

**The Effects of Scarcity of Facilities and Equipment in Teaching Physical
Education in Secondary Schools of Addis Ketema Sub-City**

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This is to certify that the thesis prepared by Lemma Ture entitled: the Effect of Scarcity of Facilities and Equipment in Teaching Physical Education in Secondary Schools at Addis Ketema Sub-City and submitted in partial fulfillment of the requirements for the degree of Degree of Master of Education (in Sport Science) complies with the regulation of the university and meets the accepted standards with respect to originality and quality.

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Abstract

The Effects of Scarcity of Facilities and Equipment in Teaching Physical Education in Secondary Schools of Addis Ketema Sub-City

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This study aims at investigating the effects of scarcity of facilities and equipment on teaching physical education in secondary schools. The subject of the study are all principals, all vice principals, all physical education department heads, all physical education teachers and 100 students from four secondary schools at Addis Ketema sub-city, selected by using purposive and random sampling techniques for students. Questionnaire, interview and observation were the instrument of data collection. The data gathered through these instruments were analyzed using percentage and frequency. The data gathered through open ended questions, interview and observation were analyzed qualitatively through narrator for the purpose of triangulation. As the findings of the study revealed that the basic effects of scarcity of facilities and equipment insufficient. Therefore most of physical education teachers do not implement the subject effectively. Standing from the researcher recommend some possible solutions, concerned bodies should work cooperatively for the improvement of the condition. Everybody believes that facilities and equipment have a great role to the subject. In addition schools' environments were not suitable for the instruction of physical education.

Key Words

Equipment, facility, game, gymnastics, indoor facilities, materials, outdoor facilities, playground, principals, secondary schools, supply etc.

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Table of Contents

	Pages
List of tables.....	vii
List of Acronyms	ix
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the study	1
1.2 Statement of the problem	3
1.4 Research question	4
1.5 Significance of the study.....	5
1.6 Delimitation of the study	5
1.7 Operational definition of terms	5
1.8 Organization of the study	6
CHAPTER TWO	7
2. REVIEW OF RELATED LITERATURE.....	7
2.1 Introduction.....	7
2.2 The concept of facility, equipment and supplies in physical education	7
2.3 The place of physical education facilities, equipment and supplies in secondary schools	8
2.4 Problems of physical education facilities, equipment, and supplies management in secondary schools	9
2.5 Nature of the problem.....	9
2.6 The role of facilities and equipment in physical education	10
2.7 Need and purpose of facilities for physical education and sports	11
2.8 Special areas.....	13
2.9 Playground for schools	13
2.10 Determining needs	13
2.11 Facilities a futuristic view	14
2.12 Determining supply and equipment needs	15

2.13	Guidelines for selecting supplies and equipment	15
2.14	The purchase and care of equipment	17
2.15	Selection of equipment	18
2.16	Maintenance schedules	20
2.17	Equipment needs based on inventory	22
2.18	Distribution of equipment	22
2.19	Appraisal and evaluation of materials	23
CHAPTER THREE.....		24
3.	RESEARCH DESIGN AND METHODOLOGY	24
3.1	Research design	24
3.2	Research method.....	24
3.3	Source of data.....	24
3.4	Sample size and sampling techniques	25
3.5	Data collection instrument	25
3.6	Technique of data analysis	25
CHAPTER FOUR.....		27
4.	DATA ANALYSIS AND INTERPRETATION	27
CHAPTER FIVE		56
5.	SUMMARY CONCLUSION AND RECOMMENDATIONS	56
5.1	Summary	56
5.2	Conclusion	57
5.3	Recommendation	59
Bibliography.....		61
Appendix – A		64
Appendix – B		72
Appendix C		78
Appendix D.....		79
Appendix E		80

List of tables

Table 1 characteristics of respondents' sex	28
Table 2: Availability of indoor and outdoor facilities	29
Table 3: availability of equipment for teaching gymnastic and athletics in Physical education	34
Table 4: availability of supplies for teaching physical education.....	38
Table 5: the location area, and design of the facilities.....	41
Table 6: equipment for teaching physical education	42
Table 7: supplies for teaching physical education	44
Table 8: Rank orders of lacking of facilities equipment and supplies for teaching physical education	45
Table 9: Students Perception of their School's Facility, Equipment and Supplies for Teaching Physical Education.....	47
Table 10: Students' Response on their School's Comfortableness for Physical Activity	48
Table 11: Students' Response on Teachers Utilization of Equipment and Facilities during Physical Activity	49
Table 12: Students' Response on the Availability of Play Ground, Water Supply for Washing and Drinking, Lockers for Students.....	50
Table 13: Students' Perception on the Supply of Balls during different Team Games.....	51
Table 14: Response of Students on the Utilization of Equipment and Supplies during Athletic Activities.....	52

Table 15: Students' Response on the Availability of Equipment for	
Teaching Gymnastic during Physical Activity	53
Table 16: Students' Response on the Appropriateness of Equipment for Teaching Physical	
Activities in Physical Education	55

List of Acronyms

AAAEB	Addis Ababa Administration Education Bureau
ASE	Administration of Sport in Ethiopia
HPE	Health and Physical Education
KCTE	Kotebe College of Teachers Education
LRE	Least Restrictive Environment
PE	Physical Education
PES	Physical Education and Sport
SP	Sport Programs
UNESCO	United Nations, Educational, Scientific and Cultural Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The schools are the social institutions entrusted with the formal education of the youth in the society. Sporting activities have been known to be an integral component of the educational programs.

In most advanced countries of the world education authorities have realized the benefits accruing from participation in sports programs and they have not hesitated in including physical education in their curriculum as a part of learning experiences offered to the students. The implication is that a lot of resources (finance) were put into physical education to enable the youths enjoy a worthy sports program for their healthy development. Sport activities have been seen as an instrument for national unity.

There is a clear indication that the authorities responsible for administration of sports in Ethiopia have realized the contributions of the school physical education programs towards sports development in Ethiopia and sparing no effort to encourage secondary schools to set up well-structured physical education and sport programs (PES).

In order to achieve this objective standard sport facilities, supplies and equipment should be provided to all secondary schools.

International charter of physical education (UNESCO) in 1978, on article 5, states that; adequate facilities and equipment are essential to physical education and sport.

Adequate and sufficient facilities and equipment must be provided and installed to meet the needs of intensive and safe participation on both in school and out of school programs concerning physical education and sport.

According to Mohr D. and Vernier E. (1969) secondary school physical education program is characterized by individual and life time sports as well as by team game activities. This emphasis together with the popularity of recreational and interscholastic sport and the fact that facilities are typically needed for recreational use by the community. These facilities often include football, tennis, basketball, volleyball and handball.

More consideration has been given to the facility needs of people with disabilities. Physical education and sport facilities in particular are considered with the students' and participants' programs of specialized developmental exercises, perceptual motor ability activities, health related fitness activities, modified sports, stress management, rest and relaxation.

Facilities for individuals with disabilities usually vary from school to school and according to the disability conditions of those served.

Contemporary physical education and sport has the person with disabilities participating in the least restrictive environment (LRE) and, whenever appropriate and possible, is integrated included or mainstreamed into regular physical activities.

Supply and equipment needs vary according to a wide range of factors, including the level of the program or participants age of the user group, type of activities being offered, number of participants and, of course finance. Other factors are the facilities and physical plant, athletic training rooms, playing space available, inventory on hand and, demand for specific equipment because of the rules and number of activities and sports being offered. Some organizations have only limited physical education and sport programs and facilities.

1.2 Statement of the problem

Just as adequate facilities and equipment are needed for effective instruction and goal fulfillment in other subjects, so are needed for successful teaching in physical education. Lack of sufficient teaching stations and play areas are the main reasons that poor programs in physical education still exist throughout the secondary schools.

According to Annarino, Anthonya (1980) teachers should insist that they be allowed to participate in planning of facilities. This is of extreme importance, because once final plans are drawn and approved, the school program must adjust to the facility regardless of whether the final construction is functional.

To implement planned program in right way for the secondary school level students' activities should practice in sufficient amount. For the current the necessary facilities and equipment for teaching physical education in secondary schools at Addis Ketema sub-city are in shortage. Therefore, the starting point of this study were assessed the effects of scarcity of facilities and equipment on physical education in some selected sample secondary schools at Addis Ketema sub-city administration.

1.3 Objectives of the study

1.3.1 General objective

The major objective of this study were to assess the effects of scarcity facilities and equipment on teaching physical education is some selected sample secondary schools (9-10) grades at Addis Ketema sub-city administration.

1.3.2 Specific objectives

- To identify how health and physical education (HPE) teachers implement the subject by using the right and sufficient facilities and equipment.

- To assess how the schools' environments are conducive for the effective implementation of physical activities.
- To point out how are the conditions of facilities and equipment in the secondary schools for teaching physical education.
- To assess the main causes of scarcity of facilities and equipment for teaching physical education in secondary schools.
- To show the opportunities to improve the conditions of the problem.

1.4 Research question

The starting point of this study were assessed the effects of scarcity of facilities and equipment in physical education in secondary schools at Addis Ketema sub city. So this research paper were try to answer the following questions.

- 1) Do health and physical education (HPE) teachers in grades '9' and '10' implement the subject physical education by using the right and sufficient facilities, equipment and supplies?
- 2) How conducive are the schools' environment for effective implementation of physical activities?
- 3) How are the conditions of facilities and equipment in the sample secondary schools for teaching physical education?
- 4) What are the main causes of lacking of facilities and equipment for teaching physical education in selected sample schools?
- 5) Are there opportunities to improve the conditions of the problems?

1.5 Significance of the study

Evaluating the effects of lacking facilities and equipment on teaching physical education helps to obtain evidences regarding its in effectual which are very useful for making decision hence:-

- The finding creates an awareness for physical education teachers to see whether they are implementing the syllabus of physical education as expected or not because of lacking facilities and equipment.
- The finding can serve as a preference for further investigation on the area.
- The concerned bodies can benefit from the study considering the finding (as a clue to indicate what parts are difficult for compliance with facilities, equipment and supplies for teaching physical education in the selected sample secondary schools).
- The Addis Ababa Administration Education Bureau, (AAAEB) the community and the school directors can benefit from the findings of the study, particularly in improving and facilitating the quality of facilities and equipment for teaching physical education in the sample secondary schools.

1.6 Delimitation of the study

The study was conducted in Addis Ketema sub-city in four governmental secondary schools and also the study delimited to study the scarcity of facilities and equipment in teaching physical education.

1.7 Operational definition of terms

- Disability-absence of competent physical, intellectual or moral power, fitness and the like.

- Equipment- those items that are not considered expendable and used for a period of years such as parallel bars, volleyballs stands, soccer gals etc.
- Facilities- indoor and outdoor facilities.
- Indoor facility- gymnasium, weight and exercise rooms, shower rooms, locker etc.
- Outdoor facility- play grounds, courts, fields etc.
- Physical education- the process of gaining knowledge, skills and attitudes mainly through physical activity.
- Supplies- materials that are expendable and replaced at frequent intervals such as soccer balls, volleyballs, tennis balls etc.

