by problems that may arise due to inadequate facilities and educational materials. Even then, principals are expected to over come these problems by coordinating the efforts of others.

#### **2.7.4 The Role of School Committee**

The potential of school development in a community lies in the potential of the community it self. And thus, the citizen has much to contribute. Several factors contribute for the formation of citizen committee. Engelhardt(ND:85) stated the reason for the necessity of committee as follows:

*Higher enrollments, over crowded classrooms, high tax rates, teacher shortages and the immediate demand for school building construction have created problems which concern everyone in a community.*

If the present problems are to be solved, cooperation action is the only way to get better schools and keep them good. However, in some places many people think of school as the sole responsibility of the educational administrators. Thus, the public has a very small role to play except what voice it has in the selection of the school committee. This misunderstanding can only be overcome when the school committees work cooperatively with all agencies in the communities and citizens. The school board or committee has thus a great role to play concerning the school programme and school physical plant. The school committee has legal authority in order to issue policies and follow their proper implementation. (Herrick and others,1956:12) enumerate the following points as the responsibility of school committee:

Dykes(1965:11-15) stated the responsibilities of school committees in relation to school plant as follows:

1. Since students population is creating insufficient space and instruction is influenced by building, this responsibility has great impact on the educational programme and thus it is the duty of the board to look about it.
2. School community relationship can be realized through committees which are delegated from the community and tie responsibility is fall on the shoulder of the committee.
3. The school committee has the role of budget making procuring and handling of funds, purchasing, cost analysis, maintaining property insurance, and programming operating.

Accordingly, in Ethiopia school administration committee was formed since long before to coordinate and manage most school activities in cooperation with school personnel. School administration committee has the following authorities and responsibilities according to the MOE(1996:74-75). Some of its functions are:

1. Makes an overall control on school activities and check whether school activities are carryout in line with directives and guidelines of MOE.
2. Approves the general annual school plan and budget.
3. Creates way and means of providing school facilities for the proper functioning of school programme.
4. Encourages and supports school's fund raising effort; coordinates public support; and makes sure that the utilization of fund is in accordance with the plan and allocated budget.
5. Realizes support provided by the government and insures its utilization whether or not it is in line with the rules and regulations of finance.
6. Makes a necessary effort to strengthen the relationship between school and community, parents, and teachers.
7. In every three months it is expected to report about the general school activity and problems encountered to the concerned authorities and the community.

In general, eventhough, a committee clearly set its school problems and go so far as to organize the citizens to act upon the need, whether or not its work will be successful is another matter. How the public receives the committee and its work will determine the final results, good communications, then become the key. By frequent exchange of ideas through every medium that is available to a community, the public at large can be aware of the school situation and what is being done about it. Meetings, discussions, forums and the like will contribute to an easier understanding for those differing opinion. The school needs of a community will be better clarified and the proposed solution better supported. Positive attitude of parents will enable to obtain a great help from the whole community members. This can help as a corner stone for better community school relation.

In general, the effective utilization of school plant is not only the sole responsibility of school principals and school committee. Any effort made to improve the school

situation is of no use unless the school personnel and student actively participate in the proper utilization of school physical plant.

### **2.7.5 The Role and Policy of Ministry of Education With Regard to Public Schools**

The experience of many countries have resulted in the incorporation of many detailed standards of school in their country's educational policies. These standards vary widely among different countries based on their level of developments, designed curriculum, approaches of school systems and other factors that are unique and peculiar to the individual country.

Engelhardt and Others(1949:24) mentioned, general building standards for the different levels of school system are established primarily for the purpose of protecting public interest and welfare, and they help the smaller communities at the local level which are unable to carry on research activities or to experiment in the development of desirable school plants. In this sense, standards are particularly important in providing the necessary information at the local level and at the same time, ill-advised and faulty planning is frequently prevented in part by standards established in the state code. Standards and general education policies have thus great influence over the school plant planning process than any other combination of factors.

In the process of educational planning, the standards and general education policies are preferably outlined in principle rather than with specific reference to details of design or selection of materials and equipment. McClurkin(1964:36) indicated the standards and education policy manuals, which usually are printed and available for distribution in all school systems, must always include a wide variety of principles and regulations covering items like specifications of the school terms, travel time and

walking distance for students, size of school to be organized, grade grouping of schools, and other similar matters.

Policy has great importance in schools for the performance of educational programmes according to pre established directives and regulations. All schools be government or non-government work within the frame work of policy. In Ethiopia, the policy that guides the programmes of educational institutions are set by the MOE. Matters such as admission, promotion, retention, the number of school days per years, enrollment of children per section, working loads per day and week and per year, and the size and the type of building, etc., are set by the MOE to all primary school in the country(MOE,1994:1-3). In addition to the policy set by MOE, there is a need for each school to set up for it self a frame work policy to guide the behavior and actions of its staff members. Activities such as coordinating, directing, controlling, evaluating and motivating individual teacher is limited within the scope of a particular school based on the general guidelines established by MOE.

What has been discussed so far is the importance of policy as a resource. However, there is no a clear cut policy that states about the administration and organization, finance, authority and responsibilities of school committee, employment condition of teaching and non-teaching staff, school fees, community contribution in public schools. Therefore, without a clear policy statements, it is not possible for public schools to contribute their part towards the desired educational goals.

# CHAPTER THREE

## PRESENTATION AND ANALYSIS OF DATA

This part of the thesis deals with the presentation and analysis of the data collected from the sample principals, school administrative committees and teachers.

A total of 300 questionnaires were distributed to the three groups. Out of these questionnaires 268(89.33%) were filled in and collected. Based on the responses obtained from the sample respondents, the analysis and the interpretation of the data are presented following each table.

**TABLE I**  
**DESCRIPTION OF THE RESPONDENTS BY THEIR SEX, AGE, AND**  
**EDUCATIONAL BACKGROUND**

No	Item	RESPONDENTS							
		Principals		Committee		Teachers		TOTAL	
		No	%	No	%	No	%	No	%
1	SEX								
	Male	22	73.33	24	85.71	130	61.9	176	65.67
	Female	8	26.67	4	14.29	80	38.1	92	34.33
	Total	30	100.00	28	100.00	210	100.00	268	100.00
2	AGE IN YEARS								
	< 20	-	-	-	-	-	-	-	-
	20 - 29					7	3.33	7	3.33
	30 - 39	3	10.00	-	-	91	43.33	94	30.07
	40 - 49	27	90.00	23	82.14	109	51.91	159	59.33
	50 - 59	-	-	5	17.86	3	1.43	8	2.99
	≥ - 60	-	-	-	-	-	-	-	-
	Total	30	100.00	28	100.00	210	100.00	268	100.00
	<u>EDUCATIONAL STATUS</u>								
3	< 12								
	12 - 12+2	-	-	19	67.86	10	4.77	29	10.82
	12+3-12+4	30	100	7	25.00	171	81.43	208	77.61
	≥MA/SC	-	-	2	7.14	29	13.80	31	11.57
	Total	-	-	-	-	-	-	-	-
		30	100.00	28	100.00	210	100.00	268	100.00

Out of the total of 268 subjects involved in this study, 176(65.67%) were males and the remaining 92(34.33%) females.

Concerning females participation 80(38.1%), 8(26.67%), and 4(14.29%) females were on participating in teaching, principalship, and committee members respectively. Therefore, females participation in teaching profession was highest in teaching profession and lowest in school administrative committees. On the whole, males have the higher participation rate than females as the data from table one revealed.

Age wise all the principals were between 30-39, committee members between 40-59, and teachers between 20-59. As it was clearly observed from the data age variation was observed among teachers. The majority, 159(59.22%) and 94(35.07%) of the total respondents fall within 40-49 and 30-39 age categories respectively. Therefore, most of the respondents were age wise matured to provide reliable information.

With regard to their educational status; all principals, 7(25%) committee members, and 171(81.43%) teachers were between 12-12+2; 29(10.82%) respondents were below 12. The remaining 31(11.57%) between 12+3-12+4. Therefore, the variation in educational status between and among groups in one way or another has an effect on the way they perceive the status of public school physical plants.

**TABLE II**  
**DESCRIPTION OF THE RESPONDENTS BY THEIR MARITAL STATUS, CONDITION OF EMPLOYMENT AND SERVICE YEAR**

No	ITEM	RESPONDENTS						Total	
		Principals		Committee		Teachers			
		No	%	No	%	No	%	No	%
1	MARITAL STATUS								
	Married	25	83.33	26	92.86	189	90.00	240	89.55
	Single	5	16.67	2	7.14	21	10.00	28	10.45
	Divorce	-	-	-	-	-	-	-	-
	Total	30	100.00	28	100.00	210	100.00	268	100.00
2	CONDITION OF EMPLOYMENT								
	Government	29	96.67	12	42.86	52	24.76	93	34.70
	Public	1	3.33	-	-	158	75.24	159	59.33
	Self employed	-	-	16	57.14	-	-	16	5.97
	Total	30	100.00	28	100.00	210	100.00	268	100.00
3	SERVICE YEAR								
	a. For principals and teachers								
	≤ 10	1	3.33	-	-	25	11.91	26	10.83
	11 - 20	4	13.33	-	-	18	8.57	22	9.17
	21 - 30	25	83.34	-	-	97	46.19	122	50.83
	31 - 40	-	-	-	-	70	33.33	70	29.17
	≥ 41	-	-	-	-	-	-	-	-
	Total	30	100.00	-	-	210	100.00	240	100.00
	b. For committee members by being committee member								
	≤ 2	-	-	8	28.57	-	-	8	28.57
	3 - 5	-	-	19	67.86	-	-	19	67.86
	6 - 8	-	-	1	3.57	-	-	1	3.57
	≥ 9	-	-	-	-	-	-	-	-
	Total	-	-	28	100.00	-	-	28	100.00

Table two treats the description of respondents by their marital status, employment condition and service years.

Out of the total respondents, 240(89.55%) lead married life. With respect to condition of employment; 29(96.67%) principals, and 52(24.76%) teachers were employees of MOE. On the other hand, the rest of principal and teachers were public employees. With regard to committee members, 12(42.86%) were government employees, where as the remaining 16(57.14%) were self employed. As the data showed the principals of public schools were employees of MOE except one. On the other hand, public schools were highly dominated by public employed teachers, out of the total they were 158(75.24%). Therefore, high percentage of public employed teachers demands more money that was going to be paid in the form of salary. This has far reaching consequence on the status of public school physical plants. In addition, assigning of employees of MOE as school principals also may bring a new inputs to public schools as it can be seen latter .

With regard to their service year one principal and 25 teachers had served less than ten years, while 22(9.17%) and 122(50.83%) principals and teachers had served between 11-20 and 21-30 years respectively. On the other hand, 8(28.57%) of school committee members reported their service by being the member of school administrative committees below two years, while 19(67.86%) had served from 3-5 years totally at different time. Therefore, this factor may also has some implication on the study as it can be seen latter.

**TABLE III**  
**ADEQUACY AND APPROPRIATENESS OF SCHOOL BUILDINGS**

No	Item	RESPONSES							TOTAL		DF	Table Value OF $\chi^2$	calculated $\chi^2$
		Respo ndent	VP %	P %	Ag %	G %	VG %	NR %	No	%			
1	The appropriateness of the school buil dings	P	13.33	50.00	23.33	13.33	-		30	100.00	6	12.59	*74.5
		C	10.71	21.43	35.71	25.00	7.14		28	100.00			
		T	56.19	33.33	4.76	3.33	2.38		210	100.00			
	Total		46.64	33.96	10.07	6.72	265		268	100.00			
2	The plan of the building	P	13.33	56.67	16.67	10.0	3.33		30	100.00	6	12.59	*40.0
		C	3.57	10.71	46.43	32.14	7.14		28	100.00			
		T	15.24	49.52	15.71	19.52	-		210	100.00			
	Total		13.81	46.81	19.03	19.78	1.12		268	100.00			
3	Availability of different offices	P	60.00	23.33	10.00	6.67	-		30	100.00	8	15.51	*47.9
		C	-	17.86	53.57	21.43	7.14		28	100.00			
		T	25.74	41.43	18.57	9.05	5.71		210	100.00			
	Total		26.49	36.94	21.27	10.08	5.22		268	100.00			
4	Separate and adequate staffroom	P	10.00	26.67	33.33	23.33	6.67		30	100.00	8	15.51	15.5
		C	3.57	32.14	28.57	21.43	14.29		28	100.00			
		T	18.1	43.33	16.19	13.33	7.62	1.43		210			
	Total		15.61	40.3	19.4	15.3	8.21		268	100.00			

**NB**

P = Principals  
C = Committee  
T = Teachers

\*= Significant difference  
 $\alpha = 0.05$

Table three treats the adequacy and appropriateness of school plants. Accordingly, the reaction of the respondents to item one revealed that the three groups were categorized in to three categories. Only 4(13.33%) principals, 9(32.14%) committee members and 12(5.7%) teachers responded as the school plants were adequate. While 7(23.33%), 10(35.71%) and 10(4.76%) principals, committee members, and teachers rated as medium. On the other hand, 19(63.33%) principals, 9(32.14%) committee members, and 188(89.52) teachers confirmed the inadequacy of school plants. The close observation of the responses to this item showed more of the principals and teachers react negatively than committee members. The variation of responses of committee members from principals and teachers may attribute to their perception and experience. A chi-square test for this item also clearly shows that as there was a significant variation among the respondents as it was seen from the table.

