An investigation into secondary students' and teachers' attitudes towards the teaching and learning of physical education in Jordan.

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AN INVESTIGATION INTO SECONDARY STUDENTS' AND TEACHERS' ATTITUDES TOWARDS THE TEACHING AND LEARNING OF PHYSICAL EDUCATION IN JORDAN

BY

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Abstract

The purpose of this study was to investigate the attitudes of Jordanian secondary school students and their teachers towards Physical Education in Jordanian public education.

A mixture of quantitative and qualitative research methodologies was utilized. Two questionnaires were constructed and answers were recorded using the Likert scale. One questionnaire was applied to a random sample of 1125 students (544 males and 581 females) in twelve single sex secondary schools and the second was applied to a random sample of 148 teachers (90 males and 58 females) teaching in the same geographical areas as the schools. The three regions used in the study sample in Jordan were Badia, rural and urban. The questionnaires were applied to the student and teacher sample by the researcher from April to July 1995 during the academic year 1995-1996.

The results of this study indicate that both teachers and students had positive attitudes towards Physical Education. The students valued Physical Education as a means of health promotion and enjoyment and showed a desire to participate, which increased as they became older. Both students and teachers were concerned about the status of Physical Education in schools, the limited curriculum time devoted to Physical Education, the narrow choice of activities offered, and parental attitude.

In the light of these findings, clear suggestions are offered in the conclusion of this thesis as to the way ahead for future developments for Physical Education in Jordan.

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DEDICATION

TO MY PARENTS, WHO GAVE ME SUPPORT AND PATERNAL LOVE AND UNDERSTANDING

Declaration

This thesis results entirely from my own work and has not been previously offered in candidature for any other degree or diploma.

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1. Introduction

Education is regarded as an instrument for economic and social development in Jordan. By improving the skills and capacities of individuals, education contributes to an increase in productivity, thus speeding up the economic development of the country and bringing comfort and happiness to its citizens. It should be emphasised that the role of education is to respond to society's needs and that the educational system is an integral part of the society within which it operates.

This study will be an investigation into the attitudes of Jordanian secondary students and their teachers towards the teaching and learning of Physical Education. The author of this study believes that the major advancements in the field of education in the last five decades have been accomplished through the study and investigation of people's attitudes and needs. It is hoped that this study, by investigating the attitudes of the students and teachers in the secondary level of education in Jordan, will contribute to the advancement of educational knowledge in Jordan and Arab countries in general as these countries share similar cultural values and habits.

The educational system of any country cannot be explained without brief reference to its geographical, historical and cultural background. It is necessary to examine these factors in order to try to understand how education interacts with other vital variables in the country. It is the intention in this

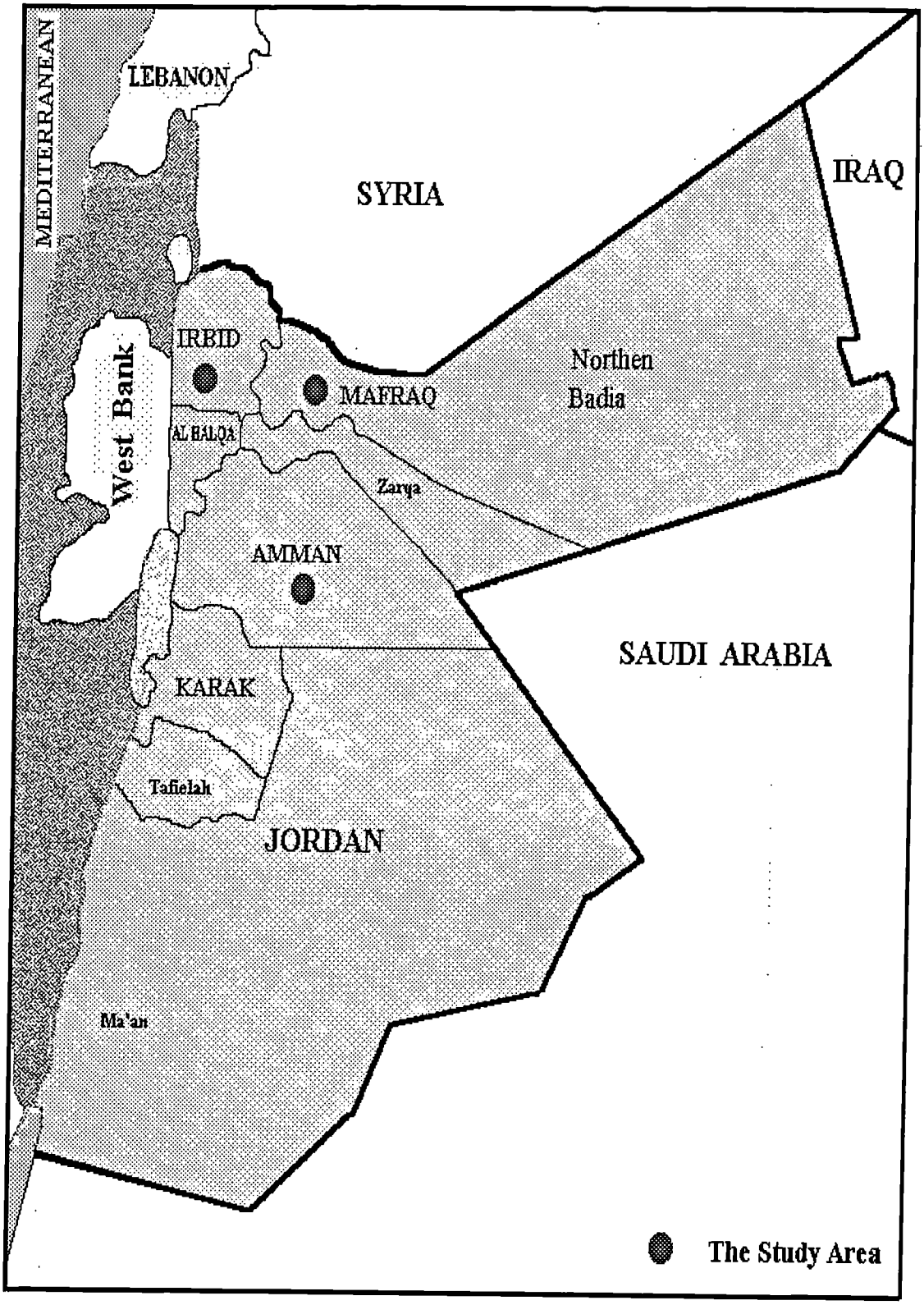
introductory chapter to consider firstly the impact that geography, history and culture have upon Jordanian society as a whole. Secondly, consideration will be given to the population of the study. Finally, the education system and the specialist subject of Physical Education will be considered.

1.1 Geography

Jordan is situated in the heart of the Middle East. It is bordered by Syria to the North, Saudi Arabia to the South, Iraq and Saudi Arabia to the East and the West Bank and other parts of Palestine to the West. Jordan covers a total land area of approximately 91.860 square kilometres and its population is 4.15 million (1). (see map p. 4).

1.2 History

Jordan is a developing country. Its official name is the Hashemite Kingdom of Jordan. It obtained its full independence and sovereignty from Britain in 1946 and since then has been ruled by the Hashemite family. The country has been ruled since 1953 by King Hussein who succeeded to the throne at the age of eighteen. The present Kingdom of Jordan is characterised by its centralised system of government, governed by a system of parliament and a hereditary constitutional monarchy. The Jordanian Parliament consists of two houses: the Upper House (Senate) and the Lower House (House of Deputies) (2).



Map of Jordan

1.3 Culture

Jordan is an Islamic country, and its cultural make-up is therefore influenced by its religion. The Islamic religion takes a conservative attitude towards women, in that it promotes the separation of the sexes in schools and does not consider it moral for men and women to mix freely. Women confine themselves to teaching children, or other jobs that do not expose them to the general public. As a result, women do not pursue professions or lifetime careers. This is a major concern for teachers faced with teaching female students with excellent potential. Females living within this culture do not receive the same encouragement to continue either education in general or Physical Education in particular.

2. The population of the study

The population of this study consists of a random sample of secondary students and their teachers in Jordan. The sample is made up of secondary students studying in three different regions of Jordan, namely, Irbid, a rural area; Mafraq, a Badia area (Bedouin) and Amman, an urban area. The term 'rural' refers to the people who live in villages and who depend basically on agriculture, while the term 'urban' refers to the people living in towns and cities and who are dependent upon trade and business. The people in urban areas form the majority of the population of Jordan. In the Middle East, the term "Bedouin" has been used to mean nomad. Nomadism is equivalent to tribalism which means all tribe members should be loyal to their tribe. Each

tribe is headed by a leader (Sheikh) and this leader has the power over his tribal people. Not only is tribalism a political and an economic organisation, but also a social system within and outside tribal affairs (3). In Jordan, the tribalism system is still strong despite the fact that nomads in Jordan have almost disappeared in terms of wandering with tents. Their values and traditions have shaped Jordanian life (4).

3. Education in Jordan

The final area to be given consideration in this chapter is the education system and the specific area of Physical Education. Jordan has a growing population and schools have ever increasing numbers of pupils who need to be well educated and trained in order to become effective citizens. The quality of a population's education, measured by educational attainment, forms an integral part of both economic development as well as social and cultural change. Jordan has a very low illiteracy ratio, in comparison with other Arab and developing countries (5). Jordanians are motivated by many factors in their quest for education, one of which is cultural influence. Jordanians, and Arabs as a whole, have a traditional interest in and respect for learning, which is an integral part of their religion, Islam. In fact, Islam encourages education for all. The Prophet Mohammad said: "The quest for learning is a sacred duty for every Muslim, male or female". It is also common knowledge that Muslims are aware of the fact that the Prophet urged them to seek knowledge, even if they were in China, as He put it. Recently there has been an awakened interest in

the historical heritage of the Arab-Islamic civilisation and a desire to contribute to the mainstream of human civilisation in the same way as the Arabs once did in the past. Jordanians realise that only through education can the required values, skills and knowledge be promoted. Thus, in addition to religious and cultural factors, there is a strong awareness among Jordanians of the vital role of education in improving the economic standards of their country. Events have proved education to be a marketable skill. To the ordinary Jordanian, education is an economic asset which offers the potential for increased income in Jordan and abroad.

The education sector is one of the most important of the service sectors in the country. Education in Jordan has witnessed unprecedented growth since the establishment of the Kingdom. The past few decades have been characterised by an increasing demand for education from various segments of the population and by the construction of all types of schools in different parts of the country. According to the Ministry of Planning in Jordan, 1997:

> Jordan was able to reduce the illiteracy rate to 19% in 1990 through the literacy and adult education centres in various areas and in view of the increase in enrolment in the basic education cycle (6).

There has been a significant development in other educational areas as well. Six state and ten private universities and university colleges have been

established to absorb the growing numbers of secondary school graduates. There are also 50 state and private community colleges (7).

In view of the facts and figures mentioned above, curriculum designers and teachers have a special responsibility to create the kind of educational environment which will encourage pupils to acquire skills and gain knowledge. Teachers can do a great deal to facilitate the learning of pupils by the way they teach. This role must be performed by a well qualified and trained teacher if predetermined goals and aspirations are to be achieved.

Schools need teachers who can provide an effective learning environment in the classroom. Good, qualified teachers are guides, advisors, and leaders of young citizens in the restricted environment of the "schools", and they can stimulate pupils to learn and help them to discover for themselves. In the light of Piagetian developmental theory, Ripple and Rockcastle (1964) described the aim of education as follows:

> The principal goal of education is to create men who are capable of doing new things, not simply repeating what other generations have done-men who are creative, inventive, and discoverers. The second goal of education is to form minds which can be critical, can verify and not accept anything that is offered. The great danger of today is of slogans, collective opinions, ready-made trends of thought. We have to be able to resist individually, to criticize, to distinguish what is proven and what is not. So we need pupils who are active, who learn early to find out by themselves, partly by their own

> spontaneous activity and partly through materials set up for them; who learn early to tell what is verified and what is simply the first idea to come to them" (8).

It is evident that improving the quality of education in general is dependent upon the quality and relevance of teacher education. The curriculum designer needs a clear statement of policy in order to formulate desired changes in the curriculum and to make them harmonious with an agreed philosophy of education. New methods of teaching may also be necessary if the curriculum is to be effective (9).

Jordanian schools have experienced many problems because of the lack of proper curriculum planning. Defects in the school curriculum have increased and much criticism has been expressed by concerned citizens, some teachers, inspectors, and even some officials in the Ministry of Education (10). It is widely felt that a change in the school curriculum is needed to meet pupils' and society's requirements for modernisation. Careful planning and evaluation will be necessary to ensure its effectiveness. Teachers however, currently lack the necessary training skills to implement new technologies and strategies of instruction, which they may consider to be beyond both their capability and responsibility. Teachers also need to be well equipped with modern materials in order to come to terms with the new techniques and strategies.

With regard to the general aims of education in Jordan, the Ministry of Education (1965) summarised these aims as follows:

1. to develop responsible citizens who believe in:

- the basic principles of the constitution
- the rights and responsibilities of the citizen
- honesty and dedication to work, as well as responsibility in behaviour and fruitful co-operation with others on the basis of democratic relationships

2. to develop an understanding of the natural, social and cultural environments, starting with the home and ending with the world as a whole
3. to develop important basic skills, such as effective communication, critical and creative thinking, logical reasoning, the ability to use scientific methods of investigation, and proper management of relationships with others
4. to assist the normal growth of the individual **physically**, **mentally**, socially and **emotionally**, taking individual differences into consideration
5. to **raise the standards of health** of the **individual and the community** through proper **health information and the development of healthy** habits
6. to raise the economic standards of the individual and society, taking into consideration different individual interests and aptitudes to meet present and future needs of the country in all aspects of its economic life. This aim could be achieved through the provision of educational opportunities and diversification of education, so that it serves different individual interests and aptitudes on the one hand, and the existing and future needs of the country on the other, within a comprehensive socio-economic plan (11).

3.1 Physical Education

Regarding the Physical Education curriculum in Jordan, the directorate of scholastic curricula has the responsibility of establishing and implementing the curriculum for students at all levels in public schools. These responsibilities include the formulation of the goals and objectives for each subject. The following are the general goals that govern the teaching of Physical Education in Jordanian public schools.

1. Increasing students' knowledge about Physical Education and health through the practice of different kinds of physical activities.
2. Teaching students new skills and social habits whilst improving existing skills and social habits.
3. Improving and maintaining the standard of physical fitness for each student, within the framework of their potential.
4. Improving the movement skills of students in order to enable them to master fundamental skills in a variety of sports.
5. Motivating students to maintain their physical, mental, social and emotional conditions at a high level.
6. Fostering sound posture for all students and encouraging them to avoid bad habits through the promotion and cultivation of healthful practices.
7. Fostering sportsmanlike practices among students and stressing the importance of co-operation in accomplishing their tasks.

8. Evaluating the physical and potential abilities of students and planning their physical activities on the basis of this evaluation.
9. Teaching students sound health habits and encouraging them to assume healthful practices in all aspects of life (12).

3.2 Objectives for secondary schools

In 1971 a set of objectives was established for secondary Physical Education. These objectives stated that Physical education teachers should:

1. teach pupils how to avoid physical defects, posture problems and to remedy those with such defects
2. continue to improve their basic movement skills in a variety of sports
3. improve their physical fitness levels in order to enable them to perform daily duties with a minimum of physical effort
4. foster a desire to participate in hobbies and leisure pursuits to help assure a beneficial use of leisure time
5. continue to examine and evaluate physical recreational interests in order to formulate an appropriate curriculum of physical activities
6. train the students to develop leadership skills and to assume responsibilities
7. teach psychomotor skills and cognitive concepts through participation in sport activities
8. encourage the development of sportsmanship, co-operation and team work through participation in sport activities, (13).

In basic education (a combination of elementary and preparatory), Physical Education is required for all males and females, with each class having one lesson per week. The curriculum is designed to include games such as basketball, volleyball, handball, and football. These games are taught in order to prepare the students for the next level of education and the pupils are introduced to relevant elementary skills.

In the secondary schools, Physical Education programmes are designed to consist primarily of basketball, volleyball, handball, football, gymnastics, physical fitness and track and field activities. There are no textbooks for Physical Education classes. Grades are given, which are not standardised, in other words, they are allocated in a random manner. Furthermore, it would appear that teachers give high grades only to the small number of students they select to form the school teams.

Although there is no formal instruction, at the high school level, teams are organised by the teachers, and they select only the students who show a good attitude to sport (usually about fifteen to twenty students). The rest of the students receive little attention. As stated earlier, secondary schools' Physical Education classes are scheduled to meet for one period of 45 minutes each week.

A strong education system is an essential aspiration in order for the state to ensure the well-being, security and comfort of its citizens. Physical Education is one of the tools to accomplish this aim; it is an efficient and effective means to ensure sound growth and development. In Jordan, the Ministry of Education is in charge of the Physical Education programmes in schools, and plans the school curriculum. In order to provide academic interest for the discipline, the department of Physical Education in the Jordanian University in Amman was established in 1979. This department was later expanded to a faculty. In 1981, the department of Physical Education was established at Yarmouk University in Irbid in the Northern part of the country. Thus, any student who wishes to study Physical Education as an undergraduate has to go either to Amman or Irbid. The Faculties of Physical Education in both Amman and Irbid offer a wide variety of courses to prepare students for teaching in schools that lead to a Bachelor's Degree in Physical Education after a period of four years.

4. The purpose of the study

The main purpose of this study is to investigate the attitudes of Jordanian secondary school students and their teachers towards Physical Education in Jordanian public education.

This study is motivated by the close attention and priority given to the development of Physical Education in Jordan by the Royal family in general, and by His Highness Prince Al-Hasan in particular, who believe that the development and modernisation of education as a whole is vital and essential to Jordanian society if the country is to continue to develop. This is the main reason why the author chose this research project. Physical Education is believed to play an important role in producing balanced individuals.

5. The objectives of the study

The specific objectives of this study in order of importance are:

1) to examine the factors which combine to form Jordanian secondary school students' attitudes to Physical Education
2) to establish whether there are significant differences between male and female attitudes to Physical Education
3) to establish whether there are significant attitudinal differences between rural, urban and Badia (Bedouin) students

4) to compare the attitudes of grade 10 (age 15-16) classes, 1st secondary (age 16-17) classes, and 2nd secondary (age 17-18) classes
5) to look for correlations or significant differences between sex, place and school grade level
6) to search out plausible explanations for negative or positive attitudes towards Physical Education.

A secondary but important parallel objective is to collect information on the attitudes of Physical Education teachers to:

1) the stated objectives of the Physical Education curriculum
2) the content of the Physical Education curriculum
3) the professional status of Physical Education teachers
4) the role of the media in shaping attitudes to Physical Education.

6. The significance of the study

The attitudes and values which a student brings to school play an important role in determining the quality and quantity of what he or she learns, remembers and uses. Furthermore, it may be argued that since students' general attitudes towards their specialisation in particular subjects leads to positive or negative effects on the degree of achieved knowledge and education, it is important to study the students' attitudes towards their studies.

The teacher must therefore carefully determine which attitudes and values are most useful and how they should be developed or modified accordingly. In addition, since feelings and values attached to attitudes cannot be easily or directly measured, it is necessary to rely on a person's verbal report of how he or she feels towards aspects of teaching and learning. In this study, Physical Education is taken to be a process of learning whose purpose is to develop specific knowledge, skills and understanding and to promote physical competence.

This constitutes the object of the present research. It is the belief of the researcher that once students' attitudes are investigated, it becomes possible to gain better insights into alternatives which can directly bring about a change in the students' general performance, both personally and academically. This introductory chapter has offered a broad background to this study.

Chapter one will aim to provide a review of the literature which relates to Physical Education and which is particularly relevant to both students' and teachers' attitudes towards Physical Education. This review will be divided into three sections. The first section will examine the key terms 'attitude' and 'Physical Education' together with some of the available literature on the components and concepts of attitude formation. In the second section, attitude measurement will be examined, and finally the third section will review other studies concerned with attitudes towards curriculum subjects.

Chapter two will outline the methodology followed in this research project. This will deal with the instruments used in the collection of the data. An account of the way the field work was undertaken will be given. This chapter will provide an outline of the sample used as well as details concerning the questionnaires.

The third chapter will deal with the analysis of the data gathered from the students' questionnaires, whilst chapter four will deal with the analysis of the data gathered from the teachers' questionnaires. Chapter five will form a discussion on the issues which should emerge from the analysis of the data in relation to the findings of the studies reviewed in earlier chapters. This discussion will be divided into two main sections. The first section will be concerned with the findings from the students' questionnaires, and the second will review the findings from the teachers' questionnaires. The final chapter will provide a conclusion and will offer some general recommendations.

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Chapter One

Review of the Literature

1. Introduction

This chapter deals with the review of the literature which is available and relevant in relation to both students' and teachers' attitudes towards Physical Education. The review has been divided into three sections. The first section examines the key terms 'attitude' and 'Physical Education' and reviews the available literature on the components and concepts of attitude formation. The second section examines the measurement of attitudes and the third section reviews previous studies concerned with attitudes towards curriculum subjects.

Attitude is a crucial variable which plays a major part in learning. The attitudes and values which a student brings to school play an important role in determining the quality and quantity of what he or she learns, remembers and uses. Further, attitudes can bring about positive consequences if studied and analysed properly. It may be argued, for instance, that since students' general attitudes towards their specialisation in particular subjects leads to positive or negative effects on the degree of achieved knowledge and education, it is important to study the students' attitudes towards their studies. In addition, it can be argued that the role of school is not merely to provide students with knowledge in a particular field of interest, but also to help them in developing their personality, to equip them with better merits and to ameliorate their

overall conduct so that they can become helpful and productive members of the society in which they live.

The teacher must therefore carefully determine which attitudes and values are most useful and how they should accordingly be developed or modified. In addition, since feelings and values attached to attitudes cannot be easily or directly measured, it is necessary to rely on a person's verbal report of how he or she feels towards aspects of teaching and learning. In this study, Physical Education is taken to be a process of learning whose purpose is to develop specific knowledge, skills and understanding and to promote physical competence.

This constitutes the object of the present research. It is the belief of the researcher that once students' attitudes are investigated, it becomes possible to gain better insights into alternatives which can directly bring about a change in a student's general performance, both personally and academically.

2. SECTION ONE

The aim of the following discussion is to examine the term 'attitude' and to provide a number of definitions.

2.1 Definition of the term ' Attitude'

The term 'attitude' has been treated in a number of different ways over the years by different scholars, especially in the field of social psychology. Bogradus (1931) identifies the term 'attitude' as 'a tendency to act toward or against something in the environment which becomes thereby a positive or negative value' (cited in Thomas 1971) (1). It can be stated here that an attitude relates to the stance one adopts vis-a-vis something. In addition, Allport (1935) cites some 16 definitions of 'attitude' [the list of these 16 definitions is quoted in Thomas 1971]. (2) (see Appendix 1).

Allport (1935) identifies the term 'attitude' as:

> ...a mental and neural state of readiness, organised through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related (3).

He goes on to point out that:

> Attitudes determine for each individual what he will see and hear, what he will think and what he will do... without guiding attitudes the individual is confused and baffled .... they (attitudes) draw lines about and segregate an otherwise chaotic environment; they are our methods for finding our way about an ambiguous universe (4).

Allport (1935) further provides a list of the essential characteristics of attitude as follows:

a) preparation or readiness for favourable or unfavourable responses,

b) [attitude is] organised through experience,

c) [attitude is] activated in the presence of all objects or situations with which the attitude is related (5).

Along the same lines, Smith et al. (1956) define attitude as:

> a pre-disposition to experience, to be motivated with respect to and to respond to a class of objects in a certain way (6).

Thus, on the basis of the above definitions, it becomes clear that attitude refers to that predisposition in a person which enables him/her to adopt a stance towards a state of affairs. In this connection, Sherif and Sherif (1969) similarly define attitude as:

> An attitude is the individual's set of categories for evaluating a domain of social stimuli (objects, persons, values, groups, ideas ..., etc.) which he has established as he learns about that domain (in interaction with other persons, as a general rule) and which relate him to subsets within the domain with varying degrees of positive or negative affect (Motivation-emotion) (7).

Bem (1970) also defines 'attitude' as 'like and dislike' (8). Thomas (1971), in a similar manner, sums up a number of definitions and argues that,

> An attitude is a disposition to act which is built up by the integration of numerous specific responses of a similar type, but which exists as a general neural 'set' and when activated by a specific stimulus results in behaviour that is more obviously a function of the disposition than of the activating stimulus (9).

Packard (1975) provides a definition which identifies an attitude as:

> a verbal shorthand way of referring to a set of approach or avoidance behaviours towards someone or something (10).

Whilst Fishbein and Ajzen (1975) describe an attitude as:

> a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object (11).

Fishbein and Ajzen (1975) also cite a list of the essential features of attitudes and argue that:

a) 'attitude is learned orientation',

b) 'it predisposes action', and

c) 'such actions are consistently favourable or unfavourable towards the object' (12).

In Ajzen and Fishbein's later work published in (1980), the authors state a model which views attitude as a determinant of a response to an object, as they argue: "For the most part, however, attitudes continued to be regarded as primary determinants of a person's responses to an object" (13). They report investigations carried out in this respect and conclude by reporting Freedman, Carlsmith and Sears who maintain that:

> ... attitudes always produce pressure to behave consistently with them, but external pressures and extraneous considerations can cause people to behave inconsistently with their attitudes. Any attitude or change in attitude tends to produce behaviour that corresponds with it. However, this correspondence often does not appear because of other factors that are involved in the situation (14).

In a similar way, Anderson (1981) adds that any definition of attitude should take into account the way attitude links with other elements in order to develop a deeper understanding of attitudes and how they influence behaviour (15).

McGuire (1985) sums up the work done on attitudes and states that they "are defined at least implicitly as responses that locate 'objects of thought' on 'dimensions of judgement'" (16). He further argues that these "dimensions of judgement are axes of meaning on which the person locates objects of thought when constructing meaning" (17).

In considering the way in which an attitude may be measured, McGuire holds that "An operational measure of attitude typically involves asking the person to assign the object of thought to a position on one dimension of judgement." (18).

Awiria (1994) has defined attitude as:

> ... an evaluative judgement about a particular object, issue, person, or any other identifiable aspect of the environment ... these evaluative judgements can be made against an absolute standard (19).

In the words quoted above, it becomes clear that attitudes serve the purpose of adopting certain positions with regard to the thing, object, individual or topic one encounters. According to the view which Awiria has embraced, a learner's attitude can hold at the level of either 'liking' or 'disliking' and that the attitude can either be a 'good' or a 'bad' one (20).

Awiria's research explores the relationship between the physical environment of the school and the pupils' behaviour, in order to determine whether there is a link between pupils' attitude and their physical environment. His conclusions strongly suggest that this is in fact the case.

As can be seen from the various definitions of the term 'attitude', it is possible to conclude that the authors referred to above appear to agree on the following common set of features of attitude formation: what a person feels about another person, object, event, institution or situation, and how favourably or unfavourably it is evaluated by them. The author's belief is that attitude formation also relies on the readiness to respond which is the common view shared by most authors (21, 22, 23, 24, 25, 26, 27, 28, 29 and 30). It is this definition which will be employed in the present study to evaluate positive or negative attitudes of students and teachers towards Physical Education in Jordan.

The main objective of the present research was to determine both teachers' and students' attitudes towards Physical Education in Jordan, and having analysed many definitions of the key term 'attitude', it seemed important to examine the components of attitude formation.

2.1.1 The components of attitude formation

Many authors have explored what they consider to be the constituent parts which make up a person's attitude. McGuire 1985, Rajecki 1990 and Oskamp 1991 hold the view that in the essential structure and nature of attitudes, there are three main components, which are listed below.

The first is the 'affective' component. This component, they suggest, is related to the feelings of 'good' or 'bad' and 'like' or 'dislike' towards the object of an attitude. The affective component, in their view, is the person's evaluation of the object of thought. Thus, there is a varying degree of emotional response which may contain either positive or negative feelings, favourable or unfavourable of an individual towards the object of thought, event, and person.

The second is the behavioural component. This consists of the orientation of an attitude, that is, the tendency of an individual to act towards an object.

The third and last component is the 'cognitive' component. This refers to the person's belief and view of some object of thought or an individual. In other words, the cognitive component has to do with the way one perceives the world. In assessing this type of component, it is important to determine how an individual categorises the stimuli associated with a particular attitude (31, 32 and 33).

Ajzen (1988) suggests that people's attitudes are characterised by varying degrees of intensity and they can be related to an object with a greater or lesser degree of strength. In his view, some attitudes are more persistent and are assumed to be relatively constant and stable dispositions. However, he believes that all attitudes are specifically regarded as flexible and therefore subject to change. It should be noted here that because of these degrees of strength and intensity, attitudes serve as a vehicle which conditions the learner's orientation (34). For example, one may cite a student's irritation to learning and the extent of influence toward the use of skills and knowledge which have been learned. Thus, attitudes may play an important role in the activity, because the attitude toward a subject determines an individual's willingness to learn that subject (35, 36).

On the basis of the above discussion, it is possible to say that some theorists do not agree with the component approach to attitude. For example, Fishbein (1967) argues that if a multidimensional view of attitude is adopted, this will imply that the attitude a person holds towards an object may be represented at three different positions along the three different dimensions. Therefore, operationally, attitudes would be represented by a single score which, according to Fishbein, is unlikely to reflect the three components in any precise manner (37). It is this line of argument that the present research will address.

It should be stated here that this area is quite complex in the sense that it involves various psychological aspects and up to now, has not received wide consensus among scholars. Another problem related to the issue under consideration is that attitudes are quite challenging when attempts at measuring them are made. We now move to the implications of the three components of other research.

2.1.2 The concept of attitude formation

Katz (1960) enters the debate on the concept of attitude formation by suggesting that the conceptual distinctiveness of the cognitive, affective and behavioural components are generally found to be determined by the object of the attitudes. However, according to him, the relationship between the three components is itself quite complex, and should therefore be measured by the importance of the object (38). He further suggests that the consistency which holds among the components is dependent upon a number of factors, such as the requirements of the situation at hand as well as the attitude measurement.

Oskamp (1991) presents a brief classification of several conceptual factors which are related to the concept of attitude (39). These factors are as follows.

1. Opinion: this is an important concept which is closely related to that of attitude. Opinions involve people's decisions about the possibility for events or relationships to take place, because attitudes involve people's wishes and desires concerning such events or relationships. Another viewpoint which distinguishes between attitude and opinion is in terms of verifiability. Thus, opinion deals with unverifiable matters involving personal preference (40).

2. Value: there is more general agreement about the relationship of values to attitudes than about the previous terms. The most common view is that a

value is an important life-goal or standard of behaviour for a person; a standard towards which the individual has a strong positive attitude. Values are the most important and central elements in a person's system of attitudes and beliefs. They are ends rather than means; they are the goals a person strives to achieve and which help to determine many of his or her other attitudes and beliefs (41).

3. Beliefs: these are statements indicating a person's subjective perception that an object has particular characteristics. In other words, beliefs are related to an individual's view of the world, the way he or she conceives of reality. A number of factors come into play in the conditioning of people's perceptions of objects and events. Beliefs and attitudes are often not completely consistent and the relations between them can be complex (42).

4. Habit: this can be easily distinguished from attitudes since habits are frequently repeated patterns of behaviour whereas attitudes cannot be classed as behaviour. Like attitude, habits are learned through experiences, but they differ in the sense that they are frequently non-evaluative in nature (43).

From the above review of the conceptual factors underlying attitudes, it can be concluded that the theoretical construction of students' attitudes towards Physical Education could be determined by a number of variables: firstly by

those which are of affective or of an emotional nature, secondly by the variables that are cognitive, and thirdly by the factors of behaviour. These attitudes could also be determined by considering whether the students' feelings in general were negative or positive toward the subject.

2.2 Physical Education

The second key term which is to be examined in this first section is the term 'Physical Education'. This has been defined by a number of Physical Educationists and philosophers over the last forty years, as will be shown. A number of definitions are considered below. For example, Carlisle (1969) maintains that, "there are three uses of Physical Education."

1. The phrase 'Physical Education', Carlisle maintains, "is taken first of all to label a range of educational activities which are taught, typically, to school children." He cites some examples of such activities as (a) games, sports, pursuits and pastimes; (b) forms of national, social, ballroom and 'educational' dance; (c) forms of gymnastics; (d) activities like keep-fit (for girls) and fitness training (mainly for boys) (44).

2. 'Physical Education', according to Carlisle, refers to "vocational or professional courses of teacher training in which knowledge and expertise are developed in order to promote the learning of the activities ..." (45).

3. The phrase "has reference to academic courses ... In this sense 'Physical Education' might be described as a field of study in which the range of activities ... provide the subject matter and centres of interest round which a variety of disciplines are organised, particularly history, cultural anthropology, psychology, sociology, physiology and physics" (46).

Morgan (1974) further supports the claim advanced by Carlisle and argues that

> Physical Education is education through a certain given range of physical activities such as those of Carlisle. This indicates what physical educators believe they are doing - educating generally, through thought and feeling as well as through movement - and it makes possible a quite simple and a quite exact definition of Physical Education's field of activity (47).

However, there is a point of variation in Morgan's model when compared with Carlisle's, for the former author provides a characterisation of the activities involved in the notion of Physical Education. The first set of activities is related to the general area of gymnastics, while the second is connected to athletic exercises. Morgan elaborates on this distinction and holds that the two pertain to bodily exercises and to pleasure and relaxation.

Along similar lines, Kalakian and Goldman (1976) define Physical Education as 'a concept of education through the physical' and they quote Williams (1946), who, in collaboration with Clifford Lee Brownell, says:

> ... Physical Education is the sum of man's physical activities, selected as to kind, and conducted as to outcomes.' Since Physical Education is to be considered as a means of education through physical activities rather than an education of the physical - how absurd the latter - the phrases 'selected as to kind' and 'conducted as to outcomes' assume considerable importance (48).

From the above definition, it becomes clear that the humanistic aspect of Physical Education is highlighted by the authors, which adds an interesting element to this definition.

Moreover, Rowntree (1981) defines P.E. in the following manner:

> Activity within the school CURRICULUM, intended to aid the pupils' physical development (with some associated overtones of 'a healthy mind in a healthy body') through organised , games, gymnastics, exercises, etc. (49).

Before bringing this section to a close, mention should be made of the fact that different sources in the United Kingdom have defined the aims of Physical Education in relatively similar ways. The National Curriculum Council (1992), for example, specifies these aims in the following manner:

1. 'Physical Education contributes to the overall education of young people by helping them to lead full and valuable lives through engaging in purposeful physical activity'.

2. Physical Education can also contribute to: the development of problem-solving skills; the establishment of self-esteem through the development of physical confidence; and the development of interpersonal skills.

3. Physical activity is combined with the thinking involved in making decisions and selecting, refining, judging and adapting movements (50).

Also, the OFSTED document (1995) in identifying the aims of Physical Education in Britain defines Physical Education as:

- the development of the control of the body
- the improvement of physical skills
- giving pupils the ability to make decisions and to apply their growing knowledge and understanding about the movement and the body in a variety of activities and contexts (51).

As can be seen, although Physical Education has been defined in different terms by different authors, there does seem to be a core element of agreement between them. However, for the purposes of this study, the definition offered

by Rowntree (1981) will be employed as it incorporates the majority of elements listed above (52).

The definitions of the key terms offered thus far have been elicited from the Western world. It is now important to review the implications of what has been stated so far for the case under investigation, in relation to the Arab world in general and Jordan in particular.

Al-Hilaly (1992) defines Physical Education as

> systematic, civilised and determined activities for the purpose of recreation, health or for the achievement of skilful level, eminence and earning money (53).

Also, Al-Hamahmy (1990) states that the correct meaning of Physical Education may be based on the following broad categories:

- a series of artistic styles aiming at the acquisition of physical abilities and movement skills in addition to knowledge and attitudes
- a series of theories which aim at justifying and explaining the use of the artistic styles
- a series of values and ethics which are justified through aims and objectives and which are regarded as orientations of the type and size of learning (54).

As far as the case of Jordan is concerned, it may be stated that there are some general aims and objectives which underlie Physical Education. As is made clear in the Ministry of Education report (55, 56), there are a number of goals which govern the teaching of Physical Education in Jordanian state schools. Students should be able, through Physical Education, to achieve the following:

- the development of the organic system through physical activities
- the development of the neuro-muscular system particularly in its relation to control over fundamental skills
- the development of desirable attitudes towards physical fitness and towards Physical Education, and
- the development of desirable social attitudes and conduct.

Thus, the goals of Physical Education are not simply confined to the building of the human physique, but are further extended to incorporate social values and ethics.

On the basis of the discussion above, it can be seen that in both Jordan and Western countries the aims and objectives of Physical Education are the same. However, while Physical Education is highly developed in the West and is characterised by an awareness of the process of activities involved, its counterpart in Jordan lacks such an awareness.

3. SECTION TWO

3.1 The measurement of attitudes

The main purpose of this study was to measure the attitudes of Jordanian secondary school students and their teachers to Physical Education in Jordanian public education. It was therefore crucial to examine the literature on attitude measurement and to understand the problems which might be associated with the formulation of an effective measuring tool and the collection of the data.

At the outset it was found that there were few studies in Great Britain and Jordan which had been conducted on attitudes to Physical Education and it was necessary to widen the scope of the literature review in order to assimilate some further knowledge in relation to attitudes toward curriculum subjects.

The six common types of attitudinal scales are: the Thurstone scale, the Semantic Differential scale, the Forced-Choice Scale, Kenyon's scale, the Guttman scale and the Likert scale. Fishbein and Ajzen stated in 1975 that attitude research consists of measuring and interpreting the full range of views, sentiments, opinions and beliefs that segments of the public may hold toward a certain object. It should be noted here that there are a number of methods that are used to determine attitudes depending mainly on self report

techniques. In these methods the subject will react to stimulus statements which are believed to be symbolic representations of the attitude object (57).

During the late 1920s and early 1930s, many attitudinal scaling methods were developed which are still in use today. Thurstone (1928) produced a method which was designed to indicate with precision, the amount of divergence between respondents' attitudes (58). In this method, the investigator collected or constructed a large number of various scale items that had the potential to measure levels of interest. A large number of subjects served as judges and were expected to sort or rate the scale items. Through this process of sorting or rating of statements, the subjects indicated what best reflected to them the object being measured. If a scale item was not agreed upon by the judges, it was removed (59, 60). There were major drawbacks in Thurstone's method: First, the views of the judges had no effect on the values of the items obtained from their judgements; and second, it was time-consuming in that this instrument took quite a long time to administer (61). This generally accounts for the reason why the Likert instrument has been regarded as a better substitute.

The Semantic Differential Scale (SDS) for attitude assessment involved the rating of concepts using bipolar adjectives with scales anchored at the extremes. Bipolar adjectives are opposite in meaning, such as good-bad, strong-weak, and negative-positive. In the SDS method the subjects were

asked to indicate on the bipolar continuum where they felt the object being measured was best described. The SDS method has been used extensively with younger children, because the bipolar adjectives can be matched to reading comprehension (62). Originally, when the semantic differential scale for attitude assessment was developed, the objects measured were stated in global, neutral terms. However, limiting the effectiveness of defining attitude objects in global terms, is the fact that the scales lack sensitivity for strong, behaviour predictions (63).

The second of the six common types of attitudinal scales is the Forced-Choice Scale method. In the Forced-Choice Scale method the subject is required to choose from two or more alternatives which appear equally favourable or unfavourable. Discrimination and preference values are determined, and the alternatives are combined in such a manner that the values are equalised (64, 65).

The third attitudinal scale which is commonly used is Kenyon's Scale. Kenyon (1968) developed an attitude scale on the basis of schemes related to physical activity. Kenyon stated that his argument was based on the assumption that physical activity can be narrowed down to a set of specific components. He stated that the attitude of an individual towards Physical Education is dependent on a conceptual model whereby all physical activities

are multidimensional and may be reduced to subdimensions, each related to a particular activity (66). These may be summarised as follows:

The first dimension is concerned with the social aspect of physical activity. According to Kenyon (ibid.) some individuals engage in physical activity because of a social redeeming quality. The second dimension is based on the belief that some people, whether active or not, believe that physical activity has the capacity to develop personal health. The aim of physical activity as the pursuit of vertigo (thrills and excitement) is Kenyon's third dimension. In this context, individuals chose to participate in games and sport as a means of challenging danger. The fourth dimension is based on the idea that some people believe that some forms of physical activity are generally pleasing to the eye. The fifth dimension considers physical activity as catharsis. Physical activity becomes a process which relieves the body of disease caused by inactivity. This is often viewed as a major requirement to a satisfying life. Finally, the sixth dimension views physical activity as an ascetic experience; it reveals that some people no longer enjoy sport when it becomes too highly organised and intensely competitive. The six dimensions are summarised below.

1. Physical activity as a social experience.
2. Physical activity for health and fitness.
3. Physical activity as pursuit of vertigo.
4. Physical activity as an aesthetic experience.

5. Physical activity as catharsis.
6. Physical activity as an ascetic experience (67).

The fourth attitudinal scale which was examined was Guttman's multidimensional scale (also called Cumulated scale). This is concerned with statements which are connected with a variety of dimensions relating to an attitude (68). Guttman scales tend to be similar to Thurstone scales, although they tend to be shorter and the scoring procedures are characterised as being simple. In Guttman's methodology, respondents are asked to consider each item and to give their responses, usually by providing a check mark, regarding which items they favour most. The total score is usually the number of check marks which respondents give (69).

The last attitudinal scale examined was the Likert Scale. The Likert Scale is one of the most popular methods for assessing attitudes (70, 71). This scale indicates the extent to which someone agrees or disagrees with a particular statement. The scale has been designed to remove large numbers of judges and items, which are inherent in the Thurstone Scale, and which still generate an accurate attitudinal scale. Likert scales have been constructed with diverse numbers of steps. Usually, most Likert scales are constructed of five steps consisting of Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree (72, 73, 74 and 75). The Likert scale requires a numerical expression of an

individual's degree of agreement or disagreement within a series of affective statements.

Each of the six types of attitudinal scales carries attendant shortcomings, but as has been shown, the common feature of all six scales is that they attempt to allow an evaluation of the positive and negative attitudes of the subjects.

However, Fishbein and Ajzen (1975) contend that, for attitudes to be measured, most attitude scales need to be made up of several items which address various beliefs and /or intentions about an attitude object. Therefore, it is only when an 'attitude scale' has been carefully constructed from several well-chosen beliefs or intended items, that the scale would have a high correlation with other standard attitude measures. However, beyond this there are virtually no limitations on the kind of responses that can be considered. It is for the reasons stated above, of reliability and accuracy, that the researcher chose to use the Likert scale for this study. Moreover, it is the scale most commonly used by those testing attitudes to Physical Education, as will be shown below (76).

4. SECTION THREE

4.1 Previous studies on attitudes towards Physical Education

The third section of the review is centred around the two main contributors to the sample tested, the students and their teachers. A review of the research concerned with students' attitudes to Physical Education is examined first, followed by a review of the research concerned with teachers' attitudes and factors which might influence these attitudes. Initially the review concentrates on attitudes to Physical Education from an international perspective and continues with information specifically from the Arab world.

4.1.1 The international perspective.

Attitude scales or inventories, which have been discussed earlier, have been used to evaluate how students feel towards Physical Education. Numerous studies have reported that students generally have positive attitudes toward Physical Education as a high school activity course (77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94 and 95). However, there are also a number of studies focused on students' attitudes which have reported differing views of Physical Education and physical activity based on gender and culture (96, 97, 98, 99,100, 101, 102, 103, 104, 105, 106, and 107). In addition, Brumbach and Cross (1965) also found that students who participated in high school athletic programmes or who attended a small school (enrolment under 300) were more likely to have a healthy attitude towards Physical Education

(108). A survey carried out by Sharples (1969) on children's attitudes towards school activities, discovered that most children held favourable attitudes towards Physical Education. Sharples (ibid.) examined the attitudes of 438 pupils drawn from four schools towards five curriculum activities in: 1) Art, 2) Reading, 3) Writing, 4) Physical Education and 5) Mathematics. His results indicated that although different schools associated favourable attitudes with different curriculum activities, in the case of Physical Education all the schools and most of the pupils held favourable attitudes towards Physical Education. Sharples concluded that the children in his sample valued Physical Education. Sharples also concluded that involvement in Physical Education contributed to the development in children of a healthier lifestyle (109).

Kniveton (1969) published work on the attitudes of adolescents to aspects of their schooling. This work was the result of the author's belief that valuable data could be obtained from the pupils themselves. The results suggested that adolescents' attitudes towards their schooling were by no means unitary. Kniveton collected information from 192 males and 192 females aged 14-15 in British secondary schools. Attitudes of the adolescents were examined concerning: their (1) liking for school, (2) interest in curriculum subjects, (3) life goals and (4) personality development. In so doing, he was able to analyse the influence of sex on attitude and concluded that males had more favourable attitudes than females in relation to (2) their interest in curriculum subjects and (4) personality development. Although the study was not concerned

specifically with Physical Education, it is a good illustrative example that any analysis should include the perspective of the actors involved (110).