1.8 Organization of the study

This study consists of five chapters. The first chapter deals with the problem and its approach. The second chapter treats the review of the related literature. The third chapter contains research design and methodology. Chapter four concerned about analysis and presentation of the data. The summary of findings, conclusions and recommendations of the study are presented in chapter five. Finally, bibliography, sample questionnaire and other relevant documents are attached to the last part of the thesis.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter deals with the review of related literature. Books, journals, thesis and written materials from internet are thoroughly reviewed in relation to the major topics. These are the concept of facilities, equipment and supplies in teaching physical education.

2.2 The concept of facility, equipment and supplies in physical education

The facilities for which they are responsible include outdoor facilities such as playground, courts, and fields and indoor facilities such as locker and shower rooms, sport courts, weight and exercise rooms, arenas, climbing walls and gymnasiums, their supplies and equipment.

Equipment

Refers to those items that are not considered expendable but are used for period of years, such as parallel bars, volleyball stands, soccer goals, strength training equipment are need all needs but to be considered in the managerial budgeting of the sports administrator.

Supplies

Are those materials that are expendable and have to be replaced at frequent intervals such as shuttle cocks, tennis balls, volleyballs, basketballs, soccer balls etc.

The provision of adequate facilities, equipment and supplies are as important as providing adequate incentive for the physical education, but the maintenance of such adequate facilities, equipment and supplies use by many often constitute a managerial problem.

Crompton (2005) stated that planning new structures to keep pace with the demand for participation in physical education and sports programs of the school.

2.3 The place of physical education facilities, equipment and supplies in secondary schools

Recent studies and experimentations have yielded new trends in design for the construction of physical education facilities, equipment and supplies. Although basic concepts, such as that of having teaching station remain the same. Current innovations in design are producing teaching stations that are more functional and less expensive.

In order to catch them young Ethiopian secondary schools physical education (PE) requires a variety of sports/physical education facilities, supplies and equipment both indoors and outdoors. The relative needs of the students and athletes should be recognized in the planning of facilities, scheduling for their use and the purchase of the supplies and equipment. Arnhein, Prentice (2000) stated that supplies and facilities, supplies and equipment provision are important aspect of physical education and sports management. Excellent programme is the key word in physical education and sport competition, and this requires well equipped good play-ground for training.

Standard facilities and equipment are essential prerequisites to good and impressive performance. Lack of adequate and standard facilities and equipment hampers physical education and sport programmes in many ways.

Adedeji (2000) also pointed out that there must be sufficient motivation in the form of attractiveness of facilities, supplies and equipment to captive athletes' interest to participate in sports or games. He further stated that the facilities and equipment are simply not good enough and are hindrance to physical education and sport development.

2.4 Problems of physical education facilities, equipment, and supplies management in secondary schools

The effective performance of physical education and sport programmes (SP) in secondary schools involves the determination, allocation and development of funds for the achievement of school sports programmes. The programme requires a large amount of money every year. This is because of facilities such as courts and pitches are constructed and maintained for the use of the students. Also equipment and supplies such as balls, nets, javelin, rackets, gymnastic and athletic (track and field) materials require either purchasing, replacement or repair.

2.5 Nature of the problem

The problem related to equipment and facilities are so varied and demanding most schools and colleges have created positions to deal only with these problems. It has been mentioned by Dauthrey Greyson (1976) that facilities and equipment significantly influence the physical education program.

Unlike many of the academic subjects, where little more the regular classroom is needed, physical education requires relatively large amount of indoor and outdoor space and sufficient equipment in carrying out a well-balanced program to meet the needs of all pupils.

Comparatively, few schools possess sufficient facilities and equipment for optimum program of physical education while improvement in facilities and equipment may be noted over the year. Such factors as inflator prices and unavailable materials combines with a huge in total school enrollment have made it difficulties for the school to keep pace with pupils needs as far as facilities and equipment are concerned.

2.6 The role of facilities and equipment in physical education

- Equipment and facilities are tools used for teaching of health and physical education. Fost, Reuben B. (1995) indicates the role of equipment and facilities as quality equipment and well-maintained facilities are essential for good teaching and good coaching. If equipment and facilities are not available in the secondary schools it might be too difficult for the student to acquire or gain the necessary skill of physical education.
- According to Freeman, William Hardin (1982) when facilities are lacking or insufficient as in many secondary schools, then classes are physical education held in classrooms, corridors, and basement, such places limit the program. When facilities and equipment are lacking children did not learn the skill of co-ordination that are essential for their proper body development. Poor equipment and facilities serve no useful purpose and in pair achievement.

According to Scott, Harry Alexander (1958) in connection with equipment and supplies school leader after question the amount of money needed to finance them. However, if they are compared cost incurred for other subjects it may be readily observed that the cost for physical education program is well within reason. At this point one thing must clear for a sound physical education program to be conducted teachers should not be handicapped by the lack of adequate supplies and equipment.

- Every secondary schools should have on hand an adequate number of equipment and supplies required for the activities included in the program. Although children with caution should use equipment and if possible, when there is supervision, otherwise, the child might be exposed to injuries.

2.7 Need and purpose of facilities for physical education and sports

The importance of play ground in schools is to achieve the students' basic stance or movement in different events such as ball games, athletics, gymnastic and other activities.

- Bucher Charles (2002) stated that the primary function of schools included the students' intellectual powers, a basic knowledge of major fields of study and his or her unique talent, whatever they may be.
- A second purpose is to help the students achieve a better understanding personal ability, interest and potentiality.
- A third purpose is to orient the pupil in various field of work. So that, he/she may learn how personal abilities and interests related to these areas of endeavor.
- A fourth purpose is to help students develop a philosophy of life together with skill, health, interest, appreciation and social attribute essential to a good life.
- A final purpose is to develop understand of the democratic process and the role of the students in furthering this way of life.
- Each new generation must be taught motor skills and the importance of physical activity in developing healthy body and mind. Physical education is concerned not only with learning about the physical aspect as medium of developing mental, emotional and social qualities essential for effective learning.

Larry Horine (1985) indicates that most facilities needs become known as a result of problems. Some of the problems that alert the administration are

- Not enough teaching stations to accommodate students.
- Number of injuries resulted from inadequate space.
- Inability to add new sports or activities because of lack of appropriate space.

2.7.1 Assessment

When it has determined that the facility problems are very real and simply adjusting practice time will not solve the problem. An in depth needs assessment of the whole situation is required the basic scientific problem solving method can be applied.

According to Haste and Peter A. (2003) this survey should include the following

- The study of general goals and objectives of the school and how physical education and athletic must function to meet the aim.
- The interest and needs of the students and community

2.7.2 Raising funds

To prepare playground for schools there should be fund. The needed found may be high because of the expensiveness of the construction materials. To fulfill this fund it may be beyond the capacity of the physical education teachers and directors. The solutions are therefore, trying to get the source of the fund is to cooperated with the local administration. For this matter, Horin (1985) suggested, “for the most part new public schools facilities are funded through either by increased tax levies or bond sales”

2.7.3 Legal considerations

The planning periods is the time to in vision (look for) the structure, space and facilities needed by the school. Horine (1985) suggested the following recommendation in facilities construction to reduce future problems use common sense designing.

2.7.4 Site selection

While detailed checklist should be used to avoid overlooking a planning feature some general guide lines for indoor and outdoor facilities. The following are some major factors

that should be considered in sight selection. These are relationship to other related athletic facilities, utility availability and proximity to classrooms.

There is a great deal of room for judgment in determining the teaching stations. In part the decision will be influenced by the following factors the size of class or activity units, the type of class or activities related to space and the type of class or activities to equipment.

Indoor areas requirement depend greatly in the nature of the curriculum, but in general about 115 square feet of space is required participate in small schools, however, the area may be not sufficient to provide minimum court space. In this case, a minimum space for junior (senior high school might be 13,000 square feet of activity space exclusive of locker rooms, seating and hall ways.

2.8 Special areas

Depending on the size and level of the school, frequently the need for special areas should be considered for various activities training gymnastic, handball, community sports and complex weight training facilities.

2.9 Playground for schools

Sufficient outdoor play areas are needed to accommodate service class for girls and boys. Intramural athletics for boys and girls athletic association activities and inter scholastic athletics for boys. It is quite possible in school that outdoor teaching stations are necessary for teaching purpose. Athletic fields (playground) that can accommodate football, volleyball, handball, track and field are an asset.

2.10 Determining needs

One reason many physical education and athletics facilities are inadequate has been the lack of in depth study of campus need in the planning stage. Based up on current conditions

and future expectations it is less troubles some merely to copy existing facilities than to make a survey of local needs and construction techniques and then evaluate the results according to a sound educational philosophy before breaking ground.

Naturally the most important step in planning facilities is the in-depth survey of present and future campus needs. This survey should

- General educational aims of the institution and the specific goals of the physical education, recreation and athletic programs.
- Students and community interest and needs.
- Projected accessibility of the facilities with regard to class, athletics and recreation.
- The educational and structural adequacy of existing facilities.
- Present and future financial source of the school.

2.11 Facilities a futuristic view

Modern technology innovate construction techniques and creative design have made if feasible for simple structure to be used in a multiplicity of ways.

Most experts agree that multi-purpose use of facilities in realistic concept of the future. This change in philosophy cannot be attributed totally to the rapid escalation of construction cost or to the lack of available land but it due in part of the dynamic change in the life style of the communities with the substantial increase in the number of participants utilizing sport facilities and an increased awareness of economic factors, a higher priority must be assigned to facilities that can meet these challenges.

2.12 Determining supply and equipment needs

Supply and equipment needs vary according to a wide range of factors, including the level of the program or participants age of the use group, type of activities being offered, number of participants and of course finance.

Other factors are the facilities and physical plant, athletic training rooms, playing space available inventory on hand, demands for specific equipment because of rules, and number of activities or sports being offered. Some organizations have only limited physical education and sport programs and facilities.

Krotee (2002) stated that in physical education instructional domain, all types of balls, apparatus, nets, standards, implements (e.g. gloves, bats, racquets) and accompanying storage will be needed for the conduct of individual and team sports as well as other physical activities.

Physical education and sport supply and equipment needs, and the manner which they are determined, vary from organization to organization. For example, a secondary school may be given an equipment budget based on the number of students enrolled. Then, within the parameters of the budget, teachers request at the end of each year the equipment and supplies they will needed the following year, inventory of supplies at the conclusion of each teaching unit.

2.13 Guidelines for selecting supplies and equipment

Selection should be based on local needs and demands, supplies and equipment should be specified and selected because they are needed in a particular situation and a particular user group. Items should be selected that represent materials and equipment needed to

effectively and efficiently carryout both programmatic and organizational goals and objectives.

According to Brown R.L. (1977) selection should be on quality. This remains a top priority and, in the long run, the item of good quality will be the least expensive and the safest.

- Selection should be made by professional personnel. The person selecting the supplies and equipment needed in physical education and sports should be knowledgeable and competent. Performing this responsibility efficiently means examining many types and brands of products; conducting comparative experiments to determine economy, durability and safety; listing and weighing the advantages and disadvantages of different items and knowing how each item is going to be used. The person selecting supplies and equipment should be interested in responsibility, have the time to do the job.
- Selection should consider whether old equipment can be reconditioned successfully or whether new equipment should be purchased. Management should make this decision based on factors such as safety, cost and suitability for effective use in activities in which the item is required. In some cases, repairing old equipment may be costly, therefore, buying new equipment may be more beneficial. Selection should consider those persons with disabilities. Members of various special population user groups may need special types of equipment to participate in some of the activities that are part of the physical education and sport program. Equipment may be needed for such aspects of the program such as perceptual motor activities or correction of postural deviations. For the most part, however, regular equipment can be adopted and adapted for these disabilities,

because the trend is to have students with disabilities integrated or “included” (inclusion into as many regular classes as possible).