As to item two, 21(70.00%) principals and 136(64.76%) teachers and 4(14.28%) committee members depicted as the plan of school buildings was inappropriate. In item two also there was a significant difference between the responses of the principals and teachers as one group, and committee as another group. The chi-square test also confirmed there was a significant variation. Therefore, it is possible to conclude that there was a difference in perception on item two between the committee members; and principals and teachers.

In item three similarly the committee members were significantly different in their view with the availability and adequacy of different offices. 25(83.33%) principals, 140(66.67%) teachers and 5(17.86) committee members confirmed as there were no adequate administrative offices. Among these, as the data revealed, the school principals emphasized on the inadequacy offices than the rest. This was probably associated with the nature of their work. On the other side, the majority of committee members differed in their rating from principals and teachers. This shows there was a significant difference between committee members and the others. The same conclusion could be reached on this item too. The chi-square test clearly showed as there was a significant difference.

The final item, in this table concerned with the adequacy and availability of separate and adequate staff rooms. Accordingly 63(23.5%) of the total respondents indicated there were adequate staff rooms. 52(19.4%) and 150(55.97%) of the total said medium and average respectively. When the responses of teachers observed 44(20.95%) of them approved the adequacy which was supported by 63(23.51%) of the total respondents; 34(16.19%) rated as fair, again this was supported by 52(19.4%) of the total respondents; and 91(43.33%) teachers reported as there were no adequate staff rooms which was supported by 108(40.3%) of the total. Therefore, it is safe and fair to conclude that with regard to this item there was no significant different among the three groups about the inadequacy of staff rooms. The chi-square test for this item also revealed that there was no a significant difference.

**TABLE IV**  
**ADEQUACY OF CLASSROOMS AND THEIR FACILITIES**

No	Item	Respo ndent	RESPONSES						Total		DF	Table value of $\chi^2$	$\chi^2$
			VP	P	Ag	G	VG	NR	No	%			
1	Suitability and attra- ctiveness of classrooms	P	36.67	23.33	20.00	13.33	6.67	-	30	100.00	8	15.51	*50.7
		C	3.57	14.29	42.86	17.86	21.43	-	28	100.00			
		T	7.62	55.71	21.43	9.52	5.71	-	210	100.00			
		Total	10.44	45.15	23.51	10.83	7.46	-	268	100.00			
2	Adequacy of classrooms to allow natural light	P	10.00	20.00	33.33	23.33	13.33	-	30	100.00	8	15.51	*57.0
		C	7.14	3.57	21.43	35.71	32.14	-	28	100.00			
		T	5.71	46.67	33.81	10.00	3.81	-	210	100.00			
		Total	6.34	39.18	32.46	14.18	7.84	-	268	100.00			
3	Adequacy of classrooms to accommodate reasonable number of students	P	43.33	26.67	13.33	6.67	10.00	-	3-	100.00	8	15.51	*97.0
		C	32.14	35.71	17.86	3.57	3.57	7.14	28	100.00			
		T	44.29	33.33	5.24	6.67	9.52	0.95	210	100.00			
		Total	42.91	32.84	7.46	6.34	8.96	1.49	268	100.00			
4	Adequacy and comfor- tability of students seats	P	16.67	40.00	23.33	13.33	6.67	-	30	100.00	8	15.51	*63.5
		C	3.57	10.71	42.86	25.00	17.86	-	28	100.00			
		T	36.19	43.33	15.24	2.38	2.86	-	210	100.00			
		Total	30.6	39.55	19.03	5.97	4.85	-	268	100.00			
	Adequacy of instructional facilities	P	20.0	46.67	20.00	10.00	3.33	-	30	100.00	8		*19.8
		C	3.57	21.43	42.86	21.43	10.71	-	28	100.00			
		T	27.62	36.67	19.52	4.29	4.29	1.9	210	100.00			
		Total	24.25	36.19	22.01	4.85	4.85	1.45	268	100.00			

**NB**

$\alpha = 0.05$

\*= Significant difference

VP= Very poor

P = Poor

Ag = Average

G = Good

VG = Very good

This table treats the adequacy and comfortability of classroom facilities. As the responses of the respondents showed 49(18.28%) of them have agreed classrooms were clean and attractive to promote teaching-learning process. While 63(23.5%) and 149(55.6%) rated classrooms attractiveness as medium and poor respectively. When the responses of the three groups were observed, the responses given by committee members was significantly different from principals and teachers. The calculated value of  $X^2(50.7)$  was significantly different from the critical value  $X^2(15.5)$ . Therefore, it is safe to conclude that this significant difference was due to lack of knowledge about the adequacy and attractiveness of classrooms on the part of committee members.

With regard to the adequacy of classrooms to allow natural light 59(22.02%) responded positively, 87 (32.46) as medium, while the rest responded negatively. The respondent were categorized in to two; i.e.; the principals and committee members seem to have the same view. On the other hand, the response given by teachers was significantly different. This can be seen clearly from the percentage of teachers who rated as poor and very poor. As the chi-square test for this item showed the calculated  $X^2(57.0)$  was statistically significantly different from  $X^2(15.51)$  at (df=8). Therefore, it is possible to say that teachers were the decoders because of the nature of their work than the other groups. Further more, the response of school principals was similar to that of teachers on the item that states about the adequacy of the plan of the school building. Therefore, it is safe to conclude that the majority of classrooms do not allow sufficient natural light, this has negative impact on teaching-learning process.

Concerning item three, the three groups have association. The majority of the respondents have agreed on the point that the number of students in classrooms was not manageable. 163(77.62%) teachers, 19(67.85%) committee members, and 21(70%) principals had the same view same agreement. Chi-square test given (df=8) the critical value  $X^2 (15.51\%)$  was by for less than the calculated value of  $X^2(97)$  at

$\alpha=0.05$ . Therefore, it is safe to conclude that classrooms accommodate more students than their capacity.

With regard to the adequacy and comfortability of student seats 17(56.67%) of principals, 4(14.28%) committee members, and 188(70.5%) teachers had reported the inadequacy and uncomfotability of student seats. The responses of the committee members were significantly different. The  $X^2$  value(63.5) was greatly different from the critical value of  $X^2$  (15.51) given (df=8). Therefore, school committee members have different view from the others.

As to the last item the response of committee members was different from principals and teachers. While 20(66.67%) principals and 135(64.67%) teachers have reported the inadequacy of classrooms instructional facilities. The chi-square test showed  $X^2$ (19.8) was significantly different from table value of  $X^2$  (15.51) with in (df=8). Therefore, on this issue also committee members have different views.

**TABLE V**  
**ADEQUACY AND AVAILABILITY OF PHYSICAL FACILITIES**

No	Item	Respo- ndents	R E S P O N S E S						Total		DF	Table value X <sup>2</sup>	X <sup>2</sup>
			Vp	P	Ag	G	VG	NR	No	%			
			%	%	%	%	%	%					
1	Availability and adequacy of school library	P	43.33	16.67	10.00	-	-	30.00	30	100.00	6	12.59	10.1
		C	35.71	32.14	10.71	7.14	-	14.29	28	100.00			
		T	37.14	46.67	6.91	2.86	-	7.14	210	100.00			
		Total	37.69	41.79	7.01	2.99	-	10.44	268	100.00			
2	Availability of multi purpose science classrooms and laboratories.	P	10.00	13.33	3.33	-	-	73.33	30	100.00	4	9.49	*14.7
		C	7.14	46.43	17.86	3.75	-	25.00	28	100.00			
		T	43.33	38.57	8.10	-	-	10.00	210	100.00			
		Total	35.82	36.57	8.85	0.37	-	18.66	268	100.00			
3	Contribution of school pedagogical center.	P	30.00	20.00	23.33	16.67	10.00	-	30	100.00	8	15.51	*39.3
		C	3.57	10.71	46.43	21.43	17.86	-	28	100.00			
		T	3.81	32.86	37.14	20.00	6.19	-	210	100.00			
		Total	6.72	29.10	36.57	19.78	7.84	-	268	100.00			
4	Space and facilities for practical activities (music, science, agriculture etc.).	P	63.33	16.67	3.33	-	-	16.67	30	100.00	6	12.59	*24.7
		C	10.71	60.71	17.86	7.14	-	3.57	28	100.00			
		T	45.24	30.00	14.76	6.19	-	3.81	210	100.00			
		Total	43.66	31.72	13.80	5.60	-	5.22	268	100.00			
5	Availability of space and facilities for physical education.	P	30.00	20.00	6.67	-	-	43.33	30	100.00	4	9.49	2
		C	48.86	28.57	3.57	-	-	25.00	28	100.00			
		T	46.67	39/52	4.29	-	-	9.52	210	100.00			
		Total	44.44	36.19	4.48	-	-	14.93	268	100.00			

**NB**

VP = Very poor

P = Poor

AG = Average

G = Very good

This table treats items related to the adequacy and availability of physical facilities. Accordingly, 18(60%) principals, 19(67.85%) committee members, and 176(83.81%) teachers have reported the adequacy and availability of library negatively. The surprising thing was 9(30%) principals, 4(14.29%) committee members, and 15(7.14%) teachers did not responded to this item. This may be probably there were no libraries in their schools to say good or bad. Across the responses of the three group, some how there was association or similarity. The chi-square test also showed as there was similarity across and among groups as the test for this item clearly showed in the table.

In item three the respondents were asked the contribution of school pedagogical centers in promoting teaching learning processes. With this regard, 7(23.33%) principals, 13(46.43%) committee members and 78(37.14) teachers have reported as it was medium, as it was observed from the table there was a significant difference among the three groups. The responses of school principals were significantly different from the others. The chi-square test also reveal this phenomenon. Even though significant variation was observed high percentages of the three groups rate the contribution of school pedagogical centers as a medium. Therefore, majority of school pedagogical centers were not on contributing as required in majority of public schools.

Concerning the adequacy of space and facilities for subjects that require practical application significant variation was observed. 19(63.33%) principals, 3(10.7%) committee members, and 95(45.24%) teachers have indicated its availability and adequacy. The percentages shows the responses of committee members was statistically significantly different from principals and teachers. On the other hand, as it was observed from the responses given to item one and item two 14(5.22%) of the total did not responded to this item too. As it had been said before, this may probably there were no spaces and facilities for subjects that require practical application. As the chi-square test for this item revealed the calculated  $X^2(24.7)$  was significantly different from the critical value of  $X^2(12.6)$  at  $\alpha=0.05$  given (df=6).

Therefore, based on the respondents responses, it is safe to conclude that almost all public school have no adequate space and facilities for practical activities. This have an adverse effect on the physical and the emotional development of children.

**TABLE VI**  
**SCHOOL HEALTH AND SANITATION**

No	Item	Respo- ndents	R E S P O N S E S						Total		DF	Table valueof X <sup>2</sup>	Calc- ulated X <sup>2</sup>
			VP %	P %	M %	G %	VG %	NR %	No	%			
1	Sanitation of the school compound and its surrounding.	P	6.67	33.33	30.00	20.00	10.00	-	30	100.00	8	15.51	10.0
		C	3.57	21.43	39.29	17.86	17.86	-	28	100.00			
		T	12.38	41.43	21.9	14.76	0.05	0.48	210	100.00			
		Total	10.82	38.43	24.63	15.67	10.07	3.73	286	100.00			
2	Provision of adequate and clean water for the school community.	P	-	3.33	13.33	33.33	40.00	10.00	30	100.00	8	15.51	3.1
		C	3.57	3.57	7.14	28.57	50.00	7.14	28	100.00			
		T	2.86	1.90	10.95	39.05	43.81	1.43	210	100.00			
		Total	2.61	2.24	10.82	37.31	44.03	2.99	286	100.00			
3	Provision of first aid service.	P	23.33	26.67	10.00	-	-	40.00	30	100.00	4	9.49	2.8
		C	35.71	25.00	7.14	-	-	32.14	28	100.00			
		T	38.57	34.29	5.24	-	-	21.90	210	100.00			
		Total	36.57	32.46	5.97			25.00	286	100.00			
4	Wastage disposal area in the school and it's surrounding.	P	40.00	26.67	13.33	-	-	20.00	30	100.00	6	12.59	*13.2
		C	28.57	25.00	25.00	7.14	-	14.29	28	100.00			
		T	40.48	15.24	12.86	15.24	1.90	14.29	210	100.00			
		Total	39.18	17.54	14.18	12.69	1.49	14.92	286	100.00			
5	Separate, clean and adequate toilet rooms for workers and students	P	73.33	13.33	6.67	-	-	6.67	30	100.00	4	9.49	*10.5
		C	67.86	21.43	10.71	-	-	-	28	100.00			
		T	88.57	6.19	5.24	-	-	-	210	100.00			
		Total	84.7	8.58	5.97	-	-	0.75	286	100.00			

**NB**

\*= Statistically significantly different

$\alpha=0.05$

In table six items related to school health and sanitation were treated. With regard to the healthfulness of school compounds and their surrounding only 69(25.74) rated positively. As it was observed from the responses there was no statistically a significant variation among the three groups. As the chi-square test for the item showed the calculated  $X^2(10.00)$  was less than the critical value of  $X^2(15.5)$  at  $\alpha=0.05$  and  $(df=8)$ . Therefore, based on the observed response it is generally possible to conclude that majority of public school compounds and their surrounding have not healthy environment.