Dotson and Stanley (1972) studied the value which college students placed on physical activity using the Kenyon scale. Their findings indicated that students of gymnastics voiced the highest positive attitude, with students of badminton, archery, and bowling the lowest. They also found that a majority of the students valued physical activity as a means to pursue vertigo (thrills and excitement), whilst aesthetic experience was the lowest of the six values denoted by most students (111).

Figley (1985) conducted a similar study and used a sample of 88 female and 12 male college students enrolled in six separate courses in elementary school Physical Education. The main findings of this study were that curriculum, teacher, atmosphere in the gymnasium, peer behaviour and student perception of self were all important determinants of positive attitudes towards Physical Education (112).

In a study conducted by Mathes and Battista (1985) college males and females reported some similar reasons for participating in physical activity, along with a competitive difference. Both sexes rated health and fitness benefits very highly, along with social interaction and gave these as important reasons for participating in physical activity. Males placed a greater importance on the

competition motive than females. However, females rated competition above average in importance, but not as important as the motives of health, fitness and social experience (113).

Jones (1986-88) undertook a study in England to obtain information regarding children's attitudes towards Curriculum Physical Education. Jones carried out the study in five primary and middle schools in the North East of England. His sample was taken from five local education authorities in the immediate vicinity of Newcastle-upon-Tyne. The subjects were in the age range nine to twelve plus. In his pilot study the number of young children in the sample was 268. The method used was Wang's criteria for the selection of attitude scale items and 20 statements of attitude towards Curriculum Physical Education were included. The tests were recorded on audio-tape. Details of the pilot study were not available in the final report. 431 pupils of the same age were sampled in the main study. As stated earlier, an audio tape was used in the pilot study but in the final study the method of data collection used was the Likert attitude scale. 25 statements were given to the sample and the pupils were asked to rate their responses on a scale which ranged from, strongly disagree, disagree, undecided, to agree and finally strongly agree. The final report was published in 1988. The results showed detailed insight into the attitudes of the pupils questioned. It could be argued that this was due to the nature of the methods used. The results provided a picture of the attitudes of the correspondents to Physical Education and the value they associated with

the subject. The main conclusion of the study was that pupils in this sample had positive attitudes to Physical Education. Jones also concluded that the test procedure and the method of data analysis had been effective (114).

In a study conducted by Rice (1988), it was found that students at the high school level had negative attitudes toward Physical Education. Accounts brought forth in this study by males and females were: "a need for a wide variety of activities to be offered", "lengthening class periods" "preference for team over individual sports" and "increased participation by physical educators with their classes." Other important comments centred around quality and existence of facilities. Like most studies that have been conducted in the past, the students' attitudes towards Physical Education were recorded, but specific reasons leading to a positive or negative attitude were not explained, and suggestions for a solution are non existent in this study (115).

Mowatt, DePauw, and Hulac (1988) undertook the task of investigating differences in attitudes toward physical activity by gender among college students. The 20 item questionnaire consisted of general attitude statements, which included statements describing how students viewed Physical Education as a curriculum subject, and statements describing how students perceived the benefits of exercise. Important findings in this study suggested that both males and females believed that there were benefits in physical activity. Both males and females indicated a neutral attitude toward state school Physical

Education, but they did affirm the importance of Physical Education classes being offered. On average, females showed a more positive attitude towards physical activity than males (116).

In 1990 Scott and West completed a survey of pupils' attitudes to Physical Education in the Inner London Boroughs. The pupils in the survey were 111 primary (10-11 years) and 904 secondary pupils (13-14 years). The pupil sample was taken from 6 primary schools and 6 secondary schools. The researchers used a questionnaire method to collect the data. Unfortunately the researchers did not record which scale they used to judge pupils' attitudes. The results of the survey showed that pupils had favourable attitudes towards Physical Education and, thus, the researchers concluded that Physical Education should be compulsory in both primary and secondary schools in Britain (117).

In 1991, Campbell carried out a study of female attitudes towards Physical Education and related activities among recently arrived and established Filipino female students at a major high school. The purpose of this study was to examine and compare attitudes of "recently arrived" and "established" female students, as they pertain to Physical Education and related activities. The study population consisted of 39 secondary Filipino females born in the Philippines. The instrument used was a 42 item Likert scale survey. From the findings, the following conclusions were drawn:

"Recently arrived" Filipino female students appeared to: (1) prefer non-aggressive sports; (2) respond to exercise that improve balance; (3) identify with their family unit as their preferred advisor; (4) spend time on academic subjects rather than on Physical Education.

"Established" Filipino female students appeared to: (1) prefer aggressive and non-aggressive sports; (2) be willing to take part in physical activity; (3) like Physical Education as part of their school programme; (4) feel free to make their own decisions. Implications for Physical Education are that educators should be aware of the various ethnic backgrounds and cultural influences which exert different expectations in respect of physical involvement and achievement in students from other countries (118).

Luke and Sinclair (1990) studied the factors that help in developing positive and negative attitudes towards Physical Education. Their sample comprised 488 students from the eleventh grade (15-16 year); 223 of them were male and 255 were female. The findings indicated that the most important factors in attitudes towards Physical Education were the content of the syllabus, and the teachers' behaviour towards both males and females. The students' attitudes were positive towards the subject of Physical Education (119).

Further, Coakley and White (1992) explored the dynamics of how young people make decisions about their participation in sport. The methods they

used were in-depth semi-structured interviews with 34 young males and 26 young females aged 13-23. The researchers chose their interviewees because half of them were actively involved in sports programmes and the other half were identified by teachers and programme organisers as dropouts or nonparticipants. In their selection of the sample the researchers took into account equal numbers of males and females from a considerable number of racial and ethnic backgrounds. The findings of this study indicated that

> young women and men shared concern about their transition into adulthood and had common desires to develop and display personal competence and autonomy. However, these common concerns were significantly mediated by gender. Furthermore, gender differences were found in the ways sport experiences were defined and interpreted, in the ways that constraints related to money, parents and opposite-sex friends operated, and in the ways that past experiences in Physical Education and school sports were incorporated into current decision making about sport participation (120).

Goudas and Biddle (1993) conducted a study on pupil perceptions of enjoyment in Physical Education and used a sample of 254 (154 boys and 100 girls) year 8 and year 9 (aged 13 to 14 years) comprehensive school students. Two of the schools were located in small towns in the South West of England and the third was located in an East London borough. The researchers used an open-ended questionnaire technique and reached the conclusion that:

> fun, change in school work, and health and fitness are factors that make Physical Education an enjoyable subject. However, the major reason both for satisfaction and dissatisfaction was the content of the lessons (121).

and, in addition to this, their findings showed that boys rated games as more enjoyable than girls; they also stated that the reverse was true for individual activities. However, the researchers did not specify whether there was any relevant difference between the city and the small town in attitudinal variation.

Tannehill and Zakrajsek (1993) analysed students' attitudes towards Physical Education. Their study took a multicultural approach. The study specifically focused on student attitudes towards the goal of Physical Education. In addition, cultural issues were addressed. Tannehill and Zakrajsek used the questionnaire method to collect their data. They used a Likert- type scale with 5 responses and open-ended questions. The sample students were 366 (80 males, 286 females) ranging in age from 11 to 19 years and of school grade 6, up to 12. The ethnic population involved in the study included Asian Americans, African Americans, Hispanic Americans, and Anglo-Americans. The aim of Tannehill and Zakrajsek's study was to understand how important these students perceived Physical Education to be in relation to their total education. Their conclusions were that students in their sample had positive attitudes towards Physical Education. Another point of relevance to this study was that the students' responses reflected cultural differences. One point which

needs to be clarified here is that the researchers did not give any information in relation to whether Arab students were included in the study or not. Some cultures indicated a poor response towards the importance of Physical Education, a factor which could be, in part, a focus of the present analysis (122).

Cavanaugh (1994) also carried out a study on student attitudes toward physical activities in "Physical Education Skill and Fitness for Life courses". The main aim of his study was to determine if attitudes toward physical activity differed between students who were enrolled in Physical Education Fitness for Life (FFL) and Physical Education Skill (PES) classes. A second purpose of his study was to determine whether attitudes differed according to the variables of class, class rank and gender. Attitudes were measured using the Kenyon attitude scale.

His sample included potential subjects (n = 722) who were classified by class (FFL or PES), class rank (underclassman, upperclassman) and gender. Twenty subjects were randomly selected for each of the eight cells formed by these variables. An ANOVA (2 x 2 x 2), was applied to the total score and the six dimension scores of the ATPA DW. The alpha level for all statistical tests was .05. Few statistically significant differences in attitude toward physical activity were found. Thus, the researcher concluded that attitudes toward physical activity, as measured by the ATPA DW, did not differ between groups formed

by class, class rank, gender, class and class rank, or class, class rank and gender. Of particular importance to the present study is Cavanaugh's conclusion that there were sex differences among pupils in their attitudes toward Physical Education (123).

In 1994 Carlson carried out a study on why students hated, tolerated or loved gymnastics. The purpose of his study was to investigate secondary students' attitudes toward Physical Education and to identify the variables which contributed to the formation of those attitudes. In addition, the link between the attitudes which students held toward Physical Education and their behaviour in Physical Education class was investigated. A survey given to (150) students was used as a screening device to select thirty-six participants. Data were collected by: (a) conducting two group interviews with each of the student participants, (b) conducting stimulated recall sessions and individual interviews, (c) observing classes, (d) videotaping classes, and (e) interviewing each of the four teachers who were conducting the observed classes. The data were coded and analysed revealing differences and similarities between students who held varying attitudes toward Physical Education. Aspects of cultural, societal, and school contexts were found to be the major influences on students' attitudes toward Physical Education. The major influences within the cultural context were gender, an idolisation of elite sports persons and a compartmentalisation of the body and mind. Within the societal context, influential factors were family, the mass media, and the participants' sporting

experience and skill level, peers, previous Physical Education experiences, and perception of fitness. These factors, he concluded, influenced the self concept and self esteem of the students. The most influential factor within the school context was the teacher. Students stated that they expected (a) Physical Education to be fun, (b) Physical Education classes to have few goals or challenges, (c) learning not to take place in Physical Education, and (d) Physical Education to be sport. Those expectations led many students to believe that Physical Education was not a "real" subject. This belief, together with the influential factors within the three contexts, affected the students' attitudes toward Physical Education. The findings of Carlson's (ibid.) study suggested that student behaviour often does indicate attitude. Students, however, could be influenced by certain situation pressures placing them under an obligation to act in a way contrary to their attitude (124).

Thomas (1994) carried out a case study of student attitudes toward intercollegiate athletics at California State University, Los Angeles. The purposes of this study were: (1) to identify the attitudes of undergraduate students in three selected academic majors toward intercollegiate athletics at the University; (2) to examine the relationships between background characteristics and the attitudes toward intercollegiate athletics of undergraduate students in three selected academic majors; and (3) to construct a causal model of factors which might influence students' attitudes toward intercollegiate athletics in three selected academic majors.

A survey was completed by 304 undergraduate students, 78 majoring in mathematics, 118 majoring in Physical Education, and 108 majoring in sociology. The questionnaire consisted of 32 Likert scale items combined to obtain data in relation to six subscales and the total scale. The subscales were (a) Intellect and Athletics; (b) Athletes' Traits; (c) Morality of Athletics; (d) Lifestyle; (e) Tradition, School Sport, and College Life; and (f) The Business of Athletics. The study concluded that the attitudes of undergraduate students majoring in mathematics, Physical Education, and sociology at California State University were favourable toward intercollegiate athletics; that they do not differ on the basis of gender, perceived social class, religiosity, political affiliation, and satisfaction with the quality of the university's educational programmes; and that they differed on the basis of major, level of activity in high school sports, present level of activity in sports, family size, frequency of use of Physical Education and recreational facilities, perceived level of physical fitness, level of social activity at the university, and satisfaction with the quality of university social life (125).

Candelaria (1992) carried out a study on the attitudes of students and teachers toward co-ed. ability grouping and traditional grouping of students for instruction. The main aim of his study was to examine how random grouping of students RGS and co-ed. ability grouping students CAGS for instruction affected students' and teachers' attitudes toward Physical Education. In his study it was hypothesised that positive attitudes in students and teachers of

CAGS would be found. Additionally, CAGS was hypothesised to be a more effective instructional environment and that it would create positive attitudes about student skills and fitness. The attitudes of 282 students and 4 teachers were measured. The results of this study indicated that teachers and students rated CAGS more positively. More specifically, teachers perceived CAGS to be a better organisational structure, were more positive about their students' skill and fitness levels, and had better attitudes. Students' attitudes were more positive in CAGS, but the perception of their skill and fitness levels was not positive. Also this study suggested that CAGS enhances student and teacher attitudes in Physical Education (126).

In 1992, Woods carried out a study on the development of an inventory to assess multicultural education attitudes, competencies, and knowledge of Physical Education professionals. The primary purpose of his study was to develop a reliable and valid instrument to assess the attributes of Physical Education professionals, concerning multicultural education. The secondary purpose was to assess the attitudes, competencies, and knowledge of the sample used to validate the instrument. Data were obtained through the administration of the multicultural attitudes, competencies, and knowledge from sixty-eight Physical Education professionals in the Milwaukee public school system. Unfortunately the researcher did not record which type of data collection he used to judge pupils' attitudes. An estimate of the instrument's general performance was obtained through computation of the mean and

standard deviations of the sections of the instrument and its categories. In assessing the attitudes, competencies, and knowledge of the teachers in the sample used to validate the inventory, the data were analysed in terms of percentage of total responses scored as correct. A large percentage of this group of Physical Educators expressed generally positive attitudes toward multicultural education and believed that Physical Education had a part in implementing multicultural educational practices and concepts. They rated themselves slightly above moderately competent in their ability to implement multicultural education in the gymnasium. Average scores on the knowledge section indicated that these teachers were knowledgeable about multicultural goals and objectives, concepts and theories, and terminology (127).

England and Rosenberg (1994) carried out a study on "Attitudes Towards Physical Education". Their main focus was to understand the attitudes and see the impact which Physical Education might have on teachers in terms of the sense of their work. The subjects were parents and students, and as they noted in their report, their objective was in part, to understand the attitudes of students and parents towards Physical Education programmes, and to see whether there was a need for improving facilities in Physical Education. An important facet of this study was that the researchers wanted to find out what the students thought about the importance of Physical Education. They used a questionnaire method for data collection in this study. A Likert-type scale was used with 5 responses ranging from definitely yes (1) to definitely no (5) and

open-ended questions. The number of responses was 110. The students were questioned about what Physical Education should do, actually does, and what they liked and disliked about it. Their sample was 314 pupils aged 15 and 16 years (125 boys and 189 girls) and a parent sample of 139 whose age range was 35-44 years. The findings indicated that both girls and boys reported liking it because it was 'coeducational' (69%) and provided a variety of activities (68%). The researchers noted a major difference in gender where boys showed more frequently their liking for Physical Education because of perceived excellence in the activities. Also, when the students were asked about the importance they attached to Physical Education in their high school, 94 (31%) of these students indicated that Physical Education was very important. However, 50% of these students ranked Physical Education as less important than all other subjects. Boys in this sample ranked Physical Education as more important than music, whereas girls ranked music as more important. The results of this study are particularly interesting in relation to the present study since the results showed that the pupils had a negative attitude towards Physical Education whilst their parents had a positive attitude. The comments made by students revealed that many students were not comfortable and felt insecure in their learning and practising of physical skills. Most of the comments made in this sense, were advanced by females, who argued that, "I'm not good at basketball, and I hate playing in front of the guys", "Playing kickball inside with a bunch of guys, they made me feel stupid because they were by far more athletic", and that, "My teacher discriminated against people

who looked different or people who were not athletic", and, "We were playing a baseball game. I was up to bat, and I struck out, and everyone, including the teacher, laughed at me because I couldn't hit the ball". It can be seen here that the reason behind such negative attitudes may be due to the influence of their teachers on their students when they participate in Physical Education without regard for the students' needs (128).

Al-Aly (1994) carried out a study on the attitudes and personal fitness knowledge of elementary Physical Education teachers in the US regarding health-related fitness. The main aim of his study was to determine whether a relationship existed between knowledge of, and attitudes toward, health-related fitness among elementary Physical Education teachers. The relationship between teaching experience, age and participation, and attitudes toward health-related fitness among elementary Physical Education teachers was studied. Additionally, the study sought to determine whether elementary Physical Education teachers demonstrated a strong positive attitude toward health-related fitness and whether elementary Physical Education teachers had a high level of knowledge regarding health-related fitness. Al-Aly (ibid.) used two instruments for this study. The first instrument, the (55-item) Personal Fitness Knowledge Inventory, was adapted by the researcher from an instrument designed by Rider, Imwold, and Johnson (1986). The second instrument (20 items) consisted of a four-point modified Likert response pattern ranging from strongly agree to strongly disagree and was designed to

measure elementary-level Physical Education teachers' attitudes. His sample consisted of 200 certified Physical Education teachers selected randomly from a list of 1,817 names from the State of Florida Department of Education in Tallahassee. The researcher used descriptive statistics and a correlation coefficient to illustrate appropriate factors about the sample and to determine the relationship between teacher knowledge and attitudes in relation to health-related fitness. He also used simple linear regressions to understand the nature of the relationship between teachers' attitudes and their knowledge toward health-related fitness. He also examined the relationship between age, teaching experience, and participation among elementary Physical Education teachers. The findings of Al-Aly's (ibid.) study indicated a significant relationship, first, between teachers' attitudes and their knowledge, second, between teaching experience, age and participation, and third attitudes regarding health-related fitness. Other findings of the study revealed that the teachers who participated had positive attitudes and a high level of knowledge regarding health-related fitness (129).

Benn (1996) carried out a research project in the summer term of 1994 in Britain. She studied "Muslim Women and Physical Education in Initial Teacher Training". Benn (ibid.) examined the relational dynamics influencing institutional and Physical Education course developments as female Muslim students studied on a 4-year primary initial teacher training degree course. The study was carried out in Greenacres College, England. The researcher used

three data collection techniques, namely, interview, observation and diary keeping. Benn (ibid.) interviewed 17 and observed 7 female students. The weakness of Benn's (ibid.) study was that it had too few respondents, and for the purpose of this study was carried out on Muslim women who lived in England, which is a different culture from Muslim women living in an Arab culture. The study had two main conclusions. Firstly, that there was a gradual unforeseen and unplanned process of negotiated accommodation as the management and staff responded to the expressed needs of the Muslim women whilst ensuring state requirements for teacher training were met. Secondly, that there was a reciprocal shift in attitude towards Physical Education amongst the Muslim students. The latter conclusion of Benn's (ibid) study is relevant to the present study in that it indicates that there can be a shift in attitude experience among Arab people in relation to Physical Education. In addition, the study specialises in females, who are important in the present study (130).

Cale (1996a) in a review of teachers' attitudes and views of health related exercise argued that "Teachers' attitudes and views are also deemed important to the success of Health Related Exercise (HRE)" and cited the result of the survey conducted by the Physical Education Association (PEA) (1987) stating that health related fitness is the "second most important objective of Physical Education" (131). She also carried out another study on the assessment of the Physical activity levels of adolescent females. The purpose of her study was to

provide an estimate of the activity levels of a random sample of 103 adolescent girls aged 11-14 selected from 12 different high schools across central England. She used the technique of the interview questionnaire and came up with the finding that the levels of activity in girls were generally low. Her recommendation was that 'Fostering positive attitudes towards PE is therefore essential' (132) and that

> All adolescents should be physically active daily, or nearly everyday, as part of play, games, sports, work, transportation, recreation, Physical Education, or planned exercise, in the context of family, school, and community activities (133).

She also highlighted the importance of teachers and the role they play in Physical Education:

> Physical Education teachers can potentially have a strong influence over young people's physical activity behaviour (134).

Further, the curriculum, according to her, also influenced children's attitudes toward Physical Education:

> The curriculum has also been recognised as an important determinant of children's attitudes toward PE (Coakley and White, 1992; Figley, 1985; Goudas and Biddle, 1993; Luke and Sinclair, 1991) (135).

Cale concluded by saying that:

> PE teachers can do much to ensure a positive atmosphere and supportive environment and to promote girls' perceived competence by the teaching philosophy, strategies and methods they employ" (136)

Cale's key points relating to health, the curriculum, and to teachers play a major part in students' attitudes towards Physical Education. The present investigation has tried to examine the attitudes of teachers and those of their students in Jordanian secondary schools. Health, curriculum, enjoyment, participation, dissatisfaction, students' perceptions of their teachers, culture, public relations and mass media have been investigated to see if they have any bearing on the attitudes of students towards Physical Education.

It may thus be concluded that the study of attitudes in Physical Education is of crucial importance, both to teachers and their students. Examination of the attitudes of teachers and students alike will make it possible to evaluate Physical Education in Jordan and to devise a better strategy to develop the status of Physical Education in Jordanian secondary schools.

4.1.2 Review of related literature in the Arab world, including Jordan

A review of the research literature related to the present study revealed a lack of research concerned with the evaluation of studies of the attitudes of students and teachers to Physical Education in Arab countries. The few studies previously conducted in Jordanian Society and in other Arab speaking countries are examined in pages 68-77.

Salem (1977) assessed the attitudes of high school female students towards Physical Education, and the effect of variables such as age and parents' education on their attitudes. The researcher used both Kenyon's scale and the Semantic Differential scale. The sample was made up of 460 15-16 year old second grade secondary school female students in Al-Jizah, Egypt. The results of the study showed that in general, the most important variable was the presence of positive attitudes among the sample towards sport activities. The study also showed that parents' education had a positive effect on the students' attitudes towards Physical Education, while age was not a factor which affected their attitudes (137).

Al-Theeb (1979) studied the attitudes of female students in the Department of Physical Education in Alexandria, Egypt, towards the swimming syllabus and its effect on their attitudes. The researcher used Kenyon's scale. The study covered 600 female students from Helwan University. The results showed that positive attitudes towards the swimming syllabus were decreasing, as a result

of the way in which the syllabus was implemented by the teachers and their approach to teaching (138).

Using her own scale, Yusuf (1980) at Ayn-Shams University in Egypt, carried out a study of 600 male and female students. The study showed that there were differences in the attitudes towards sport activity attributable to the sex factor, in that males tended to have a more positive attitude than females. The study also showed that the first year students had more positive attitudes towards Physical Education than those in the final year. It should be noted that the researcher failed to provide details of the scale she used (139).

Ratib (1982) in Al-Jizah Governorate in Egypt conducted a study using Kenyon's scale of the attitudes of high school male students towards Physical Education and sport activities. The sample included 666 male students. The results showed that first year students had a more positive attitude than all other students in the sample towards sport activity as a social experience. However, the second and third year students had a more positive attitude towards physical education and sport activities with regard to health and fitness. There were no statistically significant differences between the three classes (140).

Abd Al-Salam's (1982) study tried to discover the attitudes of students from Practical Studies Colleges and the Theoretical Studies Colleges towards sport

activities. The researcher used his own scale and applied it to 791 male and female students in the second and third year at Cairo University in Egypt. The study revealed that in general, the male subjects of the sample had more positive attitudes towards sport activities than the female students. The study also showed that there were no statistically significant differences between the students of the Theoretical Colleges, either male or female, whereas, there were differences between male and female students in the Practical Colleges in that male students had a more positive attitude (141).

Mahmoud's 1983 study attempted to show the attitudes of athletic and non-athletic university students towards Physical Education. Mahmoud used the Kenyon scale. The sample comprised 300 male and female students from the American University in Cairo, Egypt. The results of his study showed that there were no statistically significant differences between active and non-active students, and that there were no effects on the attitudes of students from either social and economic levels or age. However, the attitudes of the subjects differed in terms of sex, where male students demonstrated a more positive attitude to sport practices than females (142).

Mufidi (1985), in a study conducted in Jordan, attempted to reveal whether teachers of Physical Education in Government Institutes in the United Nations Relief Agency (UNRA) schools, who had administrative and leadership qualifications, had any influence on students' attitudes towards sport activity.

The study also attempted to reveal whether the type of Institute influenced students' attitudes towards Physical Education. The sample comprised 12 male and female teachers and 301 male and female students. The administrative leadership scale of the Physical Education teachers was prepared by the researcher, while Kenyon's scale was used for the students. The study showed the presence of statistically significant differences in the students' attitudes in relation to the teacher having administrative leadership qualifications. There were no significant differences in the students' attitudes with regard to the type of institute (143).

Mohammad (1988) conducted a study on the attitudes of females in the United Arab Emirates towards Physical Education and sport activities. The subjects of the sample were 500 female students with an average age of 17 to 18 years. The researcher used Kenyon's scale. The study indicated that students had positive attitudes towards Physical Education in five activities (the names of which the researcher did not provide), whilst their attitudes were neutral in field sport activity in terms of tension and risk (144).

At Qatar University, Derwesh and Al-Sawi (1990) made a study of students' views and opinions in respect of Physical Education and of the differences between these opinions among male and female students. The sample included 70 male and female students from the department of Physical Education. The study showed that the students' stances towards the teacher preparation

programme was that it needed to be changed and re-considered, and that female students were more sensitive to these problems than males. The results pointed to the students' desire to increase the practical material, training and activities, on campus and off campus, and to decrease the theoretical courses. However, it can be seen that the sample size in this study was rather small and that the types of results the investigation brought about were therefore not very reliable. Further, there were no proper statistical processes involved in this study (145).

Magableh, Al-Jarrah, and Al-Sharideh (1994) at Yarmouk University, studied the attitudes of Physical Education students towards their subject. The main purpose of this study was to explore the effect of demographic variables such as a student's sex, academic level, place of living, parents' educational level, and family income to a student's attitudes towards Physical Education. The study sample consisted of 270 male and female students in the Physical Education Department; 223 of them were male and 47 were female. The questionnaire, consisting of 51 Likert scale items, was employed for the purpose of collecting the field data. The scale comprised five subscales. Descriptive statistical techniques were used, namely, frequencies, T-test and one-way analysis of variance (ANOVA). The major findings of their study were as follows:

- it was found that there were no significant differences between male and female students' attitudes towards Physical Education
- there were no significant differences between students' place of living and their attitudes towards Physical Education
- there were however, significant differences between students' membership of university teams and their attitudes towards Physical Education, in that students who were members of university teams had a more positive attitude
- there were significant differences between students' academic levels and their attitudes towards specialisation of Physical Education where students in the fourth year showed a more positive attitude
- there were no significant differences between students' parents' education level and their attitudes towards Physical Education
- there were significant differences between students' family income and their attitudes in the area of Physical Education as a science among other fields of study (146).

The present investigation shares a few elements with the study referred to above. The points of similarity and of difference are outlined below:

Similarities:

- both studies were conducted in Jordan
- both used frequencies, the ANOVA variance analysis
- both studies were concerned with attitudes to Physical Education
- both investigations made use of the Likert scale of attitude measurement

Differences:

- while the present study focused on secondary schools in three locations the other investigation examined Physical Education Department students specialising in P.E.
- the sample size in the two studies differ; in the present investigation the sample included 1125 students and 148 teachers, in the other study 270 students were studied
- the researcher's study involved secondary students and their teachers, the other investigation involved students only
- the male/female ratio in this study is more equal

Thus, in respect of the study mentioned above, some interesting findings have been revealed, but a few observations are offered here, especially in relation to the present study. First, the study was carried out in the Physical Education Department at Yarmouk University where the students who participated in the study specialised in Physical Education, there being no students who

specialised in other subjects involved in the investigation. Second, the study focused on students' attitudes only and did not involve the teachers. Third, the study was limited to one particular area, Irbid, and was not enlarged to include other areas. For example, and as Magableh, Al-Jarrah and El-Sharideh themselves admit, if the study were extended to the Departments of Physical Education in other places, for instance, and if the sample were larger, the results could have been different.

Al-Nahar (1995) in a study conducted in Jordan, looked at the importance of Physical Education for students and its position in relation to other subjects taught in schools. The researcher developed a questionnaire based on ten subjects and asked the students of the tenth grade to put these subjects in a list in descending order, according to their importance. The study sample was 473 (241 males and 232 females). The study showed that other subjects, such as science, mathematics and English were more important for male tenth graders, whereas Physical Education was rated in eighth position after consideration of all ten choices. Females, rated Physical Education tenth (147).

Al-Nahar (1995) also carried out a study on students' attitudes towards Physical Education. He prepared and distributed a questionnaire to over 318 first year male and female secondary students in the vicinity of greater Amman, in Jordan. The researcher employed a descriptive technique in the survey. Al-Nahar (ibid.) discovered that 63.5% of the students stated that

Physical Education was unimportant, that one Physical Education class was insufficient and that students would like an increase in this number. This negative attitude was due to several factors. Firstly, some of the Physical Education teachers were either absent from classes or did not supervise their students while they practised. Secondly, the head teachers usually scheduled Physical Education classes at the end of the school day. Thirdly, the Ministry of Education did not include Physical Education grades at all when evaluating the overall performance of the students (148). Whilst these are useful factors for the researcher to consider, it is very difficult to arrive at any conclusive evidence without adequate statistical evidence.

5. Summary

This chapter has examined some of the recent studies in both the Western world and Arab countries, on the attitudes of students and teachers to Physical Education which are available on current information systems. The results of these studies show that attitude testing can give valuable insights into students' and teachers' attitudes to Physical Education programmes. However, as has been shown, whilst some of these studies provide useful information, others do not have enough substance to add any additional depth to this field of study. Additionally, there are gaps in the available literature. There is a paucity of research for instance, on teachers' attitudes to Physical Education, on teachers' and students' attitudes to Health Related programmes and no literature on the attitude of Muslim students and their teachers to either Physical Education or Health Related programmes in the Jordanian State school system.

Attitude is an important variable that can bring about positive consequences if studied and analysed properly. Once an investigation of students' attitudes is collated accurately, better alternatives can be offered which could directly cause a change in the students' general performance and lifestyle both personally and academically.

As has been recorded in this chapter, a number of factors are observed to have a bearing on the tenability of attitudes. These variables may be summarised under the categories of those which range from gender, age, beliefs and

activities to class rank, and those related to personal development, teachers' behaviour, syllabus content, school environment, and culture.

Research has been conducted on students' attitudes towards Physical Education, as well as the effects of attitude on grades, self-concept, and social development. However, these studies fall short of giving detailed answers to such necessary questions as: Does the attitude of students toward Physical Education differ between school grade levels? Is the attitude of students affected by geographical area? Which factors affect the attitudes of secondary school students towards Physical Education with particular reference to Jordan? Which factors affect the attitudes of both teachers as well as students towards Physical Education?

The studies described in this chapter give an indication of how Physical Education is tackled and which factors can influence it. Therefore it would seem that there is a continuing need for attitude studies to be carried out, as these can provide a more accurate understanding of how students perceive their Physical Education programmes. The attitude of teachers is also important and teachers can, to some extent, influence the attitudes of those whom they teach, as has been shown (149, 150, 151, 152, 153, 154, 155 and 156).

It can thus be seen from the research included in this chapter that the researchers have come up with interesting, though sometimes differing, findings. The factors which the researchers have examined are various and numerous, as has been stated above, and different findings have been observed with respect to these factors. Sometimes, conflicting outcomes were reached on the same factor. For example, some authors highlight the importance of gender in students' attitudes towards Physical Education while some others deny such an impact. One important conclusion to be drawn is that a general variable which has an impact on the attitudes of students on Physical Education is the overall cultural background, including the family, school, class and personality. The concern of this study is to highlight the way in which attitudes towards Physical Education may be further investigated in Jordan. This will help Physical Educationists to gain more insight into better methods of developing Physical Education in secondary schools.

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Chapter Two

THE RESEARCH METHODOLOGY

This chapter deals with the methods used for carrying out the field analysis for the present study.

1. The research aims

The main aim of this study was to carry out an investigation into the factors which affect secondary cycle Physical Education students' attitudes towards Physical Education.

The specific objectives in order of importance were:

1. to examine the factors which combine to form Jordanian secondary school students' attitudes to Physical Education
2. to establish whether there were significant differences between male and female attitudes to Physical Education
3. to establish whether there were significant attitudinal differences between rural, urban and Badia (Bedouin) students
4. to compare the attitudes of grade 10 (age 15-16) students, 1st secondary (age 16-17) students, and 2nd secondary (age 17-18) students
5. to look for correlations or significant differences between sex, region and school grade level and
6. to search out plausible explanations for negative or positive attitudes towards Physical Education.

A secondary but important parallel objective was to collect information on the attitudes of Physical Education teachers to:

1. the stated objectives of the Physical Education curriculum
2. the content of the Physical Education curriculum
3. the professional status of Physical Education teachers
4. the role of the media in shaping attitudes to Physical Education.

To summarise, this study aimed to analyse the attitudes of students and staff to Physical Education in Jordan and to use these data to discover probable causal relationships.

The chosen needs were justified, but the elicitation of the needs required an appropriate research instrument. The following section will discuss the issue of choosing a suitable instrument for data-collection.

2. The research instruments

A reliable research implement was sought to assess attitudes. The literature revealed that there were a number of data gathering tools which could be used to collect information on attitudes.

Mackay and Mountford (1978) consider questionnaires and structured interviews to be the most appropriate methods of information gathering:

> There are basically two formal ways of gathering the necessary information: by a questionnaire to be completed by the learner or teacher, or by means of a structured interview (1).

Cohen and Manion (1989) agree and state that a questionnaire and interviews are the most common methods of data-collection when evaluating attitudes (2). Robinson concurs:

> Several people advocate the administration of a questionnaire at the beginning of a course in order to estimate students' need and wants (3).

It is important to note here that educational researchers working in other fields of study also make similar statements relating to the collection of data on attitudes. Oppenheim (1966) for instance, states that:

> There are numerous methods of data-collection in social research, from the lengthy, exploratory pilot interview, with its 'hidden agenda', to the impersonal mailed questionnaire and the analysis of documents (4).

It can be seen then that theorists agree that one or other or both of these methods can be used to collect data on attitudes. What must be taken into consideration, however, is that the researcher, in designing a questionnaire, must determine from the outset the type of information which is required and ensure that the questions are structured so that the correct information is

elicited. In other words, the researcher needs to know in advance what specific information he wants to elicit so that he may design his questions appropriately.

2.1 The interview

The interview is defined by Borg (1981) as follows:

> The interview is a form of measurement that is very common in descriptive research, such as survey, but can also be used to collect a variety of educational data in other types of research. This method is unique in that it involves the collection of data through direct verbal interaction between individuals (5).

Another definition of the interview is that given by Cannel and Kahn (cited in Powney and Watts 1987), who view this research instrument as,

> .....a two-person conversation initiated by the interviewer for the specific purpose of obtaining research-relevant information and focused by him on content specified by research objectives of systematic description, prediction or explanation (6).

These definitions as well as others (7, 8, 9, 10) lay emphasis on the direct verbal interaction between individuals. Finally, as Gay (1976) suggests, 'the interview may also result in more accurate and honest responses since the interviewer can explain and clarify both the purpose of the research and individual questions' (11). In spite of the advantages the interview has over

other data collection instruments, it has limitations as a research tool. The very fact that it is based on direct verbal interaction may create subjectivity and bias which Brown (1988) refers to as the Hawthorne and Halo effect. He explains that the first type of effect would be found 'in people who are so pleased at being included in the study that the results of the investigation are more closely related to this pleasure than anything that actually occurs in the research'. As for the second type of effect, he says that 'it is due to the tendency among human beings to respond positively to a person they like' (12). It should be added that there are other variables which Brown (1988) has termed the subject expectancy and the researcher expectancy. Briefly, the former attitude may be defined as the subjects' desire to help the researcher achieve his/her goals; the latter occurs when the researcher has expectations which may alter the result of the study (probably to his/her advantage) (13).

The main advantage of the interview is the direct interaction between interviewer and interviewee. This point can be contrasted with the indirectness of the questionnaire method in collecting information. The interviewer can adapt and clarify his question as appropriate. This point is a positive characteristic as it is possible for the interviewer and the interviewee to ask for further explanations.

However, the interview suffers a number of disadvantages such as its subjective nature. Borg (1987) states that because of its subjectivity (direct

interaction between individuals) there are many potential sources of bias and distortion (14). Hopkins (1985) believes that the interview is a time-consuming method which may be conducted with some form of recording equipment, with additional and attendant disadvantages (15). The interview method of data collection was rejected because of these reasons and also for cultural reasons, in that a male researcher would not be allowed to interview unaccompanied females.

2.2 The questionnaires

Evans (1978) defines a questionnaire as:

> A series of questions dealing with some psychological, social, educational, etc. topic or topics, sent or given to a group of individuals, with the object of obtaining data with regard to some problems; sometimes employed for diagnostic purposes, or for assessing personality traits (16).

This definition is explicit. The next consideration however was to think how to construct such a questionnaire. Clearly the construction of such a tool is a time consuming process and many weeks of planning are required. As Oppenheim (1966) states:

> It is clear that questionnaire construction is by no means the first stage in carrying out a survey. Many weeks of planning, reading, design, and exploratory pilot work will be needed before any sort of specification for a questionnaire can be determined. The

> specification will follow directly from the operational statement of the issues to be investigated and from the design that has been adopted. The questionnaire has a job to do: its function is measurement, and the specification should state the main variables to be measured (17).

This statement is supported by Cohen and Manion (18), Evans (19) and Youngman (20).

Cohen and Manion (1989) suggest that there are three types of questionnaire:

1. mailed or postal questionnaires
2. self-administered questionnaires
3. group-administered questionnaires (21)

In this study, both self-administered and group-administered types were adopted for both the student questionnaire and the teacher questionnaire. The reason for choosing the self- and group-administered questionnaire as opposed to the mailed questionnaire or the interview method, for instance, was based on the following reasons:

1. by using types two and three (22), high response rates could be anticipated since the researcher could ensure that all questions were answered and that everyone would complete their questionnaire

2. the researcher would be able to assist the respondents in understanding the questions asked

3. checks could be made at the questionnaire site to ensure completion of all questions

4. the size of the sample would be assured

The mailed questionnaire type of collection of data was rejected in this study, because it was thought that mailing through the postal system might delay or damage the questionnaire during distribution. Also, it was thought that the personality of the researcher and his style of conduct, could convince others to contribute to his work, but without influencing their responses. Thus, the questionnaires were delivered direct to the sample schools by the researcher.

Oppenheim (1966) suggests that questionnaires show a minimum of bias if the researcher pays attention to the wording of his questions. He states that bias may occur in group-administered questionnaires if leading questions are included (23).

According to Cohen and Manion, (1994) leading questions are:

> .....questions which are worded (or their response categories presented) in such a way as to suggest to respondents that there is only one acceptable answer. For example: Do you prefer abstract, academic type-course, or down-to-earth, practical courses that have some pay- off in your day-to-day teaching... (24).

Furthermore, Cohen and Manion suggest that the questionnaire can frustrate the respondents if it contains open-ended questions, resulting in a situation where these questions may be left unanswered because they are too demanding in terms of time and effort:

> The open-ended question is a less satisfactory way of eliciting information. Open-ended questions, moreover, are too demanding of most respondents' time (25).

In establishing the weakness of questionnaires in general, these points have been taken into account in this study to make the process of answering the questions as easy as possible and to guarantee a large response. In all questions, the respondents were only required to check one response to represent their opinion. Complex structures and abbreviations were avoided to guarantee accuracy in the information. For example, the questions do not include any double negative structures which could in themselves be difficult to understand and leading questions have been avoided. The majority of the

questions presented had scales, with each scale containing five items rather than three items, to provide the respondents with a wider choice. The five items were as follows :

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

Respondents were requested to choose one of the above items. Researchers have suggested (26, 27 and 28) that such a technique helps the respondents in answering the questions and offers a coherent structure which can be easily analysed by the researcher.

In designing the questionnaires the following guidelines for writing effective questions and statements, (Babbie 1983) cited in McMillan and Schumacher (1989), were carefully observed. Double barrelled questions and long complicated items were avoided. Negative phrasing of questions was also avoided. An attempt was made to ensure all questions were relevant and were related to one another. The aim, in short, was to ensure clarity existed throughout the questionnaire (29).

The literature suggests that, to some extent, some of the problems of designing a questionnaire are not revealed until after the respondents have answered the questions. This is because the questionnaire designer may not discover in advance what can be easily understood by the respondents until he examines their responses and relates them to the questions set. This point was taken into account from the outset with the introduction of a Pilot Study. It was clearly

necessary to test the validity of the questionnaire and to establish the degree to which the selected measurement tool measured what it needed to measure. A test which Borg (1987) considers to be essential in developing a measurement tool (30).

The questionnaire was also supported by a brief covering letter which aimed to assure the respondents about the confidentiality of their answers whilst at the same time motivating them to answer all the questions and briefing them about the purpose of the study and its importance.

Clearly a covering letter was of crucial importance and the advice of Mouly (1978) was valued on this issue:

> The cover letter is also of crucial importance to success, since the investigator must depend on the printed words to sell his study. A good letter can make a real contribution to both the rate and the quality... The cover letter must be brief, courteous, and forceful in pointing out the significance of the study and the importance of the individual's participation (31).

The covering letter which was used in this study included all the necessary points outlined above including the name and address of the researcher, the name and the address of the sponsor and the name and address of The University of Durham where the researcher was studying. (see appendices 3, 4).

In summary, five main reasons are given for the choice of a questionnaire as a research tool to obtain information from students and teachers in this sample:

1. there were too many respondents in the sample for an interview procedure to be used to obtain representative and reliable data
2. the collaboration of the respondents in such an activity was easily obtainable
3. it was considered that the respondents would prefer to answer a questionnaire than deal with an interview
4. the students could be requested to answer the questionnaires in their classroom where their teachers could ensure suitable monitoring procedures, and thereby ensure that there would be less wastage in terms of unreturned, incomplete or inaccurately filled in questionnaires
5. the culture meant that the male researcher could not sit freely with females for the purpose of interviews.

2.2.1 The choice of questionnaires

The questionnaire technique is a particularly quick method of conducting a study, comparatively speaking, whereas for example, observation is not (32). In the words of Moser and Kalton (1971), a questionnaire takes little time to send out and even the bulk of the returns can be received in a short time (33). The researcher has very little time to spend on it, but still requires a reasonably large amount of data to achieve success. It is partly for this reason that this

study used the questionnaire technique in order to obtain adequate information within the time limit.

Apart from the time limit for data collection of only three months, two other reasons for choosing the questionnaire method for data collection in this study were, firstly, that the study subjects were too numerous to be observed in a particular situation at the same time, and secondly, the fact that the sample was to be collected from a wide geographical area of Jordan.

The questionnaire technique can sometimes avoid the problems associated with the use of the interview technique. For example, when information is requested verbally a considered opinion is not always forthcoming from some personality types. Equally some personalities need time to collect and refine their thoughts and attitudes.This was considered to be a probable scenario in this study.

Questionnaires can be filled in by the respondents in the absence of the researcher and can be easily administered to a large number of respondents simultaneously. The questionnaires can also be easily filled in and followed up. Moreover, it provides a suitable method for obtaining feedback and measuring attitudes.

Given the above information, two questionnaires were constructed. One for the students and the other for the teachers. The rationale concerning this decision has already been stated, and is based on the consideration, as has already been suggested, of the size of the population to be studied, the type of data to be collected and the purpose of the whole study.

A questionnaire was developed which included most of the possible factors which might influence the development of Physical Education in Jordan. A review of the relevant literature (34, 35, 36 and 37) and in depth discussions with the individuals and scholars involved, allowed a comprehensive overview of the state of Physical Education in Jordan to be completed, and suitable attitude statements to be formulated The questionnaire covered attitude statements related to the three major components of Physical Education: The curriculum, the teacher, and the students.

3. The design of the questionnaires

The questionnaires contained different types of questions which would allow for an investigation into the attitudes of students and staff to Physical Education in Jordan. The researcher's experience, a number of relevant books, articles and other relevant studies were reviewed (e.g. 38, 39, 40, 41, 42, 43, 44, 45 and 46) evaluated and taken into consideration when formulating each question so that a refined and complete version could be constructed. A series of questions was collated. Some were taken from related research projects like

Jones (1988), Shaw and Wright (1967), Alhassan (1985) and Goudas and Biddle (1993) particularly the questions relating to the Physical Education curriculum, health, participation and enjoyment (47, 48, 49 and 50). Others were formulated by the researcher and discussed with both supervisors to arrive at questions which were neither ambiguous, misleading, nor unclear. This was particularly true with reference to statements related to culture and religion where terms are inherently ambiguous. The discussion with the supervisors as well as with other experts in the area of language, translation and research have been of an immense help in eradicating ambiguous or unclear questions. The formulation of "new questions" was a necessary procedure because of the gaps which exist in the literature as was discussed in the review of the literature.