2.14 The purchase and care of equipment

Importance- the purchase and care of equipment was not an important responsibility of those in charge of the first physical education program as very little equipment was used with mass callisthenic programs. As programs become more extensive and diversified and many companies started promoting the sale of kind and grades of physical education equipment.

The equipment responsibilities of the physical education director become more important equipment was not a major problem for interschool and intercollege athletics during their developmental years either. Since the athletics furnished most of the equipment that was used relatively little equipment was needed since the athletic program was limited to a few sports. The spread was small, and the players were not equipped as elaborately and completely as they are now.

Furthermore, the cost of physical education and athletic equipment was considerably less than it is today. Today the purchase and care of equipment constitutes one of the director’s most important responsibilities. It is the responsibilities of physical education and athletic department to provide quality equipment for every aspect of their programs. Desired educational outcomes will not be attained when insufficient or inadequate equipment are provided.

Safety of the participants is a prime consideration for class and interschool athletic activities. Appropriate safety standards must be used as a basic for determining the kind and quality of equipment that will be purchased.

In addition to protecting the student good equipment contributes to a better learning climate and increased pride in performing provision of equipment by school.

Williams Jesse (1974) suggested the following guidelines for purchasing physical education equipment.

- Follow established ordering procedures
- Order early
- Order standardized equipment by considering replacement and less expensive.
- Buy the best protective equipment or purchased fewer items.
- Budget for replacement each year
- Buy only from recognized good sources.
- Provide accurate specifications.
- Purchase on the base of your inventory.
- Keep accurate records.
- Make recommendation each year to encourage change for better operational modes.

2.15 Selection of equipment

Care must be taken in selecting equipment. Secondary schools should construct those equipment, which are helpful in physical development. Before purchasing the equipment the coach or the teacher preview the equipment to make sure that they are appropriate for the unit and age level of the students.

According to Bucher Charles, Augustus (1993) teachers and coaches who will be using the equipment should be involved in the selection of those items. This involvement may range

from one expression of preference opportunity to total responsibility with the budgetary limitations.

Participating students should also be extended an opportunity to express their performance when the purchase of equipment to be used by them is contemplated.

Pestolesi Robert A. (1978) suggested about the selection of equipment that the actual selection and purchase of equipment and facilities should usually be left to the school purchasing agents or other delegated those responsibilities. However, the school physical education teachers should be given an opportunity to select or recommended materials needed in the physical education program.

In addition to physical education personnel, other individuals capable for making a worthwhile contribution in the selection of equipment might will be part of this group. For example, staff members, parents, pupils might be included.

Howe, M. (1981) suggested the following questions or guidelines, when considering selection.

- Is it safe (the safest available)
- How about the quality (will it latest)?
- Is it guaranteed? (for how long and under what circumstance)?
- Will replacement likely be available at later date?
- Does it looks well?
- Do the students like it?
- If ordered, when will it be delivered and available for use?
- Is it competitively priced?
- Is it easily maintained?

According to Jensen Clayne R. (1985) considered the following guidelines for selecting equipment such as performance, maintenance, acceptance by the athletes, appearance, durability, cost, standardization and compliance with regulation.

- To conclude about selection, equipment and facilities should be selected to promote the welfare and safety of pupils and on the basis of pupils needs and interest.
- To a great extent, the life of equipment and uniform is directly related to the preventive, clearing and storage they receive. Once the items are purchased the investment can be best protected by proper storage.

Jensen Clayne R. (1985) recommended the following guidelines for proper storage.

- Maintain good security
- Routinely deal with all related equipment after each season
- Plan storage according to a central concept.
- Maintain a proper storage environment
- Maintain appropriate access to the storage area.
- Security is so important that it will discuss separately in subsequent section.
- The central storage concept is as simple it is wise teachers or coaches should not create their own storage areas for out of seasonal equipment. In addition to that, the storage room should be centrally located for easy access.

2.16 Maintenance schedules

The maintenance of proper environment is essential to ensure the long period use of the equipment. Both humidity and temperature must be controlled (Ibid).

There are large numbers of different types of maintenance schedules and they will present difficulties. One concept is to do much of the work as possible. When students are not in class, the problem with this approach is that it requires people to work at odd hours (Ibid). In order for equipment to have a long and productive life equipment should be maintained properly and kept in a safe and usable condition. No matter how much care was given in the selection and purchase of equipment, it will not be beneficial unless some kind of care is given through the establishment of regular maintenance procedure.

According to William Jesse (1964) the following basic principles should serve a guide for equipment maintenance procedure.

- There should be a definitive policy regarding the care and maintenance of equipment.
- Players or students should be instructed in the care of equipment
- Designated person or coach should be directly responsible for the care and maintenance of equipment.
- An accurate record should be kept all equipment including condition, size, age and utility.
- Equipment should be cleaned properly after use.
- Equipment should be maintained, repaired and stored in accordance with manufacturers' recommendations.
- Adequate method of out of season storage should be utilized for equipment and facilities.

2.17 Equipment needs based on inventory

Before making decision about buying equipment the administrator must study the inventory records.

The inventory is vital for the following reasons

- To identify and locate items on hand.
- To estimate the value of these items.
- To provide information on the service ability of the equipment.

Two kinds of inventory commonly used are:-

- The perpetual inventory
- The period inventory

As the words suggest the former inventory is constant and reflects changes every time and items are added or defeated, while, the later method resulted in a status report at specific intervals usually, monthly, quarterly or annually.

A perpetual inventory is recommended much depends however, on the size and complexity of the operating unit.

2.18 Distribution of equipment

The plan of distribution of equipment will depend large up on the size of school system. All school systems regardless of the size are like to have a central distributing agency. In the same of smaller school systems, where a central store house is not feasible distribution of equipment may be channeled through the office of the superintendent of schools.

In school system where equipment and facilities are limited. It might be advisable for equipment to flow from one school to another. In other word activities might perhaps be schedule in such manner that all of the schools would receive equal use from the limited

materials when this procedure is followed, there will be equal opportunity for all the pupils in all of the schools to be beneficial from the equipment which are available (Ibid).

2.19 Appraisal and evaluation of materials

In order to receive the greatest amount of utilization from physical education materials, these materials should perhaps be continuously appraised and evaluated by supervisors and teachers. It is ordinary advisable for staff member to devise tentative standards of the various materials to be used particularly with regard to the rates of consumption. It is a highly important factor that physical education teachers appraise and evaluate those materials immediately available with respect to their specific use in the program frequently.

Equipment, which might appear to be absolute with respect to their original purpose, can be utilized to good advantage. In reality many schools are likely to possess certain equipment which is put to use would help them to attain a better balanced and well-rounded program.

Finally the researcher strongly believes that these principles and guide lines about the selection usage and maintenance of sport equipment are very vital in our country's school where the free market is becoming like mushrooms. Without this information money can be spent for nothing.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Research design

The study attempts to describe the effect of scarcity of facilities and equipment in teaching physical education in secondary schools of Addis Ketema sub -city. Thus descriptive survey was chosen as it enables the researcher to describe the current status of the facilities and equipment in teaching physical education.

3.2 Research method

In order to achieve the intended objective, quantitative and qualitative methods were chosen.

3.3 Source of data

Having a real source of data in the process of the study is unquestionable to address the basic questions. To have valuable data, both primary and secondary source of data were used in this study.

3.3.1 Primary source

Primary source were principals, vice principals, physical education teachers, physical education department heads and students. Primary source help the researcher to get firsthand information about the issue under the study.

3.3.2 Secondary source

Secondary data were obtained from documents. In this regard, an assessment of documents books and journals related to the area of the study consulted as the selected secondary schools of Addis Ketema sub city.

3.4 Sample size and sampling techniques

The sampling from my study was 100 students, 21 physical education teachers, 4 principals from 4 governmental secondary schools in Addis Ketema sub city. These sample schools teachers and principals were selected by using purposive sampling technique.

3.5 Data collection instrument

3.5.1 Questionnaire

Questionnaires have advantages over some other type of surveys in that they are cheap, do not require as much effort from the questionnaire as verbal or telephone surveys and often standardized answers that make it simple to compile data (Gillham, B. 2008).

The questionnaires were employed as principal data collection instruments because of factual information, better and secured. Questionnaires enable to obtain information from the respondents within short period of time. The questionnaires were in English and Amharic versions and distributed to respondents. The also contain open and closed ended items.

3.5.2 Interview

Interview was used as a second data collecting instrument to get the views and opinions of principals and department heads for cross-checking the data collected through other instruments. Semi structured interview were prepared to interviewees.

3.5.3 Observation

Observation is regarded as supplementary technique to collect data. Checklists were used in 4 secondary schools for strengthening the assessment of scarcity of the facilities and equipment in teaching physical education.

3.6 Technique of data analysis

Both quantitative and qualitative data analysis methods were used in the study. Quantitative data which was collected through questionnaire from physical education teachers vice principals and grade 9 and 10 students. These data are tabulated and described quantitatively, by using percentage and frequency.

Those data which were collected from participants through interview and open-ended questions were narrated in words in order to supplement the information gathered through other instruments.

Reliability and validity

According to Smith (2004) key indicators of the quality of a measuring instrument are the reliability and validity of the measures. The process of developing and validating an instrument is in large part focusing on reducing error in the measurement process. Reliability estimates evaluate the stability of measures, internal consistency of measurement instruments, and reliability of instrument scores. Validity is the extent to which the interpretations of the results of a test are warranted, which depends on the particular use the test is intended to serve. The responsiveness of the measure to change is of interest in many of the applications.

Reliability and validity are tools of an essentially positivist epistemology. While they may have undoubtedly proved useful in providing checks and balances for quantitative methods.

To ensure validity of instruments, the pilot questionnaires were developed under of my advisor and the pilot questions were given for 8 physical education teachers and 20 students. According to the distribution of the pilot questions the physical education teachers and students recommended me as three questions were unclear. Regarding to this to test the reliability the researcher use cronbach alpha. The cronbach alpha result shows 0.61. This number shows the pilot question were reliable. See appendix E.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

This part of the study deals with the analysis and interpretation of the data obtained through questionnaires observation and interview. The data obtained through the questionnaire were tabulated and analyzed in the form of tables. With these respect 8 tables for teachers and 8 tables for students constructed for different items of questionnaire. Whereas, the data obtained through observation and interview were presented as supplement in the text were needed. Generally this chapter focuses on three major parts these are characteristics of respondents on facilities, equipment and supplies for teaching physical education in governmental secondary schools.

Table 1: Characteristics of respondents' sex

No	Criteria	Number of respondents					
		Principals		Teachers		Students	
		No	%	No	%	No	%
1	Sex						
	Male	4	100	16	76.1	60	60
	Female	-	-	5	23.9	40	40
	Total	4	100	21	100		100

As shown in the table 1, the characteristics of respondents by sex 4(100%). All of the principals were male. This shows that the numbers of female on a position are few in number at secondary schools. Concerning the teachers 16 (76.1%) males and 5(23.9%) were females. This shows that in the secondary schools the distribution of female physical education teachers are less in number than males. Regarding the students the samples taken for the respondents the numbers of male students were greater than female students.