In item two, the responses of the respondents clearly indicated their agreement. There was no even significant percentage differences among the groups. surprisingly, the majority of the total respondents agreed the provision of adequate and clean water for school communities was very good and good. The chi-square test also confirmed as there was no a significant difference in the responses of the three groups.

With regard to first aid service, the responses of the three groups were alike. Accordingly, there was no even a single respondent who reported there was good provision of first aid service; while 12(40%) principals, 9(32.14%) committee members and 46(21.9%) teachers remained ideal to react. On the other hand, 15(50%) principals, 17(60.71%) committee members, and 153(72.86%) teachers revealed the service was poor and very poor. The chi-square test for this item showed as there was no statistical significant difference among the three groups. Therefore, based on the responses of almost all respondents, it is safe to say that there was no adequate provision of first aid service, if at all, the provision was by far below average.

With regard to the availability of wastage disposal area, difference in response was observed. 12(40%) principals and 85(40.48%) teachers, and 8(28.57%) committee members rated the availability of wastage disposal area as very poor. As it was clearly seen, 6(20%) of principals, 4(14.29%) committee members, and 30(14.29%)

teachers did not responded to this item too as for item two and three, with regard to these respondents their refusal in giving response may be there were no wastage disposal areas in their school compounds. On the other hand, the response of committee members was different from that of principals and teachers. The chi-square test was run to check whether there was a statistically a significant different exist or not. As the result of the test revealed the calculate  $X^2(13.2)$  was greater than the critical value of  $X^2(12.6)$  at  $\alpha 0.05$  given ( $df=8$ ). Therefore, most public schools have no wastage disposal area in their school compounds and their surrounding to promote good health.

Concerning the last item of this table, 22(7.33%) principals, 19(67.86%) committee members, and 186(88.57%) teachers revealed the availability of clean, adequate, and separate toilet rooms as very poor. As to association of responses, there was a significant variation as the responses of the three groups and the statistical test revealed. Therefore, there was no public school that provides adequate, clean, and separate toilet rooms for both sexes.

**TABLE VII**  
**PARTICIPATION OF SCHOOL COMMUNITY IN THE PROPER UTILIZATION OF SCHOOL PLANT**

No	Item	Respo-ndents	R E S P O N S E S					NR %	Total		DF	Table Value of X <sup>2</sup>	Calcu- lated X <sup>2</sup>
			VP %	P %	M %	G %	VG %		No	%			
1	Students participation in school management.	P	30.00	43.33	20.00	6.67	-	3.57	30	100	6	12.49	7.2
		C	35.71	25.00	17.86	10.71	7.14		28	100			
		T	35.71	43.33	10.48	8.57	0.95		210	100			
		Total	35.08	41.42	23.31	8.58	1.49		1.12	268			
2	Teachers and admini- strative workers participation in school management	P	33.33	43.33	13.33	10.00	-	-	30		6	12.59	9.6
		C	32.14	28.57	21.43	14.29	-	3.57	28				
		T	47.14	36.19	10.95	3.33	1.43	0.95	210				
		Total	44.03	36.19	12.31	5.22	1.12	1.12	286				
3	Willingness of students teachers and administrative workers to participate in school management	P	26.67	33.33	40.00		-	-	30		6	12.59	*53.1
		T	17.86	25.00	46.43	10.71	-	-	28				
		C	1.90	36.19	25.71	30.00	6.19	-	210				
		Total	6.34	34.7	29.48	24.63	4.85	-	286				

$\alpha=0.05$

\*=**Significant difference**

This table treats items related to the participation of school community in school management for wise and effective utilization of school plants were treated.

As 27(10.07%) of the total respondents revealed students participate effectively in school management. On the other hand, 22(73.33%) principals, 17(60.71%) committee members, and 166(79.04%) teachers confirmed that their participation was very low. With regard to association of their responses there was no significant evidence that showed difference of response. The chi-square test also revealed the same phenomenon. Therefore, it goes without saying that students participation in school management was very low, which has a negative effect on the overall utilization of school physical resources.

With regard to item two, surprisingly the three groups have no difference in their rating. As it was observed in item one, the majority 23(76.66) principals, 17(60.71%) committee members, and 175(83.33%) teachers rated teachers and administrative workers participation even poorer than students. The chi-square test also revealed as there was no statistically significant difference among the respondents. Therefore, it is possible to conclude that teachers are not on participating in school management.

In the last item the respondents were asked to rate the willingness of students, teachers and administrative workers to participate in school management. As responses for the item depicted, there was no even a single principal who has indicated the willingness of the school community positively. 12(40%) principals and 13(46.43%) committee members depicted they have average participation; in addition, 10(33.33%) principals 7(25%) committee members rated their participation as poor. On the other hand, the response of teachers was statistically different from principals and committee members. The chi-square test for this item also revealed the calculated  $X^2(53\%)$  was statistically significantly different from the critical value of  $X^2(12.6)$  at  $\alpha=0.05$  given ( $df=8$ ). The willingness of school community became low probably because of an inviting behavior of principals and school administrative

committee. Therefore, it is safe to conclude that the school management of most public school do not encourage the effective participation of school community in school management for effective and wise utilization of school physical plants.

**TABLE VIII**  
**THE RELATIONSHIP BETWEEN SCHOOL AND COMMUNITY**

No	Item	Respo- ndent s	RESPONSES					NR %	Total		DF	Table Value X <sup>2</sup>	Calcu- lated X <sup>2</sup>
			VP %	P %	M %	G %	VG %		No	%			
1	The role of the surrounding community in strengthening the school	P	90.00	6.67	3.33	-	-	-	30	100.00	4	9.49	*21.3
		C	3.36	60.71	7.14	-	-	-	28	100.00			
		T	51.43	39.52	5.24	-	-	3.81	210	100.00			
		Total	53.73	38.06	5.22			2.99	286	100.00			
2	The relationship of the school and surrounding community to work together	P	56.67	33.33	6.67	3.33	-	-	30	100.00	6	12.59	6.4
		C	39.29	35.71	14.29	7.14	3.57	-	28	100.00			
		T	48.10	22.38	17.14	8.57	-	3.81	210	100.00			
		Total	48.13	25.00	15.67	7.84	0.37	2.99	286	100.00			

$\alpha=0.05$

\*=**Significant difference**

In this table items related to the relation of school and surrounding community were treated.

In item one, the respondents were asked to indicate the role of the surrounding community in supporting schools. As it was seen from the table, surprisingly non of the respondents has indicated positively. Only 14(5.22%) of the total replied community support as an average. On the other hand, more than 90 percent of the total respondents responded negatively. With regard to the responses of the three groups, a great variation was observed. The rating of school principals was by far different from teachers and committee members. The chi-square test also exhibited there was significant variation. The calculated  $X^2$  (21.3) was statistically significantly different from the table value of  $X^2$ (9.49) at (df=4) and  $\alpha=0.05$ . Therefore, with exception their physical location public schools and the surrounding community had no good or promising relationship. Since, public schools have limited financial resources,, it is not possible for such schools to improve the status of school physical plants with out getting support from their surrounding community.

In item two, as the responses of the three groups showed there was neither good relationships nor willingness to work cooperatively on this point, the respondents tended to have the same opinion across continuum. The chi-square test also confirmed as there was similarity of responses as it was clearly seen from the result of the test of the item.

**TABLE IX**  
**SCHOOL PRINCIPALS' EFFECTIVENESS IN COORDINATING**  
**THE SCHOOL AND THE SURROUNDING COMMUNITY**

No	Item	Respo ndents	RESPONSES					NR %	Total		DF	Table Value X <sup>2</sup>	Calcu- lated X <sup>2</sup>
			VP %	P %	M %	G %	VG %		No	%			
1	The willingness of the principal to work with other community agencies and the surrounding community.	C	3.57	46.43	35.71	14.29	-	-	28	100	4	9.49	9.5
		T	9.05	41.43	15.71	30.00	3.81	-	210	100			
		Total	8.4	42.02	18.07	28.15		-	238	100			
2	Effectiveness of the principal to creat ways and means for financial resource.	C	17.86	46.43	28.57	7.14	-	-	28	100	3	7.82	2.3
		T	28.10	45.71	20.48	3.81	-	1.90	210	100			
		Total	26.89	45.80	21.43	4.20	-	1.68	238	100			
3	The capacity of the principal in coordinating school commu- nity for wise utilization of physical facilities.	C	28.57	35.71	21.43	10.71	3.57	-	28	100	4	9.49	*15.8
		T	6.67	40.00	18.57	26.67	5.24	2.86	210	100			
		Total	9.24	39.05	18.91	24.79	5.04	2.25	238	100			
4	The willingness of the principal to work with the members of school administrative committee.	C	14.29	42.86	32.14	10.71	-	-	28	100	4	9.49	6.6
		T	24.29	37.62	15.24	10.00	10.95	1.90	210	100			
		Total	23.11	38.24	17.23	10.08	9.66	1.68	238	100			

$\alpha=0.05$

\*=**Significance difference**

In this table items related to the effectiveness of school principals were treated. Teachers and school administrative committee members were asked to rate the effectiveness of school principals to work with the surrounding community and other community institutions. 67(28.15%) of the total respondents indicated the effectiveness of the principals as good, while 120(50.42%) confirmed ineffectiveness of principals. As the chi-square test of this item revealed there was no significant variation in responses of committee members and teachers. Therefore, in this regard too, it is found that principals were not effective in working with other community institutions.

As for item two, more association of responses were observed across the continuum than in item one. High percentage of the total respondents rated effectiveness of school principals as poor. The chi-square test clearly showed at ( $df=3$ ), and  $\alpha=0.05$ , the critical value of  $\chi^2(7.82)$  was greater than the calculated value of  $\chi^2(2.3)$ . Therefore, an effectiveness of school principals in creating ways and means for financial support have negative effect on the over all school activities.

Concerning item three there was a significant variation between the responses of school committees and teachers. As 94(39.05%) of the total respondents revealed school principals were less effective in coordinating school community. On this issue the responses of the two groups was significantly different. In item four, there was association or similarity of responses between the two groups. Across the continuum committee members rated more negatively than teachers. Therefore, it is safe to conclude that school principals are less effective in working with members of school committees.

**TABLE X**  
**THE EFFECTIVENESS OF SCHOOL ADMINISTRATIVE COMMITTEE**

No	Item	Respo- ndents	RESPONSES					NR %	Total		DF	Table value X <sup>2</sup>	Calcu lated X <sup>2</sup>
			VP %	P %	M %	G %	VG %		No	%			
1	The willingness of the school administrative committee in coordinating and controlling the over all school activities	P	3.33	36.67	33.33	13.33	13.33	-	30	100			
		T	28.10	32.24	25.24	5.24	-	6.19	210	100			
		Total	25.00	35.24	26.25	6.25	1.67	5.42	240	100			
2	Informing the general public about the progress and problem of school.	P	40.00	26.67	16.67	10.00	6.67	-	30	100			
		T	49.05	20.95	22.86	4.76	1.90	0.48	210	100			
		Total	47.92	21.67	22.08	5.42	2.50	0.41	240	100			
3	Willingness of the committee to coordinate parents, the general public governmental and non- governmental organizations to get support.	P	46.67	40.00	13.33	-	-	-	30	100			
		T	33.81	34.29	20.00	8.57	-	3.33	210	100			
		Total	35.42	35	19.17	7.50	-	2.91	240	100			
4	The readiness of the school committee to solve major problems of the school	P	3.33	50.00	33.33	10.00	3.33	-	30	100			
		T	38.57	42.86	14.76	-	-	3.81	210	100			
		Total	34.17	43.75	17.08	1.25	0.42	3.33	240	100			

NB

$\alpha=0.05$

\*=Significant difference

In table ten items related to the effectiveness of school administrative committees were treated.

In item one, teachers rated the effectiveness of school administrative committee negatively than school principals. As 11(36.67%) principals and 74(35.24%) teachers indicated the effectiveness of school committees was below average. Across the continuum there was a significant variation in response. The result of the statistical test also depicted as there was a statistically significant variation. Therefore, it is possible to say that the majority of school administrative committees were not on coordinating and controlling the over all school activities.