3.1 The pilot study

As stated earlier, a pilot study was carried out to determine the feasibility of the proposed research tool and examples are contained in Appendix 2. Before the pilot study was tested in Jordan, a student questionnaire was developed in English and this was validated by 20 students in and around Durham (UK). The questionnaire tool was amended in line with the evaluations. The amended questionnaire and the un-piloted teacher questionnaire were translated into Arabic and ten Professors in the departments of Physical Education, Education and Psychology from Yarmouk University, Jordan, were asked for their comments and suggestions. In translating the questionnaires from English into

Arabic it was important that the essential and crucial meaning was not destroyed.

The newly amended Arabic version of both questionnaires was both validated in Jordan. Having prepared the drafts of the questionnaires, it was decided to implement them in small-scale pilot studies so that a maximum response rate could be ensured. The questionnaires where given to (50) students (25 males and 25 females) and (20) teachers (10 male and 10 female) selected randomly from different secondary schools in Jordan. These people were asked to answer all the questions, to write down any suggestions concerning the clarity of the questions and to measure the time needed to complete all the questionnaires. They were also asked about the clarity of the test items in relation to comprehension and understanding. The questionnaires were delivered directly to the random sample, by the researcher.

3.2 The students' questionnaire

The students' questionnaire was composed of two sections: I and II (see Appendix 3). Each section was intended to focus on a certain area to achieve an explicit purpose.

Section I contained general questions which could be answered easily as recommended by Educationists. This section contained seven statements concerned with sex, age, place of school, type of school, father's occupation

and place of residence (see Appendix 3). The purpose of this section was to provide the researcher and the readers of this study with a background of the students attending secondary schools in Jordan.

Section Π was divided into four parts:

Part One (1) contained statements about students' attitudes to Physical Education. There were 42 (from 1-42) statements. These statements addressed different issues: health, participation, enjoyment, curriculum and dissatisfaction and were related to Physical Education. In the analysis section, data are grouped under these issues.

Part Two (2) contained statements about the students' attitudes in respect of their Physical Education teachers. These were numbered: 43, 44, 45, 46 and 47.

Part Three (3) contained questions about the students' attitudes to Physical Education in respect of culture, religion and parental opinion. These were numbered: 48, 49, 50, 51, 52, 53 and 54.

Part Four (4) contained questions about the perceived effect of the mass media on student attitudes to Physical Education. These were numbered; 55, 56, 57, 58, 59, 60 and 61.

3.3 The teachers' questionnaire

The teachers' questionnaire was also composed of two sections: I and II (see Appendix 4). Each section was intended to focus on a certain area to achieve a particular purpose:

Section I contained general questions which could be answered easily as had been recommended by Educationists. The section contained six (6) questions about sex, age, experience, qualifications, employer and current status (see Appendix 4).

Section II was divided into four parts:

Part One (1) contained questions about the teachers' attitudes to objectives of Physical Education including the factors which must be carefully considered when planning realistic objectives in the development of Physical Education and sports programmes. These were numbered: 1, 2, 3, 4, 5, 6, 7, 8 and 9.

Part Two (2) contained questions about the teachers' attitudes to the Physical Education curriculum and what respondents considered should be the content offered in public secondary schools. These questions were numbered: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25.

Part Three (3) contained questions about the teachers' attitudes to Physical Education. These were numbered: 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36 and 37.

Part Four (4) contained questions about the possible effect of the mass media on teachers attitudes to Physical Education. These were numbered: 38, 39, 40, 41, 42, 43 and 44.

It is worth reminding the reader that the respondents were asked to rate their answers on a five-point Likert scale to enable them to choose what best represented their opinion. The first forty two questions of the questionnaire which are related to the students' attitudes towards Physical Education, were not grouped at this stage under one category say for example, Physical Education and health, participation .....etc. The purpose of doing this was that the researcher wanted to allow the respondents to express their real attitudes explictly and freely without giving them any hints or any direction to the answer. As I mentioned in part one, it was agreed that the questions would eventaully be grouped when the data was analysed. into the following five sub-headings: Physical Education and health, Physical Education in relation to participation, Physical Education in relation to enjoyment, Physical Education and curriculum and Physical Education and dissatisfaction.

4. The procedure

The sample for this study consisted of all the secondary students in Irbid countryside, (Rural 400), Mafraq (Badia 400) and Amman (Urban 500). The sample consisted of students in 6 secondary schools for males and 6 secondary schools for females. The schools were randomly selected from all the secondary schools in Jordan.

The aim of random selection according to Bryman and Cramer (1990) is to draw out findings that can be generalised beyond the confines of those included in the study. They justify choosing such a method below:

> Clearly some populations can be very large and it is unlikely that all of the units in a population can be included because of the considerable time and cost that such an exercise would entail (51).

Data for this study were obtained from three areas :

a) Amman (urban)

b) Irbid countryside (rural)

c) Mafraq Badia (Bedouin)

The data were collected from April to July 1995 during the academic year 1995-1996. Questionnaires were distributed to an equal number of boys' and girls' schools in order to obtain representative information with regard to

gender. Geographical areas were taken into consideration in order to maximise the heterogeneity of the sample, thus, two of the boys' schools were in Rural areas, two were Urban areas, and two were from Badia areas. For the same reasons, two of the girls' schools were in Rural areas, two were in Urban areas, and two were in Badia areas. Three classes per school were randomly selected. A total of 1500 questionnaires were distributed, 1,300 for the students and 200 for the teachers.

Permission was gained from the Ministry of Education for the refined questionnaires to be distributed to Jordanian schools. It should be noted here that Yarmouk University was instrumental in gaining this permission by supporting this study and by writing to the Ministry to explain why it should be granted. Similarly, the Ministry of Education made it possible for the distribution of the questionnaires in the areas chosen, by sanctioning the research and by communicating their permission to the local Education Authorities in the study area. Finally, it is important to state here that at every stage of this study, the researcher was given every support needed in collecting the information. The distribution of the questionnaires by area is shown in Boxes (1) and (2) below.

Box 1

RESEARCH AREA, STUDENTS' QUESTIONNAIRE DISTRIBUTION AND RETURN

AREA	NUMBER OF QUESTIONNAIRES DISTRIBUTED	NUMBER OF QUESTIONNAIRES RETURNED
AMMAN	500	435
IRBID	400	388
MAFRAQ	400	302
TOTAL	1,300	1125
NOTE: It should be noted here that the number of administered questionnaires in Amman was more than the other two areas because Amman is the capital city		

Box 2

RESEARCH AREA, TEACHERS' QUESTIONNAIRE DISTRIBUTION AND RETURN

AREA	NUMBER OF QUESTIONNAIRES DISTRIBUTED	NUMBER OF QUESTIONNAIRES RETURNED
AMMAN	80	62
IRBID	60	49
MAFRAQ	60	37
TOTAL	200	148
NOTE: It should be noted here that the number of administered questionnaires in Amman was more than the other two areas because Amman is the capital city		

The questionnaires were delivered to the schools by the researcher (self delivery questionnaire) to ensure that all were received and in good condition. Of the 1,300 questionnaires administered to students, the number returned was 1125. The age of the students ranged from 15-18 years.

From the 200 questionnaires administered to the teachers, 148 were returned. These figures show both the strength and the weakness of the questionnaire method. The weakness was that even though a self delivery group method had been thought to be infallible, some of the questionnaires were not returned. The positive factor and the strength of the selected procedure was that a high rate of return was in fact achieved, allowing satisfactory analysis of the results and a significant sample to allow some conclusions to be made.

The returns also showed that the number of males and females who responded would allow gender differences and similarities to be examined, of 1125 questionnaires returned from the students 544 (48%) were male and 581 (51.6) were female. 148 teacher questionnaires were returned, 90 (60.8%) from males and 58 (39.2%) from females.

4.1 The students' questionnaire

This was a group-administered questionnaire, (type three). The head teacher and researcher agreed together that the Physical Education teachers in each school would help during the completion of the questionnaires. The role of the

teachers was to read aloud the instructions (or introductory statements) on the front of the questionnaire whilst the students read their own copy, and to tell the students: [when you have finished, place the sheets in the envelope provided].

Other procedures followed in the field activity were as follows:

The questionnaires were administered in normal class conditions. Most of the questionnaires were completed during a Physical Education lesson. The completed questionnaires were collected and taken away by the fieldworker (researcher). The whole operation was designed to cause as little disruption and inconvenience to the school as possible

4.2 The teachers' questionnaire

The teachers were given one week to study and fill in the questionnaire. A day was then agreed upon between the head teacher, the teachers selected and the researcher for the collection of the responses.

The questionnaires were scored, tabulated and computerised in both the computer centre at Yarmouk University and Durham University.

The independent variables of this study for the students are:

a) The grade level of students [grade 10 (age 15-16) students, 1st secondary (age 16-17) students, and 2nd secondary (age 17-18) students.

b) Sex [male and female]

c) Place [Rural, Badia, and Urban].

The dependent variables for the students are:

1. students' attitudes to Physical Education
2. students' attitudes in respect of their Physical Education teachers
3. students' attitudes to Physical Education in respect of culture, religion and parental opinion
4. the perceived effect of the mass media on student attitudes to Physical Education.

The independent variables of this study for the teachers are:

a) year of experience [1-5, 6-10 and 10 above]

b) Sex [male / female]

c) the qualifications of the teachers [Diploma, B.A and M.A + Ph.D.]

The dependent variables for the teachers are:

1. Physical Education objectives
2. the Physical Education Curriculum
3. Physical Education as perceived by teachers
4. the possible effect of the mass media on teachers' attitudes to Physical Education.

The design was: Grade X Sex X Place for the students and Experience X Sex X qualifications for the teachers [3 X 2 X 3]

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Chapter Three

Analysis of data

This study had two main aims:

a) To analyse the factors affecting the attitudes of secondary school students towards Physical Education (Ages 15-18)

b) To analyse the factors affecting the attitudes of the teachers of these students to Physical Education

1. Introduction

The main objective in the next two chapters is to present the results relating to student and staff attitudes towards Physical Education in twelve secondary schools in Jordan. Preparation of the data was completed in July, 1995. The data were processed on both the main frame computer at Durham University and on a similar system at Yarmouk University. The 'Information Analysis System' - SPSS was used at both locations. It should be noted that each returned questionnaire was checked for errors and integrity, before transferring the information to programme form to be fed into the computer.

2. The population

Data collection for the study took place during the academic year 1995-1996. The study sample consisted of students studying in secondary schools in different regions of Jordan, namely Irbid, a rural area, Mafraq, a Badia area (Bedouin) and Amman, an urban area. Care was taken to ensure that the sample included similar numbers of males and females and the three different types of residential areas were included to ensure the heterogeneity of the sample. Thus, of the six (6) secondary schools for males and the six (6) secondary schools for females, two of the male schools and two of the female schools were rural, two were urban and two were Badia (Bedouin). All the schools were randomly selected. Three classes per school were selected from the 10th grade, (age 15-16) 1st year secondary (age 16-17) and 2nd year secondary (age 17-18) students. The teachers teaching in these same schools formed the teacher sample.

Due to the large amount of data collected, the results have been analysed in two separate chapters. The first of these shows an analysis of the data collected from the student questionnaires, which has been further subdivided into two sections. Section one offers the general data and statistics, and section two shows a more detailed analysis. The second chapter is concerned solely with an analysis of the data collected from the teacher questionnaires.

The specific objectives of this study in order of importance were:

1) to examine the factors which combine to form Jordanian secondary school students' attitudes to Physical Education
2) to establish whether there are significant differences between male and female attitudes to Physical Education
3) to establish whether there are significant attitudinal differences between rural, urban and Badia (Bedouin) students
4) to compare the attitudes of grade 10 (age 15-16) classes, 1st secondary (age 16-17) classes, and 2nd secondary (age 17-18) classes
5) to look for correlations or significant differences between sex, region and school grade level
6) to search out plausible explanations for negative or positive attitudes towards Physical Education.

A secondary but important parallel objective was to collect information on the attitudes of Physical Education teachers on:

1) the stated objectives of the Physical Education curriculum
2) the content of the Physical Education curriculum
3) the professional status of Physical Education teachers
4) the role of the media in shaping attitudes to Physical Education.

To summarise, this study aimed to analyse the attitudes of students and staff to Physical Education in Jordan and to use these data to search for probable causal relationships.

3. Section One

3.1 General statistics

In examining the data collected in the research sample, the following independent variables were taken into consideration:

(a) Sex, (b) Place, and (c) Age (class level)

a) Sex

Table 1 shows the number of male and female students in the sample.

Table: 1 Distribution of students with regard to Sex.

Variables	Value	Frequency	Percentage
Sex	Males	544	48.4
	Females	581	51.6
Total		1125	100

Table 2 shows the number of students in each of the urban, rural and Badia (Bedouin) areas. As Amman is the capital with a dense population, the figures below reflect this, with this urban area containing the highest number of students involved in this study.

Table: 2 Distribution of students with regard to place.

Variables	Value	Frequency	Percentage
Place	Urban	435	38.7
	Rural	388	34.5
	Badia	302	26.8
Total		1125	100

Table 3 illustrates the age distribution of the students. The highest percentage of students were in the 15 year age bracket.

Table: 3 Distribution of students in relation to age.

Variables	Value	Frequency	Percentage
Age	15 Years	420	37.3
	16 Years	351	31.2
	17 Years	354	31.5
Total		1125	100

Table 4 shows the number of students from each class involved in the sample.

Table: 4 Distribution of students with regard to class.

Variables	Value	Frequency	Percentage
Class	10th (age 15-16)	420	37.3
	1st secondary (age 16-17)	351	31.2
	2nd secondary (age 17-18)	354	31.5
Total		1125	100

4. Section two

The results in this chapter are presented under the following major headings:

1. Students' attitudes to Physical Education.
2. Students' attitudes to their teachers' perceptions of Physical Education.
3. The effect of culture on student attitudes to Physical Education
4. The perceived effect of the mass media on student attitudes to Physical Education

4.1 Students' attitudes to Physical Education : Part 1

The students were given 42 statements and asked to record their responses on a five point scale: [Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree]. The 42 statements were divided under the following sub-headings:

1. Physical Education and health (questions 8, 9, 21, 39, 40, 41 and 42)

2. Physical Education in relation to participation (questions 10, 12, 13, 18, 37 and 38)

3. Physical Education in respect of enjoyment (questions 11, 22, 23, 25, 28, 29, 30 and 34)

4. Physical Education and the curriculum (questions 1, 2, 3, 4, 5, 6, 7, 14, 15, 17, 19, 20, 31 and 36)

5. Physical Education and dissatisfaction (questions 16, 24, 26, 27, 32, 33 and 35)

This first section deals with the analysis of the students' attitudes towards Physical Education in relation to health. The attitude statements were measured and classified as follows.

Table 5 explores the importance students place on health in relation to Physical Education, and the answers are ranked in order of importance.

Table : 5 Students' Attitudes Towards Physical Education with reference to Health.

	Mean	S.D
8. Physical education is good because it keeps you fit and healthy	4.55	0.76
40. Physical activities are valuable for maintaining health	4.43	0.73
9. Physical education makes important contributions to mental health	4.37	0.87
41. Physical fitness is a most important aspect of life	4.24	0.96
21. Physical education makes a valuable contribution towards building up reserves of strength and stamina for everyday living	4.14	0.85
42. Participation in physical activities is essential for all of us	3.94	1.10
39. Participation in physical education contributes to the promotion of emotional development	3.26	1.14

At the outset it must be stated that many of the 42 statements received positive responses (see appendix 5). However, these seven responses which were health related, had particularly high ratings. The responses do however raise some interesting points in relation to how strongly the students felt about each item.

It is particularly interesting at this stage to note the differences in the students' attitudes to the role of Physical Education in relation to physical, mental and emotional well-being, (responses 8, 9 and 39). It appears that they do not value emotional well-being as highly as their mental or physical well-being. The responses will be discussed in greater detail in the discussion section. The information which follows is a graphic representation of the responses to statements 8, 9 and 39.

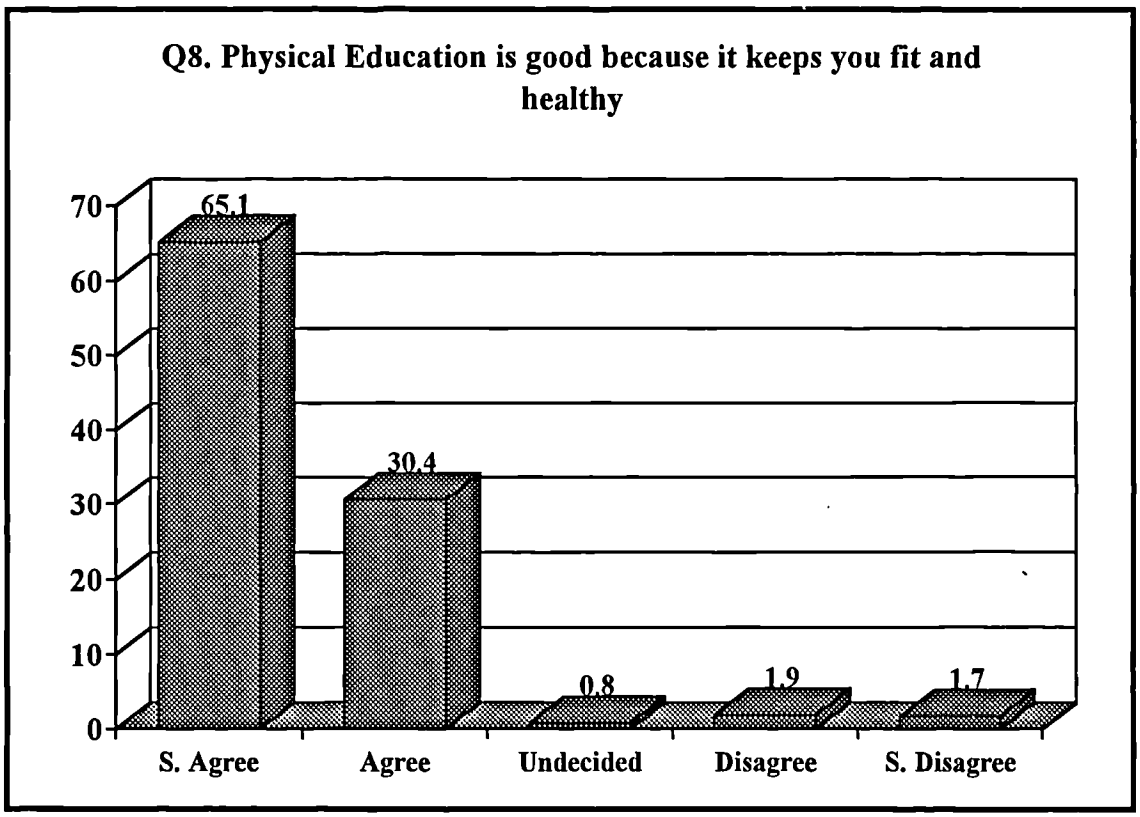

Fig (1)

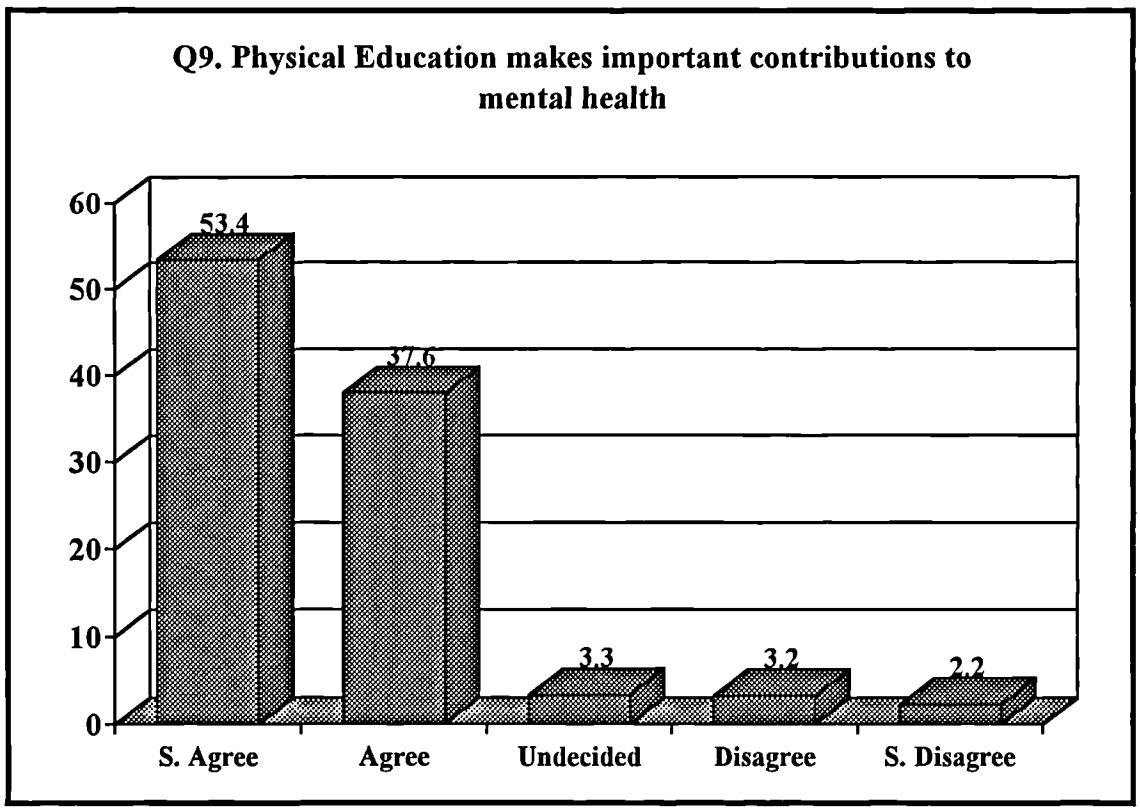
Q9. Physical Education makes important contributions to mental health
60
50
40
30
20
10
0
53.4
37.6
3.3
3.2
2.2
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (2)

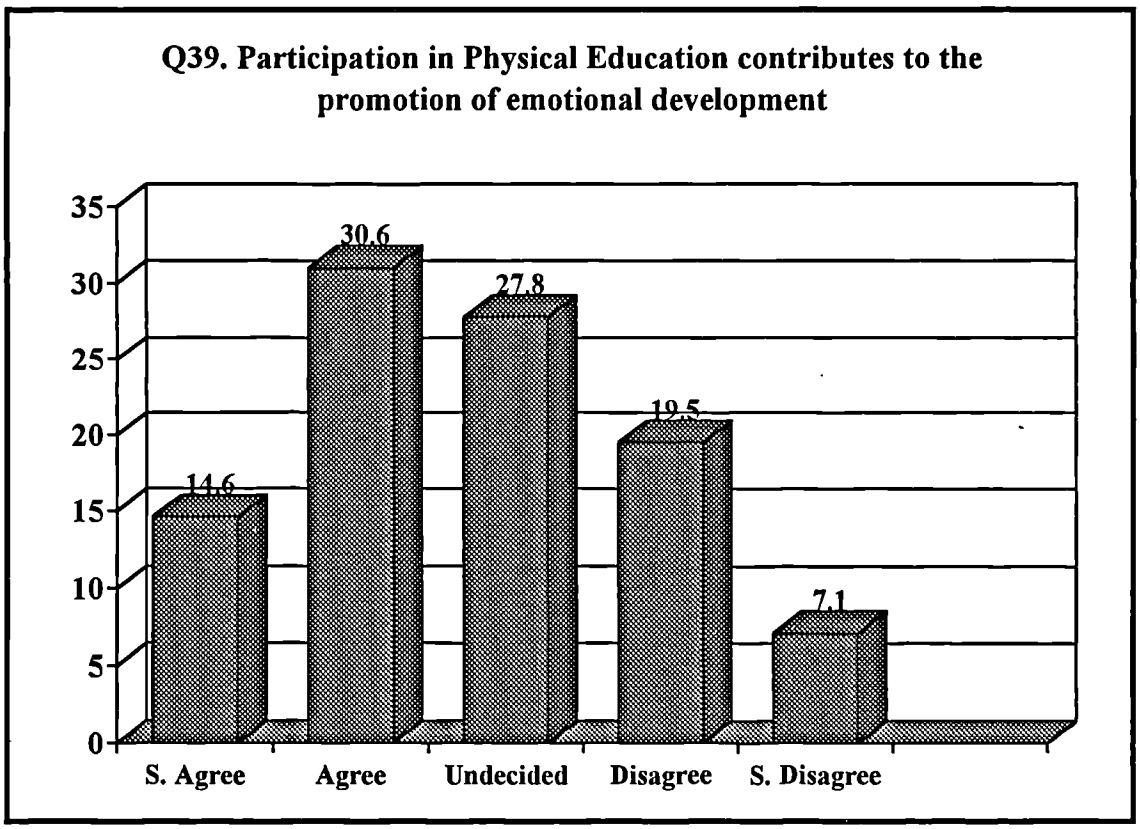
Q39. Participation in Physical Education contributes to the promotion of emotional development
35
30
25
20
15
10
5
0
14.6
30.6
27.8
19.5
7.1
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (3)

Table: 5.1. Reliability Analysis of Health scales

	Corrected Item Total Correlation	Alpha if Item Deleted
8. Physical education is good because it keeps you fit and healthy	0.46	0.63
9. Physical education makes important contributions to mental health	0.43	0.64
21. Physical education makes a valuable contribution towards building up reserves of strength and stamina for everyday living	0.38	0.66
40. Physical activities are valuable for maintaining health	0.47	0.63
41. Physical fitness is a most important aspect of life	0.38	0.65
42. Participation in physical activities is essential for all of us	0.42	0.65

Alpha = 0.69 Standardised item alpha = 0.70

Table 5.1 reports the results computed using the SPSS "Reliability" programme indicating Cronbach's Alpha score (Fitz-Gibbon 1978: 107, 110-112) relating the consequent figure for each item to the summary Alpha figure in table 5.1. Where the Alpha value, if the item is deleted, is lower than Alpha, then that item is interpreted as being consistent with all other items in the scale in terms of what is being measured. Looking at Table 5.1, it can be seen that only 6 items show this consistency. After the reliability test had been applied, it was found that deletion of statement 39 would increase the alpha level and it was therefore dropped. It is possible that item 39 did not fit into the scale due to a lack of clarity in the question or because it was the only item relating to "emotional" health.

Table: 5.2 Students' Attitudes Towards Physical Education in relation to health by Sex.

Sex	N	M	S.D
Male	544	4.26	0.56
Female	581	4.30	0.55

Table 5.2 shows that both male and female students have positive attitudes towards the health effect which they believe results from participation in Physical Education.

Table: 5.3 Students' Attitudes Towards Physical Education in relation to health by Place.

Place	N	M	S.D
Urban	435	4.29	0.53
Rural	388	4.30	0.60
Badia	302	4.25	0.54

Table 5.3 shows that urban, rural and Badia (Bedouin) students have similar positive attitudes towards the perception that participation in Physical Education has a health effect. The students from the rural and urban areas have slightly more positive attitudes than the Badia students.

Table: 5.4 Students' Attitudes Towards Physical Education in relation to health by Class.

Class	N	M	S.D
10th	420	4.22	0.54
1st secondary	351	4.31	0.56
2nd secondary	354	4.32	0.56

Table 5.4 indicates that 10th, 1st, and 2nd secondary students have positive attitudes towards Physical Education in relation to health. 1st and 2nd secondary students have a more positive attitude than 10th year students although the differences between the groups are relatively small.

Table: 5. 5 Students' Attitudes Towards Physical Education in relation to health by Place and Sex.

Place	Urban		Rural		Badia	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	210	4.30	121	4.34	213	4.18
Female	225	4.27	267	4.28	89	4.42

Table 5.5 shows that female Badia students have more positive attitudes than all other students in the sample.

Table: 5.6 Students' Attitudes Towards Physical Education in relation to health by Class and Sex.

Class	10th		1st secondary		2nd secondary	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	209	4.26	146	4.29	189	4.25
Female	211	4.19	205	4.32	165	4.41

Table 5.6 shows that female students in 2nd secondary have more positive attitudes than male students although in the case of 10th grade and 1st secondary the mean score are similar.

Table: 5.7 Students' Attitudes Towards Physical Education in relation to health by Class and Place

Class	10th		1st Secondary		2nd Secondary	
Place	Number	Mean	Number	Mean	Number	Mean
Urban	134	4.22	164	4.28	137	4.36
Rural	165	4.25	118	4.34	105	4.34
Badia	121	4.20	69	4.34	112	4.25

Finally, table 5.7 shows that urban, rural and Badia students have positive attitudes towards Physical Education in all three classes in relation to the health effect, although there is no consistent pattern.

A two-way analysis of variance was performed to test whether or not there were any significant differences between: Sex (males and females), Place (urban, rural and Badia) and Class (10th, 1st and 2nd secondary students). The results of this analysis are listed in Table 5.8 below, where the terms used have the following associated meaning: S refers to sex; C refers to class; P refers to place; SP refers to the interaction effect between sex and place; SC refers to the interaction effect between sex and class; and finally PC refers to the interaction effect between place and class. (Wherever these terms appear in the present study, they have the same meanings).

Table: 5. 8. Analysis of Variance for Health by Sex, Place and Class.

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	0.340	1	0.340	1.095	0.296
PLACE	0.298	2	0.149	0.480	0.619
CLASS	2.203	2	1.102	3.550	0.029*
Sex/Place	3.580	2	1.790	5.768	0.003*
Sex/Class	2.377	2	1.188	3.830	0.022*
Place/Class	0.495	4	0.124	0.399	0.809
Explained	9.594	13	0.738	2.378	0.004
Residual	344.738	1111	0.310		
Total	354.332	1124	0.315		

An examination of Table 5.8, shows that there was a statistically significant difference in terms of interaction between sex and class ($P < 0.05$). Figure 4 shows the difference to be between 2nd secondary students where female students have a more positive attitude than their male counterparts (Mean = 4.41, 4.25 respectively, Table 5.6). Also, as can be seen in the above table, there was a statistically significant difference in terms of interaction between sex and place ($P < 0.05$) as shown in Figure 5, where females in the Badia area showed more positive attitudes than male Badia students in relation to the health effect of participation in Physical Education lessons (Mean = 4.42, 4.18 respectively, Table 5.5). Finally, there was a statistically significant difference between classes with regard to health ($P < 0.05$) as shown in Figure 6, where the 1st and 2nd secondary students showed a more positive attitude than the 10th students (Mean = 4.32, 4.31, 4.22 respectively, Table 5.4). Regarding

other main effects, there were no statistically significant differences. The findings from Table 5.8 are summarised in graph form below.

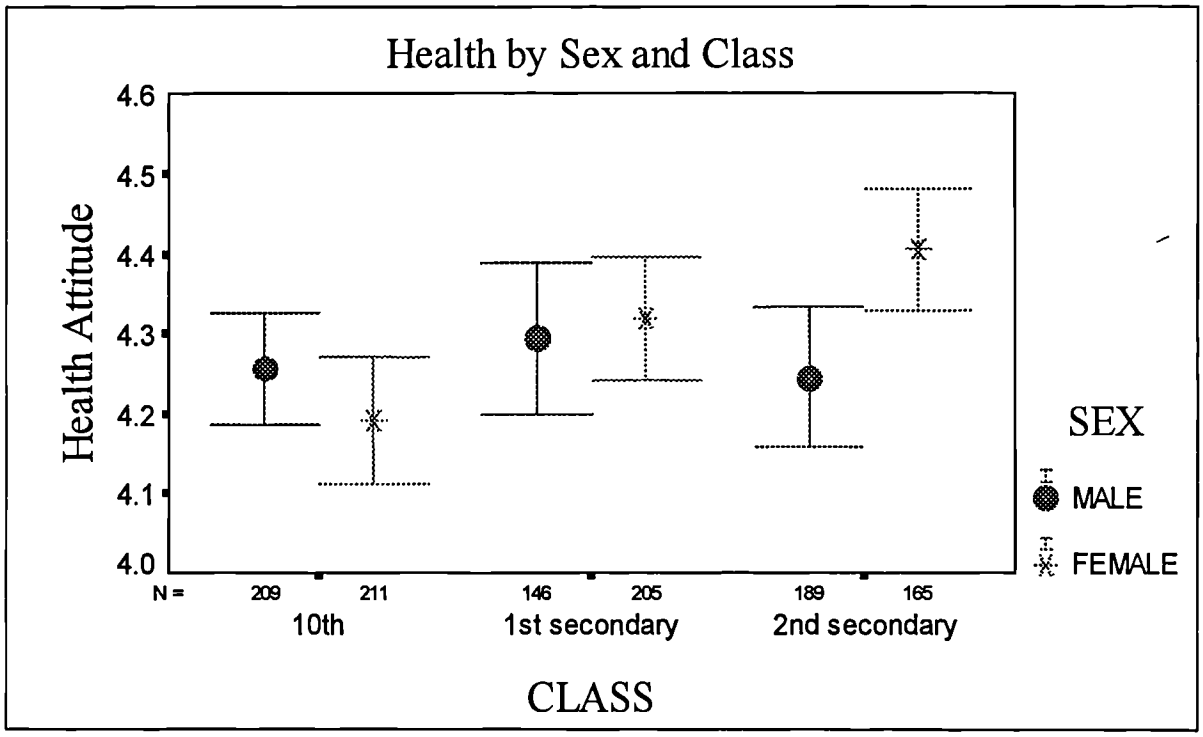

Fig (4)

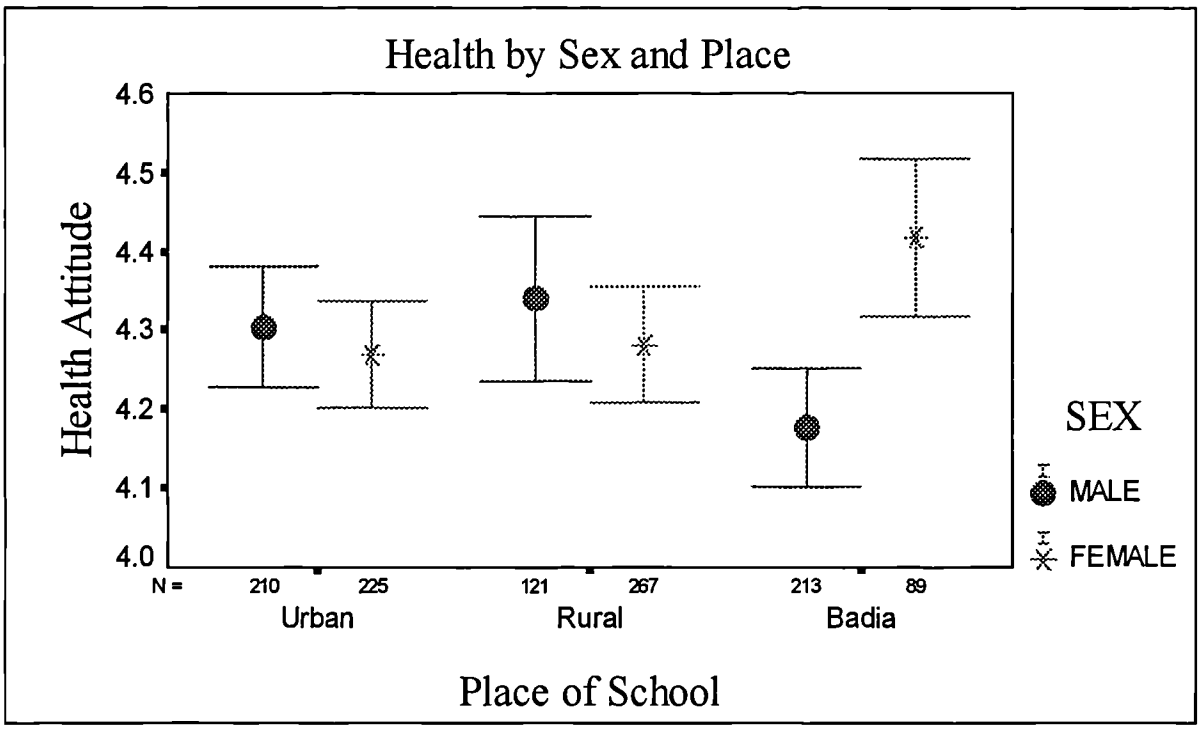
Health by Sex and Place
Health Attitude
4.6
4.5
4.4
4.3
4.2
4.1
4.0
N =
210
225
121
267
213
89
Urban
Rural
Badia
Place of School
SEX
MALE
FEMALE

Fig (5)

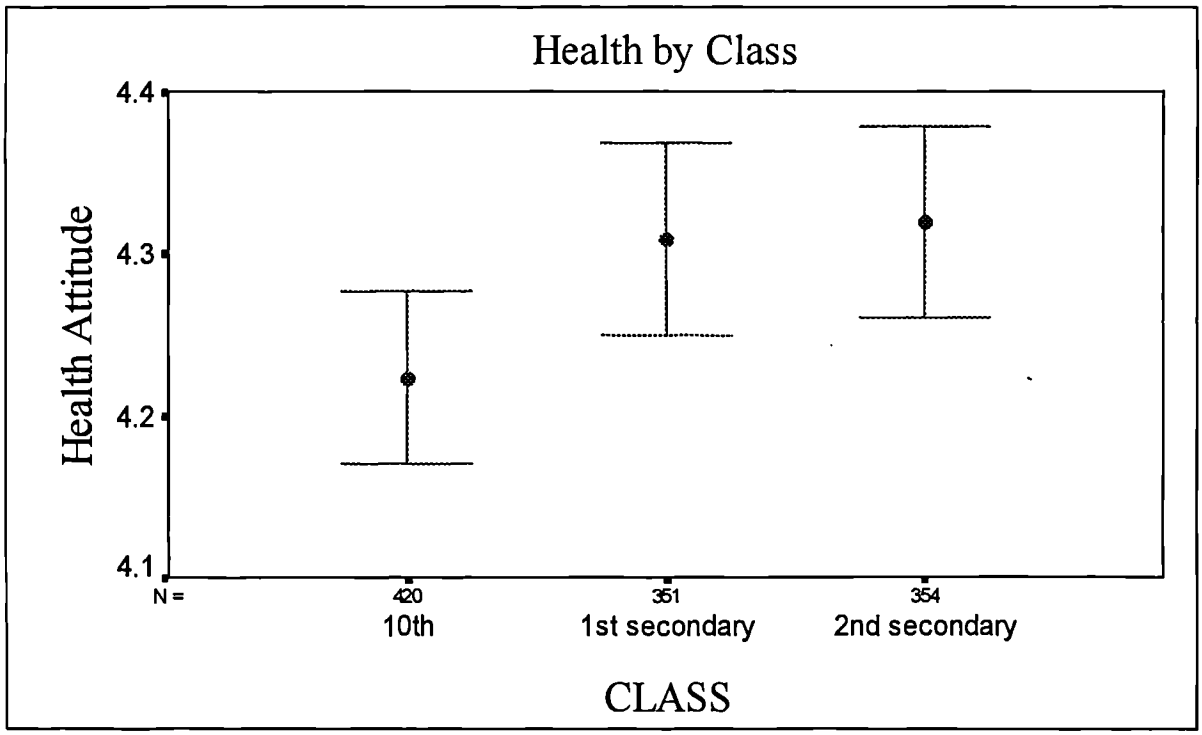
Health by Class
Health Attitude
4.4
4.3
4.2
4.1
N =
420
351
354
10th
1st secondary
2nd secondary
CLASS

Fig (6)

This second section deals with the analysis of the students' attitudes towards Physical Education in relation to participation. The attitude statements were measured and classified as follows.

Table 6 demonstrates students' attitudes towards Physical Education in relation to participation.

Table : 6 Students' Attitudes towards Physical Education in relation to Participation.

	Mean	S.D
18. Working together in physical education activities gives people a better understanding of each other	4.10	0.88
10. Physical education offers training for leadership	4.10	1.00
12. There are many opportunities for the development of moral and ethical conduct in physical education	3.90	0.97
13. Physical education activities provide opportunities for satisfying social experiences	3.78	1.10
37. Girls should develop their physical abilities to the highest level	3.60	1.19
38. Vigorous physical activity works off harmful emotional tensions	3.43	1.13

Table 6 shows that the students have positive attitudes towards Physical Education with reference to participation. The table is constructed to illustrate the attitude statements ranked in order of importance. As can be seen, there are differences between these six items in terms of how strongly students feel about each statement. There would appear to be considerable agreement that Physical Education contributes positively to improving relationships and training for leadership. The findings from questions 18 and 10 are summarised in graph form below.

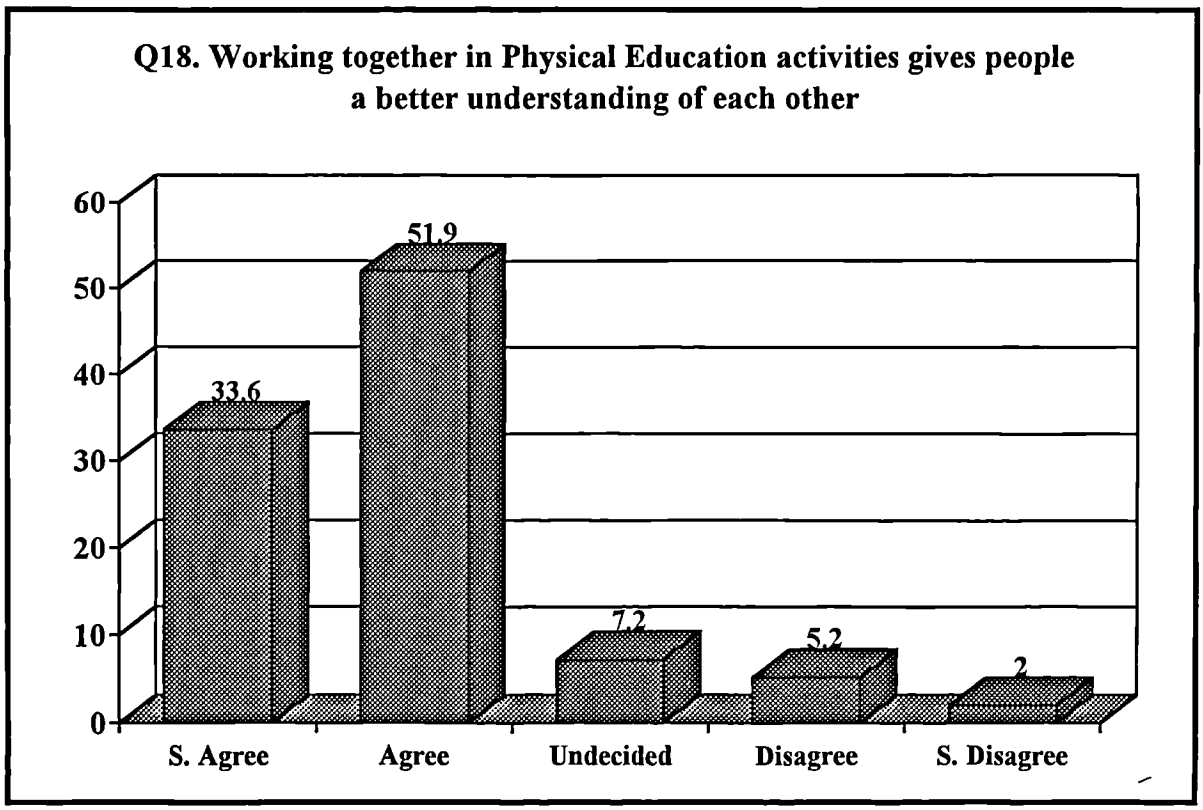
Q18. Working together in Physical Education activities gives people a better understanding of each other
60
50
40
30
20
10
0
33.6
51.9
7.2
5.2
2
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (7)

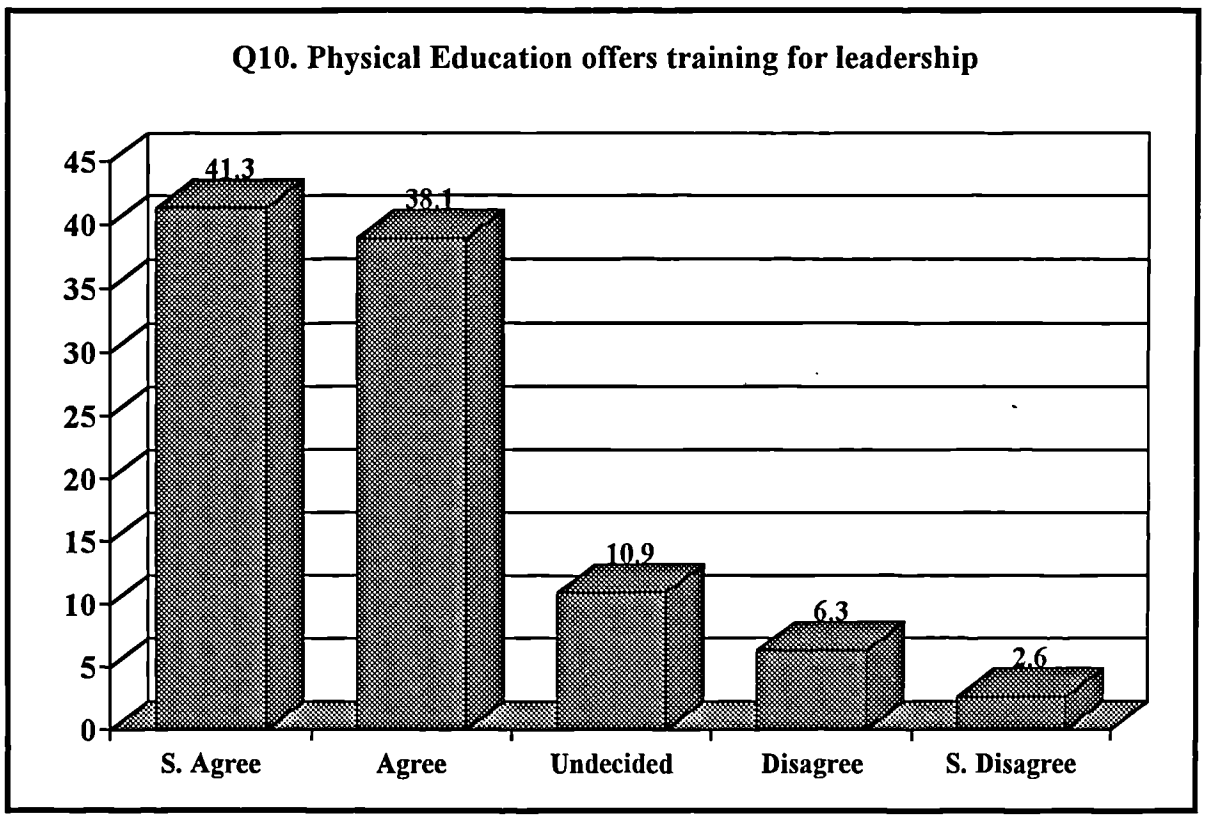
Q10. Physical Education offers training for leadership
45
40
35
30
25
20
15
10
5
0
41.3
38.1
10.9
6.3
2.6
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (8)

Table: 6.1 Reliability Analysis of Participation scales

	Corrected Item Total Correlation	Alpha if Item Deleted
10. Physical education offers training for leadership	0.32	0.53
12. There are many opportunities for the development of moral and ethical conduct in physical education	0.39	0.50
13. Physical education activities provide opportunities for satisfying social experiences	0.37	0.50
18. Working together in physical education activities gives people a better understanding of each other	0.35	0.52
37. Girls should develop their physical abilities to the highest level	0.24	0.57
38. Vigorous physical activity works off harmful emotional tensions	0.24	0.56

Alpha = 0.58 Standardised item alpha 0.59

As with Table 5.1, Table 6.1 reports the results computed via the SPSS "Reliability" programme using Cronbach's Alpha score. From the above table, it can be seen that the 6 items are consistent with each other in terms of what is being measured.