Table 2: Availability of indoor and outdoor facilities

No	Outdoor and indoor facilities	Number of respondents									
		5		4		3		2		1	
		No	%	No	%	No	%	No	%	No	%
1	Basketball court	4	19	1	4.8	3	14.2	5	23.8	8	38.2
2	Volleyball court	9	42.8	4	19	5	23.8	-	-	3	14.4
3	Play ground	-	-	1	8	3	14.2	3	14.2	14	66.6
4	Athletics field	-	-	-	-	1	4.8	4	19	16	76.1
5	Facility for students with disabilities	-	-	-	-	-	-	1	4.8	20	95.2
6	Shower rooms	1	4.8	1	4.8	4	19	5	23.8	10	47.6
7	Locker of students during physical education class	1	5	-	-	4	19	5	24	11	52.3
8	Exercise room /Gym	-	-	-	-	2	9.5	2	9.5	17	81
9	Separate class for physical education teachers	3	14.3	-	-	6	28.6	-	-	12	57.1
10	Separate store room for equipment and supplies of physical education	3	14.3	-	-	3	14.3	4	19	11	52.4
	Total	21		6		31		29		122	

5=very high 4= high 3= moderate 2= low 1= not at all

As shown the above table the availability of indoor and outdoor facilities in the sample secondary schools. Regarding this the agreement level of the respondents on item 1: 4(19%) of the respondents reported as very high, 1(4.8%) high, 3(14.2%) moderate and 8 (38.2%) low. From this analysis as reported by the respondents there is no standardized basketball court in samples schools but there is a small space leaved in some secondary schools for all types of team ball games and different physical activities. But specifically these playgrounds were not marked for basketball court and have not stand of basket.

From the above table regarding the volleyball court 9(42.8%) of the respondents reported as very high, by the same number and 4(19%) reported as moderate and 3(14.2%) reported as not at all. From this analysis we can conclude that there is a volley ball court in majority schools for teaching and for team playing by teachers and students.

From the report of the respondents about the availability of play ground in the sample secondary schools 1(5%) responded high 3(14.2%) moderate, 3(14.3%) low and 14(66.6%) reported as not at all. From this one can conclude that the availability of play ground in the sample schools is low. Additionally from the observation of the researcher similar finding came up.

Concerning this issue the respondents from the sample schools were approved that by responding 1(4.8%) moderate, 4(19%) low and 16(76.1%) not at all. From this analysis we can conclude that the syllabus and the text of physical education of the secondary schools contain the topic about the events of athletics like running, jumping and throwing. In regarding this only by theory without having practical session schools may not the source of best athletes.

Regarding this item the respondents' report show that 1(4.8%) low and 20(95.2%) not all. From the above analysis we can conclude that today's school program orders the inclusive educational program throughout the secondary schools .So that physically disabled students should be one part of this program. Without having facilities for these students the objectives of physical education can't be achieved.

From the above item the respondents of the sample schools approves that the condition of shower rooms in sample schools as 1(4.8%) very- high and high by the same result and 5(38%) low and 10(47.6%) not at all. From this analysis we can conclude that in physical education every activity requires physical challenge and moving from place to place during this activities the body of the students and teachers secrets sweats the end of the exercises students and teachers should take showers to be cleaning their body and reducing the discomfort of students. When students coming to class for the next period the atmosphere of the classroom will be changed and disturbed the next class after psychical education .Additionally the sanitation of students may be disturbed because of lacking showers.

Concerning this item the respondent gave their approvals by responding as 1(5%) very high, 4(19%) moderate, 5(24%) low and 11(52.3%) not at all. From this analysis we can understand that by the majority numbers all of the sample secondary schools have not lockers for their students during physical activity period because of this students do not pay full attention for the practice because of taking their attention by thinking the chance of their materials in classrooms.

From the information given about the above item 2(9.5%) responded as moderate and low by the same result and 17(81%) reported as not at all. From this analysis we can conclude that,all of the selected secondary schools have not a Gymnasium or other alternate halls. Having of Gymnasium in schools help for using as alternative during sunny and rainy atmosphere. Additionally it helps as an alternative place when the playground in the schools crowded by many classes' students.

- It may use for teachers to show different Gymnastic activities videos films about different sport tic activities.

Regarding this item the respondents from the sample secondary schools express their ideas by responding 3(14.3%) very high, 6(28.6%) moderate and 12(57.1%) not at all. Form this we can understand that most of the sample secondary schools physical education teachers have not separate room. As known the subject physical education requires physical challenge during practical session. Additionally throughout the day physical education teachers may have sequential class. So that after classes they should take rest and make ready themselves for the next period. Also, the subject requires preparations at different direction. To do this separate class should be required.

In relation to the availability of store room for equipment and supplies of physical education in the selected sample secondary schools they gave their witnesses as follows 3(14.3%) very high, 4(19%) low and 11(52.4%) reported as not all. From the above analysis we can conclude that highest results of the item has explained by figures of less and not all. This implies that there is not a separated store rooms for equipment and supplies in schools. As known scientifically sport equipment and supplies should be expected to give service for long periods. So that this could be true when equipment and supplies kept in a safe place. Additionally everybody can collect them easily from their place .So unless having a store rooms sport equipment and supplies do not exist for long period of time.

Generally from the observation point view of the researcher concerning the conditions of indoor and outdoor facilities in the selected sample schools:-

- Most of the schools have not sufficient playground for their students because of the expansion the buildings in the schools' compound.
- Most of the schools have small space for all types of activities
- The small spaces in the school's compound has spread with cobblestone
- There are not facilities for disabled students', locker for students, athletic fields, showers rooms, and store room for equipment and supplies.

From the interview point view of the principals and departments heads:-

- Schools have not sufficient facilities, equipment and supplies for students in physical education. It is in relation with the expansion of building and increasing numbers students from year to year. This condition affects the teaching learning process of physical education especially practical session.
- Lacking of facilities make the subject only depend on theory
- Students have no interest in practical session because of unfavorable conditions.

Table 3: availability of equipment for teaching gymnastic and athletics in Physical education

No	Equipment	Number of responders									
		5		4		3		2		1	
		No	%	No	%	No	%	No	%	No	%
1	Parallel bars	-				1	4.7	5	24	15	71.3
2	Horizontal bars	-				-		3	14.3	18	85.7
3	' Uneven bar	-				2	9.5	6	28.5	13	62
4	Vaulting horse	-						4	19	17	81
5	Pommel horse	-						6	28.8	16	76.2
6	Trampoline	-						2	9.5	19	90.5
7	Balance beam	-						4	19	17	81
8	Javelins	1	4.7			5	23.8	7	33.5	8	38
9	Discus	1	4.8	1	4.8	2	9.5	9	42.8	8	38
10	Shots		4.8	1	4.8	5	23.8	6	28.6	8	38
	Total	3		2		15		53		139	

5= very high

4= high

3= moderate

2= low

1= not at all

According to table 3, the availability of Gymnastic and athletic equipment in schools. The respondents expressed their feelings about the Gymnastic equipment as follows:-

- Parallel bar- 1(4.7%) moderate, 5(24%) low and 15 (71.3%) not all
- Horizontal bar- 3(14.3%) low and 18(85.7%) not at all
- Uneven bar: 2(9.5%) moderate, 6(28.5%) low and 13(62%) not at all and pommel horse by the same result 6(28.5%) low and 13(62%) not at all

- Trampoline 2(9.5%) low and 19 (90.5%) not at all
- Balance beam 4(19%) low and 17(81%) not at all

From the above analysis we can conclude that the Gymnastic exercise that written theoretically on the text can't be applied practically

- Students at their class level can't introduce themselves with different types of gymnastic equipment.
- Students can't have their physical fitness at their age level.

From the observation of the researcher:-

- There were not any sample of Gymnastic equipment in samples schools
- Teachers have not enough space for preparing these materials from the environment.
- Some teachers and most of the students do not identify these materials unless opening the text
- In some schools teachers show the strength' exercise on hand ball post this may invite the students for different physical injuries
- From the activity of Gymnastics only rolling is practiced on mat

From the response of interview from department heads and principals:-

- The budget allocated for physical education not considering those equipment because of their cost
- The community does not consider the issues to maintain and facilitating sport facilities.
- Most students do not have interest for doing gymnastics activities but they appreciate the Olympic games on television.

- The schools have not the specimen of the gymnastic equipment in the store because of the new establishment of the schools.
- The respondents point of view about the condition of athletic equipment in the selected sample schools
- Javelins: 1(4.8%) very high, 5(23.6%) moderate and 7(33.5%) low and 8(38%) not at all.
- Discuss: by the same result 1(4.8%) very high and high, 1(4.8%) moderate, 2(9.5%) low and 9(42.8%), 8(38%) not at all.
- Shots: by the same result 1(4.8%) very high and high, 5(23.8%) moderate, 6(28.6%) low and 8(38%) not at all.

From the above analysis of the respondents most of the result inclined at low and not at all. So that from these figures we can conclude that the selected samples schools do not have sufficient, athletic equipment for teaching the practical session and using as a model. This condition may lead the students and physical education teachers to:-

- The sources of best athletes in future are schools. So that, if students in schools not properly cultivated physically they may not be competent tomorrow in the field of athletics
- Only by the theory the students may not achieve the objective of physical education i.e. physical development.
- Even if the activities of athletics naturally gifted for humans, specially students should master how to throw, jump and run scientifically in schools. Students should introducing them with the athletic equipment and the ways of doing the activities in the real world.

From the observation view of the researcher:-

- Most sample schools have not the storage of athletic equipment in their store
- Even if, there is a small number of samples teachers do not used them because of the scarcity of the space. Most of the students crowding together on the small playground.