With regard to item two, 20(66.67%) principals and 147(70%) teachers revealed that the general public was not informed about the progress and problems of schools. As it was vividly seen from the data there was a relationship between the responses of the two groups. The chi-square test showed the calculated  $\chi^2$  (4.6) was less than the critical value  $\chi^2$ (7.82) given (df=3). Similarity of response was also observed in item three. 26(86.67%) and 103(68.1%) principals and teachers confirmed school administrative committees were not effective in coordinating the efforts of parents, the surrounding community, government and non-governmental organization for the betterment of their schools. With regard to the last item of this table, only 4(13.33%) principals revealed the readiness of school committee to work cooperatively with them positively. While, 10(33.33%) and 31(14.76%) reported the willingness of the school committee as average. In this item too, school principals negatively responded compared to teachers. This may be probably due to the nature of their work. That is, since school principals and school committees work together due to several factors school committees may not be available as required which enabled principals to rate their willingness as low. In general, this factor probably contributed to the difference in rating school administrative committees between principals and teachers.

**TABLE XI**  
**GUIDELINES ABOUT ORGANIZATION AND ADMINISTRATION OF PUBLIC SCHOOLS**

No	Item	Respo- dents	RESPONSES					NR %	Total	
			VP %	P %	M %	G %	VG %		No	%
1	Contribution of the new educational policy in indicating the financial sources for public schools.	P	6.67	-	-	-	-	93.33	30	100.00
		C	28.57	3.57	-	-	-	67.86	28	100.00
		T	32.38	10.00	3.81	-	-	53.81	210	100.00
		Total	29.1	8.21	2.99	-	-	59.7	268	100.00
2	Clear cut policy statements about the organization and administration of public schools.	P	6.67	-	-	-	-	93.33	30	100.00
		C	3.57	-	-	-	-	96.43	28	100.00
		T	29.52	24.29	2.86	2.38	-	40.95	210	100.00
		Total	24.52	19.03	2.24	1.87	-	52.61	268	100.00

In this table three groups of respondents were asked to give their opinion by rating the way they perceive the availability of guide lines with regard to the organization and administration of public schools.

Accordingly non of the principals and committee members assured its availability as it was supposed to be. surprisingly, only 8(3.8%) responded as fair, while 160(59.7%) of the total did not responded to this item. Among these, 28(93.33%) were principals, 19(67.86%) committee members, and 113(53.81%) teachers. The remaining 78(29.1%) of the total rated as it was inadequate. In any item of the table, that were treated under several tables there was no such phenomenon. The possible reason that could be said was there was no clear cut proclamation that states about the organization and administration of public schools. On this point, since the reaction of the respondents was self evident the researcher refrained him self to use statistical test. Therefore, from across continuum of the responses of the respondents, there was no evidence to claim difference. Generally, without a clear guideline that indicates the financial sources, it is very difficult to claim why public schools physical plants were on poor condition and about quality of education.

In item two also there was no noticeable dissimilarity of response; rather the same percentage of principals, 27(96.43%) committee members and 141(52.61%) teachers refrained themselves to respond to item two as for item one. Probably their reservation was due to lack of clear cut policy statements about organization and administration of public schools or they afraid to give comments on such policy questions.

**TABLE XII  
THE FEATURE OF SCHOOL SITE**

No	Item	Respo-ndents	RESPONSES					NR %	DF	Table Value of X <sup>2</sup>	Calcula-ted X <sup>2</sup>
			SD	D	UD	A	SA				
1	The nature of the present and future school environment is attractive	P	30	33.33	23.33	6.67	-	6.67	6	12.59	8.1
		C	21.43	42.86	17.86	10.71	3.57	3.57			
		T	22.86	53.33	10.48	9.52	2.38	1.43			
		Total	23.51	50.00	12.67	9.33	5.95	2.24			
2	Integration of the school with community planning is acceptable.	P	60.00	26.69	10	3.33	-	-	6	12.59	4.3
		C	39.29	32.14	14.29	10.71	3.57	-			
		T	44.29	33.33	12.38	6.91	1.90	1.90			
		Total	45.24	32.46	12.31	6.34	1.87	1.49			
3	The role of the school in compre-hensive school building is acceptable by educational planners.	P	16.67	40.00	30	6.67	6.67	-	8	15.51	5.1
		C	7.14	46.43	39.29	3.57	3.57	-			
		T	12.86	31.43	37.14	10.48	5.24	2.86			
		Total	12.69	33.95	36.57	9.33	5.22	2.24			
4	Size of the school site is adequate both for the present and future needs	P	23.33	53.33	16.67	6.67	-	-	6	12.59	*27
		C	10.71	32.14	25.00	28.57	-	3.57			
		T	47.14	29.00	13.61	7.62	1.43	0.75			
		Total	46.67	32.08	15.3	9.7	1.12	1.12			
5	Accessibility of the school is very good	P	6.67	40.00	30.00	16.67	6.67	-	8	15.51	14
		C	3.57	10.71	46.43	25	14.92	-			
		T	13.81	37.62	22.86	17.62	8.10	-			
		Total	11.94	35.01	26.12	18.28	8.85	-			
6	The characteristic of the school site is promising	P	16.67	43.33	23.33	6.67	-	-	6	12.59	2.4
		C	25	39.29	21.43	10.71	-	3.57			
		T	36.19	36.67	19.52	7.14	-	0.48			
		Total	33.96	37.69	20.15	7.46	-	0.75			
7	It is located near utility services	P	3.33	3.33	16.67	43.33	33.33	-	8	15.51	11.5
		C	3.57	14.28	14.28	39.29	26.67	-			
		T	2.86	24.76	8.10	42.33	20.48	0.48			
		Total	2.96	12.27	9.70	42.91	22.76	0.37			
8	The cost of the school site is reasonable	P	33.33	36.67	20.00	10.00	-	-	6	12.59	*19.2
		C	3.57	46.43	28.57	7.14	14.29	-			
		T	36.67	37.14	12.86	8.57	2.38	2.38			
		Total	32.84	38.06	15.30	8.58	3.36	1.87			

**NB**

**SD = Strongly disagree**

**D = Disagree**

**UD = Undecided**

**A = Agree**

**SA= Strongly agree**

This table treated items related to general criteria against which school sites are evaluated. Accordingly, they were asked to indicate the level of their agreement or disagreement.

Concerning the nature of the present and future school environment 31(15.28%) of the total respondents indicated their schools have good environment. On the other hand, 197(73.5%) of the total revealed that their schools can not meet this criterion. The close observation of the responses of the three groups shows as there was similarity. Chi-square test also showed the calculated  $X^2$  (8.1) value was less than the critical value of  $X^2$  (12.592) at (df=6). Therefore, it is possible to conclude that more than seventy percent of public schools do not have appropriate environment.

The second criterion deals with the integration schools with other community projects. Only 22(8.21%) of the total respondents reported the integration of schools with other community projects. On the other hand, 209(77.98%) of the total respondents revealed that there was no such integration. This can clearly shows public schools were simply erected with out careful planning.

Concerning item three, 39(15.55%) of the total respondent revealed that their schools fulfil the criterion. On the other hand, 17(56.67%) principals, 15(53.58%) committee members, and 93(44.29%) teachers revealed their schools do not meet this criterion. Similarly, as in item one and two, there was similarity of responses. Chi-square test was made whether there was a significant difference or not.

With regard to adequacy of site size surprisingly, only 3(1.43%) teachers said there was adequate size to meet the future possible needs. Conversely, 23(76.33%) principals, 12(42.85%) committee members, and 160(76.14) teachers stressed on the inadequacy of school sites. From this three groups of respondents, as the data reveals there was a noticeable difference in reacting to the item. As it was clearly seen principals and teachers have almost the same opinion, as opposed to committee members. The result of a chi-square test showed as there was a significant

difference, given (df=6) the calculated  $X^2$  (27) was statistically significantly different from critical value  $X^2$  (12.592). This difference of response might be due to lack knowledge and experience about the size of school sites.

Concerning item five, that deals about the accessibility of schools, 72(26.86) of the total respondents reported as their schools had good accessibility. On the other hand, 14(46.67%) principals, 4(14.28%) committee members, and 108(51.43%) teachers rated the accessibility of schools as poor and very poor. This item was relatively rated positively when compared to item one - four. This item was positively rated by committee members when compared to teachers and principals.

As to the characteristics of school sites, only 20(7.46%) of the total respondents agreed as the sites were promising, and 54(20.15%) failed to decide. On the other hand, 192(71.65%) of the total respondents confirmed that the sites were not promising on this item too, there was association in responses among the three groups. The chi-square test also revealed that as it was seen from the table, the calculated  $X^2$  value was below the critical value at  $\alpha=0.05$ . Therefore it is safe to conclude that most of the public schools have poor site characteristics.

Concerning the location of public schools near utility services; surprisingly, 23(76.66%) principals, 19(65.96%) committee members, and 134(63.81%) teachers replied their schools located near utility services. Non-of the above treated items reported positively as this one. On the other hand, 65(24.23%) of the total respondents revealed that their schools were not lucky to get good utility services. Therefore, it safe to conclude that most public schools are located near utility services.

Finally, respondents were asked to indicate their level of agreements or disagreement. Accordingly, 32(11.54%) of the total respondents have agreed that their school sites do not require excess cost. On the contrary, 190(71.44%) of the total did not agree to the same. The close observation of the responses of the three

groups, who did not agree to the same, were also significantly different in percentage. This shows there was variation in evaluating school site between groups. The chi-square test also indicated that the calculated  $X^2(19.2)$  was greater than the table value of  $X^2(12.592)$  at  $(df=0.05)$ .

On the whole non-of the item was averagely rated to claim that public schools have good sites that are appropriate and adequate to meet the general school site standards. This is directly associated with the nature of their establishment. Therefore, in any aspect most public school were poorly located haphazardly everywhere.

**TABLE XIII**  
**ESTABLISHMENT OF PUBLIC SCHOOL PHYSICAL PLANTS**  
**RESPONDENTS**

No	Item	P		C		T		Total		Df	Table value of X <sup>2</sup>	X <sup>2</sup>
		No	%	No	%	No	%	No	%			
1	The relative age of the school											
	a. below 10	-	-	-	-	-	-	-	-			
	b. 10-19	-	-	-	-	-	-	-	-			
	c. 20-29	3	100	2	7.14	20	9.52	25	9.33			
	d. 30-39	6	20.00	4	14.29	28	13.33	38	14.18			
	e. 40-49	10	33.33	9	32.14	71	34.29	91	33.96			
	f. ≥ 50	11	33.67	13	46.43	72	34.29	96	35.82			
	g. NR	-	-	-	-	18	8.57	18	6.72			
	Total	30	100.00	28	100.00	210	100.00	268	100.00			
2	Was the school primarily designed for educational purpose											
	a. Yes	13	43.33	12	42.86	88	41.90	113	42.17			
	b. No	17	56.67	13	46.43	89	42.38	119	44.40			
	NR	-	-	3	10.71	33	15.71	36	13.43			
	Total	30	100.00	28	100.00	210	100.00	268	100.00	2	5.99	0.4
3	If your response for question no two is "no" for what purpose it was designed.											
	a. residence	10	58.83	11	84.62	69	67.42	81	68.07			
	b. store	2	11.76	1	7.69	9	10.11	12	10.08			
	c. hotel	-	-	1	7.69	-	-	1	0.84			
	d. recreation	3	17.65	-	-	9	10.11	12	13.48			
	e. others	2	11.76	-	-	11	12.36	13	14.61			
	Total	17	100.00	13	100.00	89	100.00	119	100.00	2	5.99	1.8
4	Does the school have legal boundary											
	a. Yes	14	46.67	16	57.14	113	53.81	143	53.36			
	b. No	15	50.00	8	28.57	91	43.33	114	42.54			
	c. NR	1	3.33	4	14.29	6	2.86	11	4.10			
	Total	30	100.00	28	100.00	210	100.00	268	100.00			
5	If your response for question no four is "yes is there a map and a plan of the school .											
	a. Yes	10	71.43	12	75.00	31	27.43	53	37.10			
	b. No	4	28.57	4	25.00	63	55.75	71	49.70			
	c. No	-	-	-	-	19	16.82	19	13.20			
	Total	14	100.00	16	100.00	113	100.00	143	100.00	2	5.99	*15.2

This table treated the establishments of public schools. In item one respondents were asked to indicate the relative age of the school plants. Accordingly, 25(9.33%) of the total respondents reported the relative age of their school between 20-29; 38(14.18%) between 30-39; 91(33.95%) between (40-49) years; finally, the rest said fifty years and above. This data revealed that there was no even a single school which has served below twenty years.

With regard to item two, 113(42.17%) of the total respondents revealed the school buildings were primarily designed for educational purposes. On the other hand, 119(44.4%) confirmed that school buildings were designed for non-educational purposes. Those, who said it was designed for non-educational purposes revealed that as they were designed for residence, recreational areas, store, etc. In this regard there was no a significant difference among the three groups. The chi-square test also showed that the calculated value was lower than the critical value, as it was clearly seen from the table.

As to item for, 143(53.36%) of the total respondents indicated their schools have legally defined boundaries, while 114(42.54%) did not agree to the same 16(57.14%) committee members and 113(53.81%) teachers as opposed to 14(46.67%), those who responded schools did not have legally defined boundaries, 15(50%) were principals, 8(28.57%) committee members, and 91(43.33%) teachers. Therefore, those public schools which do not have legally defined boundaries may inter in to conflict with other organizations and community members.