Table: 6.2 Students' Attitudes Towards Physical Education in relation to Participation by Sex.

Sex	N	M	S.D
Male	544	3.83	0.62
Female	581	3.81	0.58

Table 6.2 indicates that both male and female students have positive attitudes towards Physical Education in terms of participation.

Table: 6.3 Students' Attitudes Towards Physical Education in relation to Participation by Place.

Place	N	M	S.D
Urban	435	3.82	0.57
Rural	388	3.85	0.64
Badia	302	3.78	0.60

Table 6.3 also indicates that urban, rural and Badia (Bedouin) students have positive attitudes towards Physical Education according to participation, however, there was little discernible difference between the areas.

Table: 6.4 Students' Attitudes Towards Physical Education in relation to Participation by Class.

Class	N	M	S.D
10th	420	3.74	0.63
1st secondary	351	3.83	0.59
2nd secondary	354	3.90	0.57

Table 6.4 shows that 10th grade, 1st and 2nd secondary students have positive attitudes towards Physical Education with reference to participation, with 2nd secondary students having the most positive attitudes.

Table: 6.5 Students' Attitudes Towards Physical Education in relation to Participation by Place and Sex.

Place	Urban		Rural		Badia	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	210	3.86	121	3.93	213	3.73
Female	225	3.78	267	3.82	89	3.87

Table 6.5 shows that male urban and rural students have a more positive attitude than their female counterparts and yet, by contrast, female Badia students have more positive attitudes than male Badia students.

Table: 6.6 Students' Attitudes Towards Physical Education in relation to Participation by Class and Sex

Class	10th secondary		1st secondary		2nd secondary	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	209	3.77	146	3.85	189	3.87
Female	211	3.72	205	3.82	165	3.93

Whilst table 6.6 shows that male students in 10th and 1st secondary have slightly more positive attitudes than female 10th and 1st secondary students, the table shows that female students in 2nd secondary have more positive attitudes than all other students in the sample.

Table: 6.7 Students' Attitudes Towards Physical Education in relation to Participation by Class and Place

Class	10th		1st Secondary		2nd Secondary	
Place	Number	Mean	Number	Mean	Number	Mean
Urban	134	3.75	164	3.79	137	3.93
Rural	165	3.76	118	3.87	105	3.99
Badia	121	3.71	69	3.89	112	3.78

Table 6.7 illustrates that rural and urban 2nd secondary students have more positive attitudes than Badia students. However, there is clearly no consistent pattern within these results, although taken as a whole, rural students seem to have the most positive attitude.

Table: 6.8 Analysis of Variance for Participation by Sex, Place and Class

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	0.043	1	0.043	0.120	0.729
PLACE	1.291	2	0.646	1.784	0.168
CLASS	5.073	2	2.537	7.011	0.001*
Sex/Place	1.937	2	0.968	2.677	0.069
Sex/Class	0.217	2	0.109	0.300	0.741
Place/Class	1.200	4	0.300	0.829	0.507
Explained	10.840	13	0.834	2.305	0.005
Residual	401.959	1111	0.362		
Total	412.800	1124	0.367		

Data summarised in Table 6.8, show that there was a statistically significant difference between classes ($P < 0.05$). Figure 9 shows that the 2nd secondary students have a more positive attitude than the 10th and 1st secondary students ($M = 3.90, 3.83, 3.74$ respectively, Table 6.4), with the difference between the 2nd secondary and 10th grade students being the most marked (Table 6.4). With regard to the other main effects there are no statistically significant differences. To clarify the position further, the findings from Table 6.8 are summarised in graph form below.

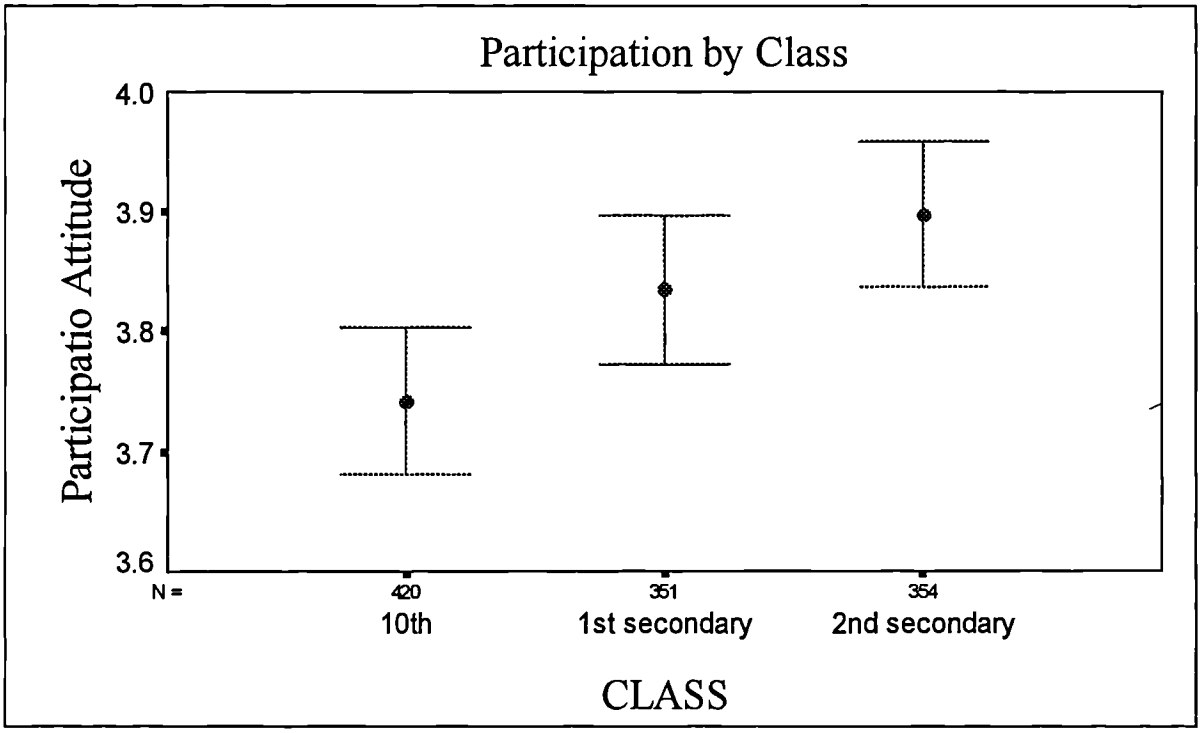
Participation by Class
Participatio Attitude
4.0
3.9
3.8
3.7
3.6
N =
420
351
354
10th
1st secondary
2nd secondary
CLASS

Fig (9)

This third section deals with the analysis of the students' attitudes towards Physical Education in relation to enjoyment. The attitude statements were measured and classified as follows.

Table 7 below outlines students' attitudes towards Physical Education with reference to enjoyment

Table : 7 Students' Attitudes Towards Physical Education in relation to Enjoyment

	Mean	S.D
30. I like doing physical education and games because they are fun	4.10	1.03
11. Playing netball or football is very exciting when the scores get close	3.94	1.16
25. There is something interesting for every-one in physical education	3.93	0.95
23. I like physical education because I can compete against my friends	3.72	1.13
22. I like physical education because if you are good enough you can get into the school team	3.37	1.22
28. I would take part in physical education even if I did not have to	3.28	1.35
34. Girls look forward to their physical education classes with enthusiasm	3.27	1.17
29. Even when I do not feel well, I do not want to miss physical education and games	3.09	1.34

Table 7 shows that all students have a positive attitude towards Physical Education with reference to enjoyment. The table presents the sample students' attitudes in order of importance. As can be seen, there are differences between these seven items in terms of how strongly students feel about each question. When considering these findings further in the discussion section, particular emphasis will be placed upon questions 30, 25 and 23 which deal with fun,

excitement and competition. The findings from these questions are summarised in graph form below.

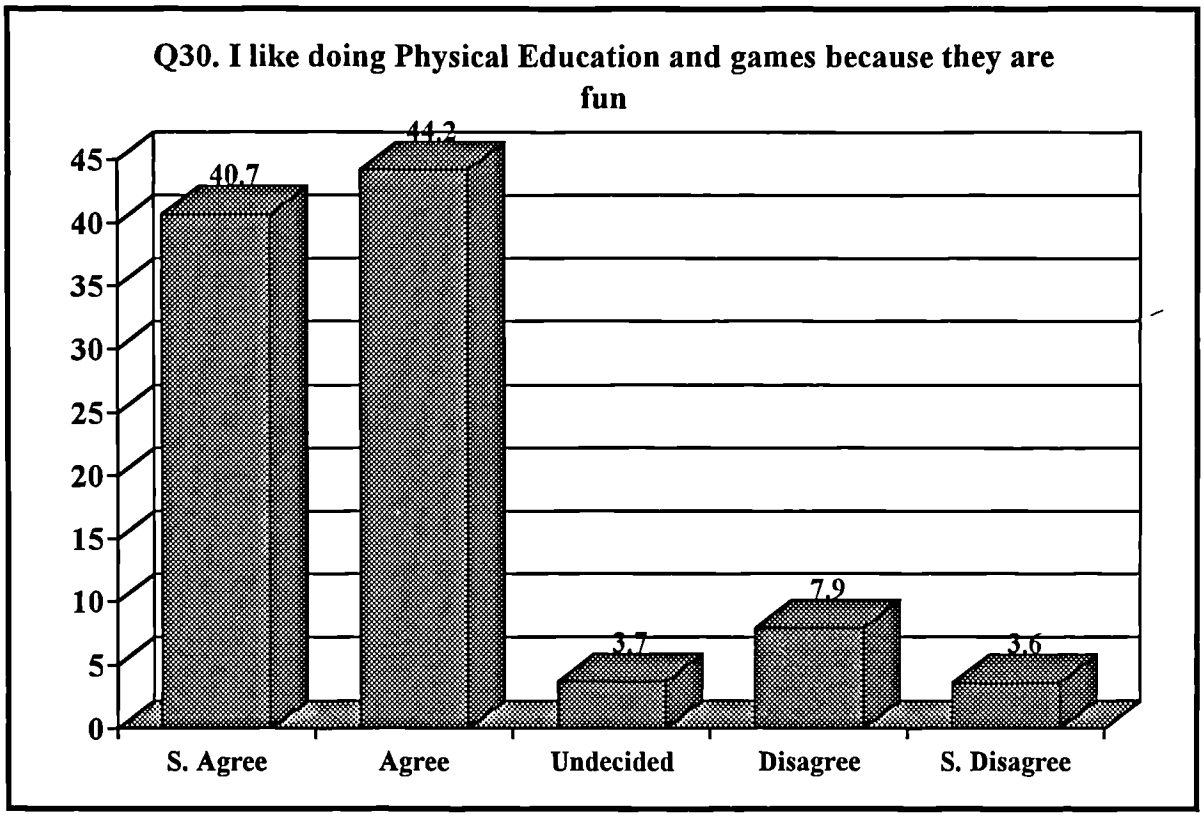

Fig (10)

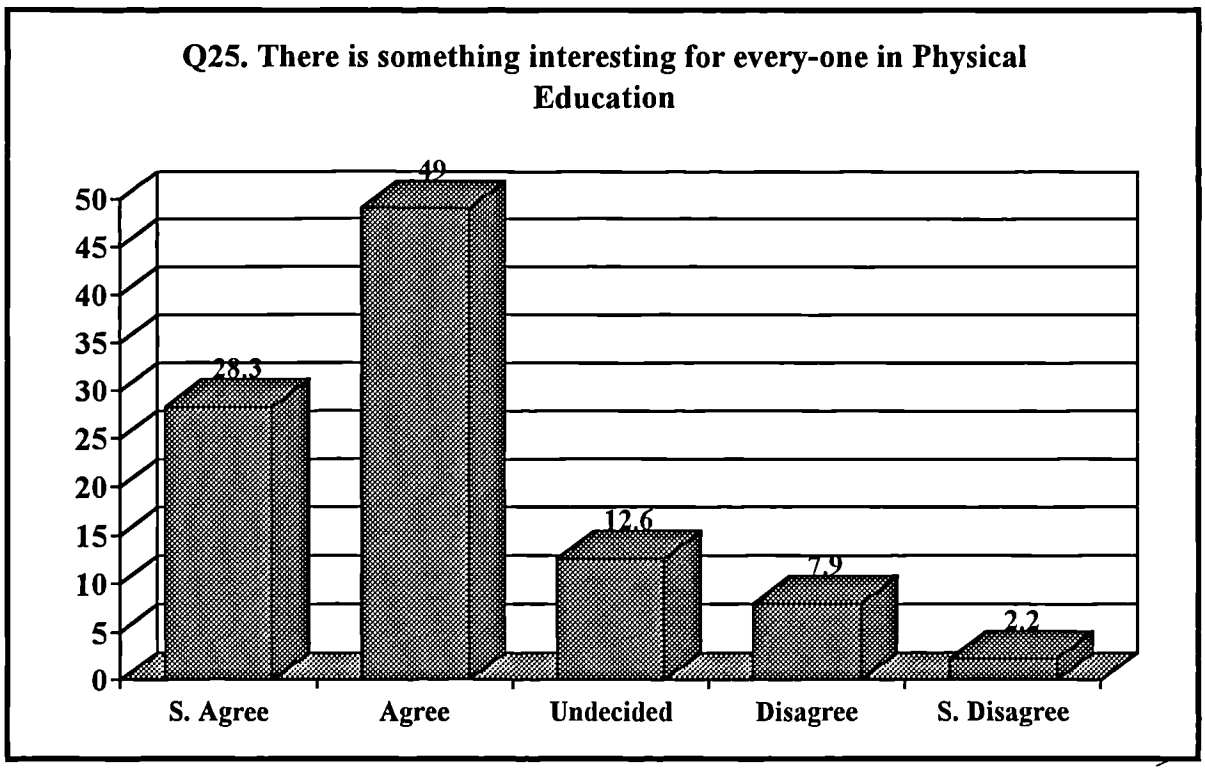
Q25. There is something interesting for every-one in Physical Education
50
45
40
35
30
25
20
15
10
5
0
28.3
49
12.6
7.9
2.2
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (11)

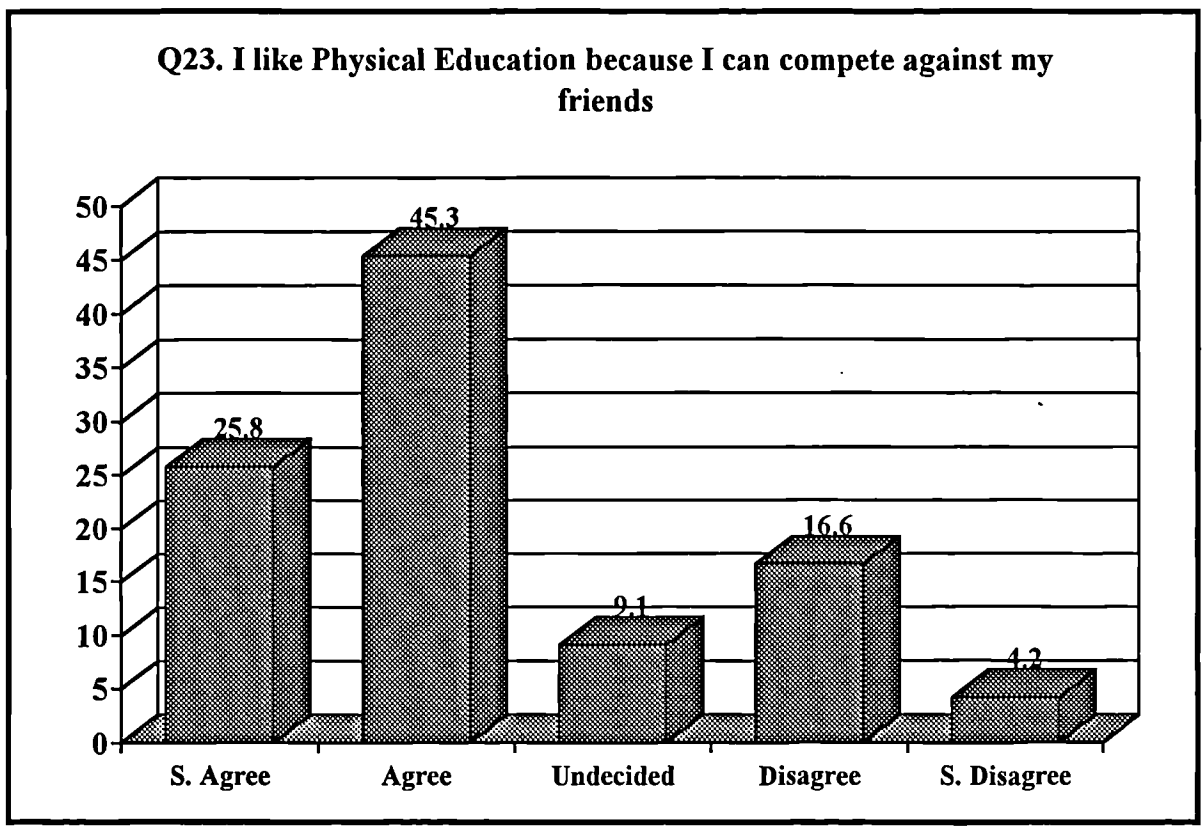
Q23. I like Physical Education because I can compete against my friends
50
45
40
35
30
25
20
15
10
5
0
25.8
45.3
9.1
16.6
4.2
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (12)

Table: 7.1 Reliability Analysis of Enjoyment Scale

	Corrected Item Total Correlation	Alpha if Item Deleted
22. I like physical education because if you are good enough you can get into the school team	0.50	0.70
23. I like physical education because I can compete against my friends	0.45	0.72
25. There is something interesting for every-one in physical education	0.34	0.74
28. I would take part in physical education even if I did not have to	0.56	0.69
29. Even when I do not feel well, I do not want to miss physical education and games	0.51	0.70
30. I like doing physical education and games because they are fun	0.54	0.70

Alpha = 0.75 Standardised item alpha = 0.74

As with Tables 5.1 and Table 6.1, the results reported here were computed via the SPSS "Reliability" programme using the Cronbach's Alpha score. From this table it can be seen that the 6 items are consistent with each other. However, after the reliability test had been applied, it was found that deletion of statements 11 and 34 would increase the alpha level and they were therefore dropped. It is possible that items 11 and 34 were dropped as they were centred upon specific areas within Physical Education namely games and the involvement of girls.

Table: 7.2 Students' Attitudes Towards Physical Education in relation to Enjoyment by Sex

Sex	N	M	S.D
Male	544	3.55	0.79
Female	581	3.62	0.78

Data summarised in Table 7.2 show that male and female students have positive attitudes towards Physical Education when considering enjoyment, with female students having a slightly more positive attitude than male students.

Table: 7.3 Students' Attitudes Towards Physical Education in relation to Enjoyment by Place

Place	N	M	S.D
Urban	434	3.52	0.73
Rural	388	3.66	0.83
Badia	302	3.58	0.79

Data summarised in Table 7.3 indicate that urban, rural and Badia (Bedouin) students have similar positive attitudes towards Physical Education but with students from the rural area having the most positive attitudes with respect to enjoyment.

Table: 7.4 Students Attitude Towards Physical Education in relation to Enjoyment by Class

Class	N	M	S.D
10th	419	3.60	0.80
1st secondary	351	3.60	0.78
2nd secondary	354	3.54	0.77

Table 7.4 indicates that 10th, 1st, and 2nd secondary students have positive attitudes towards Physical Education in relation to enjoyment.

Table: 7.5 Students Attitude Towards Physical Education in relation to Enjoyment by Place and Sex

Place	Urban		Rural		Badia	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	210	3.58	121	3.65	213	3.46
Female	225	3.46	267	3.66	89	3.88

Table 7.5 shows that female Badia students have the most positive attitude in the sample. Furthermore, urban male students have more positive attitudes than their female counterparts.

Table: 7.6 Students' Attitudes Towards Physical Education in relation to Enjoyment by Class and Sex

Class	10th secondary		1st secondary		2nd secondary	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	209	3.63	146	3.55	189	3.46
Female	211	3.57	205	3.64	165	3.64

Data summarised in Table 7.6 show that female students in 1st and 2nd secondary have more positive attitudes than male students.

Table: 7.7 Students' Attitudes Towards Physical Education in relation to Enjoyment by Class and Place

Class	10th secondary		1st secondary		2nd secondary	
Place	Number	Mean	Number	Mean	Number	Mean
Urban	133	3.53	164	3.52	137	3.50
Rural	165	3.69	118	3.64	105	3.63
Badia	121	3.57	69	3.74	112	3.51

Table 7.7 shows that rural 10th year and 2nd secondary students have more positive attitudes than urban and Badia students, but Badia 1st secondary show a more positive attitude than all other groups.

Table: 7.8 Analysis of Variance for Enjoyment by Sex, Place and Class

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	1.182	1	1.182	1.943	0.164
PLACE	3.556	2	1.778	2.923	0.054
CLASS	0.661	2	0.331	0.544	0.581
Sex/Place	10.897	2	5.448	8.957	0.000*
Sex/Class	4.562	2	2.281	3.750	0.024*
Place/Class	1.237	4	0.309	0.508	0.730
Explained	21.738	13	1.672	2.749	0.001
Residual	675.147	1110	0.608		
Total	696.884	1123	0.621		

An examination of Table 7.8, shows a significant difference in terms of interaction between sex and class ($P < 0.05$). Figure 13 shows the difference to be between 2nd secondary students where female students have a more positive attitude than their male counterparts (Mean = 3.64, 3.46 respectively, Table 7.6). Also, as can be seen in the above table, there was a statistically significant difference in terms of interaction between sex and place ($P < 0.05$) as shown in Figure 14, where females in the Badia area showed more positive attitudes than male students (M= 3.88, 3.46 respectively, Table 7.5). However, with regard to the other main effects, there were no statistically significant differences. The main findings from Table 5.8 are summarised in the graphs below.

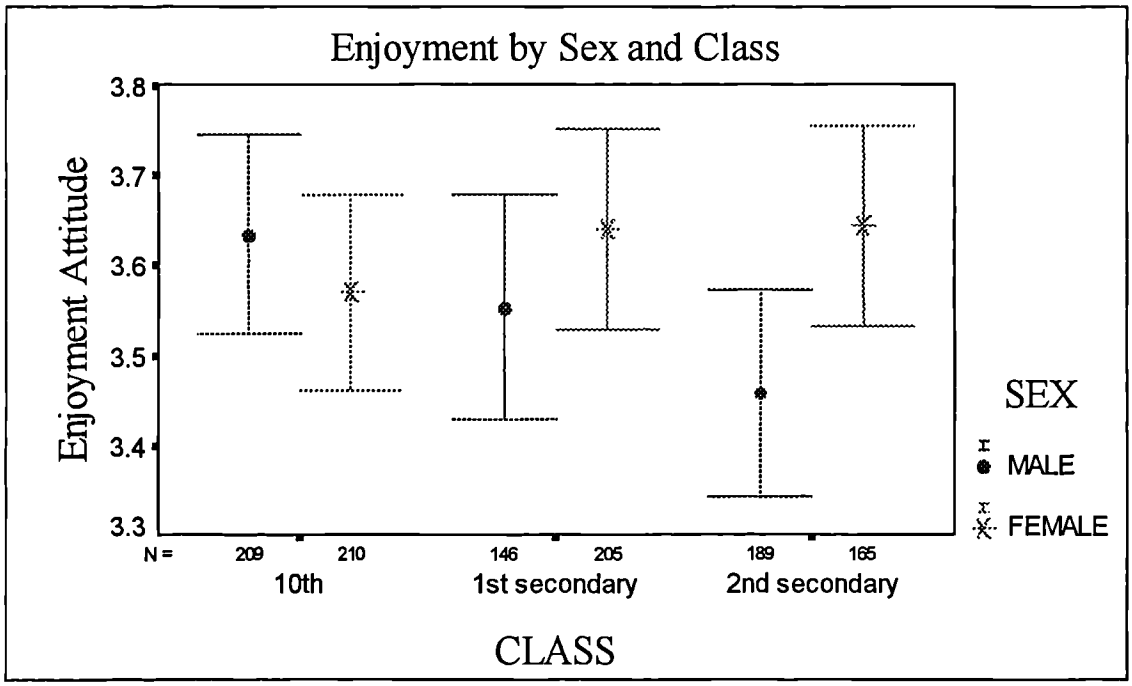
Enjoyment by Sex and Class
Enjoyment Attitude
3.8
3.7
3.6
3.5
3.4
3.3
N =
209
210
146
205
189
165
10th
1st secondary
2nd secondary
CLASS
SEX
MALE
FEMALE

Fig (13)

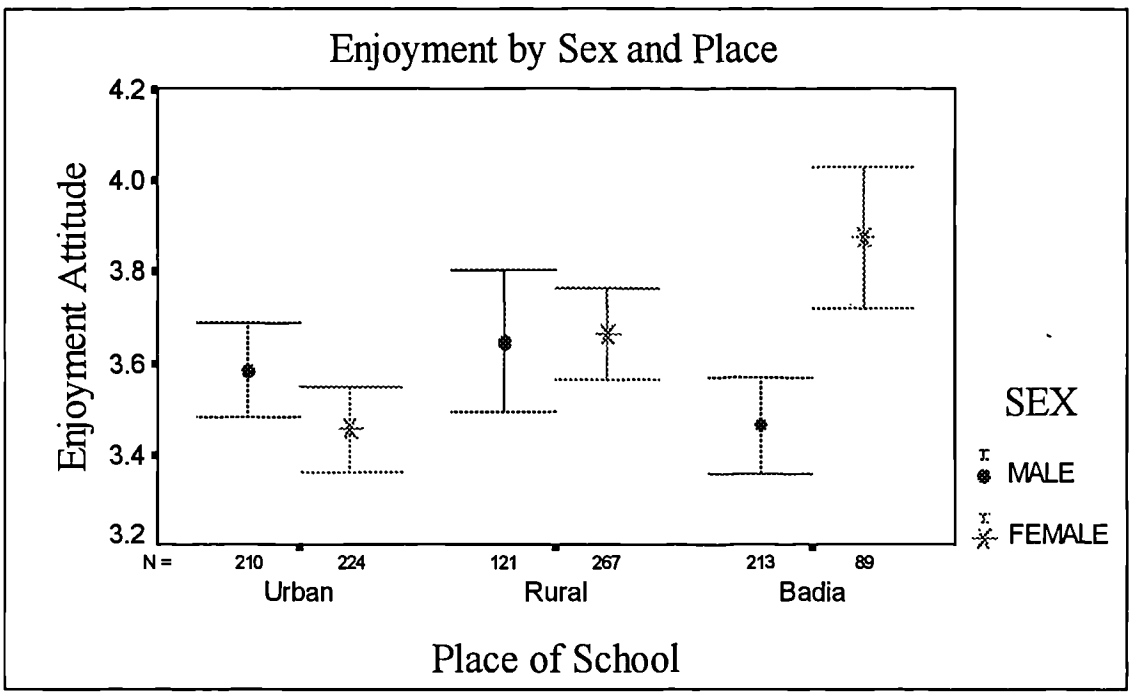
Enjoyment by Sex and Place
Enjoyment Attitude
4.2
4.0
3.8
3.6
3.4
3.2
N =
210
224
121
267
213
89
Urban
Rural
Badia
Place of School
SEX
MALE
FEMALE

Fig (14)

This fourth section deals with the analysis of the students' attitudes towards Physical Education in relation to the curriculum.

Table 8 below outlines students' attitudes towards Physical Education with reference to the curriculum.

Table: 8. Students' Attitudes Towards Physical Education with reference to the Curriculum

	Mean	S.D
4. I wish we could choose what we do in physical education	4.04	1.05
36. Grades in physical education are not fair to the non-athlete in comparison to the "natural athlete "	3.94	1.21
2. I do not go to school to do physical education but to learn more important subjects	3.74	1.27
19. More time should be given to physical education lessons	3.64	1.35
6. A curriculum which does not include physical education does not offer a complete education	3.63	1.24
7. Academic requirements for majors in physical education are not as difficult as other subjects	3.62	1.12
31. I prefer physical exercises which have beauty in movement such as dance and gymnastics	3.34	1.46
14. Physical education should be a requirement from elementary school through high school	3.07	1.42
3. I find the activities in physical education boring because we always do the same thing	3.02	1.42
15. Physical education is one of the best lessons we have in school	2.97	1.26
17. There are a large variety of interesting activities offered in the physical education programme	2.84	1.33
5. I would rather do physical education than other school subjects	2.51	1.18
20. A physical education credit should be required for graduation from high school	2.07	1.31

Data summarised in Table 8 shows that students have wide ranging views towards Physical Education with reference to the curriculum. The table is constructed to illustrate the attitude statements ranked in order of importance.

In particular, there would appear to be considerable agreement that students wish they could choose what they do in Physical Education, that grades in Physical Education are not fair to the non-athlete, that students do not go to school to do Physical Education but to learn more important subjects, that more time should be given to Physical Education lessons and that Physical Education should be included in the curriculum to offer a complete education. The findings from questions 4, 36, 2, 19 and 6 are summarised in graph form below.

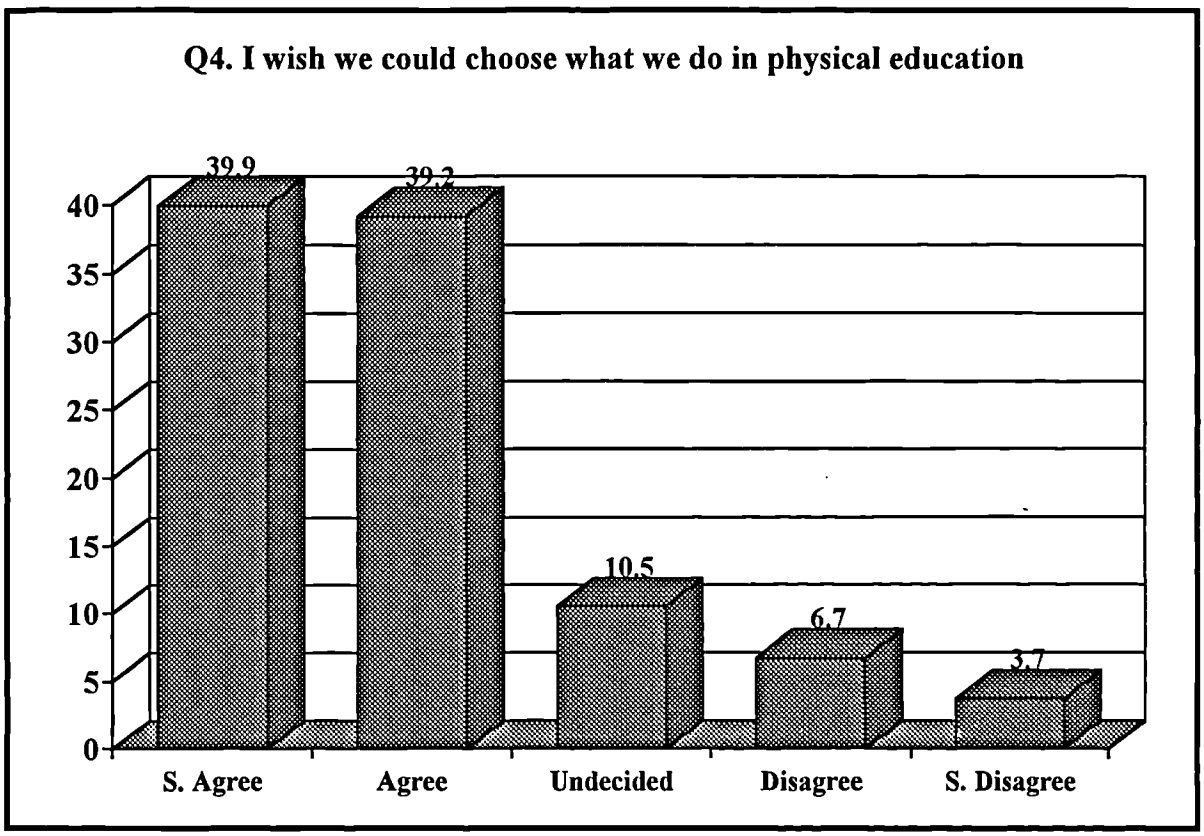

Fig (15)

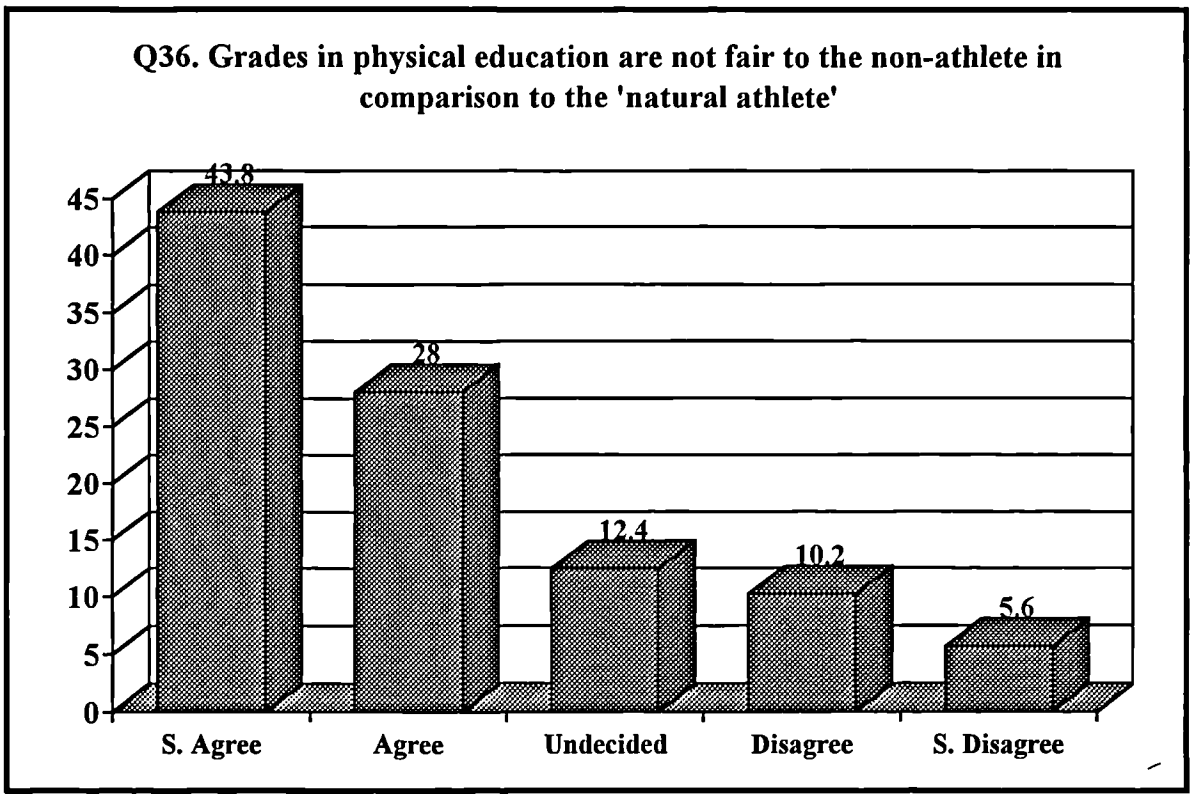
Q36. Grades in physical education are not fair to the non-athlete in comparison to the 'natural athlete'
45
40
35
30
25
20
15
10
5
0
43.8
28
12.4
10.2
5.6
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (16)

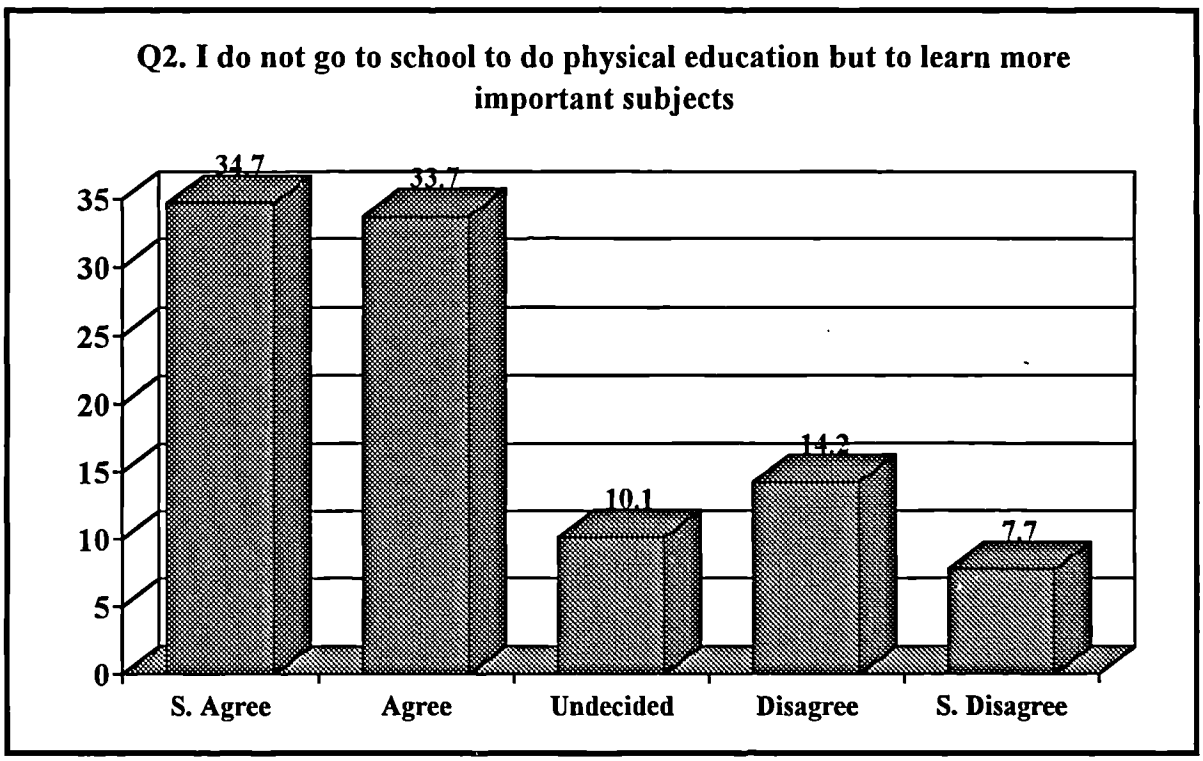
Q2. I do not go to school to do physical education but to learn more important subjects
35
30
25
20
15
10
5
0
34.7
33.7
10.1
14.2
7.7
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (17)

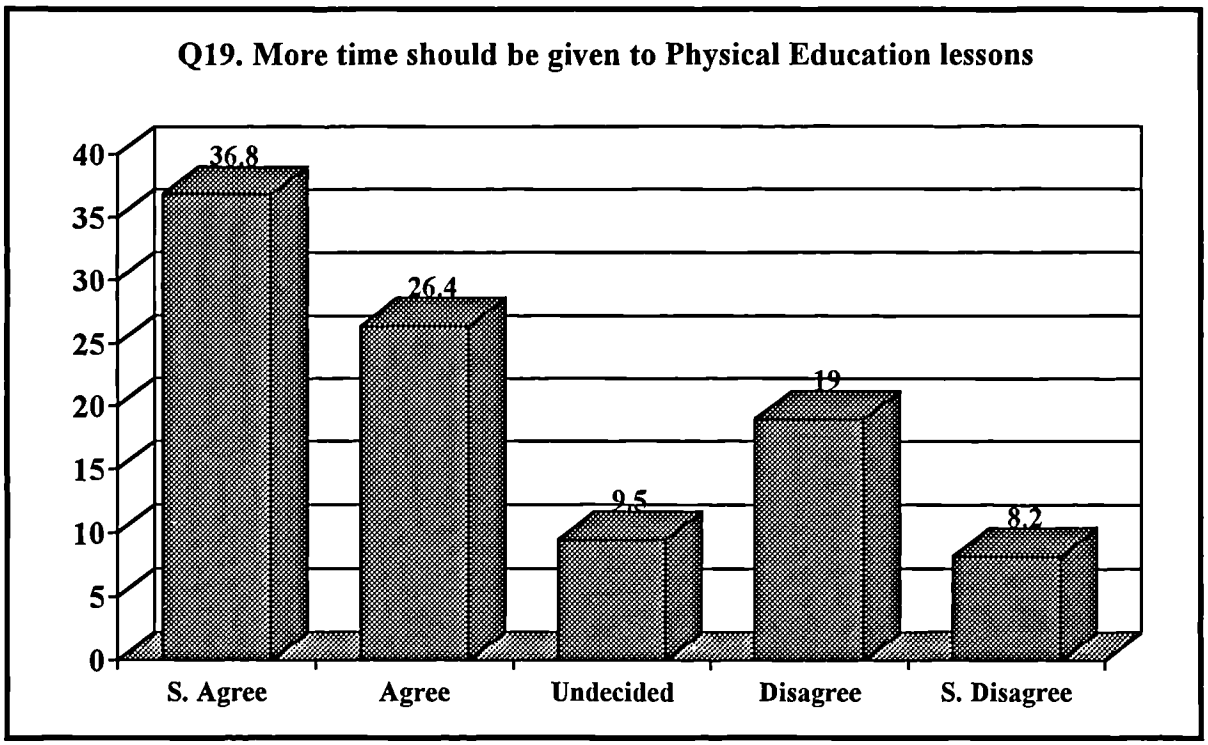
Q19. More time should be given to Physical Education lessons
40
35
30
25
20
15
10
5
0
36.8
26.4
9.5
19
8.2
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (18)

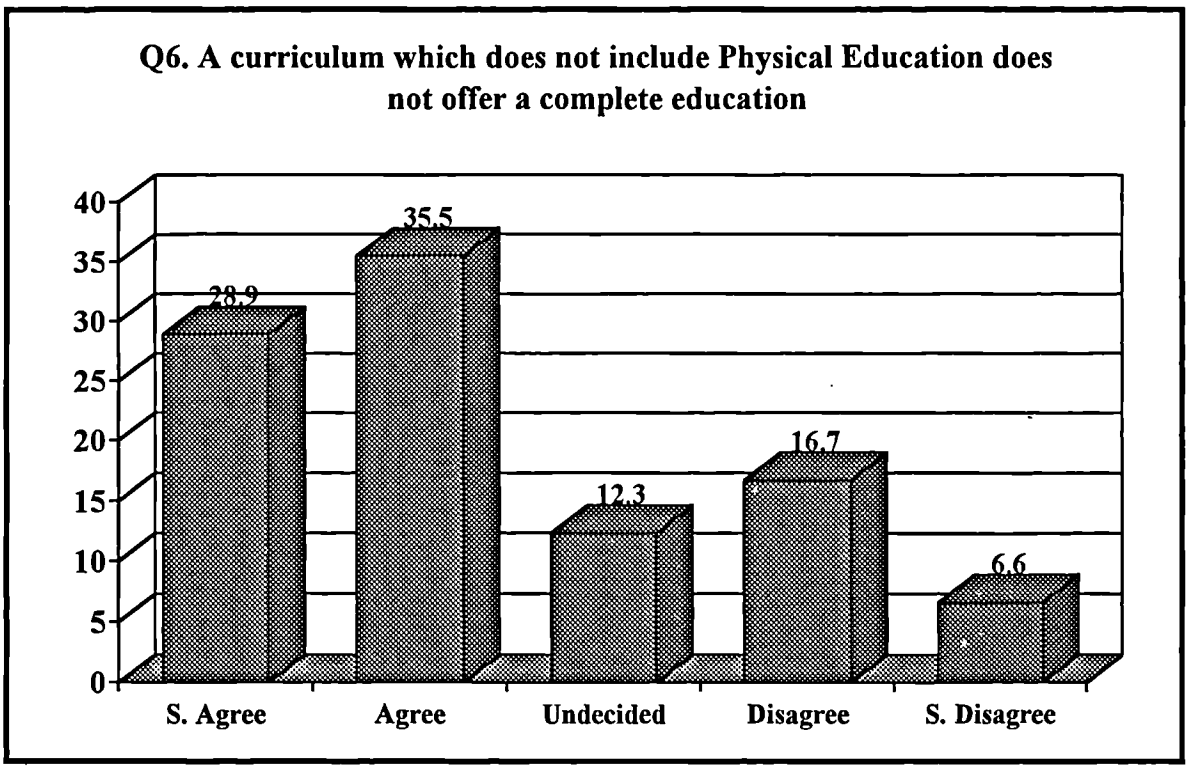
Q6. A curriculum which does not include Physical Education does not offer a complete education
40
35
30
25
20
15
10
5
0
28.9
35.5
12.3
16.7
6.6
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (19)

Table: 8.1 Reliability Analysis of Curriculum scales

	Corrected Item Total Correlation	Alpha if Item Deleted
5. I would rather do physical education than other school subjects	0.49	0.65
6. A curriculum which does not include physical education does not offer a complete education	0.34	0.69
14. Physical education should be a requirement from elementary school through high school	0.42	0.67
15. Physical education. is one of the best lessons we have in school	0.54	0.63
19. More time should be given to physical education lessons	0.48	0.65
20. A physical education credit should be required for graduation from high school	0.35	0.69

Alpha = 0.70 Standardised item alpha = 0.70

Table 8.1 reports the results computed via the SPSS "Reliability" programme using the Cronbach's Alpha score. Looking at Table 8.1, it can be seen that these 6 items are consistent with each other. However, after the reliability test had been applied, it was found that deletion of statements 2, 3, 4, 7, 17, 31 and 36 would increase the alpha level and they were therefore dropped from the initial analysis. However, whilst a number of the deleted statements were those in which respondents showed negative attitudes to Physical Education, in relation to curriculum, responses 31 and 17 were positive. Response 31, which considered gymnastics and dance, was of particular interest and as such is considered separately.