Table 4: availability of supplies for teaching physical education

No	Equipment	Number of respondents									
		5		4		3		2		1	
		No	%	No	%	No	%	No	%	No	%
1.	Soccer balls			2	9.5	4	19	5	23.8	10	47.6
2.	Volley balls			7	33.3	6	28.6	6	28.6	2	9.5
3.	Basket balls			2	9.5	3	14.2	4	19	12	57.1
4.	Hand balls			1	4.8	5	23.8	2	9.5	13	61.9
5.	Mat /carpeting	1	4.8	2	9.5	4	19	6	28.6	8	38
6.	Hurdles				-	-	-	3	14.3	18	85.7
7.	Relay baton	2	9.5	3	14.2	1	4.8	5	23.8	10	47.7
8.	First aid kit			2	9.5	1	4.8	8	38	10	47.7
9.	Water supply for students	1	4.8	5	23.8	3	14.2	7	33.3	5	23.8
10.	Shower supply for teachers			3	14.2	7	33.4	6	28.6	5	23.8
	Total	4		27		42		52		93	

5= very high 4= high 3= moderate 2= low 1= not at all

As it indicated in table 4, the availability of supplies for teaching physical education. The response of the respondents in relation to balls for team game in the selected sample secondary school as shown as follows:-

- Soccer balls: 2(9.5%) high, 4(19%) moderate, 5(23.8%) low and 10(47.6%) not at all. From the above analysis we can conclude that the selected sample schools do not have enough number of soccer balls for teaching the team game of football.
- Volleyballs: 7(33.3%) high and 6(28.2%) low and 2(9.5%) not at all. From the respondents report about the condition of volley most schools have better number of supply of volleyballs.
- Basketballs: 2(9.5%) high, 3(14.2%) moderate, 4(19%) low and 12(57.1%) not at all. From this analysis or the report of the respondents the sample selected schools have not enough number of samples of basketballs.
- Hand balls: 1(4.8%) high, 5(23.8) moderate, 2(9.5%) low and 13(61.9%) not at all. Form this report of the respondents' schools have not enough accumulation of hand balls as the others types of balls.
- Mat/carpeting: 1(4.8%), very high, 2(9.5%) high, 4(19%) moderate 6(28.6%) low and 8(38%) not at all. From above analysis we can conclude that there are not enough number of carpeting in sample schools. As known gymnastic is the basic physical activity and designed on syllabus for its benefit of students .According to the presents content of the schools their playground are not suitable for free gymnastics without carpeting or mat. But now most of the school physical educational teachers used not standard and ordinary mats for showing other activity of Gymnastics. This condition leading the students from physical injury and losing confidence for participating or having interest gymnastics.
- Hurdles 3(14.3%) low and 18(85.7%) not at all. From this analysis we can conclude that most of the sample schools do not have the model of hurdles or

accumulations. This implies that students do not know about the equipment so that, for the future the country can't produce athletes who are competing in steeple chase on national, continental and international levels.

- Relay baton 2(9.5%) very high 3(14.2%) high, 1(4.8%) moderate, 5(23.8%) low and 10(47.7%) not at all. From this analysis most sample schools do not have the enough number of relay baton for teaching relay. So that, it has its own impact on producing the future best athletes. Students should introduce themselves with the apparatus at school level.
- First Aid kit:- 2(9.5%) high, 6(38%) low and 10(47.7%) not at all from the respondents report we can conclude that the benefit of first aid kit and the school do not disconnect. Because schools are the basic podium of different physical activities and physical challenge. So that, unless every schools having first aid kits they do not minimize the risk of hazard.
- Minor injuries of the students may lead in to the sever on juries when we can't treats students at school.
- Students can't be learn how to treat others during the time of injury
- First aid kits do not require much expense to organize in school level.
- Water supply for students. - 1(4.8%) very high, 5(23.8%) high, 3(14.2%) moderate, 7(33.3%) low and 5(23.8%) not at all. From the above analysis of the respondents most of selected sample schools have water supply in the compound - but this is not sufficient for the students involved in physical activities during the time of physical education - if students lacking water after any physical activity they feel discomfort and they can't attend the next class because of the need of

water and they waste the time of the next period by searching water or waiting for drinking water or washing their body.

Table 5: the location area, and design of the facilities

No	Equipment	Number of respondents									
		5		4		3		2		1	
		No	%	No	%	No	%	No	%	No	%
1.	The outdoor facilities are sufficient for all class students	2	9.5	2	9.5	6	28.6	7	33.3	4	19
2	The school students are properly utilize the outdoor facilities	1	4.8	1	4.8	4	19	10	47.6	5	23.8
3	The outdoor facilities are located in the school compound	-	-	1	4.8	4	19	6	28.6	10	47.6
4	Facilities are designed by considering disabled students	2	9.5	-	-	6	28.6	8	38	5	23.8
5	The community participate in facilitating physical education	1	4.8	2	9.5	4	19	8	38	6	28.6
6	The school community comments about physical education facilities	1	4.8	5	23.8	2	9.5	8	38	5	23.8
	Total	7		11		26		47		35	

5= strongly agree 4= agree 3= undecided 2= disagree 1 = strongly disagree

As depicted in table 5, 7(33.3%), 10(47.6%), 5(23.8%) and 4(19%) of the respondents strongly disagree on items 1,2,3,4 respectively similarly 8(38%), 7(33.3%) and 8(38%) by the same result the respondents reported as they disagree on items 1-6 while the rest of

respondents by similar results 1(4.8%) strongly agreed on items 1-6. This implies that the disagreement level of the respondents on items is high. Generally, the above discussions show.

- The outdoor facilities in the sample schools are not sufficient for all class students
- The school students are not properly utilized the outdoor facilities because of shortage.
- The standard or normal type of outdoor facilities are not exist in the sample schools' compound
- Schools are mostly owned by the community, in addition to this, the community has the right to use those facilities in school but now days the community do not take the share of lion to maintain the sport facilitates in schools.

Table 6: equipment for teaching physical education

No	Items	Number of respondents			
		Yes		No	
		No	%	No	%
1	The school has sufficient equipment for teaching physical education	2	9.5	19	90.5
2	The school has enough storage of physical education equipment	4	19	17	80.9
3	There is stronger place for physical education equipment	7	33.3	14	66.7
4	The physical the school education equipment in sufficient for all students	2	9.5	19	90.5
5	The school allocate budget for buying physical education equipment annually	11	52.4	10	47.6
	Total	26		79	

As can be observed in the above table 6, the condition of equipment for teaching physical education. Concerning these issues 19(90.5%), 17(87.9%) and 14(66.7%) of the respondents reported that they were faced with the possible problems that hampers the quality of physical education on items 1-4. while, on the other hand 11(52.4%) of the respondents agreed on item 5 as they were not faced possible problems.

Generally, the following findings were drawn from the above discussion.

- The selected sample secondary schools had not sufficient equipment for teaching physical education
- The sample schools have not storage place for storing the equipment on hand
- Due to the lacking of equipment physical education teachers can't apply the subject practically.
- No one denies that the school allocate the budget for not buying physical education equipment annually but the allocated budget is deficit for fulfilling the required number of sport equipment

Additionally for strengthening the above concept a researcher making an interview with the physical education department heads and the school's principals about physical education equipment. At this time especially secondary schools have the shortage of physical education equipment this is because insufficiency of the budget, lacking of maintenance, less participation of the community and inflation of the market. Physical education teachers coercion their students to buy the equipment of physical education.

Table 7: supplies for teaching physical education

No	Items	Number of respondents			
		Yes		No	
		No	%	No	%
1	Water supply for students after physical education activity	12	57.1	9	42.9
2	Separated class for physical education teachers	6	28.6	15	71.4
3	Separated room for stoning physical education supplies	6	28.6	15	71.4
4	Shower room for physical education teachers	6	28.6	15	71.4
5	Enough stronger of supplies for teaching physical education	9	42.9	12	58.1
6	Physical education activity per formed to supplies	3	14.3	18	85.7
7	There are all models of supplies of physical education in the school	2	9.5	19	90.5
	Total	44		103	

As shown under table 7,it focuses on the availability of supplies of physical education in the selected sample schools. In line to this 19(90.5%),18(85.7%), 15(71.4%), 15(71.4%) and 12(57.1%) of the respondents have negative perception about items 2,3,4,5,6 and 7 on the other hand the respondents had a positive perception about item 1 by reporting as 12(57.1%).

Based on the above discussion the following findings are drawn:

- Physical education teachers in the selected sample schools have not standardized and safe class for doing different activities and taking rest.
- There are not rooms for storing different supplies of physical education
- Shower rooms do not exist for physical education teachers after practical session
- Students in the selected sample schools do not perform physical activities effectively in reaction to supplies.

Table 8: Rank orders of lacking of facilities equipment and supplies for teaching physical education

No	Items	Number of respondents									
		1 st		2 nd		3 rd		4 th		5 th	
		No	%	No	%	no	%	No	%	no	%
1	Scarcity of indoor and outdoor facilities	10	47.6	5	23.8	3	14.3	1	4.8	2	9.5
2	Scarcity of equipment for teaching physical education	9	42.8	3	14.3	6	28.6	2	9.5	1	4.8
3	Scarcity of supplies for teaching physical education	8	38	7	33.3	3	14.3	1	4.8	2	9.5
	Total	37		15		12		4		5	

5= least problem

1st = most serious problem

According to table 8, the perceived problems which show the lacking orders of facilities, equipment and supplies for teaching physical education in the sample secondary schools.

Accordingly based on the problems the items are ranked 1st, 2nd and 3rd.

As shown from the items lacking of indoor and outdoor facilities are the major problems of the sample secondary schools.

- Scarcity of equipment for teaching physical education was the second problem.
- Scarcity of supplies for teaching physical education were the least problems of the sample secondary schools.

Regardless of the socio economic or education levels of the students in the community the sample schools were unable of fulfill their physical education facilities, equipment and supplies for teaching physical education consequently this may hamper the quality of the subject physical education.

Part II

Presentation and analysis of data obtained through questionnaire from students in four governmental schools. The data obtained through questionnaire from students were tabulated and analyzed in the form of tables. Accordingly, the data collected and analyzed were presented as follows.

Table 9: Students Perception of their School's Facility, Equipment and Supplies for Teaching Physical Education

No	Schools	Number of students' response							
		Very high		High		Moderate		Low	
		No	%	No	%	No	%	No-	%
1	Dilachin Secondary School			5	20%	11	44%	9	36%
2	Yekatit 23 Secondary School			1	4%	16	64%	8	32%
3	Efoyta Secondary School					14	56%	11	44%
4	Abyssinia Secondary School	1	4%			9	36%	15	60%
	Total	1		6		50		43	100%

As can be observed on table 9, the perception of students about their school's facility, equipment and supplies in teaching physical education. As shown above 50% of the total respondents perceived moderate and 43% low. Whereas, the rest 6% and 1% of the respondents responded as it is very high and high.

From the above analysis the following findings are drawn. The majority students from the selected sample secondary schools have moderate perception about the availability of facilities, supplies and equipment for teaching physical education.

According to the observation of the researcher what is very surprising is that some sample secondary schools constructed in recent years. So that they completely do not consider the organization of facilities, equipment and supplies for physical education, but the schools which are constructed in the previous years almost they have only small outdoor facilities but not the indoor ones.

Table 10: Students' Response on their School's Comfortableness for Physical Activity

No	Schools	Students' Response			
		No	%	No	%
1	Dilachin Secondary School	10	40%	15	60%
2	Yekatit23 Secondary School	13	52%	12	48%
3	Efoyta Secondary School	10	40%	15	60%
4	Abyssinia Secondary School	10	40%	15	60%
	Total	43		57	100

In table 10, the students' response on their school's comfortableness for physical education activities. Accordingly from the analysis 57% of the students responded as the comfortability of their school for physical education is low and 43% of the respondents were reported as their schools are comfortable for physical education.

From the given analysis the researcher tries to check the condition by having interview between physical education teachers department heads. Regarding this they gave their response depending on the present condition of the schools.

- Now days the number of students involved in schools are so many. But the schools have not enough play grounds to hold these students during physical practical session of physical education.
- Even if, the schools holding the smallest play grounds they are spreaded with stones. Some play grounds are made of the concrete of cements. So that students have no desire to perform physical activity on them.

Table11: Students' Response on Teachers Utilization of Equipment and Facilities during Physical Activity

No	Schools	Students Response			
		High		Low	
		No	%	No	%
1	Dilachin Secondary School	10	40%	15	60%
2	Yekatit23 Secondary School	13	52%	12	48%
3	Efoyta Secondary School	5	20%	20	80%
4	Abyssinia Secondary School	5	20%	20	80%
	Total	33		67	100%

As it indicated in table 11 the response of students on their physical education teachers' utilization of equipment during physical activity programs. In relation to this the students from the selected sample secondary schools reported their response as follows.