In item five, those who said schools have legal boundaries were further asked to indicate whether there are maps and plans that show the school compounds. Surprisingly, only 53(37%) said there were maps and plans that justify the legality of schools. On the other hand, 71(49.7%) of the respondents indicated as there were no plans and maps. Therefore, with out legally acceptable documents it is not possible to say that schools have their own compound. Thus, it is safe to conclude that only few public schools have legal ground to claim about public school plants.

**TABLE XIV**  
**REPAIR AND MAINTENANCE OF SCHOOL PHYSICAL PLANTS**

No	Item	RESPONDENTS								DF	Table value of X <sup>2</sup>	X <sup>2</sup>
		P		C		T		Total				
		No	%	No	%	No	%	No	%			
1	How do you rate the present condition of your school physical plant repair and maintenance?											
	a. very good	2	6.67	3	10.71	8	3.81	13	4.85			
	b. good	6	20.00	8	28.57	20	9.52	34	12.69			
	c. medium	6	20.00	5	17.86	30	14.29	41	15.3			
	d. poor	9	30.00	8	28.57	91	43.33	108	40.3			
	e. very poor	7	23.33	4	14.29	59	28.10	70	26.12			
	NR	-	-	-	-	2	0.95	2	0.74			
	Total	30	100.00	28	100.00	210	100	268	100	8	15.5	*15.9
2	At the present who shoulders the responsibility of repair and maintenance of school physical plant?											
	a. school committee	10	33.33	12	4.86	96	45.71	118	44.03			
	b. parents	14	46.67	12	46.43	77	36.67	104	38.81			
	c. community	-	-	-	-	-	-	-	-			
	d. government	-	-	-	-	-	-	-	-			
	e. school community	-	-	-	-	-	-	-	-			
	f. non-governmental org.	6	20.00	3	10.71	29	13.81	38	14.18			
	g. others	-	-	-	-	18	3.81	8	2.98			
	Total	30	100.00	28	100.00	210	100	268	100	4	9.48	2.9
3	In your opinion who should be responsible for the maintenance of school physical plant?											
	a. the school committee	-	-	-	-	-	-	-	-			
	b. school community	-	-	-	-	-	-	-	-			
	c. community	-	46.67	12	42.86	101	48.1	127	47.39			
	d. government	14	53.33	16	57.14	107	51.00	139	51.87			
	e. parents	16	-	-	-	-	-	-	-			
	NR	-	-	-	-	2	0.90	2	0.75			
	Total	-	100.00	28	100.00	210	100	268	100			
		30										
4	Does the school financial capacity enables to repair and maintain the school physical plant?											
	a. Yes	-	-	-	-	1	0.48	1	0.37			
	b. No	30	100.00	28	100.00	209	99.52	267	99.63			
	Total	30	100.00	28	100.00	210	100	268	100	2	5.98	0.3

Table fourteen treated items related to repair and maintenance. In item one the respondents were asked to rate the extent to which school plants got the necessary maintenance. As it can be seen clearly from the data, only 47(17.54%) of the total responded school plants were repaired and maintained accordingly. While 178(66.42%) of the total respondents revealed that school plants did not get the necessary maintenance. The majority of principals and school committee members have similar responses, while teacher's responded differently. committee members tended to respond positively than principals. This difference emanated from lack of knowledge about the school plants maintenance on the part of committee members. The chi-square test also showed that there was statistically a significant different in opinion. Therefore, based on the responses of the majority, most public school physical plants lack the necessary repair and maintenance to promote good teaching learning process.

In item two, as 222(82.84%) of the respondents revealed the responsibility of school plants maintenance was left on the shoulders of parents and school administrative committees. The remaining 46(17.16%) reported that school plants were repaired and maintained by non-governmental organizations. Surprisingly, there was no even a single respondent who replied that the government (MOE) participates in the repair and maintenance activity. The respondents have similar view as for this item. The chi-square test also showed that there was no statistically a significant difference given (df=4), the calculated  $X^2(2.9)$  was less than the critical value  $X^2(9.48)$ . For the fact that repair and maintenance needs a lot of money, committees and parents alone may not have a financial capacity to up keep the school plants to provide adequate service.

In item three, the respondents were asked to give their opinion, as who should shoulder the responsibility of repair and maintenance. Accordingly, the respondents were categorized in their responses in to two groups. The first group confirmed that the community should be responsible. While the second group revealed that the

government must take the responsibility. More respondents, i.e., 139(51.87%) of the total, demanded the government participation. On the other hand, non-of the respondents said the school administrative committees. This may be because of their past experience, i.e., the school administrative committees were not financially capable to repair and maintain school plants. The chi-square test also revealed that at (df=2) the calculated  $X^2(0.3)$  was by far lower than the table value of  $X^2$  (5.98). Therefore, from the responses of the respondents it is possible to say that school plants repair and maintenance needs the participation of the community and the government if it is needed to promote the effectiveness of public schools.

In item four, the respondents were asked whether the financial capacity of public schools enables to repair and maintain school plants. Surprisingly, only a single teacher responded as the school has the financial capacity. On the other hand, 267(99.63%) reported that their schools were not capable of repairing and maintaining school plants. Therefore, it is safe to conclude that all public schools are not in a position of up keeping school plants not only now but also in the future, which intern limits the functional capacity of schools to give the necessary services.

**TABLE XV**  
**SOURCES OF FINANCE**

N o	Item	R E S P O N D E N T S								Df	X <sup>2</sup> (df)	Table Value of X <sup>2</sup>
		P		C		T		Total				
		No	%	No	%	No	%	No	%			
1	Is there support that school gets from the government a. Yes b. No Total	24	80.00	13	46.43	78	37.14	115	42.91	2	5.98	*6.8
		6	20.00	15	53.57	132	62.86	153	57.09			
		30	100.00	28	100.00	210	100.00	268	100.00			
2	If your response for question number one is "Yes" the kind of support is a. Finance b. Material c. Human Total	-	-	-	-	-	-	-	-			
		-	-	-	-	-	-	-	-			
		24	100.00	13	100.00	115	100.00	152	100.00			
		24	100.00	13	100.00	115	100.00	152	100.00			
3	The kind of support that schools get from the surrounding community is a. Finance b. Material c. Human d. Labour service e. Nothing Total	3	10.00	3	10.71	8	3.81	14	5.22			
		-	-	-	-	-	-	-	-			
		-	-	-	-	-	-	-	-			
		1	3.33	2	7.14	6	2.86	9	3.36			
		26	86.67	23	82.15	196	93.33	245	91.42			
		30	100.00	28	100.00	210	100.00	268	100.00			
4	Which of the following is the major financial source for public school . a. Student fees b. Community c. Government d. Non-government organization e. Sales of product f. Private Total	30	100.00	28	100.00	100.00		268	100.00			
		30	100.00	28	100.00	100.00		268	100.00			

In this table items related to financial sources were treated. In item one, respondents were asked to indicate whether schools get support from government (MOE). As 180(67.16%) of the total respondents indicated public schools got support. On the other hand, 88(32.84%) reported there was no any support that public schools get from MOE. As the data revealed 20(80%) principals, 13(46.43%) committee members, and 78(37.14%) teachers have the same agreement. On the other hand the remaining confirmed that there was no support provided. There was dissimilarity of response. The responses of committee members was similar while that of principals was different. This chi-square test also showed this phenomenon. The calculated  $X^2(6.8)$  was significantly different from the critical value  $X^2(5.98)$  given (df=2). The school committee members and teachers may probably did not considered government employed principals and teachers as a support provided by the MOE that contribute to the difference in responses.

In item two those who said schools got support from the government were asked to indicate the kind of support accordingly, all of them indicated the kind of support public schools get from government was human. In item three, respondents were asked to indicate if there was support that was provided by the community. Accordingly 3(100.00) principals, 3(10.71) committee members, and 14(5.22%) teachers responded, their schools got financial support, while 9(3.36%) of the total respondents indicated the surrounding community provides labour service. On the other hand, 245(91.42%) of the total respondents revealed public schools did not get any support from community. Therefore, it is possible to conclude that almost all public schools do not get support from their surrounding community.

**TABLE XVI**  
**THE ATTITUDE OF PARENTS TOWARDS SCHOOL FEES**

No	Item	RESPONDENTS								Df	Table valve of X <sup>2</sup>	X <sup>2</sup>
		P		C		T		Total				
		No	%	No	%	No	%	No	%			
1	Can students afford to pay school fees? a. Yes b. No Total	18 12 30	60.00 40.00 100	11 17 28	39.29 60.71 100	98 112 210	46.67 53.33 100	127 141 268	47.39 56.61 100	2	5.99	2.7
2	How is the term of payment a. Once b. Twice c. Every month d. NR Total	- - 30 - 30	- - 100 - 100	- - 28 28	- - 100 100	- - 208 2 210	- - 99.05 0.95 100	- - 266 2 268	- - 99.2 0.75 100			
3	Who decides on the amount of school fees a. Parents b. Committee c. Local authorities d. Education office e. Principal f. Staff Total	12 16 - - - 2 30	40.00 53.33 - - - 6.67 100	14 13 - - - 1 28	50.00 46.43 - - - 3.57 100	81 107 - - 4 18 210	38.57 50.95 - - 190 8.58 100	107 136 - - 4 21 268	39.93 50.75 - - 1.49 7.83 100	4	9.49	1.8
4	The attitude of parents towards school fee a. Positive b. Negative c. NR Total	12 14 2 30	40.00 46.67 13.33 100	10 17 1 28	35.71 60.71 3.58 100	79 118 13 210	37.62 56.19 6.19 100	101 149 18 268	37.69 55.60 6.71 100	4	9.49	0.5
5	If your response for question no four is "negative" the reason could be a. Citizens must get free education b. The fee is not affordable c. School finance should not be only parents responsibility d. Other Total	6 4 4 14	42.86 28.57 28.57 100	8 6 3 17	47.00 35.29 17.71 100	88 11 19 118	74.58 9.32 16.10 100	102 21 26 149	68.46 14.09 17.45 100	4	9.49	*13.6
6	The reason why parents send their children to public schools a. It provides quality education b. Shortage of government school c. They want to pay Total	7 23 - 30	23.33 76.67 - 100	2 26 - 28	7.14 92.86 - 100	98 112 - 210	98 112 - 210	107 161 - 268	39.93 60.07 - 100	4	9.49	*24.8

In this table items related student fees were treated. Concerning item one, 127(47.39%) of the total respondents revealed that students afford to pay school fees. On the other hand, 141(56.61%) confirmed that students cannot afford to pay. The close observation of the responses of the three groups revealed that among the three groups who said "no" 17(60.71%) were committee members and 112(53.33%) were teachers. On the other hand, from those who said "yes" 18(60%) were principals 11(39.29%) were committee members, and 127(47.39%) teachers. The reason why more principals said "yes" probably may be their concern about the financial needs to run school activities. On the part of committee members and teachers it shows their concern about students.

With regard to the term of payment, almost all indicated the term of payment was monthly. In this sense it seems difficult to implement the annual plan because of financial limitation.

In item three, 107(39.93%) of the total revealed as it was decided by parents. On the other hand, 136(50.75%) indicated the amount was decided by school administrative committees, while insignificant number of respondents reported decision was made by staff and school principals. There was no a significant difference among the three groups. chi-square run whether there was statistically significant difference exist among groups accordingly the test showed the calculated  $X^2(1.8)$  was less than the critical value  $X^2(9.49)$  given (df=4).

As the responses of 149(55.6%) of the total respondents revealed that parents have negative attitude towards school fees. More than half of the principals, committee members, and teachers have agreement that parents have no positive attitude. Therefore, it is possible to say that such attitude of parents have an adverse effect on the overall school activities.

In item five, those who said parents have negative attitude mentioned the possible reasons that says citizens must get free education, school fees were not affordable, and school finance should not be only the responsibility of parents. Therefore, it is possible to conclude that lack participation of parents on deciding the amount of school fees in the long run leads to conflict.

Concerning why parents send their children to public schools for 95(35.47%) it was because of quality education provided and to 12(5.71%) they were well equipped with facilities. On the other hand, 23(76.67%) principals, 26(92.86%) committee members and 112(53.33%) revealed shortage of government schools as a basic reason as to why parents send their children to public schools. On this issue, those groups who confirmed that public schools were providing quality education seems to be unrealistic because had it been this was the case, most of respondents would have not rated their school overall aspects poorly in tables so far treated. The chi-square test revealed as there was statistically significant difference among groups. The calculated  $X^2(24.8)$  was by far greater than the table value  $X^2(9.49)$  at  $\alpha=0.05$  given(df=6). As mentioned above, teachers highly contributed for such difference in responses than others. Therefore, as the majority have indicated since government schools were over crowded, it is natural to look for school that have "vacancy", since those who are relatively economically strong will send their children to private schools, those who could not are forced to look for another alternative that is public school. In this regard public schools have contributed a lot and continue to contributes their share, but they need support that enables them to cope up with other school types.