The remaining responses, which all offered negative observation in respect of the curriculum are, with the exception of question 3, also worthy of further consideration and are examined at the end of this section on the curriculum.

As with question 17, the responses in respect of question 3 are inconclusive and further observation is not felt to be appropriate.

Table: 8.2 Students' Attitudes Towards the importance of Physical Education in relation to the Curriculum by Sex

Sex	N	M	S.D
Male	544	2.87	0.85
Female	581	3.09	0.78

Data summarised in Table 8.2 show that overall student opinion as to the importance of Physical Education in relation to the curriculum, appear somewhat inconclusive. Interestingly, the data show that female students rate Physical Education as slightly more important than male students and this finding will be given further consideration in later discussion.

Table: 8.3 Students' Attitudes Towards the importance of Physical Physical Education in relation to the Curriculum by Place

Place	N	M	S.D
Urban	435	2.99	0.81
Rural	388	3.03	0.86
Badia	302	2.92	0.79

Data summarised in Table 8.3 indicate that urban, rural and Badia (Bedouin) students have similar attitudes towards the importance of Physical Education in relation to the curriculum, with those in rural areas being the most positive.

Table: 8.4 Students' Attitudes Towards the importance of Physical Education in relation to the Curriculum by Class

Class	N	M	S.D
10th	420	2.97	0.83
1st secondary	351	2.98	0.80
2nd secondary	354	3.01	0.84

Table 8.4 indicates that 10th, 1st, and 2nd secondary students are also all undecided as to the importance of Physical Education in relation to the curriculum.

Table: 8.5 Students' Attitudes towards the importance of Physical Education in relation to the Curriculum by Place and Sex

Place	Urban		Rural		Badia	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	210	2.91	121	2.92	213	2.81
Female	225	3.07	267	3.07	89	3.19

Table 8.5 shows that in urban and rural areas, male and female responses reflect the overall pattern shown in Table 8.2. In the Badia area (Bedouin) male and female students are more extreme, with females attributing greater importance to Physical Education than males.

Table: 8.6 Students' Attitudes Towards the importance of Physical Education in relation to the Curriculum by Class and Sex

Class	10th secondary		1st secondary		2nd secondary	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	209	2.91	146	2.82	189	2.87
Female	211	3.02	205	3.09	165	3.17

Data summarised in Table 8.6 show that the difference between the attitudes of male and female students are greater for 2nd secondary and 1st secondary. Again, females rate higher than males in all groups.

Table: 8.7 Students' Attitudes Towards the importance of Physical Education in relation to the Curriculum by Class and Place

Class	10th		1st Secondary		2nd Secondary	
Place	Number	Mean	Number	Mean	Number	Mean
Urban	134	2.98	164	2.89	137	3.11
Rural	165	3.07	118	3.02	105	2.97
Badia	121	2.80	69	3.12	112	2.93

Table 8.7 again shows that there are clear differences between the patterns for the different classes and places. However, there appears to be no consistent pattern between the groups.

Table: 8.8 Analysis of Variance for the importance of Physical Education in relation to the Curriculum by Sex, Place and Class

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	13.204	1	13.204	19.757	0.000*
PLACE	0.084	2	0.042	0.063	0.919
CLASS	0.815	2	0.408	0.610	0.543
Sex/Place	1.968	2	0.984	1.472	0.230
Sex/Class	3.833	2	1.917	2.868	0.057
Place/Class	7.009	4	1.752	2.622	0.034*
Explained	25.986	13	1.999	2.991	0.000
Residual	742.487	1111	0.668		
Total	768.473	1124	0.684		

From Table 8.8, it is apparent that there was a statistically significant difference in terms of interaction between class and place ($P < 0.05$). Figure 20 shows that of the 10th grade students, rural have the most positive attitude and the Badia the least (M = 3.07, 2.98, 2.80 respectively, Table 8.7). Of the 1st secondary, Badia are the most positive and urban the least (M = 3.12, 3.02, 2.89 respectively). Finally, of the 2nd secondary, urban students have the most positive attitude and Badia the least (M = 3.11, 2.97, 2.93 respectively). Also, as can be seen in the above table, there was a statistically significant difference by sex, ($P < 0.05$) (see Figure 21), where female students showed more positive attitudes than male students (M = 3.09, 2.82 respectively, Table 8.2). However, with regard to the other main effects, there were no statistically significant differences. The main findings from Table 8.8 are summarised in the graph below.

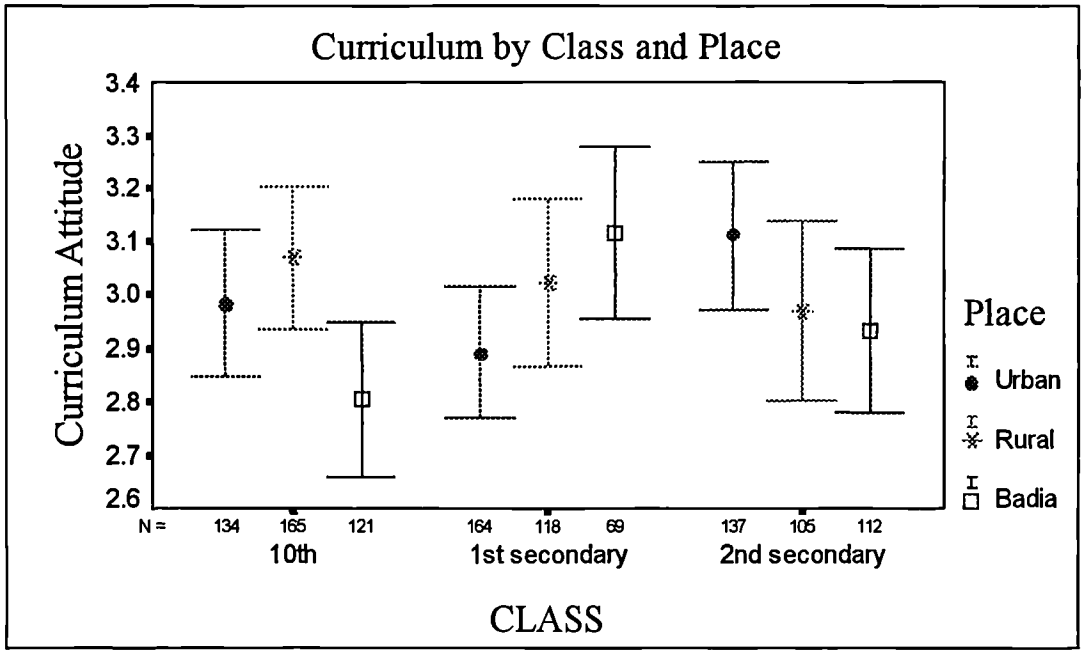
Curriculum by Class and Place
Curriculum Attitude
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
N =
134
165
121
164
118
69
137
105
112
10th
1st secondary
2nd secondary
CLASS
Place
Urban
Rural
Badia

Fig (20)

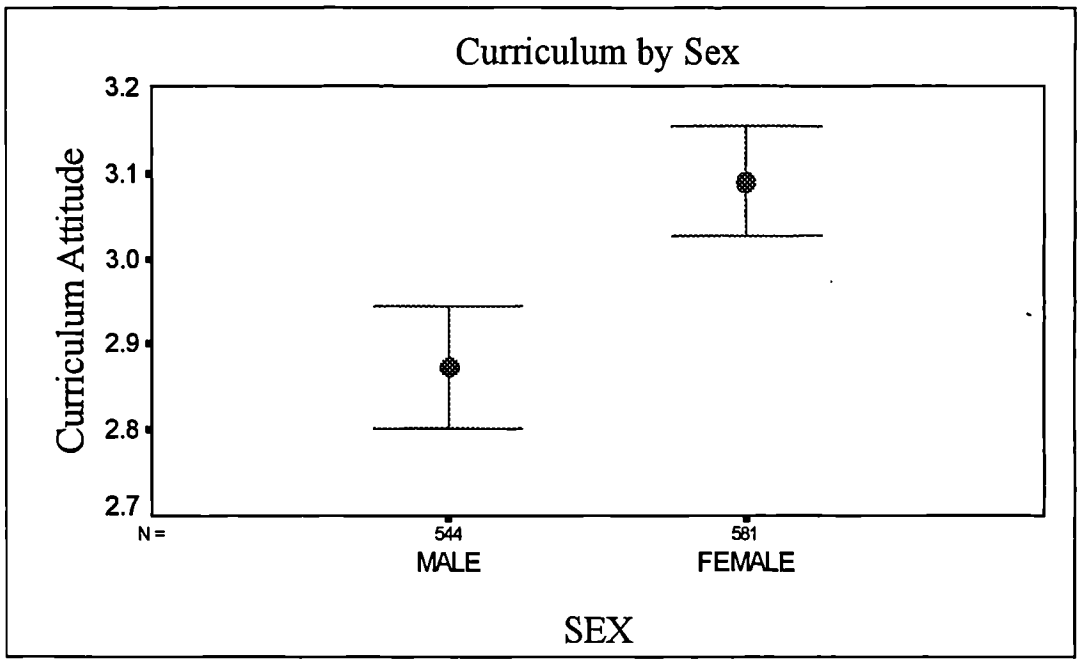
Curriculum by Sex
Curriculum Attitude
3.2
3.1
3.0
2.9
2.8
2.7
N =
544
581
MALE
FEMALE
SEX

Fig (21)

Having considered the positive statements centred upon the curriculum which showed appropriate consistency using the Cronbach's Alpha score, further consideration is given here to question 31 which also received a positive response but did not correlate with the grouping above.

In considering questions on an individual basis in the remainder of this chapter, tests for significance were applied using a Mann-Witney U Test for pair wise comparisons (sex) and a Kruskal-Wallis Test where more than two variables were present (place and class).

In applying these tests to question 31 the results showed that there were no statistically significant differences between the groups (see Appendix 6). However, the sex variable revealed interesting results, in that, against expectations, the male responses in respect of those who agreed or strongly agreed, turned out to be more positive than the female responses. The table below illustrates these findings.

Table 8.9: Q31. I Prefer physical exercises which have beauty in movement such as dance and gymnastics. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	157	148	36	110	89	540
%of total	29.1	27.4	6.7	20.4	16.5	48.4
Female	174	139	74	103	85	575
%of total	30.3	24.2	12.9	17.9	14.8	51.6
Column Total	331 29.7	287 25.7	110 9.9	213 19.1	174 15.6	1115 100.0
Total	55.4%		9.9%	34.7%		100.0

Table 8.9 shows that 55.4% of the students agreed or strongly agreed with the statement. The percentage of male students who agreed or strongly agreed with the statement is slightly higher (56.5%) than for female students (54.5%). It should be noted however that more male students disagreed or strongly disagreed with the statement (36.9%) than their female counterparts (32.7%). Those who were undecided were (6.7%) male students and (12.9%) female students.

The responses that follow all offer negative observations in respect of the curriculum and are worthy of further consideration. The responses, ranked in order of importance, relate to questions 4, 36, 2 and 7 (Table 8, p.163).

Q4. I wish we could choose what we do in physical education.

In applying the appropriate tests, there were found to be no significant differences between the groups when considering the variables sex, place and class in respect of responses to this question. Results showed that most of the students (79.1%) either agreed or strongly agreed with this item. The results of the tests are included in (Appendix 7).

Q36. Grades in physical education are not fair to the non-athlete in comparison to the 'natural athlete'.

As with question 4, there were no significant differences between the groups in their responses to this question (see Appendix 8). It is worth noting that 71.8% of the students agreed or strongly agreed with this statement.

Q2. I do not go to school to do physical education but to learn more important subjects.

Ones again, a large proportion of the responses either agreed or strongly agreed with this statement (68.4%). In applying the appropriate tests there were found to be significant differences in respect of place and class. (Tables relating to sex are included in Appendix 9). The results of a Kruskal-Wallis Test in respect of these two variables are shown in Tables 8.10, 8.11, 8.12 and 8.13 below.

Table 8.10 below indicates that 68.4% of the students agreed or strongly agreed with the statement. whilst only 21.6% disagreed or strongly disagreed. A further 10.1% could not make up their mind.

Table 8.10: Q2. I do not go to school to do physical education but to learn more important subjects. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	137	170	35	64	25	413
% of total	31.8	39.4	8.1	14.8	5.8	38.8
Rural	120	115	44	67	37	383
% of total	31.3	30.0	11.5	17.5	9.7	34.5
Badia	128	89	33	27	20	297
% of total	43.1	30.0	11.1	9.1	6.7	26.7
Column	385	374	112	158	82	1111
Total	34.7	33.7	10.1	14.2	7.4	100.0
Total	68.4		10.1	21.6		

The Crosstabulation shows that the strength of opinion among students from both the Badia (73.1%) and urban (71.2%) areas was similar. Whilst the majority of students from the rural area also agreed with this statement, the strength of opinion was not as strong.

Table 8.11: Q2. I do not go to school to do physical education but to learn more important subjects. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	14.9865	0.000

A Kruskal-Wallis Test applied to the responses to this question (Table 8.11) shows a significant difference between the groups in respect of place ($P < 0.05$).

Table 8.12: Q2. I do not go to school to do physical education but to learn more important subjects. Crosstabulation, frequencies and percentage count by Classes.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	141	116	50	72	32	411
% of total	34.3	28.2	12.2	17.5	7.8	37.0
1st secondary	104	145	30	42	28	349
% of total	29.8	41.5	8.6	12.0	8.0	31.4
2nd secondary	140	113	32	44	22	351
% of total	39.9	32.2	28.6	12.5	6.3	31.6
Column Total	385	374	112	158	82	1111
	34.7	33.7	10.1	14.2	7.4	100.0
Total	68.4		10.1	21.6		100.0

In considering the responses to this question in relation to class, a Crosstabulation shows that there are more students from the 2nd secondary (72.1%) and 1st secondary (71.3%) who were in agreement with this statement, with less conviction being shown in the 10th grade (62.5%).

Table 8.13: Q2. I do not go to school to do physical education but to learn more important subjects. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Classes.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	6.5803	0.0372

In applying a Kruskal-Wallis Test to the responses to this question, Table 8.13 indicates that the difference between the students in the three classes is statistically significant ($P < 0.05$).

Q7. Academic requirements for majors in physical education are not as difficult as other subjects.

As with questions 4 and 36, in applying the appropriate tests there were seen to be no significant differences between the groups in respect of this statement (see Appendix 9). It is worth noting that 64.3% of the students agreed or strongly agreed with this statement.

This fifth section deals with the analysis of the students' attitudes towards Physical Education in relation to dissatisfaction. The attitude statements were measured and classified as follows.

Table 9 below outlines students' attitudes towards Physical Education with reference to dissatisfaction

Table: 9 Students' Attitudes Towards Physical Education with reference to Dissatisfaction

	Mean	S.D
32. I do not like playing games because they are too rough	2.09	1.14
24. I don't like sport at all because I feel a fool in my physical education kit	2.11	1.23
27. Sometimes I pretend to be ill so that I do not have to do physical education and games	2.18	1.29
1. Physical education is one of the worst lessons we have in school	2.20	1.27
35. It is silly for high school girls to waste time playing games	2.67	1.41
33. Physical education is not important because it does not lead to a job	2.74	1.33
16. Most girls and boys do not enjoy physical education classes	3.00	1.32
26. I hate getting muddy in games	3.64	1.18

Data summarised in Table 9 indicate that in the main, students have positive attitudes towards Physical Education with reference to dissatisfaction. The lower the mean in this group, the more positive the attitude towards Physical Education. The responses show some interesting results in relation to how strongly the students felt about each item. It is particularly interesting at this

stage to note the differences in the students' attitudes to the importance of Physical Education, playing games and liking sports, (responses 32, 24 and 27). The responses will be given further consideration in the discussion chapter, but these statements are summarised in graph form here.

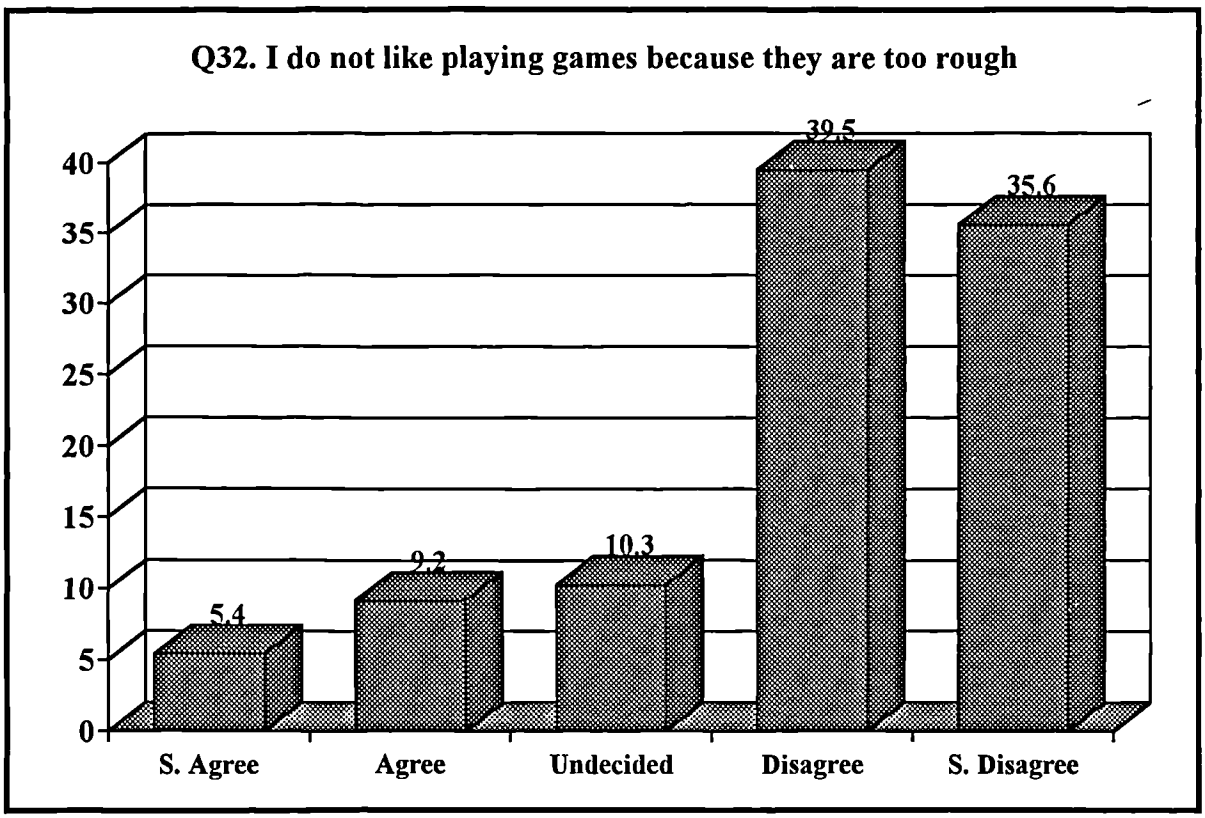

Fig (22)

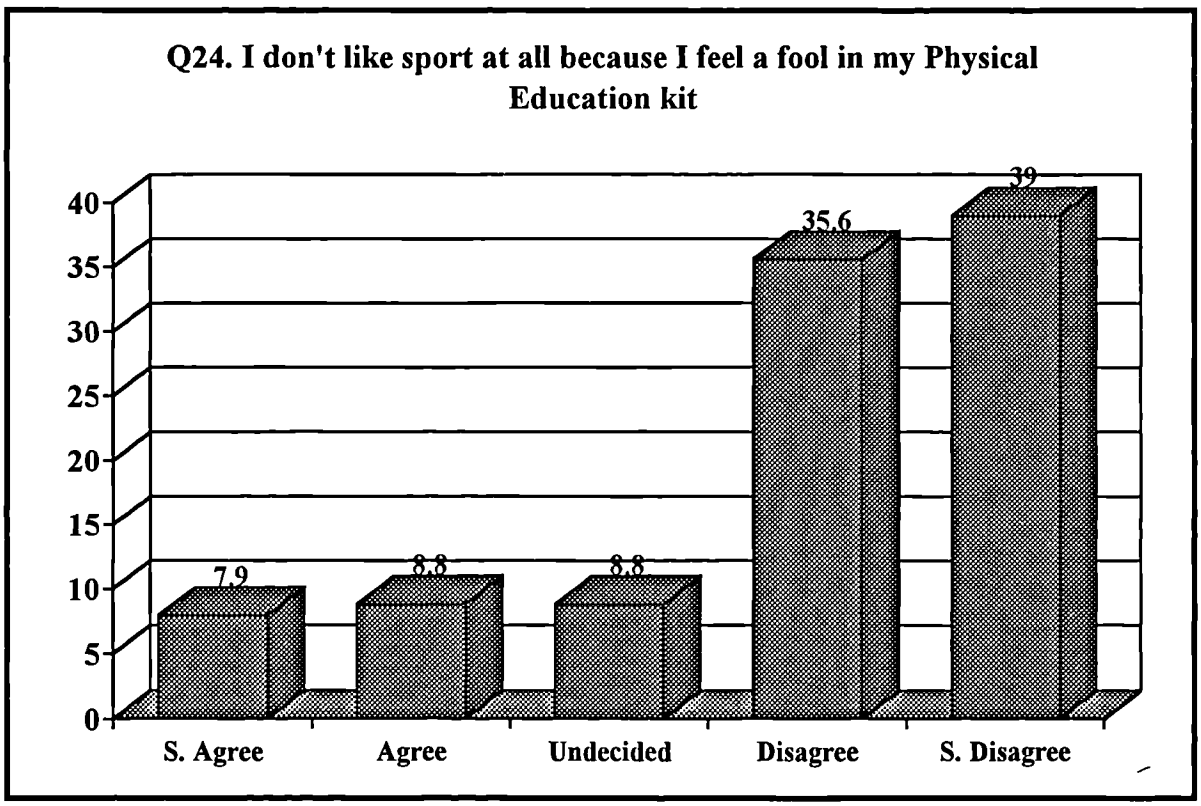
Q24. I don't like sport at all because I feel a fool in my Physical Education kit
40
35
30
25
20
15
10
5
0
7.9
8.8
8.8
35.6
39
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (23)

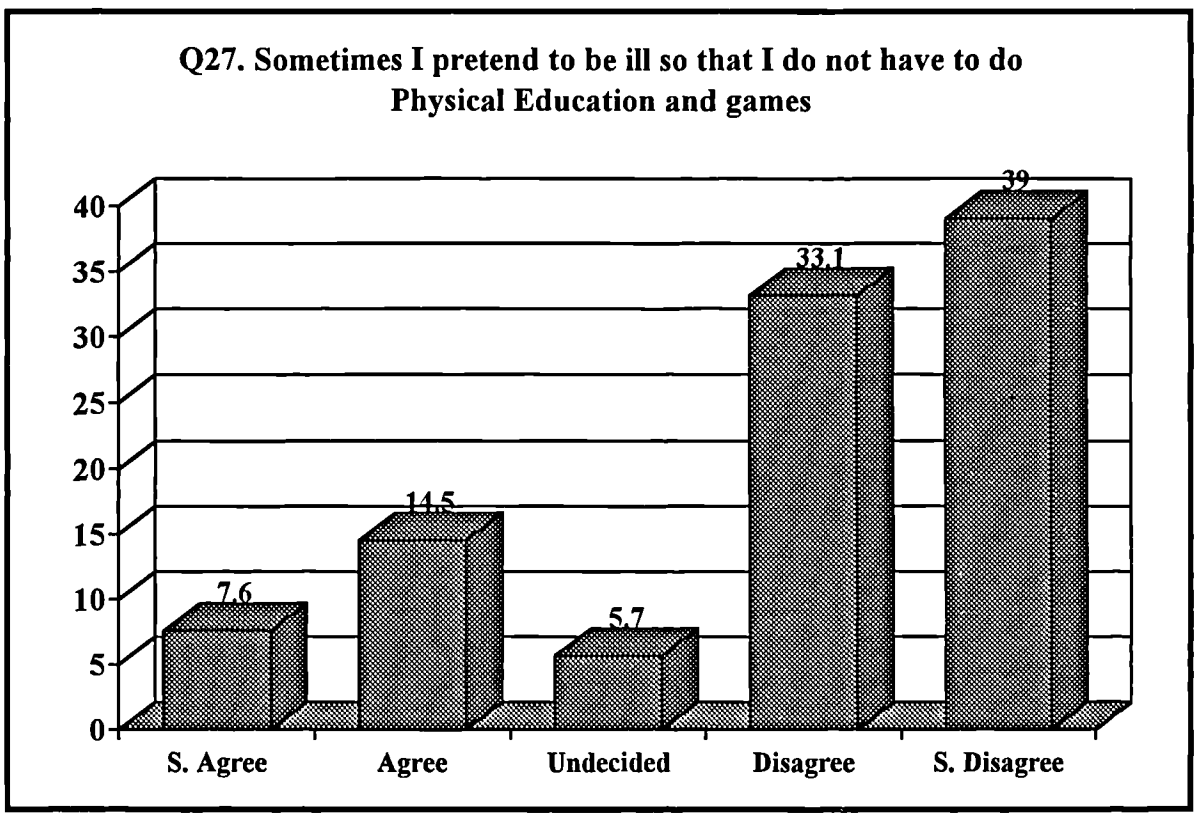
Q27. Sometimes I pretend to be ill so that I do not have to do Physical Education and games
40
35
30
25
20
15
10
5
0
7.6
14.5
5.7
33.1
39
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (24)

Table: 9.1 Reliability Analysis of Dissatisfaction scales

	Corrected Item Total Correlation	Alpha if Item Deleted
1. Physical education is one of the worst lessons we have in school	0.35	0.63
16. Most girls and boys do not enjoy physical education classes	0.24	0.66
24. I don't like sport at all because I feel a fool in my physical education kit	0.40	0.62
27. Sometimes I pretend to be ill so that I do not have to do physical education and games	0.42	0.61
32. I do not like playing games because they are too rough	0.44	0.61
33. Physical education is not important because it does not lead to a job	0.41	0.61
35. It is silly for high school girls to waste time playing games	0.35	0.63

Alpha = 0.67 Standardised item alpha = 0.67

Table 9.1 reports the results computed via the SPSS "Reliability" programme using the Cronbach's Alpha score. From the above table, it can be seen that the 7 items are consistent with each other. However, after the reliability test had been applied, it was found that deletion of statement 26 would increase the alpha level and this statement was therefore dropped.

Table: 9.2 Students' Attitudes Towards Physical Education in relation to Dissatisfaction by Sex

Sex	N	M	S.D
Male	544	2.46	0.78
Female	581	2.40	0.69

Table 9.2 shows that all students have positive attitudes towards Physical Education with reference to the value of dissatisfaction, with female students having more positive attitudes than males.

Table: 9.3 Students' Attitudes Towards Physical Education in relation to Dissatisfaction by Place

Place	N	M	S.D
Urban	435	2.38	0.75
Rural	388	2.44	0.75
Badia	302	2.48	0.71

Table 9.3 shows that urban, rural and Badia (Bedouin) students have similar positive attitudes towards the perception of dissatisfaction in Physical Education, with the students from urban and rural areas having a slightly more positive attitude.

Table: 9.4 Students' Attitudes Towards Physical Education in relation to Dissatisfaction by Class

Class	N	M	S.D
10th	420	2.47	0.75
1st secondary	351	2.40	0.72
2nd secondary	354	2.40	0.75

Table 9.4 indicates that 1st and 2nd secondary students have more positive attitudes than 10th year students.

Table: 9.5 Students' Attitudes Towards Physical Education in relation to Dissatisfaction by Place and Sex

Place	Urban		Rural		Badia	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	210	2.34	121	2.51	213	2.54
Female	225	2.42	267	2.41	89	2.34

Table 9.5 shows that urban male students have a more positive attitude than their female counterparts, whilst in the case of rural and Badia students, the females are more positive.

Table: 9.6 Students' Attitudes Towards Physical Education in relation to Dissatisfaction by Class and Sex

Class	10th secondary		1st secondary		2nd secondary	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	209	2.43	146	2.46	189	2.48
Female	211	2.51	205	2.37	165	2.32

Table 9.6 shows that students have positive attitudes toward Physical Education according to dissatisfaction. The data show that female 1st and 2nd secondary students have more positive attitudes than male students, whilst interestingly, male 10th year students have a more positive attitude than the females.

Table: 9.7 Students' Attitudes Towards Physical Education in relation to Dissatisfaction by Class and Place

Class	10th		1st Secondary		2nd Secondary	
Place	Number	Mean	Number	Mean	Number	Mean
Urban	134	2.49	164	2.35	137	2.31
Rural	165	2.45	118	2.49	105	2.37
Badia	121	2.48	69	2.36	112	2.55

Table 9.7 shows that while in the main, students have positive attitudes towards Physical Education according to dissatisfaction, rural 10th year students have more positive attitudes than urban and Badia students. Urban 1st and 2nd secondary students have more positive attitudes than rural and Badia students.

Table: 9.8 Analysis of Variance for Dissatisfaction by Sex, Place and Class

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	0.778	1	0.778	1.424	0.233
PLACE	1.479	2	0.740	1.354	0.259
CLASS	0.941	2	0.471	0.862	0.423
Sex/Place	3.711	2	1.856	3.397	0.034*
Sex/Class	3.177	2	1.589	2.909	0.055*
Place/Class	2.862	4	0.716	1.310	0.264
Explained	12.990	13	0.999	1.829	0.035
Residual	606.842	1111	0.546		
Total	619.831	1124	0.551		

Data summarised in Table 9.8, show a statistically significant difference in terms of interaction between sex and class ($P < 0.05$). Figure 25 shows the significant difference to be between male and female 2nd secondary students, with the latter having the more positive attitude. Also, as can be seen in the above table, there was a statistically significant difference in terms of interaction between sex and place ($P < 0.05$). In Figure 26, the significant difference can be seen to be between male and female students in the Badia region, with the latter being more positive. However, with regard to the other main effects, there were no statistically significant differences. The findings from Table 9.8 are summarised in the graph below.

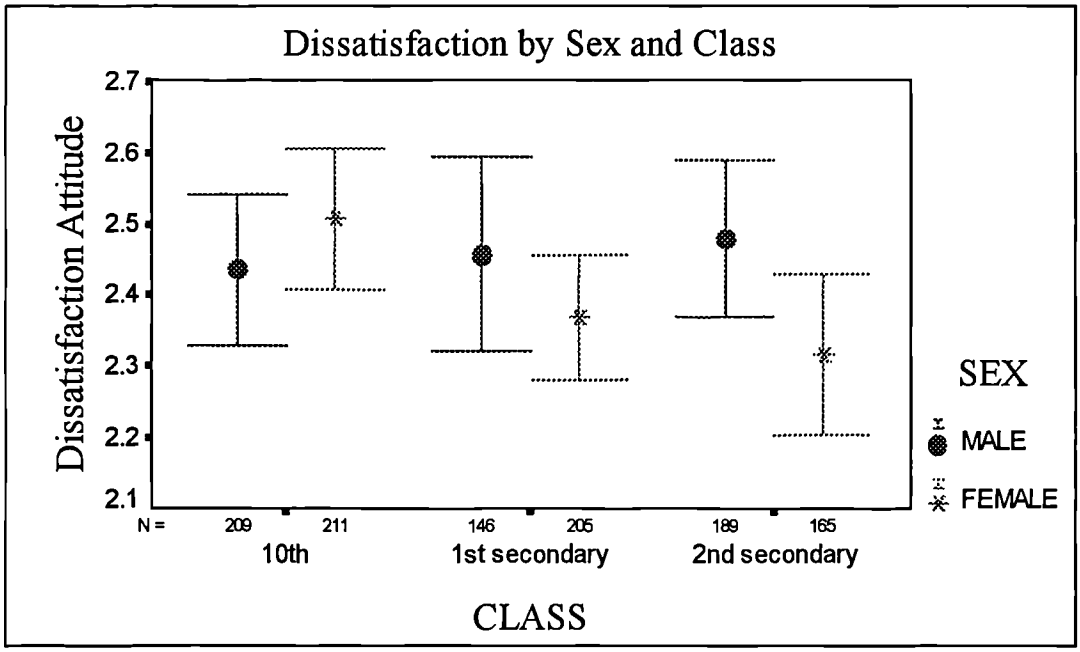
Dissatisfaction by Sex and Class
Dissatisfaction Attitude
2.7
2.6
2.5
2.4
2.3
2.2
2.1
N =
209
211
146
205
189
165
10th
1st secondary
2nd secondary
CLASS
SEX
MALE
FEMALE

Fig (25)

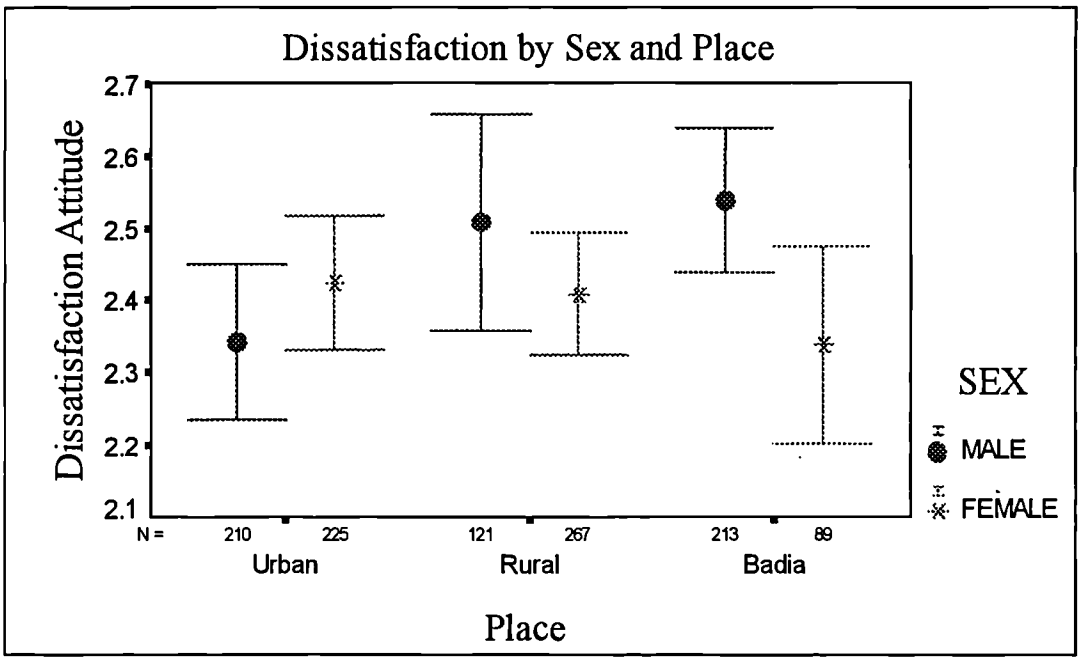
Dissatisfaction by Sex and Place
Dissatisfaction Attitude
2.7
2.6
2.5
2.4
2.3
2.2
2.1
N =
210
225
121
267
213
89
Urban
Rural
Badia
Place
SEX
MALE
FEMALE

Fig (26)

4.2 Students' attitudes in respect of their Physical Education teachers' : Part 2

The students were given five statements relating to their attitudes in respect of their Physical Education teachers. They were asked to give their responses on the same five point scale as shown in part 1. These responses are presented in Table 10 below.

Table: 10 Students' Attitudes in respect of their Physical Education teachers'

	Mean	S.D
46. Only the good pupils are picked for a school team by the physical education teacher	4.09	1.13
47. The physical education teacher should offer extra activities for all children	3.85	1.16
45. I like my physical education teacher	3.32	1.32
44. Physical education teachers are only concerned with muscle building	3.09	1.26
43. My physical education teacher does not treat people who are good at physical education differently from others	3.08	1.43

The table presents the sample students' attitudes in order of importance. As can be seen, there are differences between these five items in terms of how strongly students feel about each question. When considering these findings further in the discussion section, particular emphasis will be placed on questions 46 and 47, which deal with extra curricular activities. The findings from these statements are summarised in the graphs below.

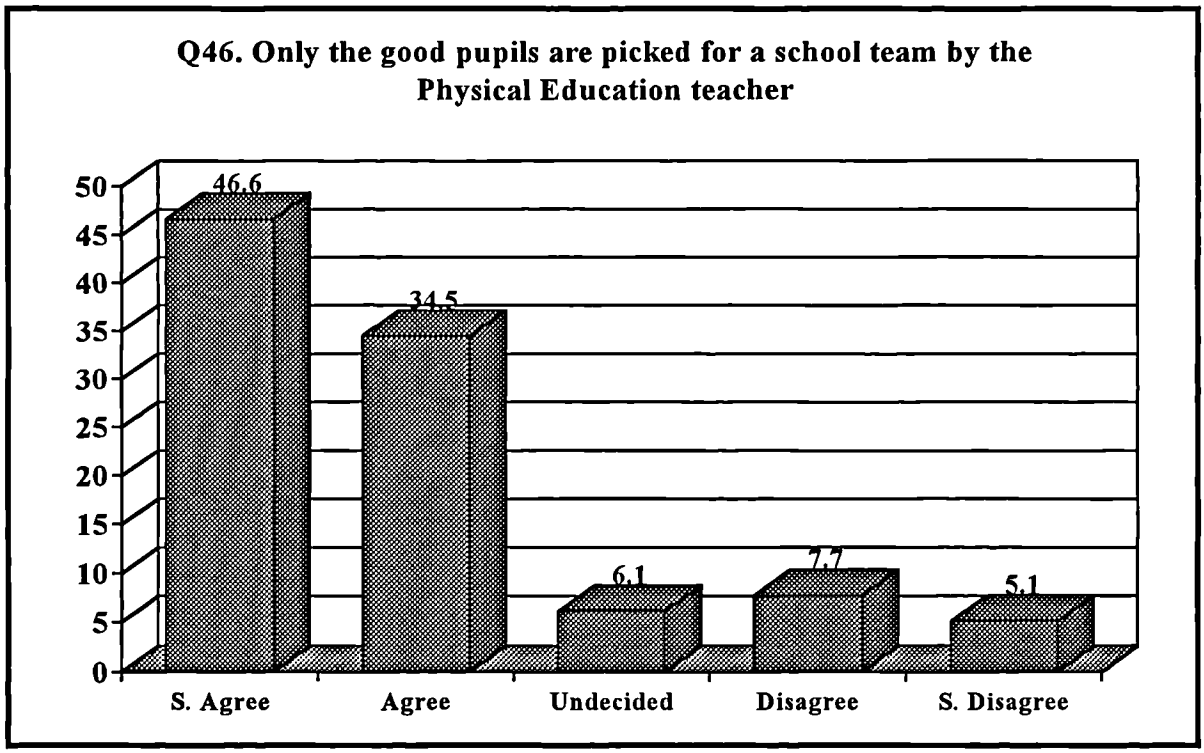
Q46. Only the good pupils are picked for a school team by the Physical Education teacher
50
45
40
35
30
25
20
15
10
5
0
46.6
34.5
6.1
7.7
5.1
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (27)

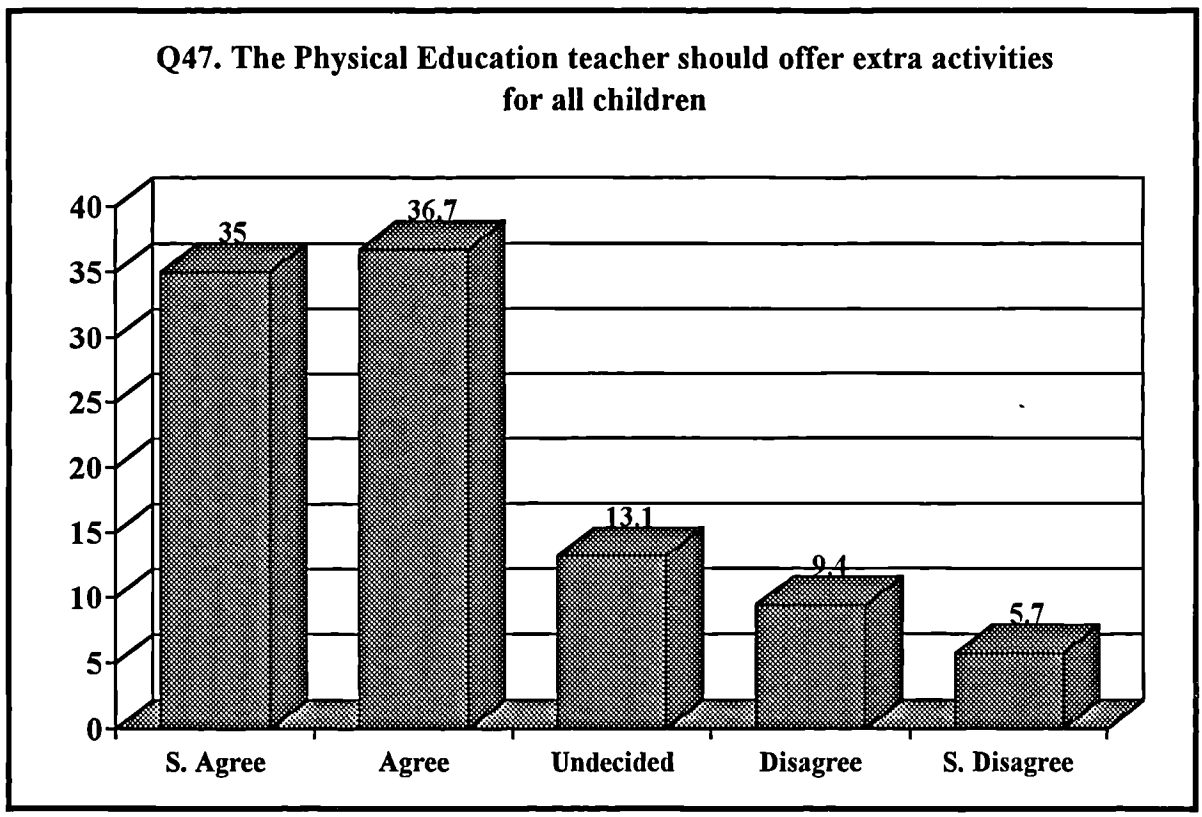
Q47. The Physical Education teacher should offer extra activities for all children
40
35
30
25
20
15
10
5
0
35
36.7
13.1
9.4
5.7
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (28)

The statements in Table 10, reflect both positive and negative observations. As with the previous section, each question will be considered separately and tests for significance will be applied using a Mann-Witney U Test for pair wise comparisons (sex) and a Kruskal-Wallis Test where more than two variables are present (place and class).