- 60% of the students responded as their physical education teachers' utilization of equipment are low, also 33% of the students reported as their physical education teachers utilize equipment during physical activity highly.
- Regarding this the researcher gave his confirmation form his observation during observation the researcher tries to visit some schools during practical session of physical education. During the time physical education teachers were demonstrating the gymnastic activity (Rolling) and skipping rope. On the activity of skipping rope the class students counted 42-45 but the skipping Rope on their hands were not more than 10. This condition implies that a teacher leads his students without having sufficient skipping Ropes. Even getting Rope was not

difficult for the school and .from the students. So, by this condition some students return to their class without applying the physical activity.

Table 12: Students' Response on the Availability of Play Ground, Water Supply for Washing and Drinking, Lockers for Students

No	Schools	Students Response			
		Yes		No	
		No	%	No	%
1	Availability of play ground	17	30.3	15	26
2	Water supply for students	19	33.9	10	22
3	Lockers for placing students materials	20	35.7	19	34
	Total	56		44	

Under table 12, the response of the students concerning the availability of playground, water supply and lockers for students for placing their materials during physical activity. Regarding these 55% of the students reported by their response as items 1, 2 and 3 are not available and 45% of the respondents reported as items 1, 2 and 3 are available in the schools.

From the above information we can conclude that the selected sample secondary schools are deficient of playground.

There is water supply in school compounds but after physical activity students crowding on one or two water taps. So, the school management should think over it how to improve the condition.

The school principals and physical education teachers do not have information about the lockers of students during physical activity but the modern theory of physical education requires facilitating the basic equipment.

Table 13: Students' Perception on the Supply of Balls during different Team Games

No	Schools	Response of students							
		Very high		High		Moderate		Low	
		No	%	No	%	No	%	No	%
1	Dilachin Secondary School	2	8%	4	16%	10	40%	9	36%
2	Yekatit 23 Secondary School			2	8%	13	52%	10	40%
3	Efoyta Secondary School	1	4%	1	4%	10	40%,	13	52%
4	Abyssinia Secondary School			4	16%	4	16%	17	68%
	Total	3		11		37		49	100

According to table 13, the students' perception on the supply of Balls during different team games. In relation to this the students from the selected sample secondary schools express their feeling about the availability of balls for team games as follows.

49% of the students reported that the numbers of team game Balls are low in their schools. Similarly 37% of the respondents reported as the number of Balls are moderate and 11% and 3% of the respondents reported as very high and high respectively. From the above analysis the following finding drawn.

- Ball games are interested by majority of the students specially in secondary schools. These students want to show their skills in schools. Unless having sufficient place and supplies the students can't enjoy it.
- There are different levels of skills between students on team ball game. If the physical education practice is ball games, all the students participate without falling back.

Table 14: Response of Students on the Utilization of Equipment and Supplies during Athletic Activities

No	Schools	Response of students							
		Very high		High		Moderate		Low	
		No	%	No	%	No	%	No	%
1	Dilachin Secondary School	-	-	-	-	4	16%	2,1	84%
2	Yckatit 23 Secondary School			1	4%	9	36%	15	60%
3	Efoyta Secondary School	-	-	-	-	4	16%	21	84%
4	Abyssinia Secondary School					4	16%	21	84%
	Total	-		1		21		78	100

As can be observed in table 14, the response of students whether they are utilized equipment and supplies during athletic activities. Concerning this the students from the selected secondary schools responded as follows 78% of them reported as their utilization of equipment and supplies during Athletic activity is low. In addition 21% of the respondents reported as the utilization is moderate and only 1% of them responded as high. From this analysis we can conclude that:

- In most selected sample secondary schools students most of the time do not utilized athletic equipment such as Javelins, Shots, Relay Batons, Long Jumps, High Jumps because of lacking of equipment.
- Students in the selected sample secondary schools do not utilized athletic equipment because of lacking of outdoor facilities such as athletic field and play grounds.
- Generally concerning the above issue the researcher gave his witness from his observation.
- The selected sample schools have not the storage of athletic equipment and store rooms.
- They have not athletic fields and sufficient play grounds.

Table 15: Students' Response on the Availability of Equipment for Teaching Gymnastic during Physical Activity

No	Schools	Response of students							
		Very high		High		Moderate		Low	
		No	%	No	%	No	%	No	%
1	Dilachin Secondary School	2	8%	2	8%	5	20%	16	64%,
2	Yekatit 23 Secondary School	1	4%	1	4%	11	44%	12	48%
3	Efoyta Secondary School	-	-	2	8%	7	28%	16	64%
4	Abyssinia Secondary School			3	12%	5	20%	17	68%
	Total	3		8		28		61	100

As shown under table 15, the students' response on the availability of Gymnastic equipment during physical activity. Regarding the above issue the students from the selected sample schools express their feeling as follows:

- 61% of the respondents reported as the availability of Gymnastic equipment in schools are low. Whereas 28% of them responded as moderate and 8% and 3% of them reported as very high and high. From the above analysis the following findings are drawn.
- Most of the Gymnastic activities especially apparatus Gymnastic do not applicable in sample secondary schools because of lacking equipment.
- In most sample schools only the rolling back/front, diving type of Gymnastics applicable on a piece of mat.
- Majority of the students from the sample schools do not intrepid to perform the activities because of misgiving the condition of the environment.

Concerning the above findings the researchers try to strengthen the ideas from observation.

- The selected sample secondary school ordering their students to perform Gymnastic activities on pieces of mat which can bring injuries on the body of the students.

Table 16: Students' Response on the Appropriateness of Equipment for Teaching Physical Activities in Physical Education

No	Schools	Response of students			
		High		Low	
		No	%	No	%
1	Dilachin Secondary School	11	44%	14	56%
2	Yekatit 23 Secondary School	15	60%	10	40%
3	Efoyta Secondary School	4	16%	21	84%
4	Abyssinia Secondary School	8	32%	17	68%
	Total	38		62	100

As depicted in table 16, the students' response on the appropriateness of equipment for teaching physical education. Accordingly concerning the above issue students from the selected sample schools explain their ideas as follows.

- 62% of the respondents reported as the appropriateness of equipment during physical education are low. Whereas 38% of the respondents expressed their ideas as appropriateness were high.

From the above analysis one can conclude that the equipment used in sample secondary schools for physical education are not appropriate because of:

- Their numbers are not match with the increasing number of students from year to year.
- Timely maintenance does not give for the updated equipment.
- Timely inventory do not takes place in each school.
- Annual purchasing do not applicable by using the right budget.
- Schools do not have proper store rooms for equipment and supplies.
- Quality equipment does not choose during marketing time.

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATIONS

This chapter of thesis presents the summary of the major findings, the conclusions and the recommendations forwarded by the researcher which is expected to the problem revealed.

5.1 Summary

The main objective of this study was to assess the effects of scarcity of facilities and equipment in teaching physical education in secondary schools (9-10) grades in Addis Ketema sub-city administration. To achieve this objective the following questions were raised.

1. How conducive are the schools' environment for effective implementation of physical activities?
2. What are main cause of scarcity of facilities and equipment for teaching physical education in secondary schools?
3. Are there opportunities to improve the conditions of the problem?

In order to answer this research questions a descriptive survey methods with quantitative and qualitative approach were employed. To collect the required information different data collecting instruments such as questionnaires, interview and observation were handled.

Accordingly the following major findings were identified:

- Regarding the condition of secondary schools they have not sufficient facilities, equipment and supplies for students in physical education.
- Most of the schools have not sufficient play grounds for their students because of the expansion the buildings in the schools' compound.

- Due to the scarcity of facilities, equipment and supplies physical education teachers can't apply the subject practically.

5.2 Conclusion

Based on the findings analyzed and interpretations of the results discussed earlier the following conclusions have been drawn.

- The condition of facilities and equipment sample secondary schools are not good enough for students, and these conditions are hindrance to the physical education and sport development.
- Equipment and facilities are not available in secondary schools, because of this it is difficult for students to acquire or develop the necessary skills of physical education.
- Physical education teachers do not implement the subject properly because of lacking the right standard and sufficient facilities, equipment and supplies.
- Students did not learn the skill of coordination which are essential for their proper body development because of lacking facilities and equipment of physical education.
- By lacking of physical education facilities and equipment teachers getting handicapped to conduct a sound physical education program.
- Facilities, equipment and supplies in the sample secondary schools are not sufficient because of less budget allotment, lacking of maintenance, expansion of buildings without considering the physical education facilities.

- Most students in the sample secondary schools do not have much interest for the practical session of the physical education because of the unfavorable conditions of the facilities equipment and supplies of physical education.
- School program orders the inclusive educational program throughout the secondary schools. So that, physically disabled students should be one part of the program without having sufficient and appropriate physical education facilities for these students the objective of physical education can't be achieved in relative of physical education cannot be achieved in relation to correcting the deformed body part and improving their physical performance.
- The community has the right to use schools' sport facilities and taking the lion's share for facilitating and maintain those facilities but at this time the participation of the community do not as expected.
- Physical development, motor and skill development, mental development and social developments are the major objectives of physical education. When schools are lacking facilities and equipment of physical education the above objectives do not achieved in schools.
- Because of lacking physical education facilities, equipment and supplies the individual and community recreational and interscholastic sport activities do not take place as much as expected in schools.
- Sport activities in schools have seen as instrument for the national unity unless schools having the standard facilities the principle of national principle does not attained.

- Students in secondary schools would face different physical injuries because of performing the physical activities on under standard facilities and equipment of physical education.

5.3 Recommendation

Scarcity of facilities and equipment for teaching physical education is one of the basic problems in secondary schools at Addis Ketema sub-city. The government, the community, the school administrators physical education teachers, jointly work together for reducing the problem and utilize the full potential of the teachers of the schools accessibility and the quality of physical education. Based on the above findings of the study the following recommendations are forwarded.

Based on the above findings of the study the following recommendations are forwarded.

- The community, administrators and physical education teachers should work cooperatively to improve the conditions of facilities and equipment of physical education.
- Everybody believes that facilities and equipment of physical education play a decisive role in teaching physical education. So that, the schools administrator plans to allocate enough budget like other subjects.
- Schools are the means of developing different skills because of the subject physical education so that facilities and equipment of physical education should fulfilled in advance.
- At this time the educational Bureau trained the qualified physical education teachers for secondary schools. So that, for using the skills of these teachers'

- schools should make them ready with the appropriate materials and facilities of physical education. This helps to protect teachers from getting handicapped because of working under their potential.
- Futuristic plan of physical education facilities and equipment should be taken in consideration during the time of expanding schools' buildings.
- Physically disabled students have the right to learn inclusively in secondary schools. Concerning the physical education for improving their physical performance schools should make ready themselves with the proper facilities.
- The objectives of physical education in schools achieved when schools organized by the proper equipment and facilities of physical education.
- Most of the students are expected to develop a positive attitude towards the subject physical education when schools have favorable conditions such as PlayStation, facilities, equipment and supplies.
- All heads of schools should be held responsible for lack of maintenance of physical education facilities, equipment and supplies where necessary.
- Adequate and standard facilities, equipment and supplies should be provided for all secondary schools in the sub-cities.