**TABLE XVII**  
**SPEAR MAN'S RANK CORRELATION TABLE FOR MAJOR ENVIRONMENTAL FACTORS THAT**  
**AFFECT**  
**TEACHING LEARNING PROCESSES.**

No	Item	R E S P O N D E N T S													
		P		C		T		Total		di			Di <sup>2</sup>		
		%	Rank	%	Ran k	%	Ran k	%	Ran k	PC	CT	PT	PC	CT	PT
a	Playgrounds	20	1	14.28	3.5	37.62	1	33.21	1	-2.5	2.5	0.0	6.25	6.25	0.00
b	Poor building location	16.67	2.5	7.14	6.5	25.71	2	22.76	2	-4.0	4.5	0.5	16.00	20.25	0.25
c	Barrooms	13.33	4	10.71	5	8.57	4	9.33	4	-1.0	1.0	0.0	1.00	1.00	0.00
d	Music shops	10.00	5.5	17.86	2	3.33	6	5.60	6	3.5	-4.0	-0.5	12.25	16.00	0.25
e	Market areas	3.33	8.5	7.14	6.5	2.38	7	2.99	7	2.0	-0.5	1.5	4.00	0.25	2.25
f	Industries/Factories	-	10.5	-	10.5	0.95	9	0.75	9	0.0	1.5	1.5	0.00	2.25	2.25
g	Recreational areas	-	10.5	3.58	8.5	-	10.5	0.37	10.5	2.0	-2.0	0.0	4.00	4.00	0.00
h	"tela" and "tejj" houses	10.00	5.5	14.28	3.5	5.71	5	7.09	5	2.0	-1.5	0.5	4.00	2.25	0.25
i	Garage	6.67	7	3.58	8.5	1.43	8	2.24	8	-1.5	0.5	1.0	2.25	0.25	1.00
j	Vehicles	16.67	2.5	21.43	1	14.29	3	15.30	3	1.5	-2.0	-0.5	2.25	4.00	0.25
k	Others	3.33	8.5	-	10.5	-	10.5	0.37	10.5	-2.0	00	-2.0	4.00	0.00	4.00
	N=11	100.00 NP=30	ΣR=6 6	100.00 ΣR=66 NC=28		100.00ΣR=66 NT=20		100.00 N(PTC)=268		Σdi=0	Σdi=0	Σdi=0	Σdi <sup>2</sup> =56	Σdi <sup>2</sup> = 56.5	Σdi <sup>2</sup> = 10.5
	Σdi <sup>2</sup>												336	339	63
	$\frac{\Sigma di^2}{n(n^2-1)}$												0.25	0.26	0.05
	$r_s = 1 - \frac{\Sigma di^2}{n(n^2-1)}$												0.*75	+ 0.74	**0.95

**NB**

**\*\* very high strong positive correlation**

**\* very strong positive correlation**

**+ strong positive correlation**

In this table, the respondents were asked to indicate the source of noise which their school faced. All the respondents identified which they considered as most. Since, schools differ in their environment, respondents reacted the way they encountered problems. The magnitude of the effect of each factor varies as the data clearly showed. Hence, for each group rank was assigned depending on the number of frequency. To identify, the most frequent common causes for unnecessary noises spear mans rank correlation was calculated whether there was an agreement or not among the three groups of respondent. The computation result showed the level of agreement between principals and committee members was  $*0.75$ ; between committee members and teachers was  $+0.74$ ; and finally the level of agreement of principals and teachers was found out to be  $**0.95$ . The agreement in ranking the sources of noises gives a general picture about the major common elements that most public schools were/are facing. Surprisingly, according to the responses of the majority playground was identified as the most impeding factor; poor building location as the second; vehicles as the third; Barrooms as the fourth; "tela" and "tejj" houses as the fifth music shops as the sixth; market are as the seventh; garage as the eight, industries and factories as the ninth; and finally, recreational areas were ranked as the least impeding elements. The close observation of the responses of the three groups reveals that non-of the group ranked playgrounds even as the second hindering element, this shows how major problem it is for all public schools. In addition, non-of the three groups ranked poor building location even as the third. Hence, it is possible to conclude that the above mentioned factors are found to be the most hindering endemic internal elements, that public schools are/will facing in the future, unless solution is looked for.

**TABLE XVIII**  
**SPEARMAN'S RANK CORRELATION TABLE FOR**  
**ENVIRONMENTAL FACTORS CAUSE AIR POLLUTION**

No	Item	RESPONDENTS								di					
		P		C		T		Total		di			di <sup>2</sup>		
		%	Rank	%	Rank	%	Rank	%	Rank	PC	CT	PT	PC	CT	PT
1	Toilet rooms	23.33	2	21.4 3	25	25.71	2.5	25.00	2.5	-0.5	0.0	-.0.5	0.25	0.0	0.25
2	Smoke from vehicles	13.33	5	17.8 6	4	12.39	4	23.06	4	1.0	0.0	1.0	1.0	0.0	1.00
3	Garbage disposal	20.00	3	21.4 3	2.5	26.19	1	25.00	2.5	0.5	1.5	2.0	2.0	2.25	4.00
4	Sewage disposal	26.67	1	25.0 0	1	25.71	2.5	25.75	1	0.0	-1.5	-1.5	-1.5	2.25	2.25
5	Human feces	16.67	4	14.2 8	5	10.00	5	11.19	5	-1.0	0.0	0.0	-1.0	0.00	1.00
	Total ( N=5)	100	ΣR=15	100	ΣR=15	100	ΣR=15	100.00		Σdi=0	Σdi=0	Σdi=0	Σdi <sup>2</sup> =2.5	Σdi <sup>2</sup> =4.5	Σdi <sup>2</sup> =8.5
		Np=30		NC=28		NT=210		N(PCT)=268							
	$6\Sigma di^2 =$												15	27	51
	$\frac{6\Sigma di^2}{n(n^2 - 1)}$												0.13	0.23	0.43
	$rs = 1 - \frac{6\Sigma di^2}{n(n^2 - 1)}$												**	*	+
													0.087	0.77	0.57

**NB**    \*\*= very high strong positive correlation  
          \* = very strong positive correlation  
          += strong positive correlation

There are several environmental factors affecting good teaching learning processes. However, for the purpose of this study, the researcher divided these factors as internal(with in school compounds) and external(the surrounding area) to identify their magnitude.

Accordingly, the respondents were asked to identify the one which they think a major cause for air pollution. Among the listed factors 25.75% of the total respondents reported sewage disposal as a major factor. On the whole, since different schools were not affected by the same factor, because of their environmental setting, from the reaction of the respondents rank was given based on the number of respondents who agreed to the same. In the final analysis it was found out sewage disposal as the first, toilet rooms and garbage disposal as the second, smokes from vehicles as the fourth, and finally human feces as the fifth impeding elements.

Inorder to identify, whether there was similar agreement or not Spear Man's Rank correlation was computed and it was found that the rank correlation between principals and committee members was 0.87, this shows there was very high positive agreement; the ranking agreement between committee members and teachers was 0.77 which was strong positive agreement; and the ranking agreement between principals and teachers 0.57 which was also positive.

Therefore, factors that negatively affect good learning environments are associated to internal and external factors. Hence, it is possible to conclude that the school communities in public schools can be easily exposed to various diseases.

**TABLE IX**  
**NUMBER OF STUDENTS IN GRADE LEVELS**

No	Item	RESPONDENTS							
		P		C		T		Total	
		No	%	No	%	No	%	No	%
1	Average number of students for: a. <u>1<sup>st</sup> - 3<sup>rd</sup></u>								
	<20	-	-	-	-	-	-	-	-
	20 - 29	-	-	-	-	-	-	-	-
	30 - 39	-	-	-	-	-	-	-	-
	40 - 49	2	6.67	3	10.71	13	6.19	18	6.71
	50 - 59	3	10.00	4	14.29	22	10.47	29	10.82
	≥ 60	25	83.33	21	75.00	171	81.42	217	*80.97
	NR	-	-	-	-	4	1.92	4	1.50
	Total	30	100.00	28	100.00	210	100.00	268	100.00
	b. <u>4<sup>th</sup> - 6<sup>th</sup></u>								
	≤20	-	-	-	-	-	-	-	-
	20 - 29	-	-	-	-	-	-	-	-
	30 - 39	4	13.33	3	10.71	23	10.95	30	11.19
	40 - 49	5	16.67	4	14.29	27	12.86	36	13.43
	50 - 59	7	23.33	8	28.57	43	20.48	58	21.64
	≥ 60	14	46.67	13	46.43	117	55.71	144	*53.74
	Total	30	100.00	28	100.00	210	100.00	268	100.00
	c. <u>7<sup>th</sup> - 8<sup>th</sup></u>								
	< 20	-	-	-	-	-	-	-	-
	20 - 29	-	-	-	-	-	-	-	-
	30 - 39	1	4.00	1	4.00	7	4.38	9	4.29
	40 - 49	2	8.00	2	8.00	18	11.25	22	10.48
	50 - 59	4	16.00	5	20.00	32	20.00	41	19.52
	≥ 60	18	72.00	15	60.00	103	64.37	136	*64.76
	NR	-	-	2	8.00	-	-	2	0.95
	Total	25	100.00	25	100.00	160	100.00	210	100.00

In this table items related to the average number of students in grade levels were treated. As the respondents revealed, the average number of students in grade level 1-3 was very high 217(80.97%) of the total depicted that the number of students was sixty and above; for grade level 4-6 the majority, i.e., 144(53.74) of the total reported as it was sixty and above; and the number of students for grade level 7-8 was also sixty and above as reported by 136(64-76%) of the total respondents.

The close observation of this data reveals another phenomenon, i.e. the number of students was highest in grade level 1-3, higher in grade level 7-8; and high in grade 4-6 as it was clearly observed from the data. Therefore, the average number of students was by far above the standard in lower grade levels. This problem seems to be endemic to all public schools. Therefore, for the fact that public schools depends on students for their financial sources, this problem cannot be easily mitigated. Hence, making children discomfort has a great negative effect on their future performance.

TABLE XX

THE STATUS OF SCHOOL PLANTS AS RATED BY RESPONDENTS

No	Item	RESPONDENTS								df	Tab le valu e of X <sup>2</sup>	X <sup>2</sup>
		P		C		T		Total				
		No	%	No	%	No	%	No	%			
1	How do you rate the present condition of the school physical plant. a. very good b. good c. medium d. poor e. very poor	1 4 4 16 5	3.33 13.33 13.33 53.34 16.67	3 6 5 9 5	10.71 21.43 17.86 32.14 17.86	10 12 35 102 51	4.76 5.71 16.67 48.57 24.29	14 22 44 127 61	5.22 8.21 16.4 2 47.3	9 22.7 6		
Total		30	100	28	100	210	100	268	100	4	9.49	*11.8
2	How do you rate the status of public school physical plants in relation to other school types (government, com-munity, private etc.) a. very good b. good c. medium d. poor e. very poor	- 2 3 13 12	- 6.67 10.00 43.33 40.00	- 3 6 9 10	- 10.71 21.43 32.14 35.72	- 8 32 94 76	- 3.81 15.24 44.76 36.19	- 13 41 116 98	- 4.85 15.3 0 43.2	8 36.5 7		
Total		30	100	28	100	210	100	268	100	4	9.49	3.3
3	What should be done about the organization and administration of public schools? a. must be under the controlled by government b. must be controlled by gov't and community c. should be transferred to private schools. d. must continue as they are	28 2 - -	93.33 6.67 - -	28 - - -	100 - - -	198 12 - -	94.29 5.71 - -	254 14 - -	94.7 8 5.22 -			
Total		30	100	28	100			268	100			

Table twenty treated how the three groups of respondents rate their school status with other public schools; other school types; and the suggestion of the respondents about the future organization and administration of public schools.

With regard to item one, 36(15.43%) of the total respondents revealed that their school were on "very good and good" condition when compared to other public schools. The second groups 44(16.42%) of the total respondents rated the status of their school as a "medium". The third group 188(70.15%) rate their schools as "poor and very poor". When we observe the responses of the respondents who rated their schools as good and very good there was no similarity in proportion across the continuum, and similarity was relatively seen between principals and teacher than with committee members. committee members tend to rate positively than do principals and teachers. On the other hand, principals and teachers tended to rate the status of their schools negatively. This difference in responses probably attribute to the knowledge and experience the groups have on what the school plants should look like. The chi-square test also revealed this phenomenon, as it was seen clearly from the chi-square test for item one, the calculated  $X^2$  (11.8) was significantly different from the critical value of  $X^2$  (2.59).

In item two of the same table they were asked to rate the status of their schools in relation to other school types. Surprisingly, only 13(4.85%) of the total rated the status of their schools as good, 41,(15.3%) as medium. On the whole the percentage of respondent who rated their schools status as on good and average condition only constituted 54(20.5%) as opposed to those who rated their schools as "poor and very poor". This fact depicted that the majority of the three groups have similar perception (opinion) about the status of public schools as compared to others. The chi-square test of this item also revealed this similarity among the three groups. Therefore, it is safe to conclude that public schools are on poor condition than other school types. This have a direct influence on children who were attending public schools for the fact that school plants have a significant influence on promoting good teaching-learning environment.