Q 46: Only the good pupils are picked for a school team by the physical education teacher.

The results showed that most of the students (81.1%) either agreed or strongly agreed with this item. Also, in applying tests for significance, it was found that the variables of sex and place were not statistically significant (see Appendix 10). However, significant differences in respect of class were found. Tables 10.1 and 10.6 below shows these findings.

Table 10.1: Q46 Only the good pupils are picked for a school team by the physical education teacher. Crosstabulation, frequencies and percentage count by Class.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	181	139	26	40	31	417
% of total	43.4	33.3	6.2	9.6	7.4	37.4
1st secondary	182	113	19	29	6	349
% of total	52.1	32.4	5.4	8.3	1.7	31.3
2nd secondary	156	132	23	17	20	348
% of total	44.8	37.9	6.6	4.9	5.7	31.2
Column Total	519	384	68	86	57	1114
	46.6	34.5	6.1	7.7	5.1	100.0
Total	81.1		6.1	12.8		100.0

In considering the responses to this question in relation to class, a Crosstabulation shows that there are more students from the 1st secondary (84.5%) and 2nd secondary (82.7%) who were in agreement with the statement with less conviction being shown in the 10th grade (76.7%).

Table 10.2: Q46 Only the good pupils are picked for a school team by the physical education teacher. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Class.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	9.5327	0.0085

In applying a Kruskal-Wallis Test to the responses to this question by class, Table 10.2 shows that there was a statistically significant ($P < 0.05$) difference between the students in the three classes.

Q47 The physical education teacher should offer extra activities for all children.

Once again, a large proportion of the responses either agreed or strongly agreed with this statement (71.7%). Those who strongly disagreed or just disagreed were only 15.1%. A further 13.1% could not make up their mind. In applying the appropriate tests, there was found to be a significant difference in respect of class (Tables relating to sex and place are included in Appendix 10). The results of a Kruskal-Wallis Test in respect of class are shown in Tables 10.3 and 10.4 below.

Table 10.3: Q47 The physical education teacher should offer extra activities for all children. Crosstabulation, frequencies and percentage count by Class.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	128	148	67	42	32	417
% of total	30.7	35.5	16.1	10.1	7.7	37.4
1st secondary	135	119	41	37	17	349
% of total	38.7	34.1	11.7	10.6	4.9	31.3
2nd secondary	128	143	38	26	15	350
% of total	36.6	40.9	10.9	7.4	4.3	31.4
Column Total	391	410	146	105	64	1116
	35.0	36.7	13.1	9.4	5.7	100.0
Total	71.7		13.1	15.1		100.0

In considering the responses to this question in relation to class a Crosstabulation shows that there are more students from the 2nd secondary (77.5%) and 1st secondary (72.8%) who were in agreement with this statement, with fewer agreeing in the 10th grade (66.2%).

Table 10.4: Q47 The physical education teacher should offer extra activities for all children. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Class.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	10.3134	0.0058

In applying a Kruskal-Wallis Test to the responses to this question by class, Table 10.4 shows that the difference between the students in the three classes was statistically significant ($P < 0.05$).

Q45 I like my physical education teacher.

In applying the appropriate tests to this question it was found that (53.4%) of the students either agreed or strongly agreed with the statement. Also, there were found to be significant differences in respect of sex and class (Tables relating to place are included in Appendix 10). The results of a Mann-Witney U Test and a Kruskal-Wallis Test in respect of sex and class are shown in Tables 10.5, 10.6, 10.7 and 10.8 below.

Table 10.5: Q45 I like my physical education teacher. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	129	175	114	55	66	539
%of total	23.9	32.5	21.2	10.2	12.2	48.6
Female	95	193	116	64	102	570
%of total	16.7	33.9	20.4	11.2	17.9	51.4
Column Total	224 20.2	368 33.2	230 20.7	119 10.7	168 15.1	1109 100.0
Total	53.4		20.7	25.8		100.0

Table 10.5 shows that the percentage of male students who agreed or strongly agreed with the statements is higher (56.4%) than the female students (50.6%). It should be noted however, that more female students disagreed or strongly disagreed with the statement (29.1%) than their male counterparts (22.4%). Those who were undecided were 21.2% of the male students and 20.4% of the female students.

Table 10.6: Q45 I like my physical education teacher. Mann-Witney U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	13718.0	0.0016

In applying a Mann-Witness U Test to the responses to this question by sex, Table 10.6 shows that the difference between male and female students was statistically significant ($P < 0.05$).

Table 10.7: Q45 I like my physical education teacher. Crosstabulation, frequencies and percentage count by Class.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	100	149	72	36	56	413
% of total	24.2	36.1	17.4	8.7	13.6	37.2
1st secondary	67	118	83	40	39	347
% of total	19.3	34.0	23.9	11.5	11.2	31.3
2nd secondary	57	101	75	43	73	349
% of total	16.3	28.9	21.5	12.3	20.9	31.5
Column Total	224	368	230	119	168	1109
	20.2	33.2	20.7	10.7	15.1	100.0
Total	53.4		20.7	25.8		100.0

In considering the responses to this question in relation to class, a Crosstabulation shows that there are more students from the 10th grade

(60.3%) and 1st secondary (53.3%) who were in agreement with the statement, with less conviction being shown in the 2nd secondary (45.2%).

Table 10.8: Q45 I like my physical education teacher. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Class.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	19.1285	0.0001

In applying a Kruskal-Wallis Test to the responses to this question, Table 10.8 shows that the difference between the students in the three classes was statistically significant ($P < 0.05$).

Q44 Physical education teachers are only concerned with muscle building.

In applying the appropriate tests to this question it was found that (39.5%) of the students either agreed or strongly agreed with the statement. Also, it was found that there was a statistically significant difference between male and female students in respect of this statement (Tables relating to place and class are included in Appendix 10) The results of a Mann-Witney U Test in respect of sex are shown in Tables 10.9 and 10.10 below.

Table 10.9: Q44 Physical education teachers are only concerned with muscle building. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	96	109	104	171	62	542
%of total	17.7	20.1	19.2	31.5	11.4	48.6
Female	99	136	154	133	51	573
%of total	17.3	23.7	26.9	23.2	8.9	51.4
Column	195	245	258	304	113	1115
Total	17.5	22.0	23.1	27.3	10.1	100.0
Total	39.5		23.1	37.4		100.0

Table 10.9 shows that the percentage of female students who agreed or strongly agreed with the statements is higher (41%) than the male students (37.8%). It should be noted however that more male students disagreed or strongly disagreed with the statement (42.9%) than their female counterparts (32.1%). The figure for those who were undecided was particularly high in respect of this question (19.2% male, 26.9 % female).

Table 10.10: Q44 Physical education teachers are only concerned with muscle building. Mann-Witness U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	143327.5	0.0225

In applying a Mann-Witness U Test to the responses to this question by sex, Table 10.10 shows that the difference between male and female students was statistically significant ($P < 0.05$).

Q43 My physical education teacher dose not treat people who are good at physical education differently from others.

Finally, in applying the appropriate tests there were found to be no significant differences between the groups when considering the variables sex, place and class in respect of responses to this question. The results of the tests are included in (Appendix 10).

4.3 Students' attitudes towards Physical Education in respect of culture, religion and parental opinion : Part 3

This section deals with students' views concerning culture and religion in relation to Physical Education as well as students' views on how parents respond to Physical Education. The findings for this section will be presented in two tables. The first table shows to what extent religion, culture and parents encourage children to participate in Physical Education. The second table shows the parents' attitudes toward their children majoring in Physical Education.

Table 11 below outlines students' attitudes towards Physical Education as affected by culture, religion and parents.

Table: 11 Students' Views as to the influence Culture, Religion and Parents have on Physical Education

	Mean	S.D.
54. My Religion encourages participation in physical education	4.22	0.99
53. My culture encourages participation in physical education.	3.64	1.07
52. My parents think that physical education lessons are necessary for all pupils.	3.48	1.17
51. My parents are pleased when I participate in physical education.	3.26	1.25
50. My parents always encourage me to participate and study physical education.	2.81	1.39

Table 11 shows that, in the main, students have positive attitudes towards Physical Education in respect of culture, religion and parents. The table

presents the sample students' views in order of importance. As can be seen once again however, there are differences between these five items in terms of how strongly students feel about each statement. When considering these findings further in the discussion section, particular emphasis will be placed upon statements 54, 53 and 52 which deal with religion, culture and Physical Education lessons. The findings from these statements are summarised in graph form below.

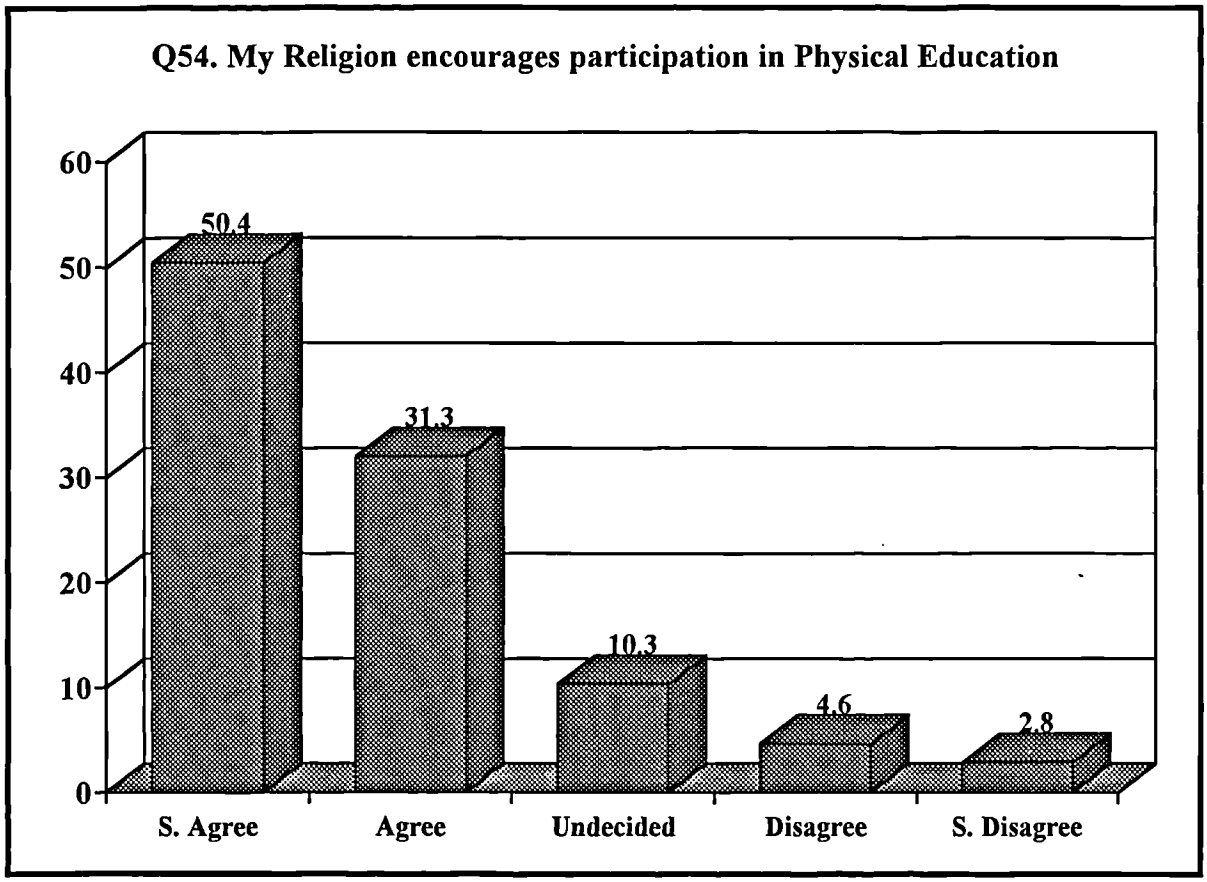

Fig (29)

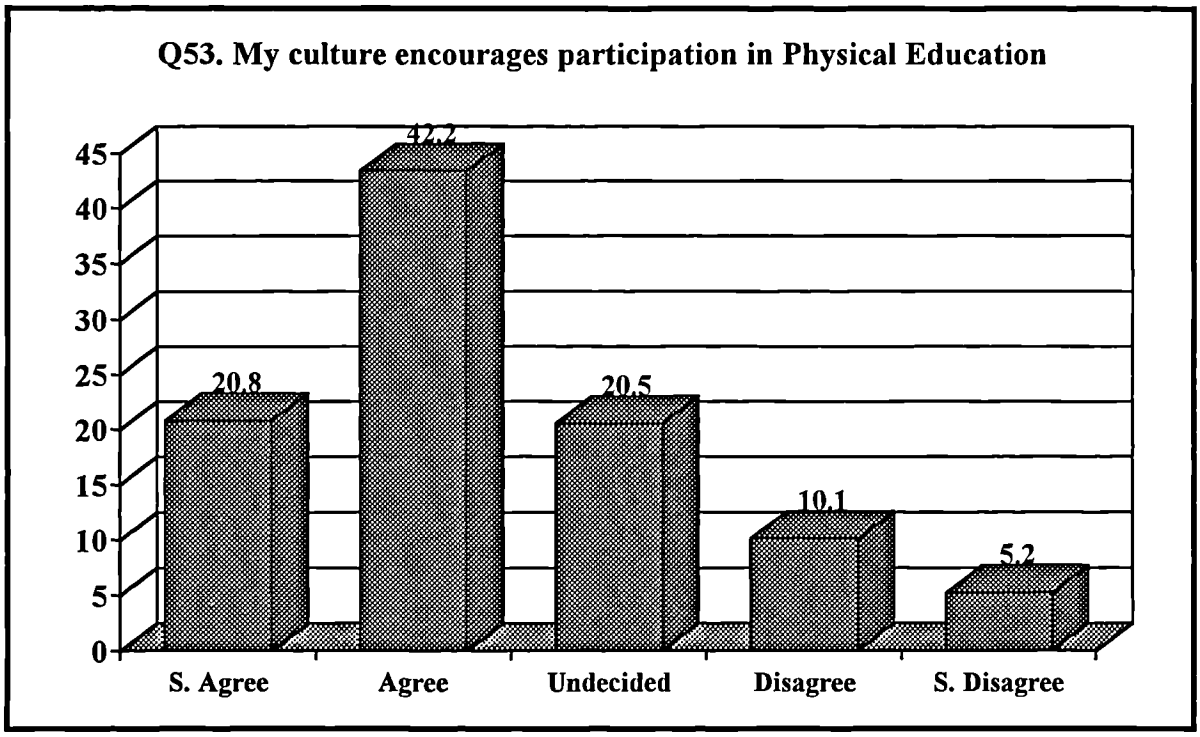
Q53. My culture encourages participation in Physical Education
45
40
35
30
25
20
15
10
5
0
20.8
42.2
20.5
10.1
5.2
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (30)

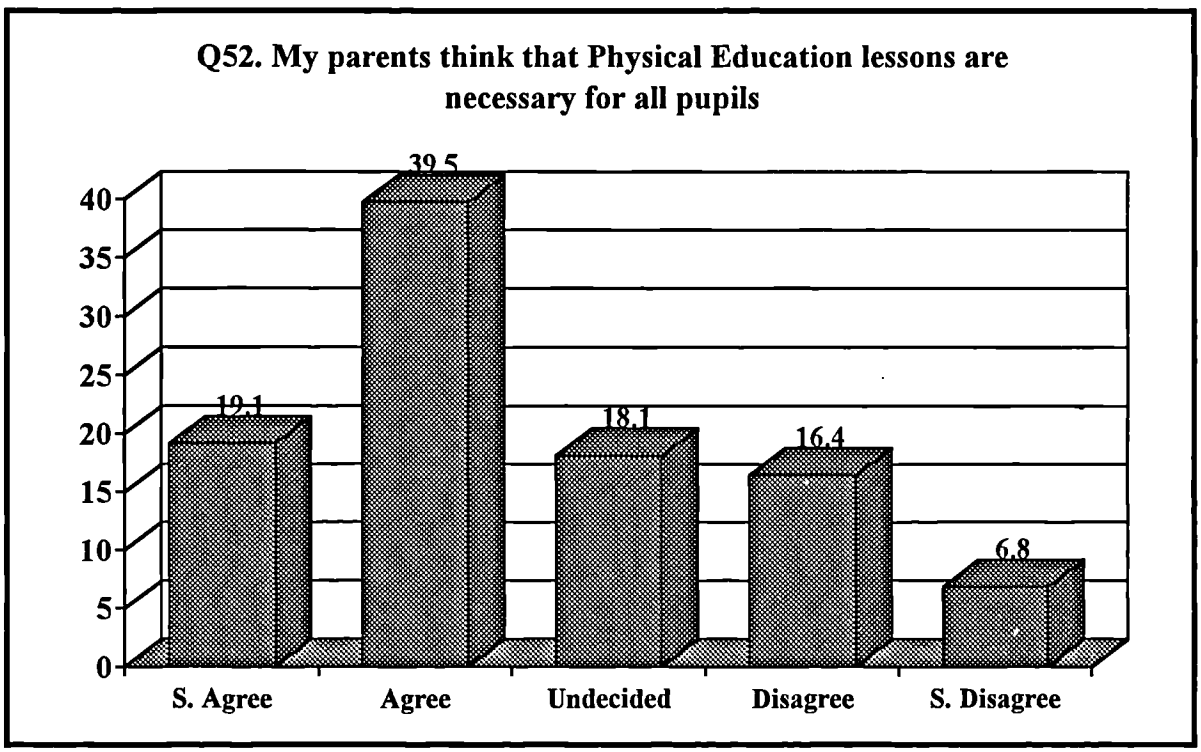
Q52. My parents think that Physical Education lessons are necessary for all pupils
40
35
30
25
20
15
10
5
0
19.1
39.5
18.1
16.4
6.8
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (31)

Table: 11.1 Students' Views of Parental responses to Sons and Daughters Majoring in Physical Education

48. Most parents would not approve of their daughters majoring in physical education	3.48	1.40
49. My parents would never want me to major in physical education.	3.30	1.43

Table 11.1 shows that students feel that their parents do not encourage them to major in Physical Education. The table presents the sample students' views of parental responses to sons and daughters majoring in Physical Education in order of importance. The findings from these statements are summarised in graph form below.

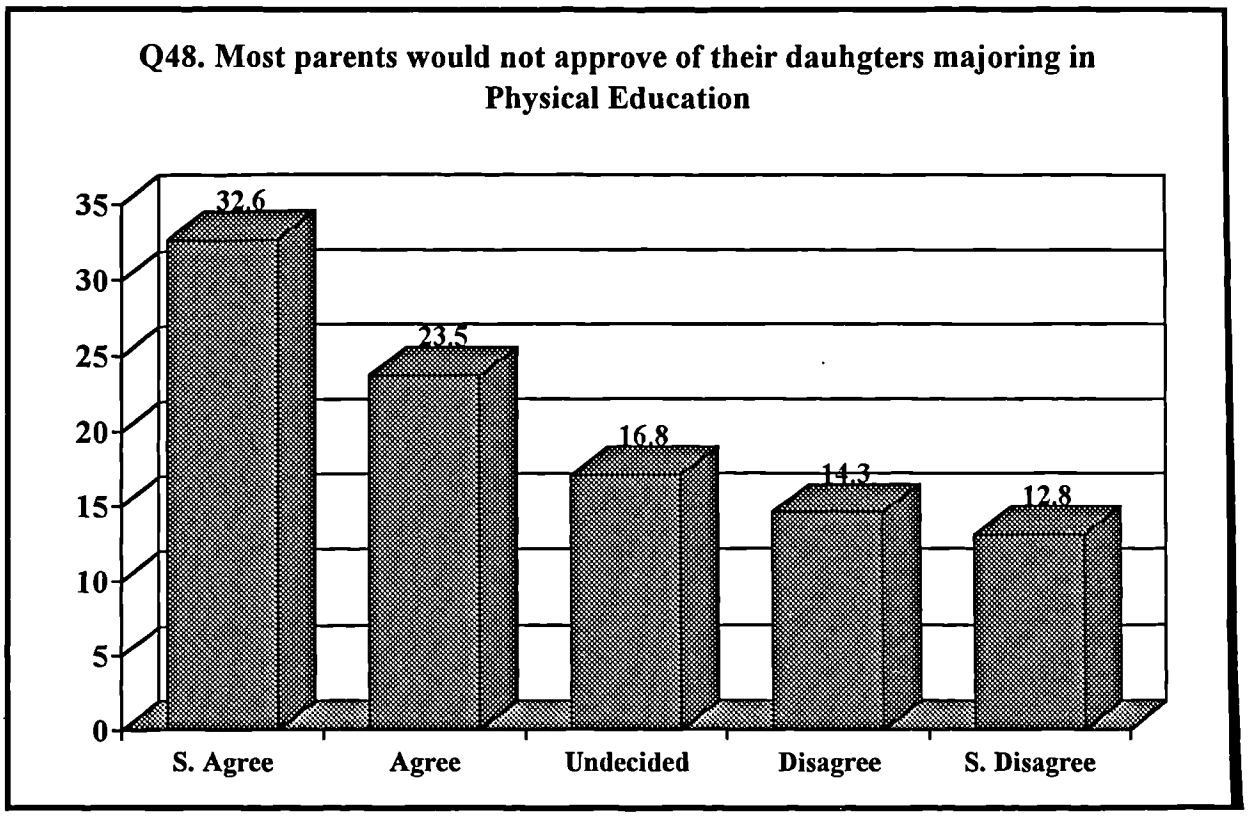

Fig (32)

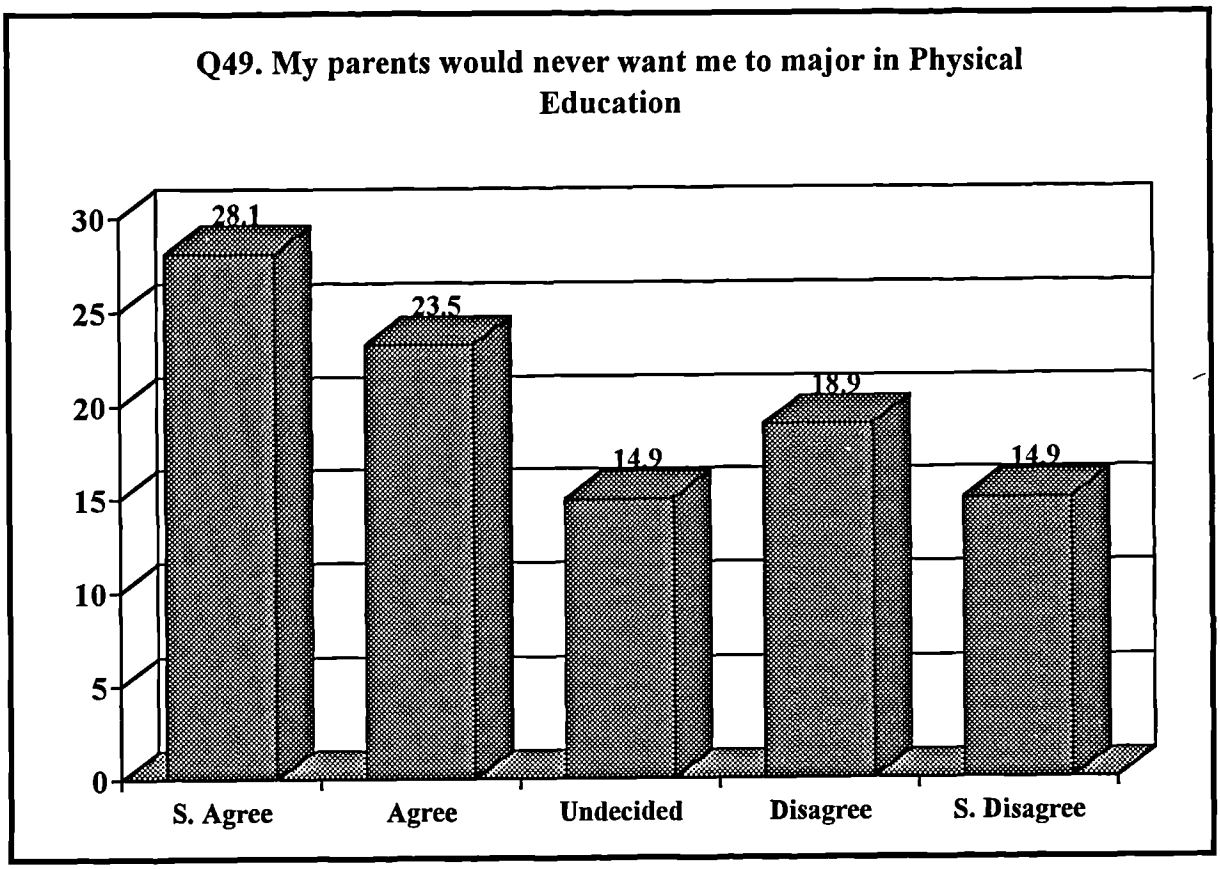
Q49. My parents would never want me to major in Physical Education
30
25
20
15
10
5
0
28.1
23.5
14.9
18.9
14.9
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (33)

Table: 11.2 Reliability Analysis of Culture, Religion and Parents scales

	Corrected Item Total Correlation	Alpha if Item Deleted
50. My parents always encourage me to participate and study physical education.	0.42	0.54
51. My parents are pleased when I participate in physical education.	0.54	0.47
52. My parents think that physical education lessons are necessary for all pupils.	0.50	0.50
53. My culture encourages participation in physical education.	0.21	0.60
54. My Religion encourages participation in physical education	0.20	0.61

Alpha = 0.62 Standardised item alpha 0.61

Table 11.1 reports the results computed via the SPSS "Reliability" programme using the Cronbach's Alpha score. Looking at Table 11.2, it can be seen that the 5 items are consistent with each other.

Table: 11.3 Students' Views as to the influence Culture, Religion and Parents have on Physical Education by Sex

Sex	N	M	S.D
Male	544	3.44	0.79
Female	578	3.52	0.71

Table 11.3 shows that both male and female students have positive attitudes, with female students having a slightly more positive attitude than male students.

Table: 11.4 Students' Views as to the influence Culture, Religion and Parents have on Physical Education by Place

Place	N	M	S.D
Urban	434	3.48	0.74
Rural	387	3.58	0.75
Badia	301	3.36	0.76

Table 11.4 shows that whilst all students have a positive attitude, students from the rural area have a more positive attitude than those from the Badia and urban areas.

Table: 11.5 Students' Views as to the influence Culture, Religion and Parents have on Physical Education by Class

Class	N	M	S.D
10th	419	3.55	0.77
1st secondary	351	3.49	0.74
2nd secondary	352	3.39	0.73

Table 11.5 indicates that 10th, 1st, and 2nd secondary students have positive attitudes, with 10th grade students having the most positive attitudes.

Table: 11.6 Students' Views as to the influence Culture, Religion and Parents have on Physical Education by Place and Sex

Place	Urban		Rural		Badia	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	210	3.52	121	3.55	213	3.31
Female	224	3.44	266	3.59	88	3.49

Table 11.6 illustrates that female rural and Badia students have a more positive attitude than male students. The data also show that male urban students have a more positive attitude than their female counterparts.

Table: 11.7 Students' Views as to the influence Culture, Religion and Parents have on Physical Education by Class and Sex

Class	10th secondary		1st secondary		2nd secondary	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	209	3.50	146	3.46	189	3.38
Female	210	3.60	205	3.51	163	3.40

Data summarised in Table 11.7 show that, in all grades, female students have slightly more positive attitudes than the males.

Table: 11.8 Students' Views as to the influence Culture, Religion and Parents have on Physical Education by Class and Place

Class	10th		1st Secondary		2nd Secondary	
Place	Number	Mean	Number	Mean	Number	Mean
Urban	134	3.55	164	3.42	136	3.48
Rural	165	3.66	118	3.64	104	3.37
Badia	120	3.41	69	3.40	112	3.29

Table 11.8 shows that urban and rural 10th, 1st and 2nd secondary students have more positive attitudes than Badia students. However, rural students in the 10th grade have the most positive attitude overall.

Table: 11.9 Analysis of Variance in respect of Culture, Religion and Parents in relation to Physical Education by Sex, Place and Class

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	1.381	1	1.381	2.450	0.118
PLACE	6.451	2	3.225	5.722	0.003*
CLASS	4.214	2	2.107	3.738	0.024*
Sex/Place	2.410	2	1.205	2.138	0.118
Sex/Class	0.086	2	0.043	0.076	0.927
Place/Class	3.624	4	0.906	1.607	0.170
Explained	18.518	13	1.424	2.527	0.002
Residual	624.530	1108	0.564		
Total	643.048	1121	0.574		

Data summarised in Table 11.9 show that there is a significant difference between place ($P < 0.05$) (see Figure 34), where students from the rural area have a more positive attitude than those from the urban and Badia areas (Mean = 3.58, 3.48, 3.36 respectively). Also, as can be seen in the above table, there was a significant difference between class ($P < 0.05$) as shown in Figure 35, where students in the 10th grade have a more positive attitude than 1st and 2nd secondary students (Mean = 3.55, 3.49, 3.39 respectively). However, with regard to the other main effects, there were no statistically significant differences. The key findings from Table 11.7 are summarised in graph form below.

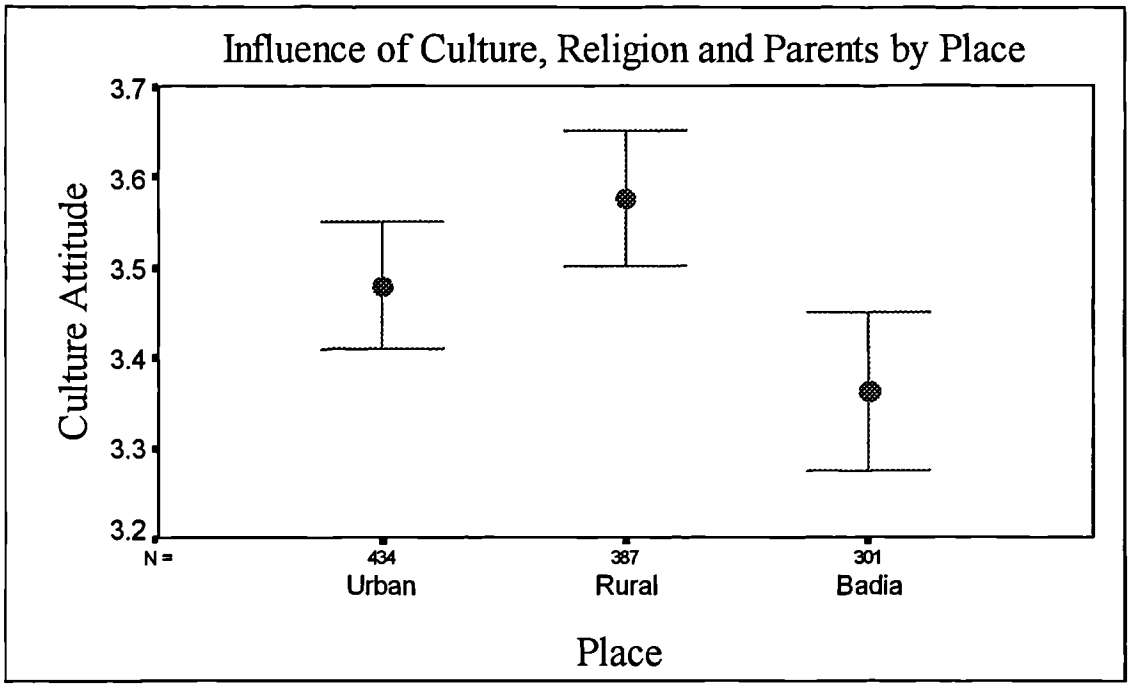
Influence of Culture, Religion and Parents by Place
Culture Attitude
3.7
3.6
3.5
3.4
3.3
3.2
N =
434
Urban
387
Rural
301
Badia
Place

Fig (34)

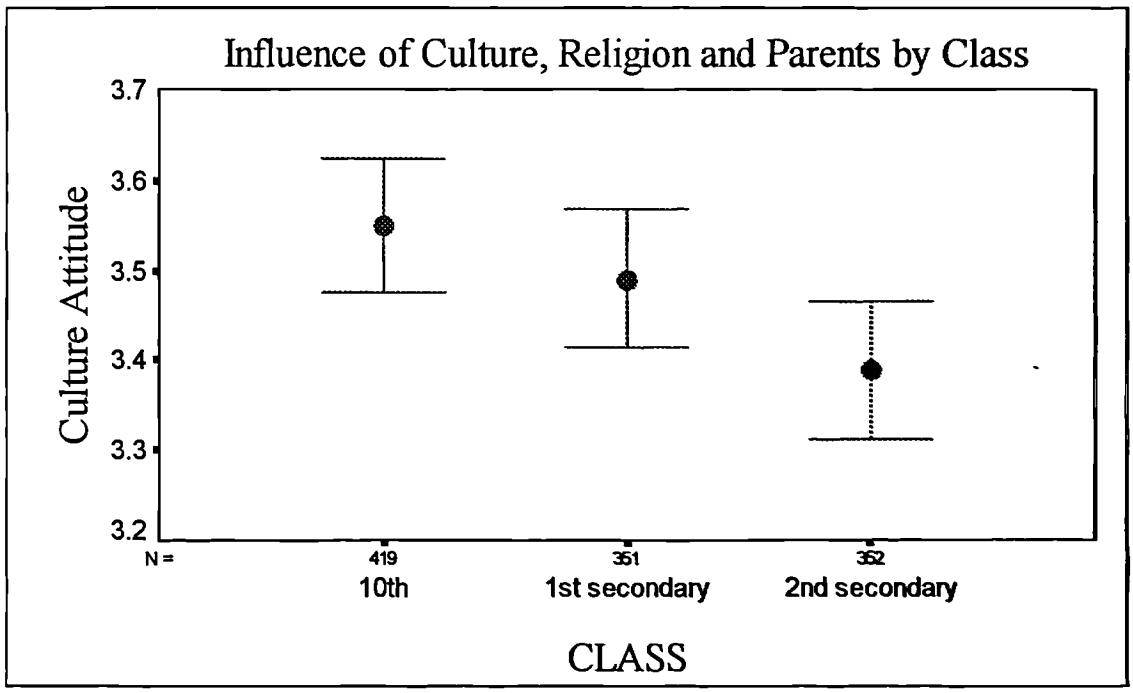
Influence of Culture, Religion and Parents by Class
Culture Attitude
3.7
3.6
3.5
3.4
3.3
3.2
N =
419
10th
351
1st secondary
352
2nd secondary
CLASS

Fig (35)

Having considered the positive statements with regard to the influence of culture, religion and parents on Physical Education, further consideration is given here to questions 48 and 49 which received a negative response from sons and daughters majoring in Physical Education.

Q48. Most parents would not approve of their daughter majoring in physical education.

In considering question 48, the results showed that most of the students (56.1%) either agreed or strongly agreed with this item. Also, it was found that there was a statistically significant difference when considering the variables of sex and class (Tables relating to place are included in Appendix 11). The results of a Mann-Witney U Test and Kruskal-Wallis Test in respect of sex and class are shown in Tables 11.10, 11.11, 11.12 and 11.13 below.

Table 11.10: Q48. Most parents would not approve of their daughter majoring in physical education. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	161	136	81	95	71	544
%of total	29.6	25.0	14.9	17	13.1	48.5
Female	205	128	107	65	73	578
%of total	35.5	22.1	18.5	11.2	12.6	51.5
Column Total	366 32.6	264 23.5	188 16.8	160 14.3	144 12.8	1122 100.0
Total	56.1		16.8	27.1		100.0

Table 11.10 shows that the percentage of female students who agreed or strongly agreed with the statements is slightly higher (57.6%) than the male students (54.6%). It should be noted however, that more male students disagreed or strongly disagreed with the statement (30.1%) than their female counterparts (23.8%). Those who were undecided were 14.9% of the male students and 18.5% of the female students.

Table 11.11: Q48. Most parents would not approve of their daughter majoring in physical education. Mann-Witney U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	146705.0	0.0459

In applying a Mann-Witness U Test to the responses to this question by sex, Table 11.11 shows that the difference between male and female students was statistically significant ($P < 0.05$).

Table 11.12: Q48. Most parents would not approve of their daughter majoring in physical education. Crosstabulation, frequencies and percentage count by Class.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	116	92	76	70	65	419
% of total	27.7	22.0	18.1	16.7	15.5	37.3
1st secondary	118	91	62	44	36	351
% of total	33.6	25.9	17.7	12.5	10.3	31.3
2nd secondary	132	81	50	46	43	352
% of total	37.5	23.0	14.2	13.1	12.2	31.4
Column Total	366	264	188	160	144	1122
	32.6	23.5	16.8	14.3	12.8	100.0
Total	56.1		16.8	27.1		100.0

In considering the responses to this question in relation to class, a Crosstabulation shows that there are more students from the 2nd secondary

(60.5%) and 1st secondary (59.5%) who were in agreement with this statement, with less conviction being shown in the 10th grade (49.7%).

Table 11.13: Q48. Most parents would not approve of their daughter majoring in physical education. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Class.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	12.7252	0.0017

In applying a Kruskal-Wallis Test to the responses to this question, Table 11.13 shows that the difference between the students in the three classes was statistically significant ($P < 0.05$).

Q49. My parents would never want me to major in physical education.

Once again, a large proportion of the responses either agreed or strongly agreed with this statement (51.3%). In applying the appropriate tests there were found to be significant differences in respect of place and class. (Tables relating to sex are including in Appendix 11). The results of a Kruskal-Wallis Test in respect of place and class are shown in Tables 11.14, 11.15, 11.16 and 11.17 below.

Table 11.14 below shows that 51.3% of the students agreed or strongly agreed with the statement. Whilst 33.8% strongly disagreed or just disagreed. A further 14.9% could not make up their mind.

Table 11.14: Q49. My parents would never want me to major in physical education. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	133	108	50	85	57	433
% of total	30.7	24.9	11.5	19.6	13.2	38.9
Rural	94	88	58	76	67	383
% of total	24.5	23.0	15.1	19.8	17.5	34.4
Badia	86	63	58	49	42	298
% of total	28.9	21.1	19.5	16.4	14.1	26.8
Column	313	259	166	210	166	1114
Total	28.1	23.2	14.9	18.9	14.9	100.0
Total	51.3		14.9	33.8		100.0

The Crosstabulation shows that strength of opinion among students from both the urban (55.6%) and the Badia (50.0%) areas was similar. Whilst the majority of students from the rural area also agreed with this statement, the strength of opinion was not as strong.

Table 11.15: Q49. My parents would never want me to major in physical education. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	5.6932	0.0580

In applying a Kruskal-Wallis Test to the responses to this question, Table 11.15 shows that the difference between the students in the three places was statistically significant ($P < 0.05$).

Table 11.16: Q49. My parents would never want me to major in physical education. Crosstabulation, frequencies and percentage count by Class.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	95	91	70	87	72	415
% of total	22.9	21.9	16.9	21.0	17.3	37.3
1st secondary	103	80	59	59	48	349
% of total	29.5	22.9	16.9	16.9	13.8	31.3
2nd secondary	115	88	37	64	46	350
% of total	32.9	25.1	10.6	18.3	13.1	31.4
Column Total	313 28.1	259 23.2	166 14.9	210 18.9	166 14.9	
Total	51.3		14.9	33.8		100.0

In considering the responses to this question in relation to class, a Crosstabulation shows that there are more students from the 2nd secondary

(58.0%) and 1st secondary (52.4%) who were in agreement with this statement, with less conviction being shown in 10th grade (44.8%).

Table 11.17: Q49. My parents would never want me to major in physical education. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Class.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	12.5927	0.0018

In applying a Kruskal-Wallis Test to the responses to this question by class, Table 11.17 shows that the difference between the students in the three classes is statistically significant ($P < 0.05$).

4.4 The perceived effect of the mass media on student attitudes to Physical Education : Part 4

The findings for this section will be presented in two tables. The first table shows to what extent the Jordanian students feel they should be informed by the mass media about the objectives of Physical Education and sport programmes, and the role that Physical Education and sports programming can play in maintaining good health. The second table shows, in order of importance, how Jordanian students rate the usefulness of the different media outlets in informing them about school Physical Education programmes.

Table: 12 Students' Attitudes Towards the need to be informed about the objectives of Physical Education and sports programmes.

	Mean	S.D
56. the role that physical education and sports programme can play in maintaining good health	4.32	0.81
55. the objectives of physical education and sport programmes	4.26	0.89

Table 12 shows that all students have positive attitudes in terms of their perception of the importance of being kept informed about Physical Education. The table presents the sample students' attitudes in order of importance. The findings from these statements are summarised in graph form below.

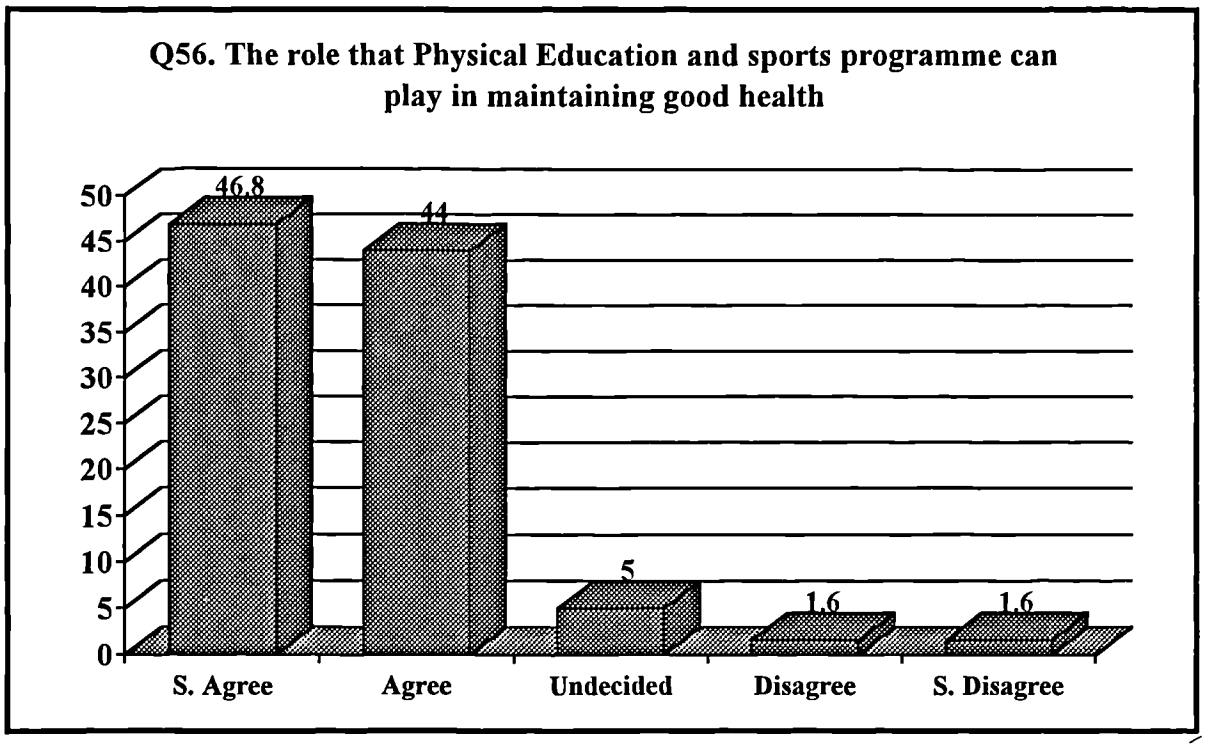
Q56. The role that Physical Education and sports programme can play in maintaining good health
50
45
40
35
30
25
20
15
10
5
0
46.8
44
5
1.6
1.6
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (36)

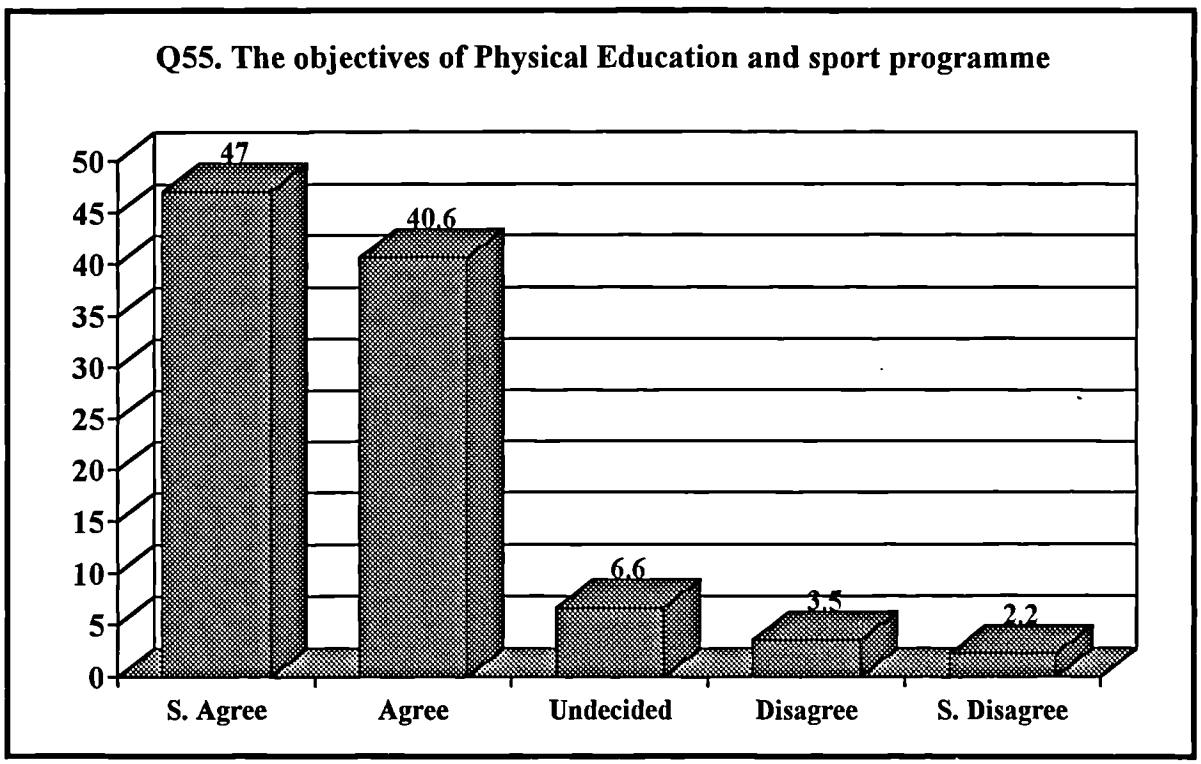
Q55. The objectives of Physical Education and sport programme
50
45
40
35
30
25
20
15
10
5
0
47
40.6
6.6
3.5
2.2
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (37)

Table: 12.1 Students' Attitudes in relation to the usefulness of the mass media in offering information about Physical Education

	Mean	S.D
59. television	4.55	0.83
57. newspapers and magazines	4.31	0.88
58. radio	4.06	1.04
60. brochures and pamphlets	3.53	1.19
61. lectures, conferences, and special programmes	3.49	1.33

Table 12.1 indicates that all students believe that Physical Education can be affected by the mass media. The table presents the sample students' attitudes in order of importance. As can be seen once again however, there are differences between these five items in terms of how strongly students felt about each statement. When considering these findings further in the discussion section, particular emphasis will be placed upon statements 59, 57 and 58. The findings from these statements are summarised in graph form below.