Bibliography

- Adedeji. J.A (2000) Social and cultural conflict in sports and games in developing countries: International review of sports.
- Annario, Anthony. A (1980) Curriculum theory and design in physical education. Prospect heights, IL: Waveland press.
- Arnheim, Prentice (2000). Principles of Athletic training. New York: McGraw-Hill.
- Best J.W. and Kahn, J. V. (2005). Research in Education 9th ed. New Delhi: Prentice Hall of India.
- Brown, R. L (1977) Guideline in facility planning scholastic coach.
- Bucher Charles, Augustus (1975). Foundation of physical education. Saint Louis Mosby.
- Bucher Charles Augustus (1987). Management of physical education training St Louis Times mirror Mosby College.
- Bucher Charles Augustus (1993). Management of physical education and sport St. Louis Times mirror Mosby College.
- Bucher Charles Augustus (2002). Management of physical education and sport. New York: McGraw-Hill.
- Cohen, L. Manion, L.R. Morrison K. (2000). Research methods in Education. London: Routledge Falmer.
- Crompton J.L (2005). Economic Impact analysis of sports facilities and events: Eleven sources of mis-application. Journal of sport management.
- Dauthtrey, Greyson (1979). Effective teaching strategies in secondary school physical education Philadelphia: WB Sauhders.

- Flynn, R.B (1993). Planning facilities for athletics physical education and recreation. Reston VA: AAHPERD.
- Freeman, Willam Hardin (2015). Physical education, exercise and sport science in a changing society. Jones & Bartlett learning.
- Frost, Revben B. (1995). Administration of Physical education and athletics. New Delhi: Universal Bookstall.
- Gillham, B. (2008). Developing a questionnaire (2nd ed.). London, UK: Continuum International Publishing Group Ltd.
- Hardman, K. (1993) Physical education within the school curriculum: in J. Master (ed).
- Hardman, K. (1994). Physical education in schools. In F.I. Bell and G.H. Van Glyn (Eds).
- Howe, M. (1981). Planning school facilities Lafayette university, school of education.
- Jensen, Clayne R. (1985). Administrative management of physical education and athletic programs. Philadelphia: Lea & Febiger.
- Krotee (2002). Management of physical education and sports (12th ed.). New York: McGraw Hill.
- Larry Horine (1985). Administration of physical education and sports programs. Philadelphia: New York.
- Mohr D. and Vernier E. (1969). Physical education for high school students. Published by American Association for health and physical education and recreation.
- O'Leary, A. (2004). The essential guide to doing research. London: SAGE Publications.
- Pate, D. W. Moffit, E & Fugett, D. (1997) current trend in use, design, construction and finishing of sports facilities. Sports marketing quarterly.
- Pestolesi, Robert A. (1978). Creative administration in physical education and athletics.

Scott, Harry Alexander (1958). From program to facilities in physical education.

Smith Ev. (2004). Introduction to Research Measurement.

Uddin, Waheed (2013). Public infrastructure asset management. New York McGraw-Hill.

UNESCO (1978). International charter of physical education.

Vannier Maryhelen (1964). Teaching physical education in secondary schools.
Philadelphia. Saunders.

William Jesse (1974). The administration and physical education. Philadelphia, Saunders.

<http://www.facilities for teaching physical education in secondary schools.com>

<http://www.sportfacilities.com>

<http://www.slideshare.net/manukumarkm/ source-of-data in-research>

Appendix – A

Addis Ababa University School of Graduate Studies College of Education

Department of Mathematics and Science

Questionnaire to be filled by physical education teachers and vice principals

Dear respondents

- a. The purpose of this questionnaire is to collect data pertinent to the study of the effect of scarcity of facilities and equipment in teaching physical education in secondary schools at Addis Ketema sub-city. This information which is obtained through this questionnaire will be used only for research purpose. Your genuine concern and cooperation in providing relevant information are core determinants to accomplish this study successfully. Therefore, you are kindly requested to assist the study by responding to the items in the questionnaire according to the instruction given.
- b. No need of writing your name
- c. Your response will be kept strictly confidential

I appreciate your cooperation and thank you in advance for sharing your precious time.

General direction

- A. Please circle the letter of your choice for the multiple choice items.
- B. You are kindly requested to give brief written responses to open ended questions.
- C. Please use a (✓) mark on the space provided for the table form items.

Part I. Personal information: circle the letter of your choice.

1. Name of your school _____ sub-city _____
2. Sex A. Male B. Female
3. Age A. 25 years and below
 B. 26-35 years
 C. 36-45 years
 D. 46 years and above
4. Your present position (post)
 A. Teacher B. Principal C. Vice principal
5. Your service of the present profession (position) in years
 A. 5 years and below
 B. 6-10 years
 C. 11-25 years
 D. 16-20 years
6. Your highest academic qualification
 A. 1st degree B. 2nd degree C. PhD

Part II- Information about the school facilities equipment and supplies for teaching physical education

1. The school facility in teaching physical education.

1.1 To what extent are the following outdoor and indoor facilities available in your school for teaching physical education?

Please indicate your response by putting (✓) mark under your choice

5. Very high 2. Low
4. High 1. Not at all
3. Moderate

No	Outdoor facilities	Response categories				
		5	4	3	2	1
1.1.1	Basketball court					
1.1.2	Volleyball court					
1.1.3	Playground					
1.1.4	Athletic field					
1.1.5	Facility for students with disabilities					
	Indoor facilities					
1.1.6	Shower rooms					
1.1.7	Locker for students in physical education class					
1.1.8	Exercise rooms /Gym/					
1.1.9	Budget for indoor and outdoor facility maintenance					
1.1.10	Separate class for physical education teachers					
1.1.11	Separate store for equipment and supplies of physical education					

1.2 Here are statements about outdoor and indoor facility in teaching physical education. Please show your degree of agreement with each of the following statements by putting a (✓) mark under your choice

5. Strongly agree 2. Disagree
4. Agree 1. Strongly disagree
3. Undecided

No	Statements	Response categories				
		5	4	3	2	1
1.2.1	The outdoor facilities are sufficient for all class students					
1.2.2	The school students acts as models in the proper utilization of the outdoor facilities					
1.2.3	Outdoor facilities are conveniently located in the school compound					
1.2.4	The outdoor and indoor facilities are designed by taking into consideration the students with physical disabilities					
1.2.5	The school community are encouraged to make comments about physical education facilities					
1.2.6	The community have contribution to facilitate physical education facilities					

2. Physical education equipment

2.1 Does your school have sufficient physical education equipment?

- A. Yes B. No

2.2 If your response for item number “1” is ‘Yes’ to what extent is your department equipped with the following equipment in teaching physical education? Please, show your response by putting (✓) mark under your choice.

5. Very high 2. Low
4. High 1. Not at all
3. Moderate

No	Statements	Response categories				
		5	4	3	2	1
2.2.1	Parallel bars					
2.2.2	Horizontal bar					
2.2.3	Uneven bar					
2.2.4	Vaulting horse					
2.2.5	Pommel horse					
2.2.6	Trampoline					
2.2.7	Balance beam					
	Athletics equipment					
2.2.8	Javelins					
2.2.9	Discus					
2.2.10	Shots					

2.3 Supplies for teaching physical education

2.4 Does your school have supplies for teaching physical education

- A. Yes B. No

2.5 If your response for item numbers '1' is 'Yes' to what extent is the supplies for teaching physical education your school? Please show your response by putting (✓) mark under your choice

- 5 Very high 2. Low
4. High 1. Not at all
3. Moderate

No	Supplies for teaching physical education	Response categories				
		5	4	3	2	1
2.5.1	Soccer balls					
2.5.2	Volley balls					
2.5.3	Basket balls					
2.5.4	Hand balls					
2.5.5	Mat /carpeting/					
2.5.6	Hurdles					
2.5.7	Relay baton					
2.5.8	First aid kit					
2.5.9	Water supply for students					
2.5.10	Shower supply for teachers					

3. Rank the following perceived problems which can affect teaching of physical education in your school by putting a (✓) mark under your choice. 1st implies that being the most serious problem and 5th being the least problem.

No	Perceived problems	Rank				
		1 st	2 nd	3 rd	4 th	5 th
3.1	Scarcity of indoor and outdoor facilities					
3.2	Scarcity of equipment for teaching physical education					
3.3	Scarcity of supplies for teaching physical education					

Part I: Facilities for teaching physical education

No	Questions	Response categories	
		Yes	No
1	Are there separated outdoor facilities in the school for teaching physical education?		
2	Do the outdoor facilities have separated areas in your school?		
3	Can the outdoor facilities give service for all students properly?		
4	Does the school have sufficient equipment for teaching physical education?		
5	Is there water supply after physical exercise for students?		
6	Is there separate class for physical education teachers?		
7	Is there special room for storing physical education equipment and supplies?		
8	Is there a separated shower room for physical education teachers?		
9	Do the disabled students have facilities in physical education?		

Part II: Equipment for teaching physical education

No	Questions	Response categories	
		Yes	No
1	Does the school have enough storage of physical education equipment?		
2	Is there storage of physical education equipment?		
3	Are the physical education equipment enough for all students?		
4	Does the school allocate the budget for buying physical education equipment annually?		

Part III- Supplies for teaching physical education

No	Questions	Response categories	
		Yes	No
1	Does the school have enough number of supplies for teaching physical education?		
2	Is there a suitable storage place for supplies to teach physical education?		
3	Do all physical activities performed properly in relation to supplies?		
4	Are there all models of supplies of physical education in the school?		

Appendix – B

አዲስ አበባ ዩኒቨርሲቲ

የድህረ ምረቃ ትምህርት ክፍል

የሂሳብና ሳይንስ ትምህርት ክፍል በተማሪዎች የሚሞላ መጠይቅ

የዚህ መጠይቅ ዋና ዓላማ በአዲስ ከተማ ክፍለ ከተማ የሚገኙ ሁለተኛ ደረጃ ት/ቤቶች

(9-10) ክፍሎች የጤናና ሰውነት ማጎልመሻ ትምህርትን ለማስተማር የሚያገለግሉ

መሳሪያዎችን ሁኔታ ለማጥናት የሚያስችል መረጃ ለመሰብሰብ ነው፡፡

ከመጠይቁ የሚገኝ ማንኛውም መረጃ ለጥናት ስራ የሚለውን መሆኑን ተረድተሽ/ህ

ሀሳብሽን/ህን በቅንነትና በሙሉ እምነት እንድትጋሩን በታላቅ ትህትና እጠይቃለሁ፡፡

ለምታደርገልኝ/ግልኝ ትብብር በቅድሚያ አመሰግናለሁ፡፡

ማሳሰቢያ፡- በመጠይቁ ማንኛውንም ስም መጻፍ አያስፈልግም፡፡

ክፍል አንድ፡- የአመላለስ መመሪያ፡- ከዚህ ቀጥሎ ለቀረቡት ጥያቄዎች ከተሰጣቸው

አማራጮች ውስጥ መልሶችን የያዙትን ሆሄያት በማክበብ መልስ/ሽ የተሰጡት

ጥያቄዎችና አንድና ከአንድ በላይ መልሶች ካሏቸው በመልሶቹ ሆሄያት ላይ በሙሉ

በማክበብ መልስ/ሽ እንዲሁም መልሶች አለሽ/ህ በተሰጠው ክፍት ቦታ ላይ በዝርዝር

ጻፊ/ፍ፡፡

አጠቃላይ መረጃ

6 የት/ቤቱ ስም _____

3. ዕድሜ _____

7 ያታ _____

4. የክፍል ደረጃ _____

ክፍል 2

1. በአንቺ/አንተ አመለካከት በት/ቤቱ ውስጥ የጤናና ሰውነት ማጎልመሻ የተግባር ትምህርትን ለማስተማር የሚያገለግሉ መሳሪያዎች የሚገኙበት ሁኔታ እንዴት ይገለጻል?