In item three, the respondents were asked to give their opinion about the future administration and organization of public schools. Accordingly, as the responses given to item three depicted, there was no even a single individual who needed public schools to continue as they are and be transferred to private undertaking. Hence, 254(94.78%) of the total agreed up on the point that says public school have to be transferred to government schools. While the remaining 14(5.22%) needed the administration and organization of public schools to be under the joint responsibility of government (MOE) and the surrounding community.

The close observation of the attitude of almost all respondents indicates the poor status of public schools. This may be justified from the reaction of the respondents to item three, had public schools were on good status, 254(94.78%) of the total would have not said the future administration and organization of public schools should be under the MOE and joint responsibility of the surrounding community. This clearly indicates no one needs public schools to continue as they are now. Therefore, based upon this fact it is possible to say most public school physical plants are not adequate and comfortable to promote effective teaching-learning processes as it is supposed to be.

## CHAPTER FOUR

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This part of the thesis consists of the summary, conclusions and recommendations.

#### 4.1 SUMMARY

The purpose of this study was to assess the status of public primary school physical plants in Addis Ababa. The objective was to forward some possible solutions to minimize problems associated with public school physical plants. To meet this purpose the study was made in 30 schools. The necessary information was gathered from principals, committee members and teachers through survey questionnaires which were field-tested in two schools, and modified for distribution.

The data obtained were analyzed by using relevant statistical tools; such as percentages, chi-square and Spear Man's Rank correlation. According to the result of the data analysis first the characteristics of the study populations, second the major findings of the study are presented.

Part one: Demographic characteristics and Bio-data of the study populations

1. All the principals, 32.14 percent of the committee members, and 95.23 percent of the teachers had the qualification level ranging from grade 12, to TTI, college diploma and degree.
2. Out of the total 268 respondents, 92(34.33%) were females. The participation of females in principalship was 26.67 percent, in school committee 24.29 percent, and in teaching 38.1 percent.
3. All the principals, 82.14 percent of the committee members, and 95.24 percent of the teachers were found to be in the same age range of 30-49 years.
4. 96.67 percent of the principals, and 24.76 percent of the teachers were employees of MOE. Where as 3.33 percent of the principals and 75.24 percent of the teachers were public employed. With regard to the members of the school

administrative committees, 42.86 percent were government employees in different organizations.

5. 3.33 percent of the principal and 11.91 of the teachers served less than 10 years. 13.33 percent of the principals and 8.57 percent of the teachers served from 11 to 20 years. While 83.34 percent of principals and 79.52 percent of the teachers served for 21 years and more.

#### Part Two: Results of study.

1. The school plants of most public schools are not adequate, because more than half of them were primarily designed for non-educational purposes. Even those which were designed for educational purposes were built without an overall assessments and appropriate design.
2. Public school physical plants are not located according to their functional relationships and on areas comfortable for various educational programmes. Hence, the school compounds, the classrooms, staff rooms, and offices are not convenient for teaching-learning processes and administrative activities.
3. As a result of over crowdedness of the classrooms of most public schools, particularly in grade levels 1<sup>st</sup> to 3<sup>rd</sup> and 7<sup>th</sup>-8<sup>th</sup> beyond manageable size have high deviations from the standard set by MOE. In addition, classrooms lack uniformity of size, do not allow sufficient natural light, lack adequate and comfortable student seats, and necessary classroom facilities. They are by far below the standards set by the MOE. In addition, classrooms lack uniformity of size, do not allow sufficient natural light, lack adequate and comfortable student seats, and the necessary classroom facilities.
4. Most of these schools do not have educational facilities like school library, laboratories, space and facilities for subjects that require practical activities(music, science, chemistry, physics, agriculture, physical education, etc.), and reasonable size of staff-rooms.
5. Most public schools lack the necessary repair and maintenance, for the reason that the responsibility was left to public school administrative committees. Therefore, at present considerable number of public school have not had any

opportunity of maintenance since their establishment, for most of the income of these schools is allocated to the salaries of employees.

6. As almost all of the respondents indicated, neither the Educational Offices nor the surrounding community involved in repair and maintenance of public schools. Rather, currently some public schools have reported, their schools are on getting the necessary repair and maintenance by the support of Non-government Organization namely Ethiopian Rehabilitation Development Fund.
7. The main financial sources of public schools are tuition fees collected from children. All of the respondents have reported as their school do not get any financial support from the surrounding community as well as the MOE.
8. Eventhough, the distribution is not fair/justifiable, most public schools get support of human resource(teachers and school principals) from the MOE.
9. There is no uniformity of tuition fees, and the deciding body also varies from school to school. In some schools parents are invited to make decision on the amount of tuition fees. But in majority of public school decision is made by school administrative committee.
10. As reported by significant number of the respondents parents have negative attitude towards school fees and the reasons are found to be
  - a. Financing public schools should not be only the responsibility of parents.
  - b. According to the new educational policy citizens have to get free education, and the tuition fees are not affordable.
11. As reported by the majority of the respondents, the reason why parents send their children to the public schools is due to lack of space in government schools.
12. The participation of the school communities, parents, and the community at large in the affairs of public school physical plants is insignificant.
13. School principals, the school administrative committees and Educational Offices are not effective in coordinating the efforts of parents, school communities, the surrounding communities, government and non-government organizations for the betterment of public schools.

14. There is no clear cut policy statements about the administration and organization of public schools, and their is no general guide-line that indicate where and/what the financial sources for these schools are.
15. The relationship between public schools and community is found to be on poor condition. Most public school have no legally acceptable boundaries and school maps. Due to this some respondents reported that their school interred to conflict with religious organization.
16. Almost all public schools have small sit-size Due to this:
  - a. Schools did not have different playgrounds and recreational areas.
  - b. Children are forced to play in front of classrooms during the sport periods and spend their break time out-side the school compound.
  - c. Aggravating the situation even schools which have limited plot of land for physical education were not properly located so as not to influence the classroom instructions.
  - d. No free area left in the school compounds for both the present and future expansion.
17. Within school compounds of some schools, there are individual residences.
18. A good number of the sample schools have two to three compounds of a single school which create administrative problems.
19. Students in most of the public schools are exposed to the noisy areas, traffic incidents and disturbances. The sources of excessive noise are found to be: Playgrounds, poor building locations, vehicles, business areas, barrooms, music shops, local drink houses.
20. In most public schools the major causes for air pollution are: sewage disposal, disposed garbage, toilet rooms, smoke from vehicles, and human wastes.
21. The total site size of public school compounds is much less than that of the standard of the Ministry of Education.

## CONCLUSIONS

Based on the preceding major findings, the following conclusions are made.

1. The school plants are located on slope landscape besides most of them have served for more than 20 years and yet a lot of them had not got the necessary maintenance since their establishment. In addition a significant number of public schools are not in a position to provide adequate physical facilities, such as libraries, laboratories, and well equipped pedagogical centers. Even those schools which have some sort of facilities are not in a position to provide the necessary services because of shortage of supply and lack of repair and maintenance of instructional facilities, equipment and other furniture to implement various school programmes as required in smooth and convenient way.
2. The majority of school physical plants in which the present public schools run the educational programmes were primarily designed for non-educational purposes. And even those schools which were believed to be designed for educational purposes lack the appropriate design and prior planning to meet the general requirements of school buildings, for the fact that educational planners were not involved in locating the school buildings. Therefore, most public school plants are by far below the standard of a comprehensive school building standard set by the MOE. Thus, they are inadequate and uncomfortable to meet the needs of the learners and to implement the designed curriculum as it is supposed to be.
3. Because of poor school buildings location, few of the available spaces to carry-out practical activities are not effectively utilized. Thus, the classroom instructional activities of most public schools are under the influence of the school sites.
4. The sites of the public schools are inappropriate and have inadequate space. Therefore, the limited educational and non-educational facilities make the designed school activities less practical.

5. Expansibility as an essential component of school site is very important factor to enable schools cope up with the ever changing world: that is in technological and other scientific improvements in teaching methods, introduction of new subjects, increasing future needs and population growth. However, because of their poor establishments the sites of public schools are not absolutely convenient to be expanded. Therefore, most public schools cannot serve as a permanent educational settings.
6. Among the components of school site, remoteness is found to be one of the major impeding/hindering factors of public schools educational activities. Noises from playgrounds, poor building locations, vehicles, business areas from bars and hotels are in particular are identified as hindering factors by a significant number of the three groups of respondents. On the other hand, sewage disposal, disposed garbage, smell from toilet rooms, smokes from vehicles, and human wastes (feces) are found to be the causes for undesirable odors which may directly or indirectly affect the teaching-learning environment. Therefore, most of the public schools in Addis Ababa are not sited remote from excessive noise sources and air pollution that adversely affect the educational process.
7. Though finance is not the only problem in Ethiopian schools, it is one of the major factors that determine the status of school physical plants either in promoting or retarding educational provision. While the function of public schools at most depends on the school-fees collected from students, this unrealistic income of public schools, seems to make the budget of these schools unreliable and cannot be known before hand. Hence, it is possible to conclude almost all of the public school in Addis Ababa have no constant guarantee of their future.
8. For the fact that, the money collected from students spend on salaries of the public schools employees, it is unthinkable to fulfill the necessary physical facilities, building additional classrooms, and repair and maintenance activities.
9. Almost all parents send their children to the public schools due to shortage of space in government schools. That is to say, public schools become the last

choice for those who do not get the opportunity to be enrolled in other school types. It seems that most of these schools are left too far behind in fulfilling the fundamental educational requirements as normal schools.

10. There is a great fear on the part of the employees of public schools to continue under such unreliable future in these schools. Even though it is very difficult to predict the future enrollment trend of public schools, such unpromising financial source make their future unpredictable and not promising. Devastating the unpredictability of their future until then there is no clear cut policy statement about the future organization and administration of public schools and there is no general guide-line that indicate where and what the financial sources of these schools are.
11. There is no any indication showing the active involvement of educational offices at different level. In addition, the degree of participation of parents and the community in the affairs of public school plants basically indicates the low status given to such schools. Thus, the public school physical plants maintenance become no bodies responsibilities.

## RECOMMENDATIONS

On the basis of the findings and conclusions with regard to the status of public school physical plants, the following recommendations are forwarded in the hope that they would be implemented.

1. The inadequacy of the public school physical plants cannot be alleviated overnight, for they require a lot of money and needs the cooperation and good will of the governmental and non-governmental organization; and members of the community at large. Therefore, it is important to produce a school map showing the current status of public schools and the catchment area served by the facilities.
2. To tackle with the immediate problems of public schools, subsidy from the government is important in terms of fair assignment of qualified government instructional personnel particularly for poor public schools to alleviate some of their problems.
3. Since most of the public schools are built on inappropriate places for the instructional processes; schools must be built in places where children can learn safely and peacefully away from traffic noises and disturbances.
4. It would be advantageous if a mechanism in which some poor public schools located near each other combined to enhance their income and effort. public schools have contributed and continue to contribute their part like other school types in tackling the gap between the mounting educational aspiration and the accommodation capacities of the government schools. Therefore, to ensure their contribution:
  - a. Government (MOE) must participate in the repair and maintenance of public schools.
  - b. Government must facilitate the means and ways in which public schools get support from the surrounding community .

- c. The mechanism in which non-governmental(both domestic and external) organizations participate in providing support for public schools must be looked for.
5. All public schools depend on the tuition-fees. This is not dependable for budgetary operations. Therefore, it may be wise if the concerned authorities, above all, the public schools administrative committees as well as the Ministry of Education seek other sources of incomes and solutions rather than merely depending very much upon school-fees.
6. The inadequacy of school facilities was becoming the major hindering factor on teaching-learning process. Hence, it is important to look for mechanism in which horizontal relationships among schools develop to share experience.
7. Most public schools do not have acceptable legal boundaries according to the city plan. Hence, some schools are interred in to conflict with the other organizations, and while in other compounds of public schools there are individuals' residences. Unless, the concerned bodies, i.e., the school principals and the public school administrative committees work in co-operation with education offices, local authorities, and city planners, to alleviate such problems it leads to doom the future of public schools.
8. Since a significant number of public schools have two-three compounds of a single school it is very difficult to administer and coordinate the overall school activities. Therefore, it seems important if school principals, school administrative committees and educational offices work cooperatively to look for the way in which the compounds of such public schools merged to one.
9. The following points would help to reduce excessive noise levels that affect the educational activities of the public schools, if school officials works with other community agencies cooperatively with all those who are concerned.
  - a. It is possible to positively change the attitude of the owners of some business firms or centers (like barrooms, hotels and music shops, etc.) to run their business in a way the noise coming out of there does not affect the school instructional activities.

- b. Bus and taxi stations have to be located reasonably far from the school compounds so that the noise originating from there could not affect the learning-teaching environment.
  - c. To make the windows from noise reducing materials and planting trees. This may help to minimize the unnecessary sharp noises.
10. The cooperative effort of the school principals, school administrative committee and educational offices with public health centers and local administrative authorities will enable to alleviate problems associated with air pollution. Therefore, a mechanism in which all community projects cooperatively work hand in hand together should be looked for. It is only through cooperation with others that the poor condition of the public schools overcome.