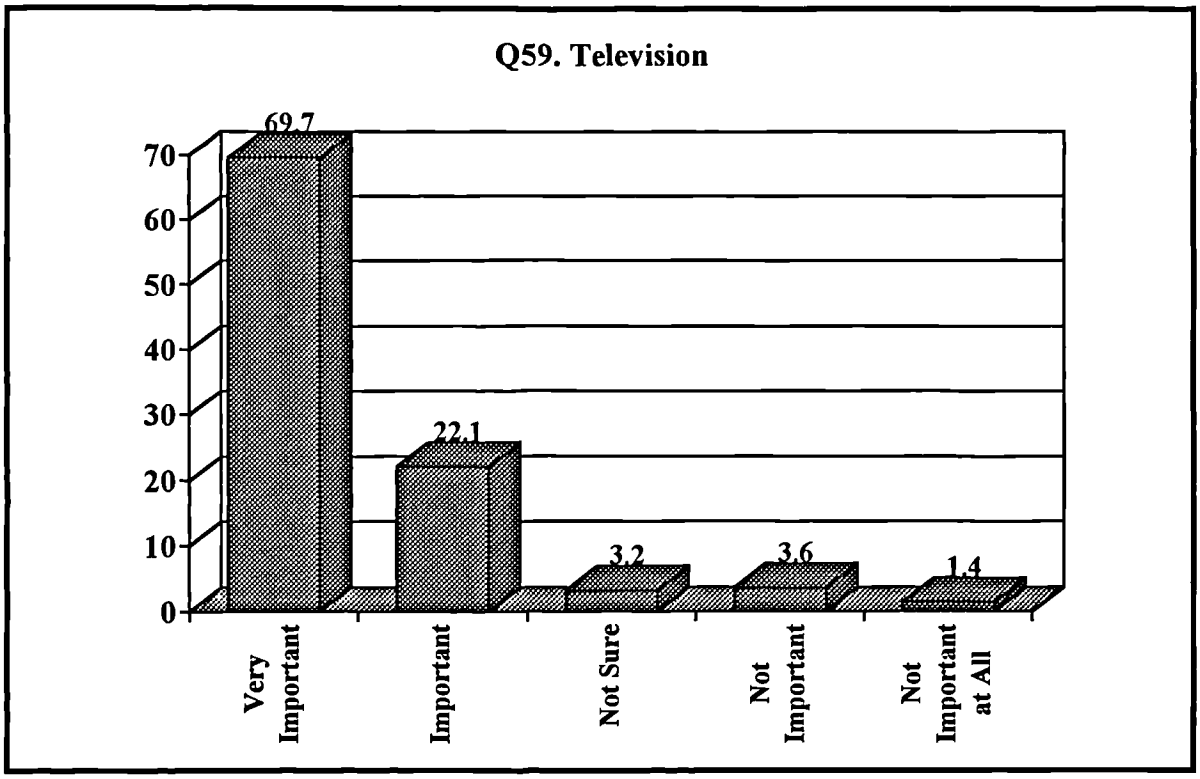
Q59. Television
69.7
22.1
3.2
3.6
1.4
70
60
50
40
30
20
10
0
Very Important
Important
Not Sure
Not Important
Not Important at All

Fig (38)

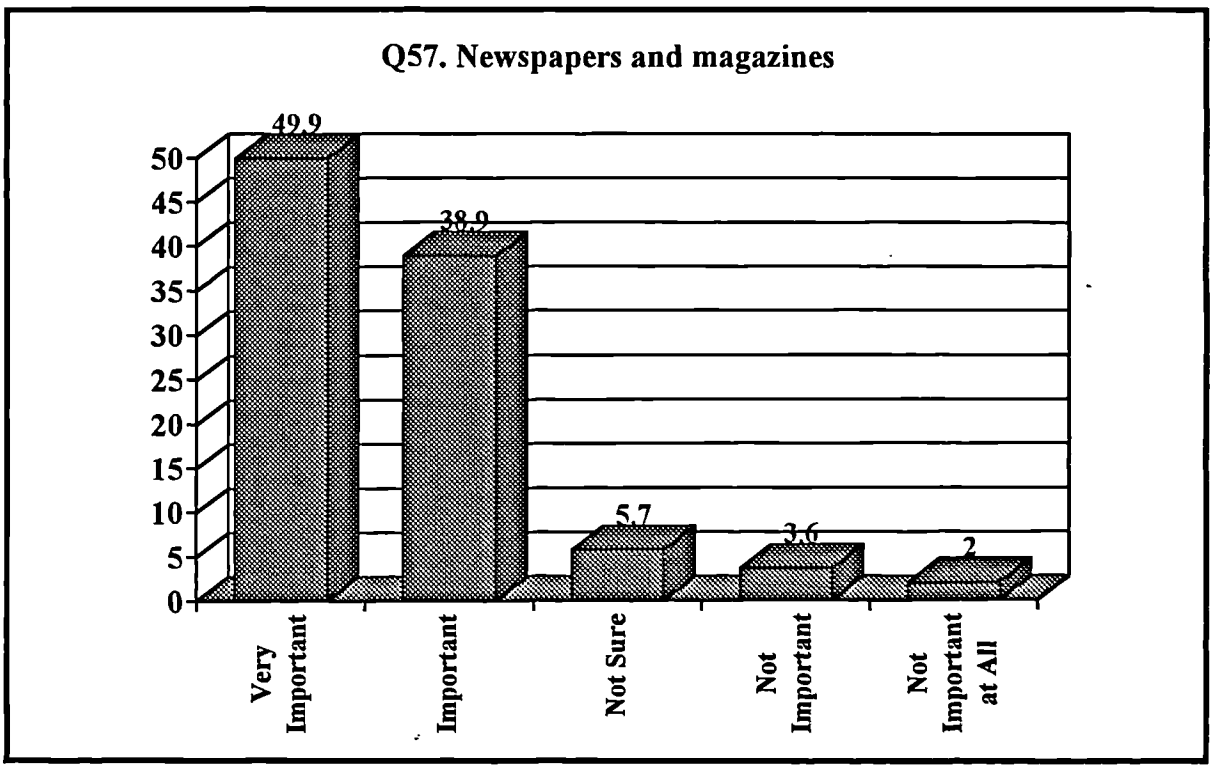
Q57. Newspapers and magazines
49.9
38.9
5.7
3.6
2
50
45
40
35
30
25
20
15
10
5
0
Very Important
Important
Not Sure
Not Important
Not Important at All

Fig (39)

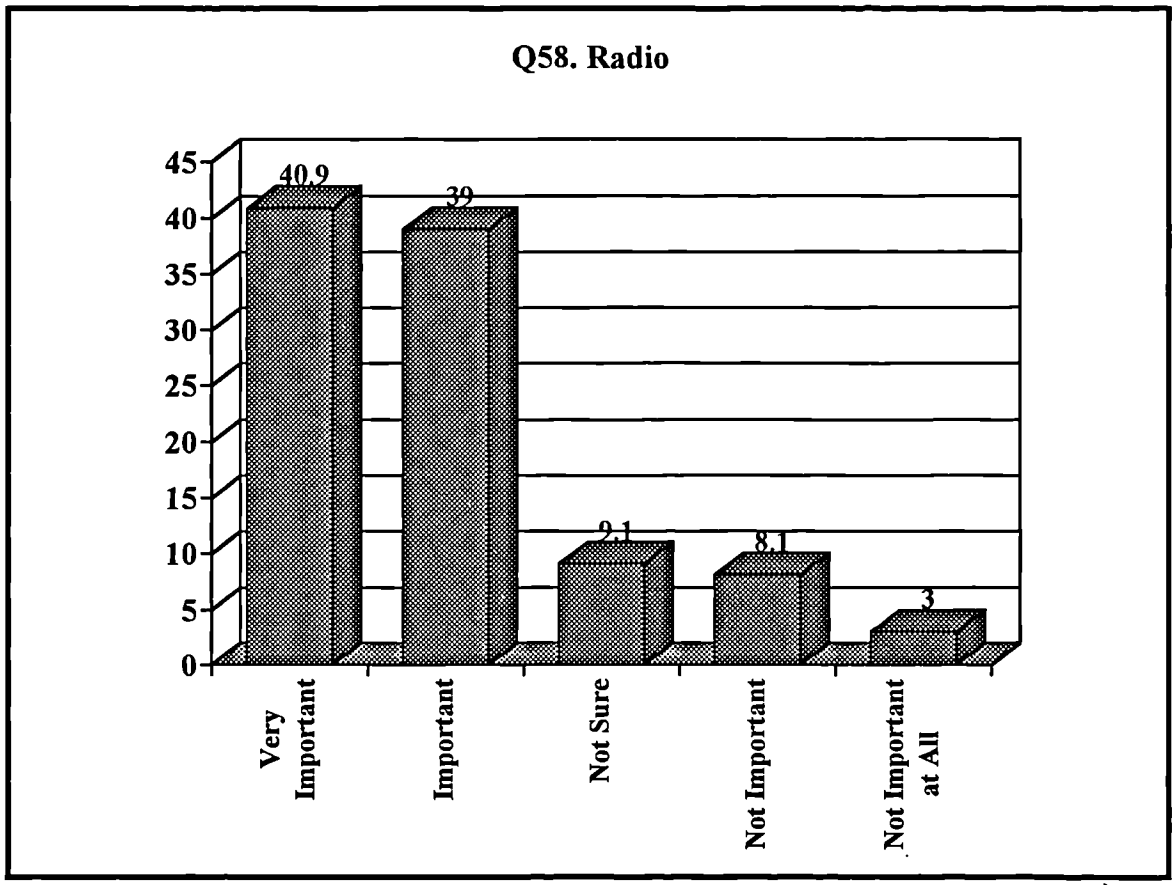
Q58. Radio
45
40
35
30
25
20
15
10
5
0
40.9
39
9.1
8.1
3
Very Important
Important
Not Sure
Not Important
Not Important at All

Fig (40)

Table: 12.2 Reliability Analysis of the mass media scales

	Corrected Item Total Correlation	Alpha if Item Deleted
55. the objectives of physical education and sport programme	0.40	0.64
56. the role that physical education and sports programme can play in maintaining good health	0.44	0.64
57. newspapers and magazines	0.38	0.65
58. radio	0.38	0.65
59. television	0.31	0.66
60. brochures and pamphlets	0.44	0.63
61. lectures, conferences, and special programmes	0.41	0.64

Alpha = 0.68 Standardised item alpha = 0.69

Table 12.2 reports the results computed via the SPSS "Reliability" programme using the Cronbach's Alpha score. Looking at Table 12.2, it can be seen that the seven items are consistent with each other in terms of what is being measured.

Table: 12.3 Students' Attitudes towards the need to be informed about objectives and sports programmes within Physical Education and the influence of the mass media by Sex

Sex	N	M	S.D
Male	541	4.11	0.55
Female	578	4.05	0.63

Table 12.3 shows that male and female students have positive attitudes in these areas.

Table: 12.4 Students' Attitudes towards the need to be informed about objectives and sports programmes within Physical Education and the influence of the mass media by Place

Place	N	M	S.D
Urban	433	4.10	0.52
Rural	385	4.05	0.69
Badia	301	4.07	0.55

Table 12.4 shows that urban, rural and Badia (Bedouin) students have similar positive attitudes towards Physical Education in respect of these areas, with the students from the urban area having a slightly more positive attitude than those from the Badia and rural areas.

Table: 12.5 Students' Attitudes towards the need to be informed about objectives and sports programmes within Physical Education and the influence of the mass media by Class

Class	N	M	S.D
10th	419	4.05	0.62
1st secondary	348	4.08	0.61
2nd secondary	352	4.11	0.54

Table 12.5 indicates that 10th, 1st, and 2nd secondary students have positive attitudes towards Physical Education in relation to these areas, although 2nd secondary students have the most positive attitude overall.

Table: 12.6 Students' Attitudes towards the need to be informed about objectives and sports programmes within Physical Education and the influence of the mass media by Sex and Place

Place	Urban		Rural		Badia	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	209	4.13	119	4.15	213	4.06
Female	224	4.08	266	4.01	88	4.11

Table 12.6 illustrates that male urban and rural students have a more positive attitude than females. Interestingly however, the data also show female Badia students having a more positive attitude than male Badia students.

Table: 12.7 Students' Attitudes towards the need to be informed about objectives and sports programmes within Physical Education and the influence of the mass media by Sex and Class

Class	10th secondary		1st secondary		2nd secondary	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	209	4.11	143	4.10	189	4.11
Female	210	3.99	205	4.07	163	4.11

Table 12.7 shows that male 10th and 1st secondary students have more positive attitudes than the female students, with male and female 2nd secondary students having similar positive attitudes.

Table: 12.8 Students' Attitudes towards the need to be informed about objectives and sports programmes within Physical Education and the influence of mass media by Class and Place

Class	10th		1st Secondary		2nd Secondary	
Place	Number	Mean	Number	Mean	Number	Mean
Urban	134	4.07	163	4.10	136	4.15
Rural	165	4.00	116	4.07	104	4.12
Badia	120	4.10	69	4.05	112	4.05

Table 12.8 shows that Badia 10th year students have more positive attitudes than urban and rural students. Urban 1st and 2nd secondary students have more positive attitudes than rural and Badia students, and 2nd secondary students in the urban area have the most positive attitude of all. Thus, there seems to be little consistency in these results.

Table: 12.9 Analysis of Variance for the sports programmes and the influence of mass media by Sex, Place and Class

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	0.848	1	0.848	2.377	0.123
PLACE	0.520	2	0.260	0.729	0.483
CLASS	0.650	2	0.325	0.912	0.402
Sex/Place	1.291	2	0.646	1.810	0.164
Sex/Class	0.337	2	0.168	0.472	0.624
Place/Class	0.597	4	0.149	0.419	0.795
Explained	4.688	13	0.361	1.011	0.438
Residual	394.082	1105	0.357		
Total	398.770	1118	0.357		

Data summarised in this table show that there are no significant differences among them ($P < 0.05$).

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Fitz-Gibbon, C. T. and Morris, L. L. (1987). *How to Analyze Data.* SAGE Publications, London, pp. 107: 110-112.

Norusis, M. J. (1990). *The SPSS Guide to Data Analysis.* Chicago: SPSS Inc.

Chapter Four

Analysis of data

1. Attitudes of Physical Education teachers

This chapter deals with an analysis of the data collected from the teacher questionnaires, and looks firstly at the make up of the group of teachers in terms of sex, experience and qualifications. The results of the study are then presented under the following headings:

1. Physical Education objectives
2. The Physical Education curriculum
3. Physical Education as perceived by teachers
4. The possible effect of the mass media on teachers' attitudes to Physical Education.

As each area is addressed, the results are analysed by sex, experience and qualifications.

2. General statistics

a) Sex

In considering the sample of teachers who responded to the questionnaire, Table 13 shows the number of male and female teachers in the sample.

Table: 13 Distribution of Teachers with regard to Sex.

Variables	Value	Frequency	Percentage
Sex	Males	90	60.8
	Females	58	39.2
Total		148	100

(NB The lower figure for female Physical Education teachers is largely due to the fact that women, in larger numbers, only started majoring in Physical Education in recent years).

Table 14 illustrates the distribution of teachers by experience.

Table: 14 Distribution of Teachers with regard to experience.

Variables	Value	Frequency	Percentage
Experience	1 - 5	56	37.8
	6 - 10	33	22.3
	10 - above	59	39.9
Total		148	100

Finally, Table 15 sets out the qualifications held by the teachers in the sample.

Table: 15 Distribution of teachers with regard to Qualification.

Variables	Value	Frequency	Percentage
Qualification	Diploma	53	35.8
	B.A	81	54.7
	M.A + Ph.D.	14	09.5
Total		148	100

(N.B. Teachers are not accepted for a B.A in a university directly from a 2 year college Diploma. After graduation and some practical experience, the Ministry of Education may reconsider their application to study for a B.A in Physical Education. No Diploma teacher can go straight to an M.A without having studied for a four year B.A in Physical Education. Schoolteachers with Ph.D.s will not have specialised in the area of Physical Education, unless they studied outside the country at a foreign university).

Having considered the make up of the teachers group, the results of the questionnaire are analysed below:

3. Physical Education objectives : Part 1

This first section deals with the analysis of the teachers' attitudes towards Physical Education in relation to a set of objectives set out by the author of this study. In planning realistic objectives, the teachers were given 9 statements and asked to record their responses on a five point scale: [Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree].

Table : 16 Teachers' Attitudes Towards Physical Education Objectives.

Physical Education should:	Mean	S.D
2. meet the present needs of students	4.54	0.61
1. serve the needs of the community and the nation	4.41	0.71
6. consider the indoor and the outdoor Physical Education facilities	4.40	0.65
9. list the objectives in Physical Education which are achievable	4.34	0.65
3. consider the amount of money allocated in the national budget for physical education	4.31	0.80
4. consider the type of professional preparation of Physical Education teachers	4.29	0.69
7. consider the quantity of appropriate equipment	4.28	0.66
8. consider the quality of appropriate equipment	4.19	0.78
5. consider the current physical fitness and skill level of the students	4.12	0.82

Data summarised in Table 16 show that all teachers have positive attitudes towards the nine Physical Education objectives. It is worth noting that the strongest level of agreement is centred upon meeting the needs of the students, the community and the nation. The findings from the first two statements 2 and 1 are summarised in graph form below.

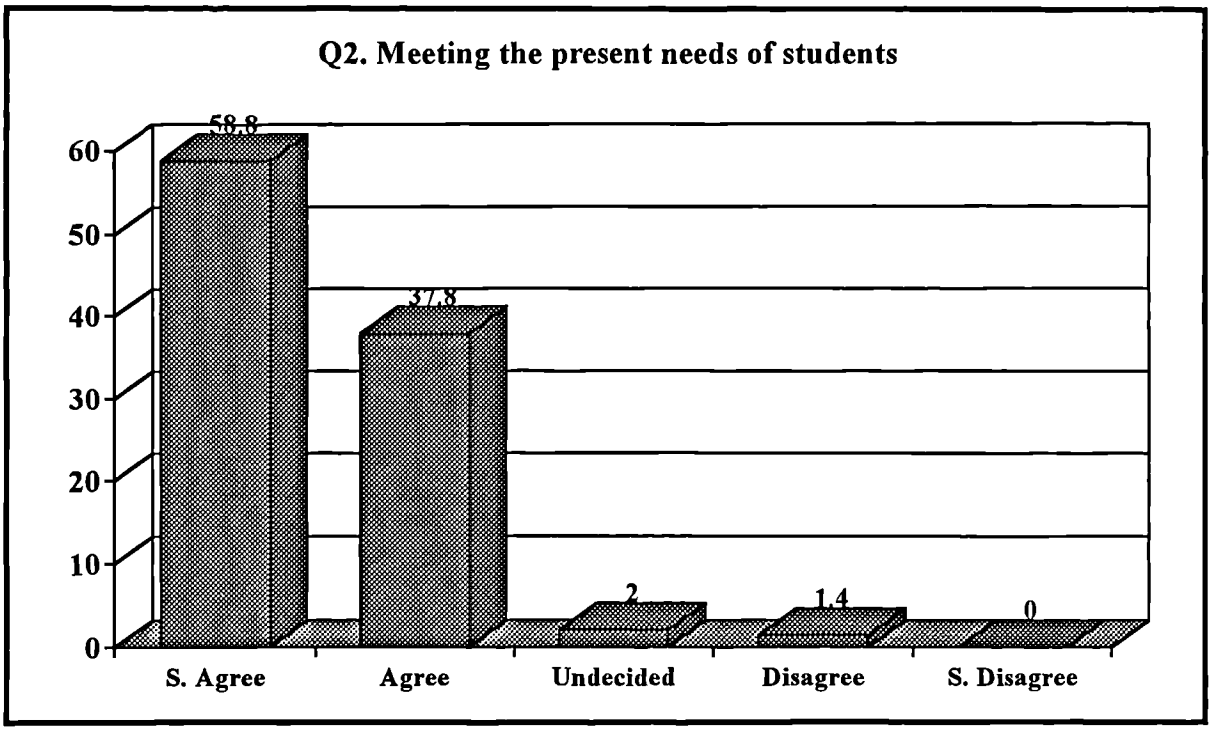

Q2. Meeting the present needs of students
60
50
40
30
20
10
0
58.8
37.8
2
1.4
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (41)

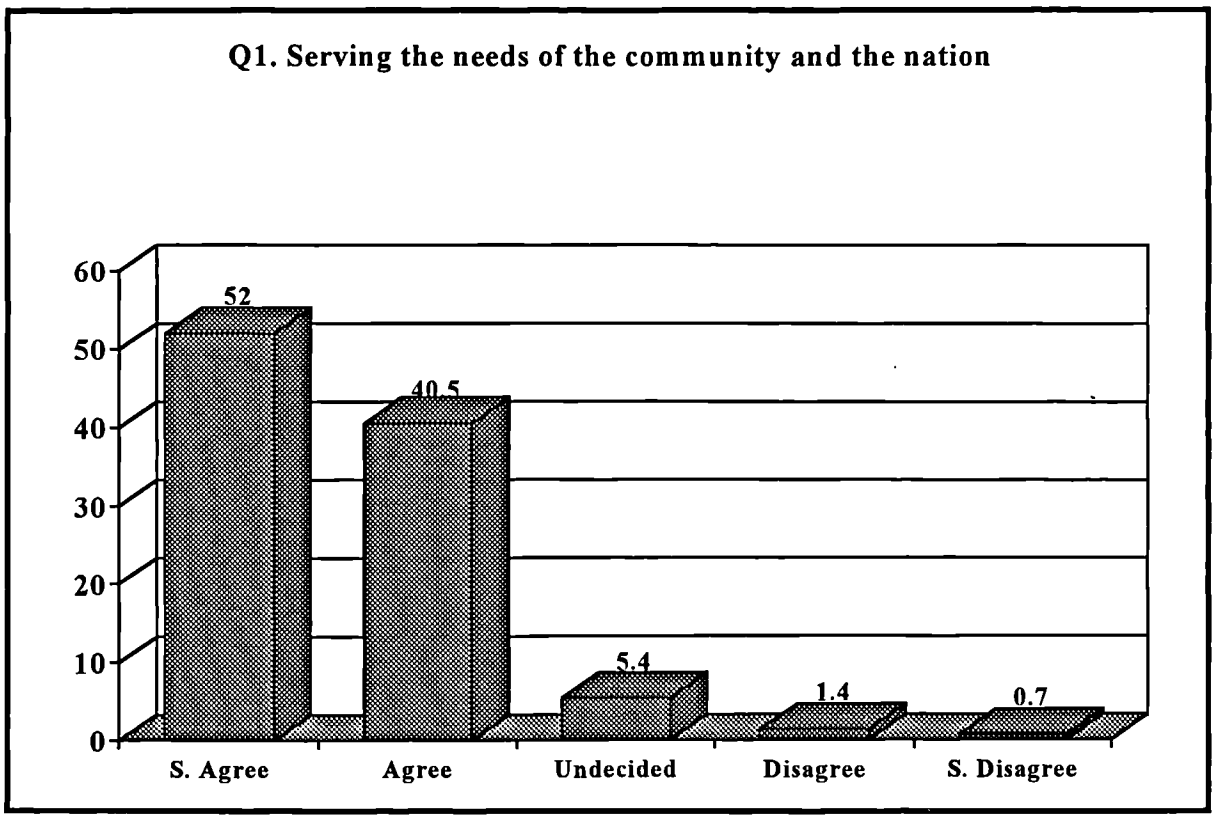

Q1. Serving the needs of the community and the nation
60
50
40
30
20
10
0
52
40.5
5.4
1.4
0.7
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (42)

Table: 16.1 Reliability Analysis of Physical Education Objectives scales.

	Corrected Item Total Correlation	Alpha if Item Deleted
1. serve the needs of the community and the nation	0.23	0.69
2. meet the present needs of students	0.35	0.67
3. consider the amount of money allocated in the national budget for physical education	0.35	0.67
4. consider the type of professional preparation of Physical Education teachers	0.34	0.67
5. consider the current physical fitness and skill level of the students	0.28	0.68
6. consider the indoor and the outdoor Physical Education facilities	0.48	0.64
7. consider the quantity of appropriate equipment	0.50	0.64
8. consider the quality of appropriate equipment	0.38	0.66
9. list the objectives in Physical Education which are achievable	0.41	0.66

Alpha = 0.69 Standardised item alpha = 0.70

Table 16.1 reports the results computed using the SPSS "Reliability" programme indicating Cronbach's Alpha score (Fitz-Gibbon 1978: 107, 110-112) relating the consequent figure for each item to the summary Alpha figure in Table 16.1. If the item is deleted, where the Alpha value is lower than Alpha, then that item is interpreted as being consistent with all other items in the scale in terms of what is being measured. Looking at Table 16.1, it can be seen that the 9 items show this consistency.

This first section continues with an analysis of objectives by sex, experience and qualification.

Table: 16.2 Teachers' Attitudes Towards Physical Education Objectives by Sex.

Sex	N	M	S.D
Male	90	4.29	0.35
Female	58	4.38	0.42

Taking all the objectives together, Table 16.2 shows that both male and female teachers have positive attitudes towards Physical Education with female teachers being marginally more positive.

Table: 16.3 Teachers' Attitudes Towards Physical Education Objectives by Experience.

Experience	N	M	S.D
1 - 5	56	4.38	0.35
6 - 10	33	4.23	0.37
10 - above	59	4.33	0.41

Table 16.3 indicates that teachers, regardless of years of experience, have positive attitudes towards the objectives of Physical Education but teachers of 6-10 years' experience appear the least positive.

Table: 16.4 Teachers' Attitudes Towards Physical Education Objectives by Qualification.

Qualification	N	M	S.D
Diploma	53	4.33	0.34
B.A	81	4.37	0.40
M.A + Ph.D.	14	4.06	0.32

Table 16.4 shows that all teachers have similar positive attitudes towards the objectives of Physical Education, although B.A and Diploma teachers have a more positive attitude than their M.A + Ph.D. counterparts.

The next three tables consider the interrelated effect the three variables of sex, experience and qualifications have on the objectives of Physical Education.

Table: 16.5 Teachers' Attitudes Towards Physical Education Objectives by Experience and Sex.

Experience	1 - 5		6 - 10		10 - above	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	20	4.24	19	4.08	51	4.38
Female	36	4.45	14	4.44	8	3.96

Table 16.5 shows that teachers in general have positive attitudes towards the objectives of Physical Education. The table also shows that female teachers of 1-5 and 6-10 years experience have slightly more positive attitudes than male

teachers but this is clearly not the case with teachers with more than ten years' experience, perhaps because of the smaller number of females. The low figure for female teachers with more than ten years' experience is largely due to the fact that most females only began to study Physical Education from the early eighties.

Table: 16.6 Teachers' Attitudes Towards Physical Education Objectives by Qualification and Sex.

Qualification	Diploma		B.A		M.A + Ph.D.	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	24	4.29	54	4.34	12	4.04
Female	29	4.36	27	4.42	2	4.17

Table 16.6 shows that female Diploma, B.A and M.A + Ph.D. teachers have a slightly more positive attitude than male teachers. The figure for female teachers with a higher degree is so low that it is not possible to read anything of importance into this category. This remains an issue throughout this chapter where the interrelated effect of the variables for sex and qualifications, and experience and qualifications, are considered.

Table: 16.7 Teachers' Attitudes Towards Physical Education Objectives by Experience and Qualification .

Qualification	Diploma		B.A		M.A + Ph.D	
Experience	Number	Mean	Number	Mean	Number	Mean
1 - 5	18	4.39	30	4.45	8	4.06
6 - 10	12	4.37	17	4.20	4	3.97
10 - above	23	4.26	34	4.38	2	4.22

Table 16.7 shows that teachers, regardless of years of experience, have positive attitudes towards the objectives of Physical Education. The B.A teachers of 1-5 years' experience have more positive attitudes than all other groups.

A two-way analysis of variance was performed to test whether or not there were any significant differences between sex, experience and qualification. The results of this analysis are listed in Table 16.8 below, where the terms used have the following associated meaning: S refers to sex; E refers to experience; Q refers to qualification; SE refers to the interaction effect between sex and experience; SQ refers to the interaction effect between sex and qualification; and finally EQ refers to the interaction effect between experience and qualification. (Wherever these terms appear in the remainder of this study, they have the same meanings).

Table: 16. 8. Analysis of Variance for Physical Education Objectives by Sex, Qualification and Experience.

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	0.317	1	0.317	2.494	0.117
Experience	0.361	2	0.180	1.419	0.246
Qualification	1.051	2	0.525	4.134	0.018*
Sex/Experience	2.460	2	1.230	9.676	0.000*
Sex/Qualification	0.330	2	0.165	1.297	0.277
Experience/Qualification	0.630	4	0.158	1.240	0.297
Explained	4.869	13	0.375	2.947	0.001
Residual	17.030	134	0.127		
Total	21.899	147	0.149		

An examination of Table 16.8, shows that there was a statistically significant difference in terms of interaction between sex and experience ($P< 0.05$). Figure 43 shows the most significant difference was between male and female teachers with 6-10 years of experience, with female teachers showing a more positive attitude than male teachers ($M = 4.44, 4.08$ respectively). Also, as can be seen in the above table, there was a significant difference between teachers' qualification ($P< 0.05$) as shown in Figure 44, where B.A and Diploma teachers showed a more positive attitude than M.A + Ph.D. teachers (M 4.37, 4.33, 4.06 respectively, Table 16.4). However, it is acknowledged that the M.A and Ph.D. cohort is considerably smaller than the other two. Regarding the other main effects, there were no statistically significant differences. The findings from Table 16.8 are summarised in the graph below.

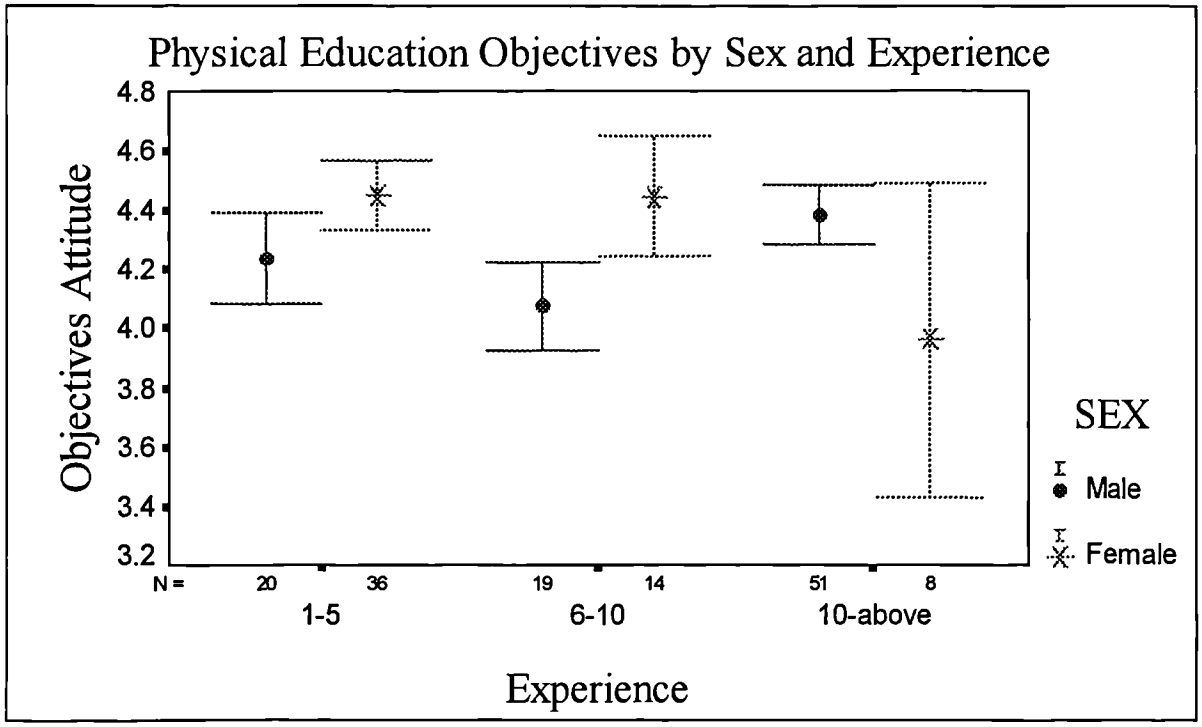

Physical Education Objectives by Sex and Experience
Objectives Attitude
4.8
4.6
4.4
4.2
4.0
3.8
3.6
3.4
3.2
N =
20
36
19
14
51
8
1-5
6-10
10-above
Experience
SEX
Male
Female

Fig (43)

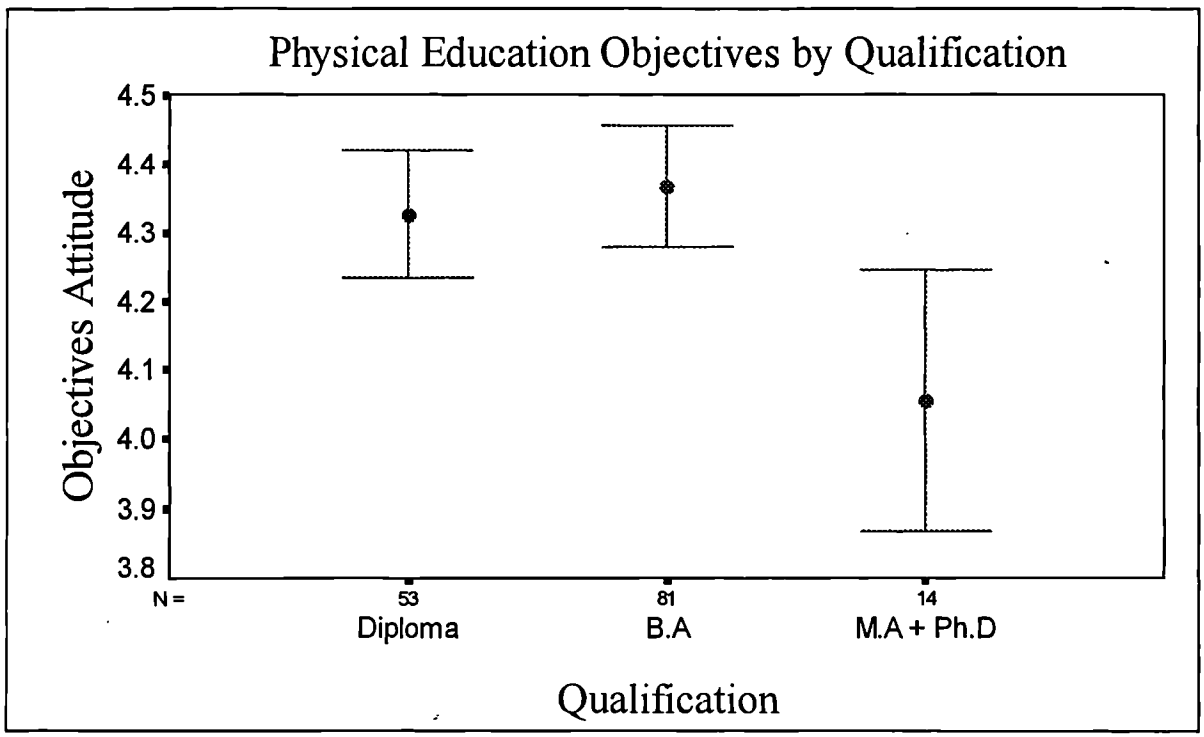

Physical Education Objectives by Qualification
Objectives Attitude
4.5
4.4
4.3
4.2
4.1
4.0
3.9
3.8
N =
53
81
14
Diploma
B.A
M.A + Ph.D
Qualification

Fig (44)

4. Curriculum of Physical Education : Part 2

The teachers were given 16 statements concerning their attitudes in respect of the curriculum for Physical Education, and were again asked to give their responses on the same five point scale as shown in part 1. Table 18 below demonstrates these responses in order of importance.

Table : 17 Teachers' Attitudes Towards the Physical Education Curriculum

The Physical Education curriculum should:	Mean	S.D.
10. provide experiences which promote the normal physical growth and development of students	4.68	0.52
13. provide experiences aimed at developing self-confidence	4.68	0.53
14. provide experiences to develop leadership ability	4.59	0.55
19. provide for individual differences in the abilities of the students	4.58	0.60
11. encourage students to continue to participate in outside school programmes of physical education	4.58	0.57
21. enable students to derive enjoyment from participation in the programme	4.54	0.53
18. increase the student's knowledge in appropriate health habits and life styles	4.53	0.56
17. improve the cardiorespiratory endurance of students	4.45	0.62
15. develop student's effective movement skills	4.43	0.58
22. help students to find release from tensions and frustrations	4.34	0.63
12. encourage students to continue to participate in physical activities throughout their adult lives	4.33	0.62
20. consider the preferences of students in selecting physical education activities for the programme	4.33	0.66
16. develop student's knowledge and skills in life-time physical recreational activities	4.31	0.53
25. take into account the activities offered in elementary and preparatory schools	4.10	0.66
24. concentrate on team sports as the main activity	3.69	1.11
23. concentrate on individual sports as the main activity	3.42	1.11

Data summarised in Table 17 show that all teachers have positive attitudes towards the Physical Education curriculum. There would appear to be considerable agreement that Physical Education should:

- provide experiences which promote normal physical growth and development of students.
- provide experiences aimed at developing self-confidence.
- provide experiences to develop leadership ability.
- provide for individual differences in the abilities of the students.
- encourage students to continue to participate in outside school programmes of Physical Education.
- enable students to derive enjoyment from participation in the programme.
- increase students' knowledge in appropriate health habits.

The findings from statements 10, 13, 14, 19, 11, 21 and 18 are summarised in graph form below.