ሀ. በጣም ከፍተኛ ለ. ከፍተኛ ሐ. መጠነኛ መ. ዝቅተኛ ሠ. ፈጽሞ አይገኝም

2. ለጥያቄ ተራ ቁጥር 1 መልስሽ/ህ ፈጽሞ አይገኝም ወይም ዝቅተኛ ከሆነ ምክንያቱ ምን እንደሆነ ግለጩ/ጽ_____

3. ከላይ በተገለጸው ጥያቄ ተራ ቁጥር 1 መልስሽ/ህ በጣም ከፍተኛ ወይም ከፍተኛ ከሆነ ምክንያቱ ምን እንደሆነ ግለጽ/ጩ_____

4. ትምህርት ቤቱ ለጤናና ሰውነት ማጎልመሻ የተግባር ትምህርትን ለመከታተል ያለው አመቺነት ምን ያህል ነው?

ሀ. ከፍተኛ ለ. ዝቅተኛ

5. ለጥያቄ ተራ ቁጥር 4 መልስህ/ሽ ከፍተኛ ከሆነ ምክንያትህ/ሽ ምንድን ነው?

ሀ. በት/ቤቱ ውስጥ በቂ የሆነ የስፖርት ማዘውተሪያ ሜዳ በመኖሩ

ለ. በቂ የሆኑ የማስተማሪያ መሳሪያዎች በመኖራቸው

ሐ. መምህራን በተግባር ትምህርት ወቅት በቂ የሆኑ መሳሪያዎችን ስለሚጠቀሙ መ. ሌሎች ምክንያቶች ካሉ ይግለጹ_____

6. ለጥያቄ ተራ ቁጥር 5 መልስሽ/ህ ዝቅተኛ ከሆነ ምክንያትሽ/ህ ምንድን ነው?

ሀ. በት/ቤቱ ውስጥ በቂ የሆነ የስፖርት ማዘውተሪያ ሜዳ ባለመኖሩ

ለ. ለጤናና ሰውነት ማጎልመሻ የተግባር ትምህርት የሚያገለግሉ በቂ የሆኑ መሳሪያዎች ባለመኖራቸው

ሐ. መምህራን በተግባር ትምህርት ወቅት በቂ የሆኑ መሳሪያዎችን ባለመጠቀማቸው

መ. ሌሎች ምክንያቶች ካሉ ይግለጹ_____

7. በት/ቤቱ ውስጥ የጤናና ሰውነት ማጎልመሻ መምህራን የተግባር ትምህርትን

ሲያስተምሩ የመርጃ መሳሪያዎችን የመጠቀም አጋጣሚ ምን ያህል ነው?

ሀ. ከፍተኛ ለ. ዝቅተኛ

8. ለጥያቄ ተራ ቁጥር 7 መልስ/ሽ ከፍተኛ ከሆነ ምክንያትሽ/ህ ምንድን ነው?

ሀ. የመርጃ መሳሪያዎች ከተማሪዎች ቁጥር ጋር ሲነጻጸሩ በቂ በመሆናቸው

ለ. ለሁሉም የጤናና ሰውነት ማጎልመሻ የተግባር እንቅስቃሴዎች የተሟላ መሳሪያዎች በመኖራቸው

ሐ. ት/ቤቱ ለጤናና ሰውነት ማጎልመሻ የተግባር ትምህርት የሚረዱ የማስተማሪ መሳሪያዎችን በማሟላቱ

መ. ሌሎች ምክንያቶች ካሉ ይግለጹ_____

9. ለጥያቄ ተራ ቁጥር 7 መልስህ/ሽ ከሆነ ምክንያትሽ/ህ ምን ሊሆን ይችላል?

ሀ. የመርጃ መሳሪያዎች ከተማሪዎች ቁጥር ጋር ሲነጻጸሩ በቂ ባለመሆናቸው

ለ. ለሁሉም የጤናና ሰውነት ማጎልመሻ የተግባር እንቅስቃሴዎች የተሟላ መሳሪያዎች ባለመኖራቸው

ሐ. ት/ቤቱ ለጤናና ሰውነት ማጎልመሻ የተግባር ትምህርት ማስተማሪያ በቂ የሆኑ የመርጃ መሳሪያዎችን ባለማሟላቱ

መ. ሌሎች ምክንያቶች ካሉ ይግለጹ_____

10. በት/ቤቱ ውስጥ በቂ የሆነ የስፖርት ማዘውተሪያ ሜዳ አለ?

ሀ. አዎ ለ. የለም

11. ለጥያቄ ተራ ቁጥር 10 መልስሽ/ህ የለም ከሆነ ምክንያቱ ምንድን ነው?_____

12. በት/ቤቱ ውስጥ ከጤናና ሰውነት ማጎልመሻ የተግባር ትምህርት በኋላ ለመጠጥና ለመታጠቢያ አገልግሎት የሚሰጥ በቂ የሆነ የውሃ አቅርቦት አለ?

ሀ. አዎ ለ. የለም

13. ለጥያቄ ተራ ቁጥር 12 መልስሽ/ህ አዎን ከሆነ አቅርቦቱ ከክፍል ተማሪዎች አንፃር ተመጣጣኝ ነው?

14. ለጤናና ሰውነት ማጎልመሻ ትምህርት በቡድን ጨዋታዎች (እግር ኳስ፣ መረብ ኳስ) የተግባር ትምህርት ወቅት በት/ቤቱ የሚገኘው የኳስ አቅርቦት እንዴት ይገለጻል?

ሀ. በጣም ከፍተኛ ለ. ከፍተኛ ሐ. መጠነኛ መ. ጥቂት

15. በጤናና ሰውነት ማጎልመሻ የተግባር ትምህርት ወቅት ተማሪዎች የስፖርት ትጥቅ የሚቀይሩበትና ዕቃዎቻቸውን የሚያስቀምጡበት የተለየ ስፍራ በት/ቤቱ ይገኛል? ሀ. አዎ ለ. የለም

16. በጤናና ሰውነት ማጎልመሻ የተግባር ትምህርት ወቅት የአትሌቲክስ ትምህርትን (ሩጫ፣ ዝላይ፣ ውርወራ) ለማስተማር የሚያገለግሉ መሳሪያዎች (ጦር፣ አሎሎ፣ የርዝመት ስፍራ) በት/ት ወቅት ጥቅም ላይ የመዋላቸው ሁኔታ እንዴት ይገለጻል?

ሀ. በጣም ከፍተኛ ለ. ከፍተኛ ሐ. መጠነኛ

መ. ዝቅተኛ ሠ. ጥቅም ላይ አይውለም

17. በጤናና ሰውነት ማጎልመሻ የተግባር ትምህርት ወቅት የጂምናስቲክ ትምህርትን ለማስተማር የሚያገለግሉ መሳሪያዎችን በት/ቤቱ ያሉበት ሁኔታ እንዴት ይገለጻል?

ሀ. በጣም ከፍተኛ ለ. ከፍተኛ ሐ. መጠነኛ መ. ዝቅተኛ

18. የጤናና ሰውነት ማሳሰቢያ መምህራችሁ ትምህርቱን በተግባር ለማስተማር

የሚጠቀሙባቸው መሳሪያዎች ተገቢነትና አመቺነት

ሀ. ከፍተኛ

ለ. ዝቅተኛ

19. ለጥያቄ ተራ ቁጥር 18 መልስህ/ሽ ከፍተኛ ከሆነ ምክንያታችሁ/ህ ምንድን ነው?

ሀ. የመርጃ መሳሪያዎቹ በት/ቤቱ በብዛት ስለሚገኙ

ለ. መሳሪያዎቹ ከተማሪዎች ቁጥር ጋር ተመጣጣኝ በመሆናቸው

ሐ. መሳሪያዎቹን በአግባቡ ለመጠቀም አመቺ የሆነ ስፍራ በመኖሩ

መ. ሌሎች ምክንያቶች ካሉ ይግለፁ_____

20. የጤናና ሰውነት ማሳሰቢያ የተግባር ት/ት ለማስተማር ያጋጠሙ ችግሮችን

ለመፍታት ሊጠቅሙ የሚችሉ መፍትሄዎችን ብትጠቁመን/ሚን_____

21. የጤናና ሰውነት ማሳሰቢያ የተግባር ትምህርትን ለመከታተል ያጋጠሙህ/ሽ ዋና

ዋና ችግሮች ምንድን ናቸው?_____

Appendix C

Addis Ababa University School of Graduate Studies College of

Education

Department of Mathematics and Science

An interview for secondary school director and department heads

The purpose of this interview is to get information about the overall effects of scarcity of facilities and equipment for teaching physical education in secondary schools at Addis Ketema sub-city.

Name of the school _____

Year of experience _____

Sex: female _____ Male _____

Position _____

Education qualification _____

1. Does the school have sufficient facilities, equipment and supplies for teaching physical education?
2. How do you express the condition of facilities, equipment and supplies in relation to the number of the school's students?
3. Are equipment and facilities sufficed to run the teaching learning process of health and physical education? If not why?
4. What are the effects that befalling the health and physical education teachers because of scarcity equipment and facilities of physical education?
5. Do the communities participate in the expansion of and maintenance of the school's physical education facility equipment and supplies?

Appendix D

Observation checklist for the organization of facility equipment's and supplies

I. General information

1. Date of visit _____

2. Name of the school _____

No	Variables to be observed	Yes	No
1	Availability of suitable play ground in the school		
2	Availability of outdoor facilities and its appropriators for health and physical education		
3	Availability of equipment for teaching health and physical education		
4	Availability of supplies teaching health and physical education		
5	Availability of shower room for physical education teachers		
6	Locker for students in physical education class		
7	Availability of separate room for physical education teachers		
8	Availability of separate store room equipment and supplies physical education		
9	Availability of water supply for students after physical activity		
10	Availability of first aid kit		

Appendix E

Reliability statics

No	Description	No of item	Cro.alpha
1	Availability of indoor and outdoor facilities	12	0.73
2	Availability of equipment	26	0.61
3	Availability of supplies	19	0.52
4	The location area and design of facilities	6	0.63
5	Rank orders of lacking of facilities, equipment and supplies	3	0.54
6	Comfortableness of the school for physical education	4	0.5
7	Teachers utilization of equipment and facilities	8	0.72
8	Appropriateness of equipment for teaching physical education	4	0.65
	Total	82	0.61

Declaration

At the end of the all pages I the under signed, declare that this thesis is my original work, has not been presented for a degree in any other university and that all sources of materials used in this thesis have been acknowledged

.

Name: Lemma Ture

Signature:_____

Date:_____

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

Name:_____

Signature:_____

Date of approval:_____