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**A P P E N D I X**

**Annex part I**  
**The Relative Distribution Of Public Schools**  
**In Addis Ababa**

No.	Zone	No. of schools	Sample size		Remark
			25%	No of sample schools	
1	One	20	5.00	5	
2	Two	25	6.25	7	
3	Three	16	4.00	4	
4	Four	32	8.00	8	
5	Five	23	5.75	6	
6	Six	2	-	-	Not included in the sample
<b>Total</b>	<b>6</b>	<b>118</b>	<b>29.00</b>	<b>30</b>	

$$\frac{118 \times 25}{100} = 29.5 \quad 30$$

Annex part II

የአፀደ ሐፃናት ነገራዎች  
የመጽመሪያ ደረጃ ትምህርት  
ስታንደርድ

ትምህርት ሚኒስቴር

ሚያዝያ 1987



የት/ቤትና የአካባቢው ማኅበረሰብ /ኮሚኒቲ/ግንኙነት

- ት/ቤት ሲቋቋም ማኅበረሰቡ የሚፈለገውን ጥቅም እንዲሰጥ ሆኖ ይደራጀል። ማኅበረሰቡም የሚያገኘውን ጥቅም በመገንዘብ ት/ቤቱ ሥራውን በተገቢው መንገድ እንዲያከናውን ቀጥታ ግንኙነት ያደርጋል።
  - የትምህርት አመራርና አስተዳደር ባልተማከለ መንገድ የሚካሄድና የአካባቢውን ማኅበረሰብ ንቁ ተሳትፎ የሚጠይቅ ነው።
  - የት/ቤት አመራርና አስተዳደር የት/ቤቱንና የአካባቢውን ማኅበረሰብ አባላት ያቀፈና ዲሞክራሲያዊ ተሳትፎን ተግባራዊ የሚያደርግ ሲሆን ተሳትፎአቸውን በሚከተሉት መድረኮች ሊገልጹ ይችላሉ፡-
    - . በት/ቤት ኮሚቴ ወይም ቦርድ ውስጥ ኅብረተሰቡን በመወከል
    - . በት/ቤት የወላጅ ኮሚቴ ውስጥ ወላጆቹን በመወከል፤
  - የት/ቤትና የአካባቢው ማኅበረሰብ ግንኙነት የተጠናከረ መሆን ይገባዋል፤ ዋና ዋና ዓላማዎቹም የሚከተሉት ናቸው፡-
    - . ት/ቤቱ ምን እየሠራ እንደለና የትምህርት ዓላማዎችን ተግባራዊ በማድረግ ለማሰወቅ፤ አሳብ ለማካፈል ለምሳሌ ት/ቤቱ ኃላፊነቱን በብቃት እየተወጣ መሆኑንና ስለዓላማውና ተግባራዊነቱ ለኅብረተሰቡ ማሰወቅ፤ ከኅብረተሰቡ የሚሰጡ አስተያየቶች ስለትምህርት ቤቱ የሥራ አመራር፤ አመለካከት፤ ምኞትና ተቃውሞ ት/ቤቱ እንዲያውቀውና ሥራውን እንዲያሻሽል ለማድረግ፤
    - . ሀብረተሰቡ የትምህርት ቤቱን ችግርና ዕቅድ ተረድቶ አበረሳጊውን ድጋፍ ለማድረግ፤
    - . ስለተማሪዎች የትምህርት ውጤት ወላጆች አውቀው ተገቢውን ክትትል ለማድረግ፤
    - . የወላጆችንና የመምህራንን ግንኙነት ለማጠናከርና የትምህርቱ ውጤት ይበልጥ የተሻለ እንዲሆን ለማስቻል፤
    - . በትምህርት ኮሚቴ ወይም ቦርድ ውስጥ በመሳተፍ
- ሀ) ትምህርት ቤቱን ለማጠናከር በሚቀርብ ዕቅድ ላይ ውይይት በማካሄድ፤ መርምሮና አሻሽሎ በማጽደቅ አረጸጸውን ለመከታተልና ለመቆጣጠር፤
- ለ) ሥርዓተ ትምህርቱ ከአካባቢው ሁኔታ ጋር ተጣጥሞና ተዘምዶ ለተማሪዎቹ መቅረቡን ለመከታተልና አሳብ ለመስጠት፤

**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**  
**DEPARTMENT OF EDUCATIONAL ADMINISTRATION**  
**Addis Ababa**

**Questionnaire on the status of public schools in Addis Ababa**

The questionnaire is to be filled only by school principals, school administrative committees, and teachers of public schools in Addis Ababa

**GENERAL REMARK**

The main purpose of this questionnaire is to assess the current status of public school physical plants in Addis Ababa. The information obtained will also help to recommend plausible intervention measure to minimize problems related to school plants.

Therefore, to assess the present condition of public school physical plants in Addis Ababa, your frank and sincere response is highly appreciated, for it will contribute to the validity of the data obtained. The data to be obtained will also be used for further research activity.

There are no right or wrong answers and what is required is to show the level of your personal opinion to each item.

Your responses will be kept confidential, and writing your name is not need.

Thank You for Your Cooperation in advance

**Part I Background Information About the Respondents**

Please write your school name, give the exact figure or indicate your response by putting " " in the space given regarding your personal profile and school.

1. School Name \_\_\_\_\_
2. Sex \_\_\_\_\_ a) male \_\_\_\_\_ b) female
3. Age \_\_\_\_\_
4. Educational qualification \_\_\_\_\_
5. Marital status  
\_\_\_\_\_ a) UN married \_\_\_\_\_ b) Widowed  
\_\_\_\_\_ b) Married \_\_\_\_\_ d) Divorced



No	Items	Choices				
		1	2	3	4	5
	instructional facilities.					
12	The appropriateness of classrooms doors and windows					
13	The extent to which multi purpose classrooms are organized and equipped to promote the effective participation of learners.					
14	The adequacy of the school library.					
15	The contribution of school laboratory					
16	The contribution of school pedagogical center.					
17	The availability of different administrative offices.					
18	The adequacy of space and facilities for practical activities.					
19	The adequacy of space and facilities for physical education.					
20	The adequacy of store room for effective utilization of school plant.					
21	The availability of different flowers and trees to increase the attractiveness of school.					
22	The availability of separate and adequate staff room. rooms for teachers.					
23	Cleanliness of the school compound and its surrounding.					
24	The provision of adequate and clean water for the school community.					
25	The provision of first aid service					
26	The availability of wastage disposal area in the school compound and its surrounding.					
27	The availability of adequate playgrounds for physical and emotional development of learners.					
28	The availability of separate, clean and adequate toilet rooms for workers and students.					
29	Cooperation of the school community for effective school physical plant utilization.					
30	Students participation in school management for effective utilization of school physical plant.					
31	The effectiveness of school administrative committee in coordinating school community for proper utilization of school physical facilities.					
32	The participation of teachers and administrative workers participation in school management.					

No	Items	Choices				
		1	2	3	4	5
33	The effectiveness of school administrative committee in informing the general public about the progress and problems of the school through various means.					
34	The effectiveness of school administrative committee in working with other community institutions.					
35	The effectiveness of school committee in coordinating school community, parents, the surrounding community, government and non-government organizations for betterment of the school.					
36	The contribution of the general public in strengthening the school.					
37	The contribution of parents in financing the school.					
38	The relationship of school and the surrounding community.					
39	The effectiveness of school administrative committee in creating ways and means for financial support.					
40	The contribution of educational offices in providing human, material and financial support for the school.					
41	The contribution of the educational policy of the MOE in indicating financial sources for public schools.					
42	the availability of clear cut policy statements about the administration and organization of public schools.					
43	The location of school plants according to their functional relationships.					
44	The willingness of students, teachers, and administrative workers to improve the school.					
45	The effectiveness school administrative committee in cooperating with school principal.					
46	The willingness of school administrative committee to solve major problems of the school.					
47	The effectiveness of school principal in working with school committee.					
48	The effectiveness of the principal in working with other community institutions.					
49	The effectiveness of the principal in coordinating school community.					
50	The effectiveness of the principal in coordinating school community.					
51	The effectiveness of school administrative committee in coordinating and controlling the over all school activities.					

### Part III. Items Related to School Site:

Below are some statements about school site. for each statement there are five choices ranging from "strongly disagree" to "strongly agree" Read each statement carefully and put a thick " ✓ " mark under the number of your response for each statement. The numbers indicate,

- 1= Strongly disagree                      4= Agree  
 2= Disagree                                      5= Strongly agree  
 3= Undecided

No	Items	Choices				
		1	2	3	4	5
I	The school is located in an appropriate environment, so that cannot be affected by possible future change.					
II	It is well integrated with community planning.					
III	the site is selected after careful study. Hence, it can serve as a permanent educational setting.					
IV	The school plant is accessible for the school and surrounding community.					
V	The size of the school site enables to accommodate booth the present and the future educational programmes; and possible future needs.					
VI	The characteristic of the school site makes the school buildings attractive; the space for various school programmes are located according to their function and preferred orientation, and it is free from swampy area or surface water conditions etc.					
VII	The school is located near utility services like electricity, water, sewage connection and other services.					
VIII	The site does not require excessive cost to meet the need of the present and the future educational programmes with out distraction of the present plant.					

#### Part IV. General Questions About School Overall Activities.

**Instruction:** Please answer the following questions by putting a thick mark " " in the space provided the one which best specifies your agreement, or by writing where it is necessary in the space provided.

1. The relative age of the school is  
- a. below 10                      - b. 10-19                      - c. 20-29  
- d. 30-39                      - e. 40-49                      - f. 50- and above
2. Was the school building primarily designed two educational purpose.  
- a. Yes                                      - b. No
3. If your response for question no. two is "no" for what purpose do you think it was designed?  
- a. residence                                      - b. store  
- c. bar                                      - d. recreation  
- e. other/please specify/ \_\_\_\_\_
4. Does the school have legal boundary?  
- a. yes                                      - b. no
5. If your response for question no. four is "yes" is there a map and plan that shows the size and site of the school?  
- a. yes                                      - b. no
6. The total school area in M<sup>2</sup> is \_\_\_\_\_
7. Does the school compound have fence to protect the school property?  
- a. yes                                      - b. no
8. In your opinion, which of the following factors do you think negatively affect the learning environment?(rankorder according to their effect)  
\_\_\_\_ a. playgrounds                      \_\_\_\_ b. poor building location  
\_\_\_\_ c. barrooms                      \_\_\_\_ d. music shops  
\_\_\_\_ e. market area                      \_\_\_\_ f. industry and factory  
\_\_\_\_ g. vehicles                      \_\_\_\_ h. recreational areas  
\_\_\_\_ i. "tela" and "tejj" houses  
\_\_\_\_ j. others (please specify) \_\_\_\_\_
9. Which one of the following is the major source of air pollution in your surrounding and the school compound?  
a. toilet rooms      b. smoke from vehicles, industry, factory, etc.  
c. garbage disposal      d. sewage disposal  
e. human waste      f. other (please specify) \_\_\_\_\_
10. At present the average number of students in a classroom is  
a. below 10                      b. 20 -29                      c. 30 -39  
d. 30 -49                      e. 50 -59                      f. 60 and above
11. In your opinion, the present condition school building and facilities are  
a. very good                      c. poor  
b. good                      d. very poor



23. In your opinion, the possible reason why parents send their children to public school.
- it provides quality education
  - it is well equipped with the necessary educational facilities
  - there is no government school in their surrounding.
  - they want to pay for education of their children
  - other(please specify) \_\_\_\_\_
24. Does the school financial capacity enables to maintain the school physical plants
- yes
  - no
25. From the annual school budget the largest part spent for
- salary
  - school activities
26. How do you rate the present condition of your school physical plants in relation to other public schools?
- very good
  - good
  - medium
  - very poor
27. How do you rate your school present status in relation to other type of schools.
- very good
  - good
  - undecided
  - poor
  - very poor
28. Please indicate the most prevailing problems in your schools concerning the organization, administration and space utilization. (list them in short).
- \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
29. Please, indicate major taken to minimize these problems at school level
- \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
30. In your opinion, what should be done about the organization and administration of public schools in the future?
- they have to transferred to government schools
  - they have to be under the control of the government and public
  - they have to be transferred to private schools
  - they have to continue as they are.

## DECLARATION

I, the undersigned, declare that this thesis is my work and that all sources of materials used for this study have been duly acknowledged.

Name: Tamirat Bekeli

Signature: 

Date: May 21, 1999

አዲስ አበባ ዩኒቨርሲቲ  
ትምህርት ፋክልቲ

የትምህርት አስተዳደር ትምህርት ክፍል

ትም/አስ/54/1991

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አዲስ አበባ

የድህረ ምረቃ ተማሪ የሆኑት አቶ ታምራት ገብረ  
የማስተር ቲስስ (Master Thesis) ወረቀታቸውን የግምገማ ኮሚቴ በሰጠው  
አስተያየት መሠረት ያስተካከሉ መሆኑን እንገልጻለን።



ከሰጠው ጋር

*(Handwritten signature)*

አበበየሁ አእምሮ  
የትምህርት አስተዳደር ክፍል ሃላፊ