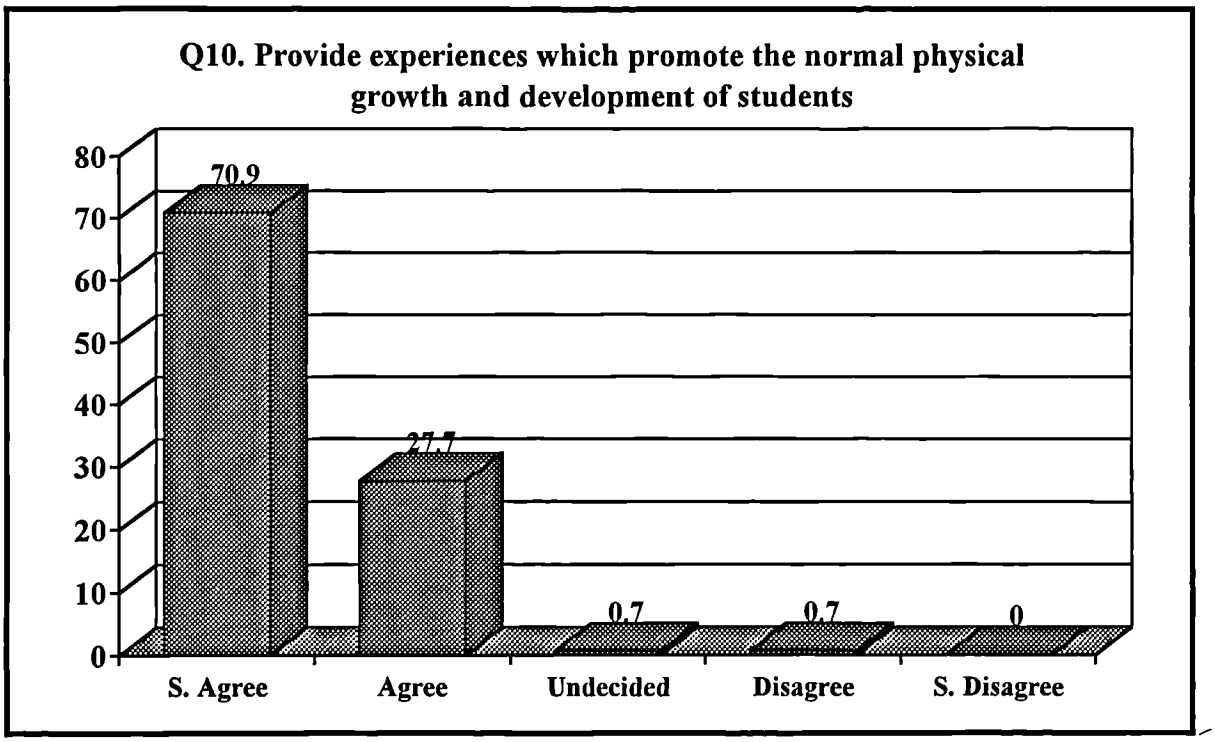

Q10. Provide experiences which promote the normal physical growth and development of students
80
70
60
50
40
30
20
10
0
70.9
27.7
0.7
0.7
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (45)

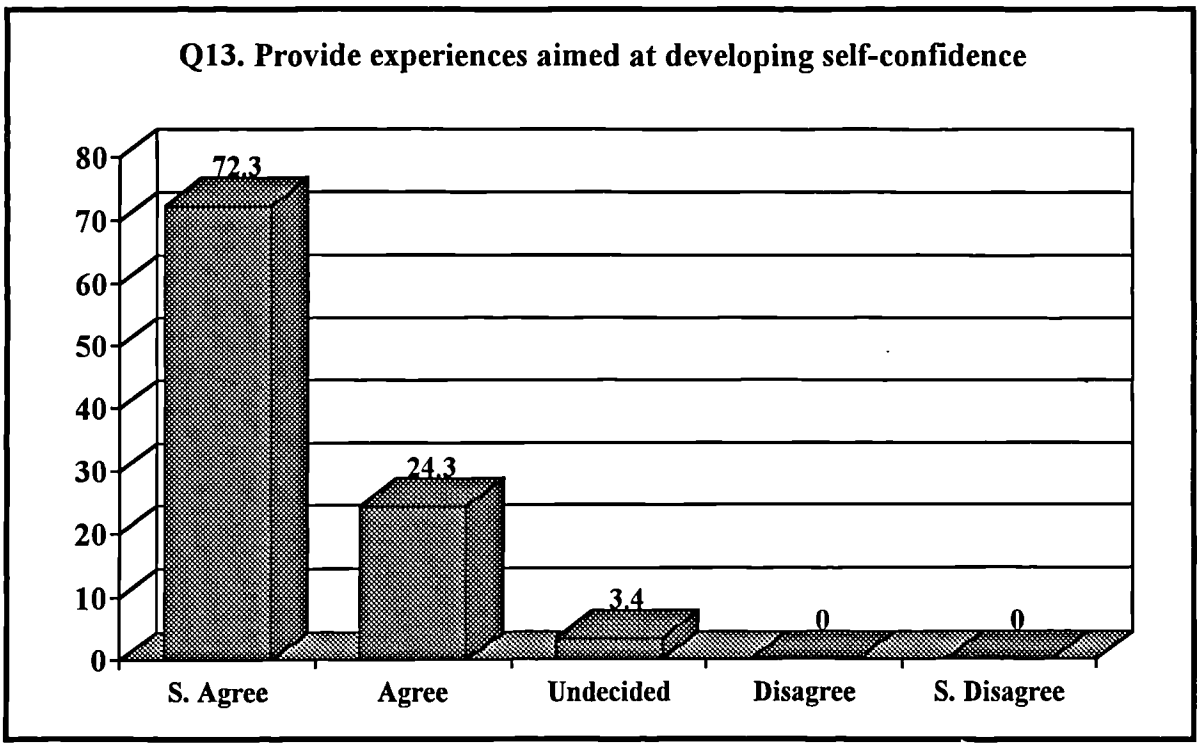

Q13. Provide experiences aimed at developing self-confidence
80
70
60
50
40
30
20
10
0
72.3
24.3
3.4
0
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (46)

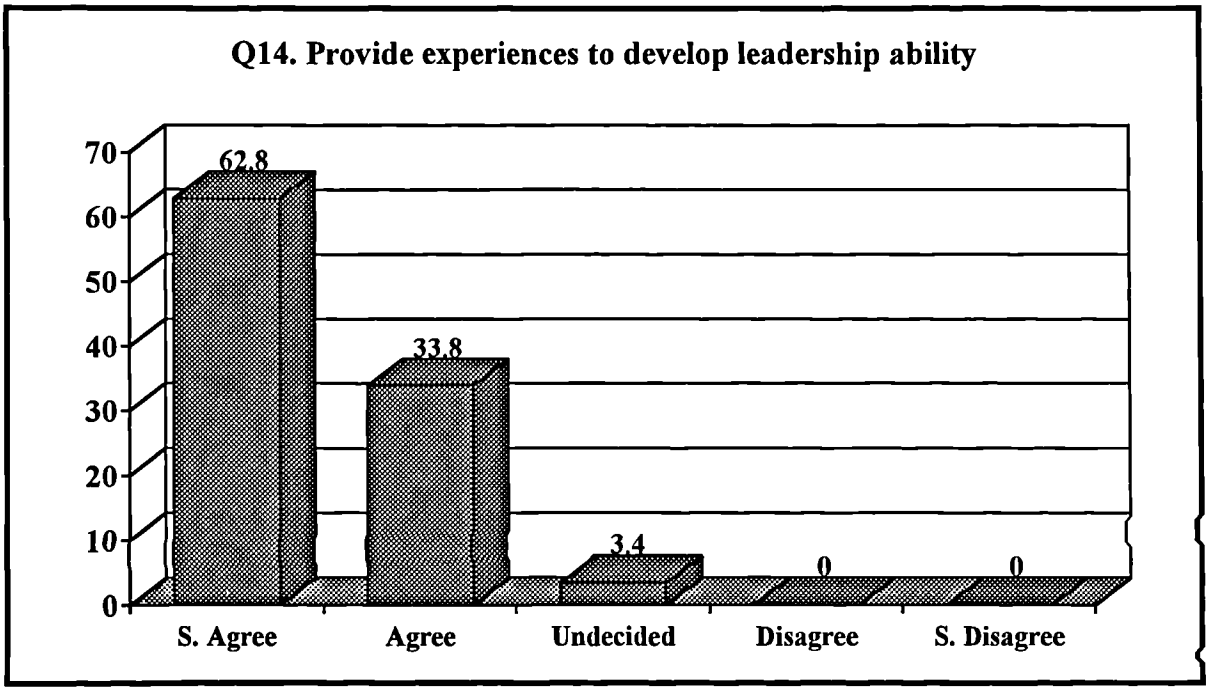

Q14. Provide experiences to develop leadership ability
70
60
50
40
30
20
10
0
62.8
33.8
3.4
0
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (47)

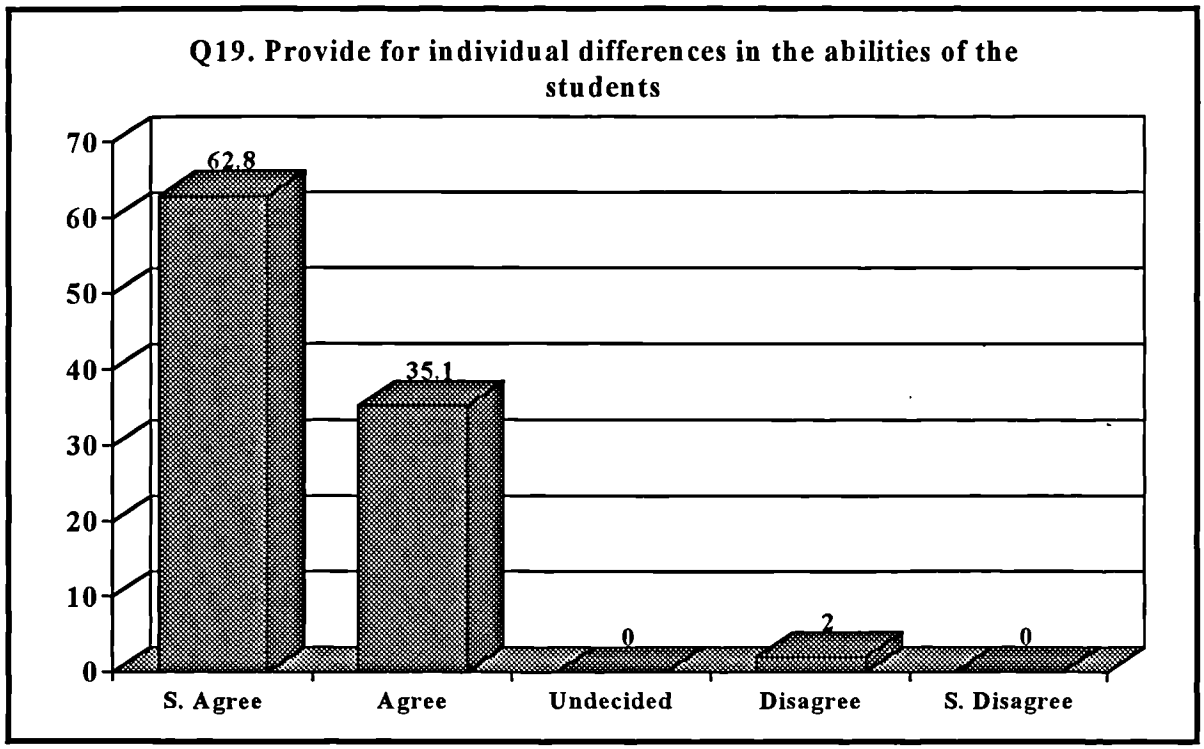

Q19. Provide for individual differences in the abilities of the students
70
60
50
40
30
20
10
0
62.8
35.1
0
2
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (48)

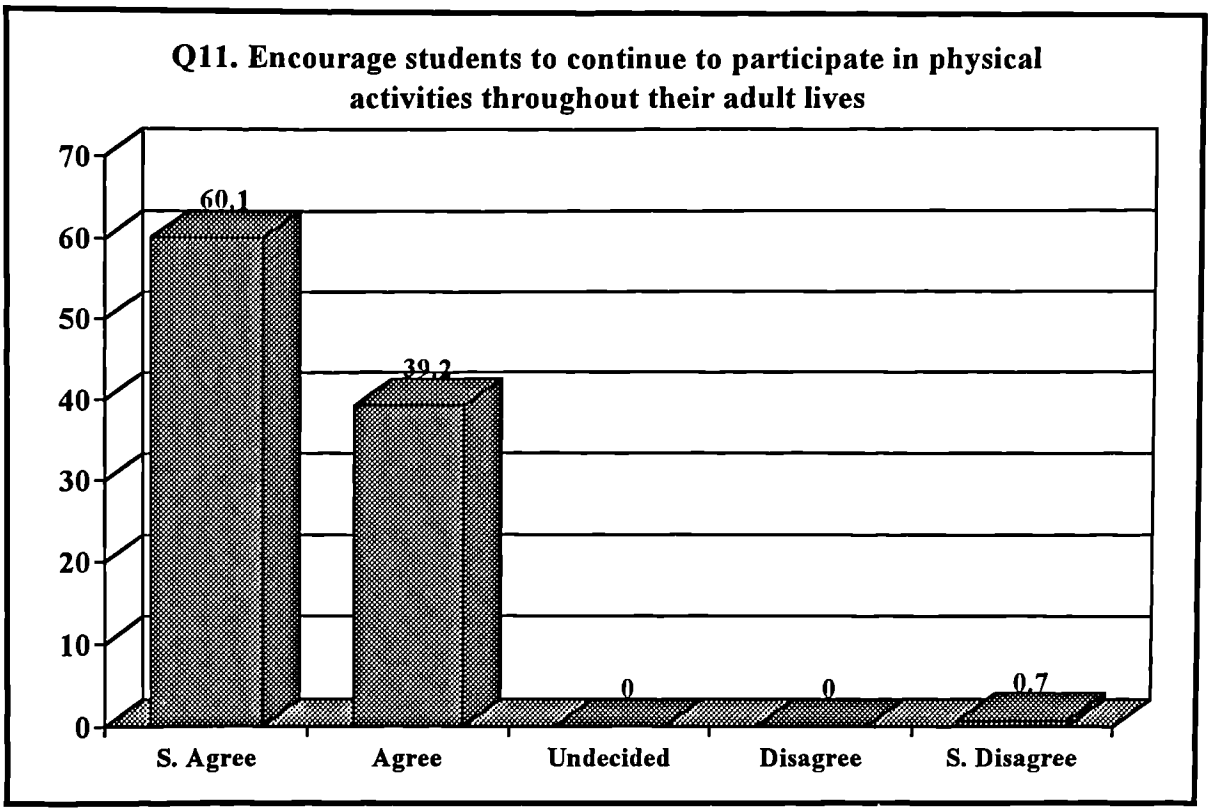

Q11. Encourage students to continue to participate in physical activities throughout their adult lives
70
60
50
40
30
20
10
0
60.1
39.2
0
0
0.7
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (49)

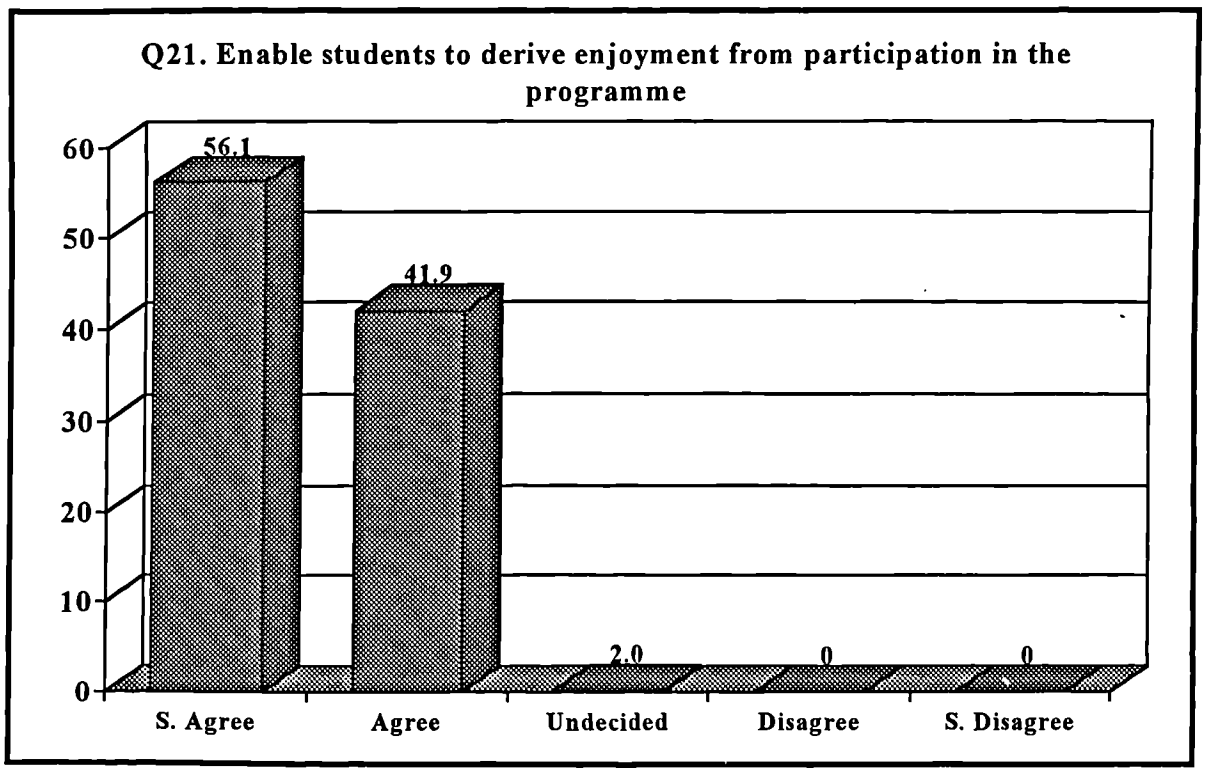

Q21. Enable students to derive enjoyment from participation in the programme
60
50
40
30
20
10
0
56.1
41.9
2.0
0
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (50)

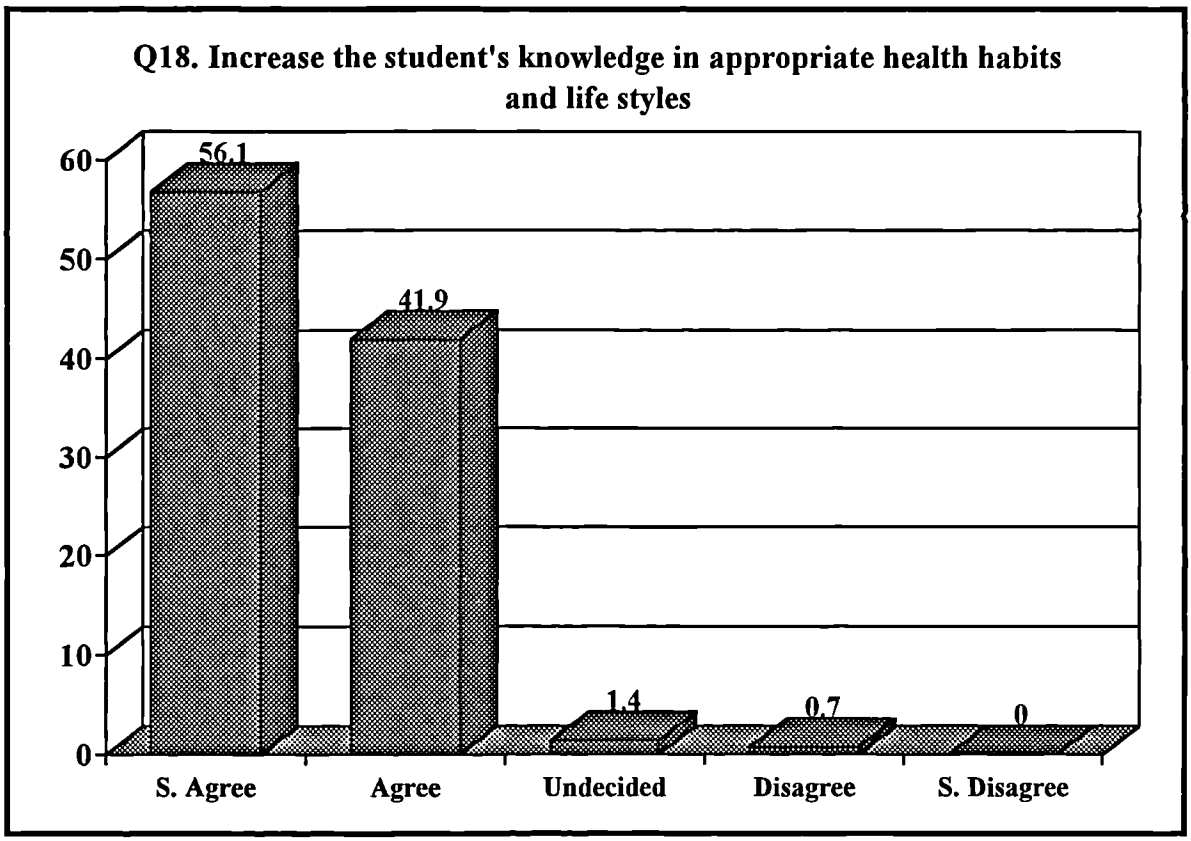

Q18. Increase the student's knowledge in appropriate health habits and life styles
60
50
40
30
20
10
0
56.1
41.9
1.4
0.7
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (51)

Table: 17.1 Reliability Analysis of Physical Education Curriculum scales

	Corrected Item Total Correlation	Alpha if Item Deleted
10. provide experiences which promote the normal physical growth and development of students	0.47	0.77
11. encourage students to continue to participate in outside school programmes of physical education	0.45	0.77
12. encourage students to continue to participate in physical activities throughout their adult lives	0.42	0.77
13. provide experiences aimed at developing self-confidence	0.51	0.77
14. provide experiences to develop leadership ability	0.47	0.77
15. develop student's effective movement skills	0.37	0.77
16. develop student's knowledge and skills in life-time physical recreational activities	0.40	0.77
17. improve the cardiorespiratory endurance of students	0.54	0.76
18. increase the student's knowledge in appropriate health habits and life styles	0.38	0.77
19. provide for individual differences in the abilities of the students	0.29	0.78
20. consider the preferences of students in selecting physical education activities for the programme	0.31	0.78
21. enable students to derive enjoyment from participation in the programme	0.40	0.77
22. help students to find release from tensions and frustrations	0.42	0.77
23. concentrate on individual sports as the main activity	0.36	0.78
24. concentrate on team sports as the main activity	0.32	0.79
25. take into account the activities offered in elementary and preparatory schools.	0.32	0.78

Alpha = 0.79 Standardised item alpha = 0.82

As with Table 16.1, Table 17.1 reports the results computed via the SPSS "Reliability" programme using the Cronbach's Alpha score. From the above table, it can be seen that the 16 items are consistent with each other in terms of what is being measured.

Table: 17.2 Teachers' Attitudes Towards the Physical Education Curriculum by Sex.

Sex	N	M	S.D
Male	90	4.36	0.29
Female	58	4.35	0.38

Table 17.2 shows that both male and female teachers have similar positive attitudes towards the Physical Education curriculum.

Table: 17.3 Teachers' Attitudes Towards the Physical Education Curriculum by Experience.

Experience	N	M	S.D
1 - 5	56	4.39	0.31
6 - 10	33	4.25	0.36
10 - above	59	4.38	0.32

Table 17.3 indicates that teachers, regardless of years of experience, have positive attitudes towards the Physical Education curriculum but teachers of 1-5 and 10-above years' experience appear to be more positive.

Table: 17.4 Teachers' Attitudes Towards the Physical Education Curriculum by Qualification.

Qualification	N	M	S.D
Diploma	53	4.34	0.30
B.A	81	4.40	0.30
M.A + Ph.D.	14	4.16	0.48

Table 17.4 shows that all teachers have positive attitudes towards the Physical Education curriculum, although B.A and Diploma teachers have a more positive attitude than their M.A + Ph.D. counterparts.

The next three tables consider the interrelated effect the three variables of sex, experience and qualifications have on the Physical Education curriculum.

Table: 17.5 Teachers' Attitudes Towards the Physical Education Curriculum by Experience and Sex.

Experience	1 - 5		6 - 10		10 - above	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	20	4.28	19	4.26	51	4.43
Female	36	4.44	14	4.24	8	4.10

Table 17.5 shows that male teachers of 6-10 and 10- above years' experience have a more positive attitude than female teachers, but female teachers of 1-5 years' experience have a more positive attitude than all other teachers in the sample.

Table: 17.6 Teachers' Attitudes Towards the Physical Education Curriculum by Qualification and Sex.

Qualification	Diploma		B.A		M.A + Ph.D	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	24	4.39	54	4.39	12	4.18
Female	29	4.30	27	4.42	2	4.06

Table 17.6 shows that the Diploma and M.A + Ph.D. male teachers have more positive attitudes than female teachers. However, female B.A teachers have a slightly more positive attitude than all other teachers in the sample.

Table: 17.7 Teachers' Attitudes Towards the Physical Education Curriculum by Experience and Qualification .

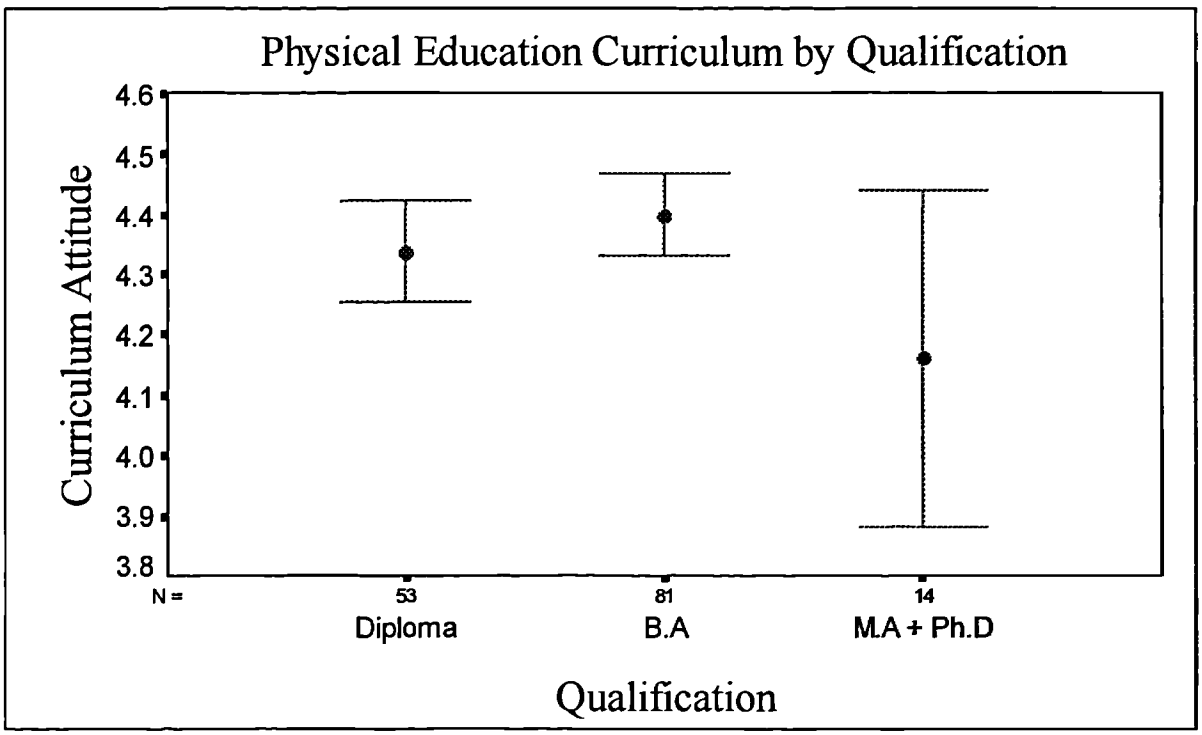
Qualification	Diploma		B.A		M.A + Ph.D.	
Experience	Number	Mean	Number	Mean	Number	Mean
1 - 5	18	4.34	30	4.48	8	4.12
6 - 10	12	4.38	17	4.19	4	4.08
10 - above	23	4.31	34	4.42	2	4.50

Table 17.7 shows that the Diploma teachers of 6-10 years' experience have more positive attitudes than teachers of 1-5 and 10-above years of experience. The data also show that the B.A and M.A + Ph.D. teachers of 1-5 and 10-above years' experience have more positive attitudes than teachers with 6-10 years' experience. Finally, it would be inappropriate to read anything into the very high figure for 10+ years M.A + Ph.D. teachers due to the sample size.

Table: 17. 8. Analysis of Variance for the Physical Education Curriculum by Sex, Qualification and Experience.

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	0.005	1	0.005	0.045	0.832
Experience	0.453	2	0.227	2.241	0.110
Qualification	0.707	2	0.354	3.497	0.033*
Sex/Experience	0.506	2	0.253	2.501	0.086
Sex/Qualification	0.008	2	0.004	0.040	0.961
Experience/Qualification	0.680	4	0.170	1.681	0.158
Explained	2.648	13	0.204	2.014	0.024
Residual	13.552	134	0.101		
Total	16.200	147	0.110		

Data summarised in Table 17.8 show that there was a significant difference between teachers' qualifications ($P< 0.05$) as shown in Figure 52, where B.A and Diploma teachers showed more positive attitudes than M.A + Ph.D. teachers (M = 4.40, 4.34, 4.16 respectively, Table 17.4). Again, it should be noted that the M.A + Ph.D. group is far smaller than the other two groups. With regard to the other main effects, there were no statistically significant differences. The findings from Table 17.8 are summarised in graph form below.


Physical Education Curriculum by Qualification
Curriculum Attitude
4.6
4.5
4.4
4.3
4.2
4.1
4.0
3.9
3.8
N =
53
81
14
Diploma
B.A
M.A + Ph.D
Qualification

Fig(52)

5. Physical Education as perceived by teachers : Part 3

This section of the chapter analyses teachers' attitudes towards Physical Education. The teachers were given 12 statements concerning their perceptions of Physical Education and were asked to give their responses on the same five point scale as shown in part 1. Table 18 below indicates these responses which are ranked in order of importance.

Table: 18 Physical Education as perceived by Teachers

	Mean	S.D.
27. Physical Education should be a compulsory requirement from elementary school through high school	4.48	0.83
26. Physical Education provides an outlet for suppressed emotions	4.27	0.74
36. Physical Education should provide students in elementary, preparatory and secondary schools with physical activity at least twice a week	4.24	1.04
37. There should be more Physical Education lessons for each student each week	4.13	1.21
29. A Physical Education credit should be required for graduation from high school	3.91	1.15
32. Physical Education teachers are not given the same respect by the public that other teachers receive	3.35	1.35
28. It should not be necessary for a woman to be a college graduate to teach Physical Education	3.26	1.24
35. Women who teach Physical Education are not popular socially	3.22	1.25
30. Salaries of Physical Education teachers should not be as high as the salaries of those who teach academic courses	2.58	1.33
31. Physical Education teachers are only concerned with muscle building	2.33	1.05
34. There is no need to be concerned over the present shortage of women Physical Education teachers	2.30	1.09
33. Physical Education teachers should only be required to complete a two year college course	1.99	0.95

Data summarised in Table 18 indicate that teachers, in the main, have positive attitudes towards Physical Education. As can be seen once again however,

there are differences between these 12 items in terms of how strongly teachers feel about each statement. There would appear to be considerable agreement that Physical Education should be a compulsory requirement from elementary school through high school, that Physical Education provides an outlet for suppressed emotion, that students in elementary, preparatory and secondary schools should take part in physical activity at least twice a week and that there should be more *Physical Education lessons for each student each week.* The findings from statements 27, 26, 36 and 37 are summarised in graph form below.

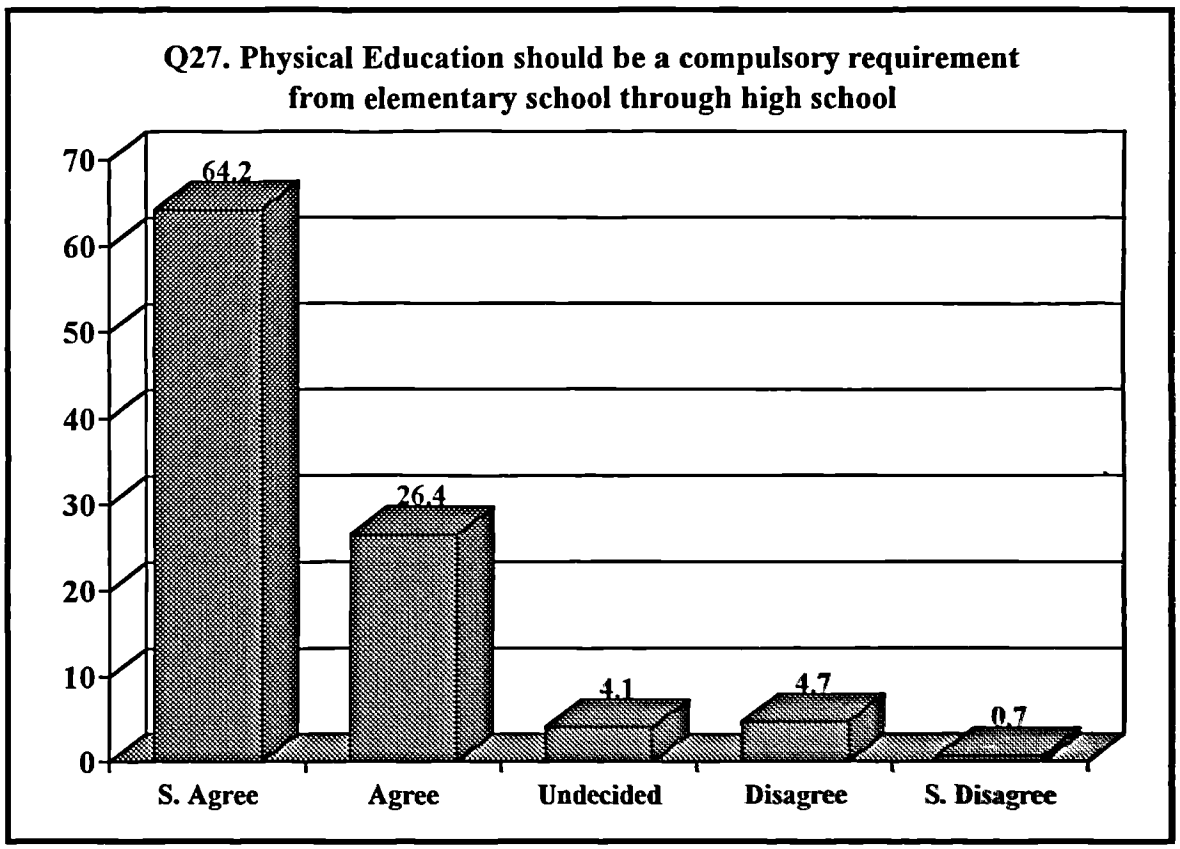


Fig (53)

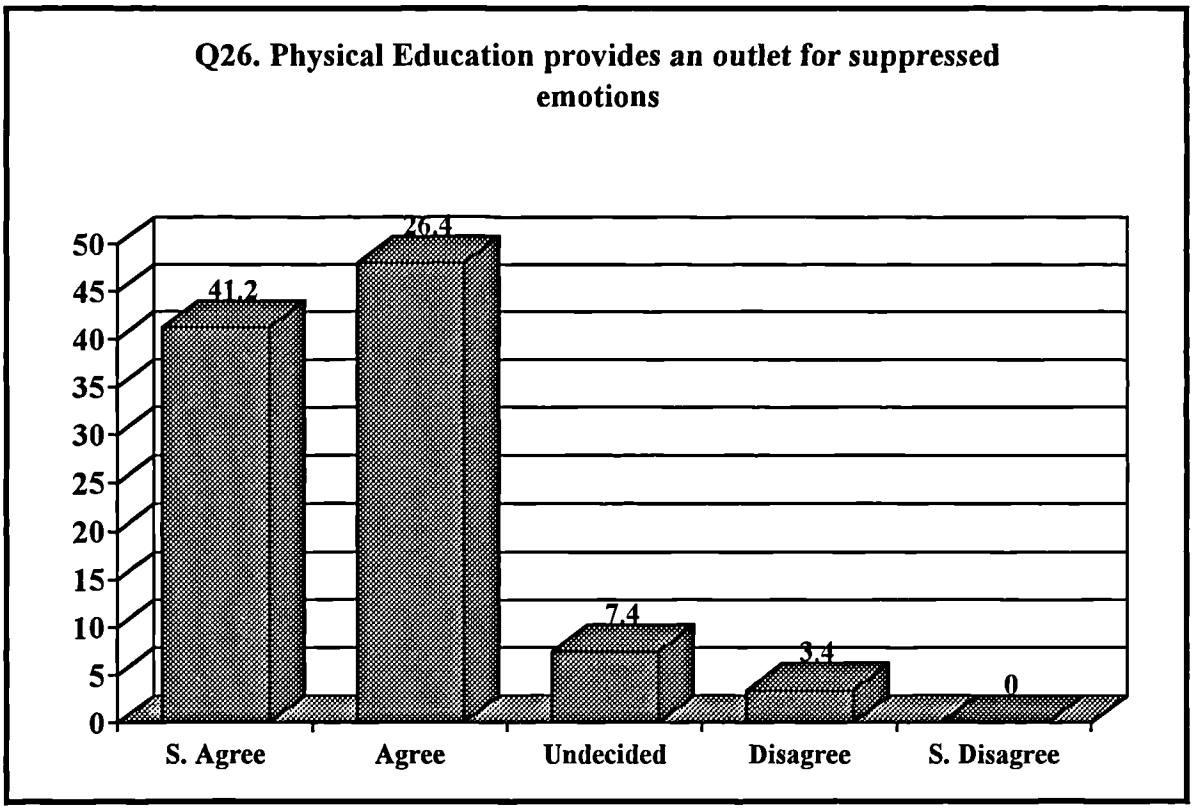

Q26. Physical Education provides an outlet for suppressed emotions
50
45
40
35
30
25
20
15
10
5
0
41.2
26.4
7.4
3.4
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (54)

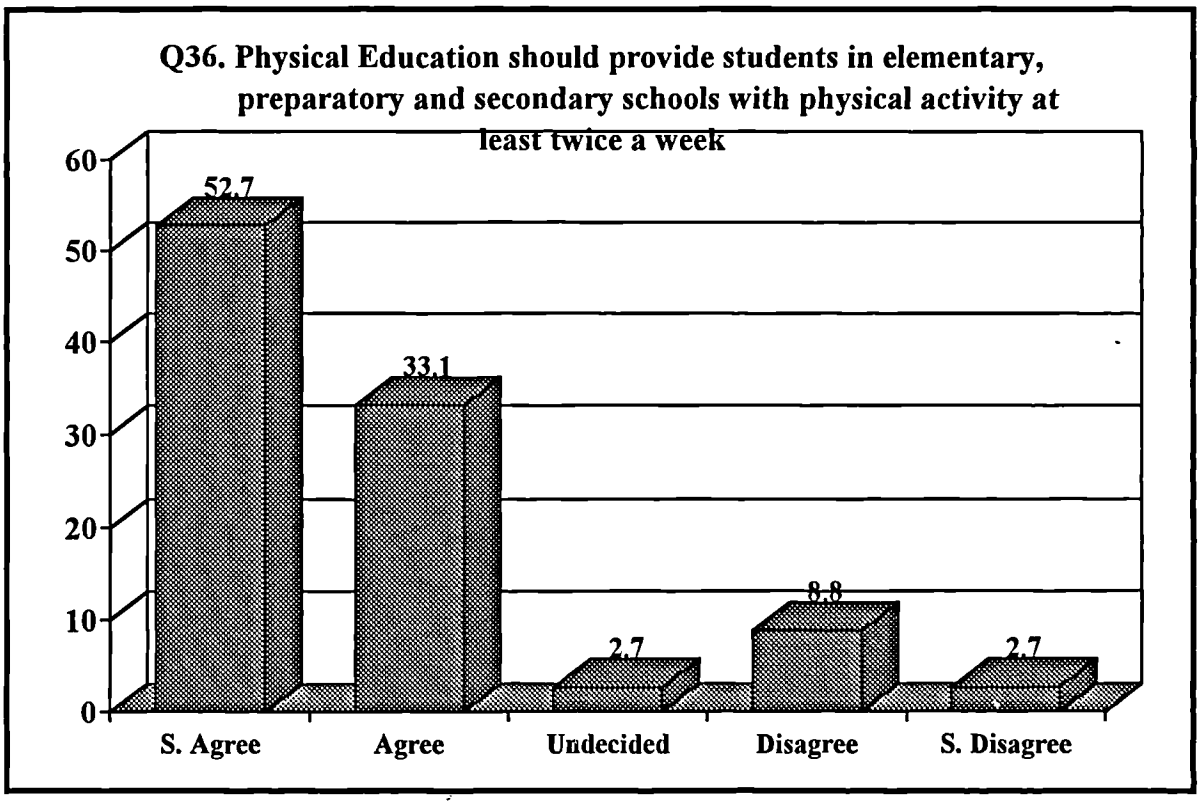

Q36. Physical Education should provide students in elementary, preparatory and secondary schools with physical activity at least twice a week
60
50
40
30
20
10
0
52.7
33.1
2.7
8.8
2.7
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (55)

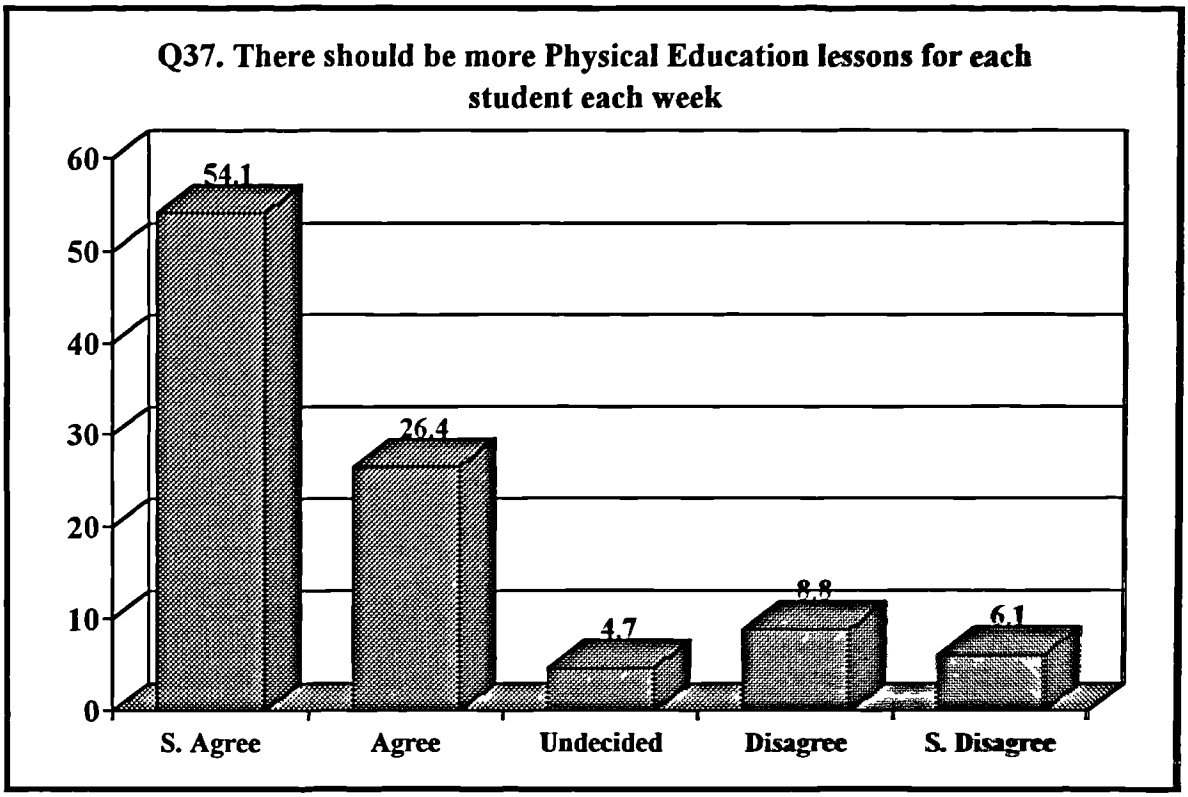

Q37. There should be more Physical Education lessons for each student each week
60
50
40
30
20
10
0
54.1
26.4
4.7
8.8
6.1
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (56)

Table: 18.1 Reliability Analysis for Teachers' Perception of Physical Education scales

	Corrected Item Total Correlation	Alpha if Item Deleted
26. Physical Education provides an outlet for suppressed emotions	0.19	0.61
27. Physical Education should be a compulsory requirement from elementary school through high school	0.25	0.60
28. It should not be necessary for a woman to be a college graduate to teach Physical Education	0.26	0.60
29. A Physical Education credit should be required for graduation from high school	0.24	0.60
30. Salaries of Physical Education teachers should not be as high as the salaries of those who teach academic courses	0.27	0.60
31. Physical Education teachers are only concerned with muscle building	0.43	0.57
33. Physical Education teachers should only be required to complete a two year college course	0.29	0.59
34. There is no need to be concerned over the present shortage of women Physical Education teachers	0.21	0.61
35. Women who teach Physical Education are not popular socially	0.29	0.59
36. Physical Education should provide students in elementary, preparatory and secondary schools with physical activity at least twice a week	0.33	0.59
37. There should be more Physical Education lessons for each student each week	0.36	0.58

Alpha = 0.62 Standardised item alpha = 0.63

As in Tables 16.1 and 17.1, the results reported here were computed via the SPSS "Reliability" programme using the Cronbach's Alpha score. From this table it can be seen that the 11 items show consistency with each other. However, after the reliability test had been applied, it was found that deletion of statement 32 would increase the alpha level and it was therefore dropped.

Table: 18.2 Teachers' Perception of Physical Education by Sex.

Sex	N	M	S.D
Male	90	3.45	0.40
Female	58	3.17	0.56

Table 18.2 shows that both male and female teachers have positive attitudes towards Physical Education with male teachers having a slightly more positive attitude.

Table: 18.3. Teachers' Perception of Physical Education by Experience.

Experience	N	M	S.D
1 - 5	56	3.26	0.53
6 - 10	33	3.42	0.52
10 - above	59	3.38	0.43

Table 18.3 indicates that teachers, regardless of years of experience, have positive attitudes towards Physical Education. However, teachers of 6-10 and 10-above years' experience show more positive attitudes than teachers of 1-5 years' experience.

Table: 18.4 Teachers' Perception of Physical Education by Qualification.

Qualification	N	M	S.D
Diploma	53	3.26	0.46
B.A	81	3.35	0.51
M.A + Ph.D.	14	3.57	0.48

Table 18.4 shows that all teachers have positive attitudes towards Physical Education. The B.A and M.A + Ph.D. teachers have a more positive attitude than the Diploma teachers.

The next three tables consider the interrelated effect the three variables of sex, experience and qualifications have on the perception of Physical Education.

Table: 18.5 Teachers' Perception of Physical Education by Experience and Sex.

Experience	1 - 5		6 - 10		10 - above	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	20	3.51	19	3.58	51	3.38
Female	36	3.12	14	3.21	8	3.33

Table 18.5 shows that male teachers of 1-5, 6-10 and 10-above years' experience have more positive attitudes than female teachers.

Table: 18.6 Teachers' Perception of Physical Education by Qualification and Sex.

Qualification	Diploma		B.A		M.A + Ph.D.	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	24	3.39	54	3.48	12	3.47
Female	29	3.16	27	3.11	2	4.17

Table 18.6 shows that male Diploma and B.A teachers have more positive attitudes than female teachers. However, female M.A + Ph.D. teachers have a more positive attitude overall, although once again the numbers are too small to read anything into this finding.

Table: 18.7 Teachers' Perception of Physical Education by Experience and Qualification .

Qualification	Diploma		B.A		M.A + Ph.D.	
Experience	Number	Mean	Number	Mean	Number	Mean
1 - 5	18	3.24	30	3.24	8	3.39
6 - 10	12	3.17	17	3.49	4	3.88
10 - above	23	3.33	34	3.39	2	3.71

Table 18.7 shows that the Diploma teachers of 1-5 and 10-above years' experience have more positive attitudes than 6-10. The data also show that the B.A and M.A + Ph.D. teachers of 6-10 and 10-above years' experience have more positive attitudes than 1-5.

Table: 18. 8 Analysis of Variance for Teachers' Perception of Physical Education by Sex, Qualification and Experience.

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	2.782	1	2.782	13.046	0.000*
Experience	0.301	2	0.151	0.707	0.495
Qualification	0.447	2	0.223	1.047	0.354
Sex/Experience	1.205	2	0.602	2.824	0.063
Sex/Qualification	1.192	2	0.596	2.795	0.065
Experience/Qualification	1.427	4	0.357	1.673	0.160
Explained	7.429	13	0.571	2.679	0.002
Residual	28.581	134	0.213		
Total	36.010	147	0.245		

Data summarised in Table 18.8 show that there was a significant difference between sex ($P < 0.05$) as shown in Figure 57, where male teachers showed more positive attitudes than female teachers ($M = 3.45, 3.17$ respectively). With regard to the other main effects there were no statistically significant differences amongst them. The findings from Table 18.8 are summarised in graph form below.

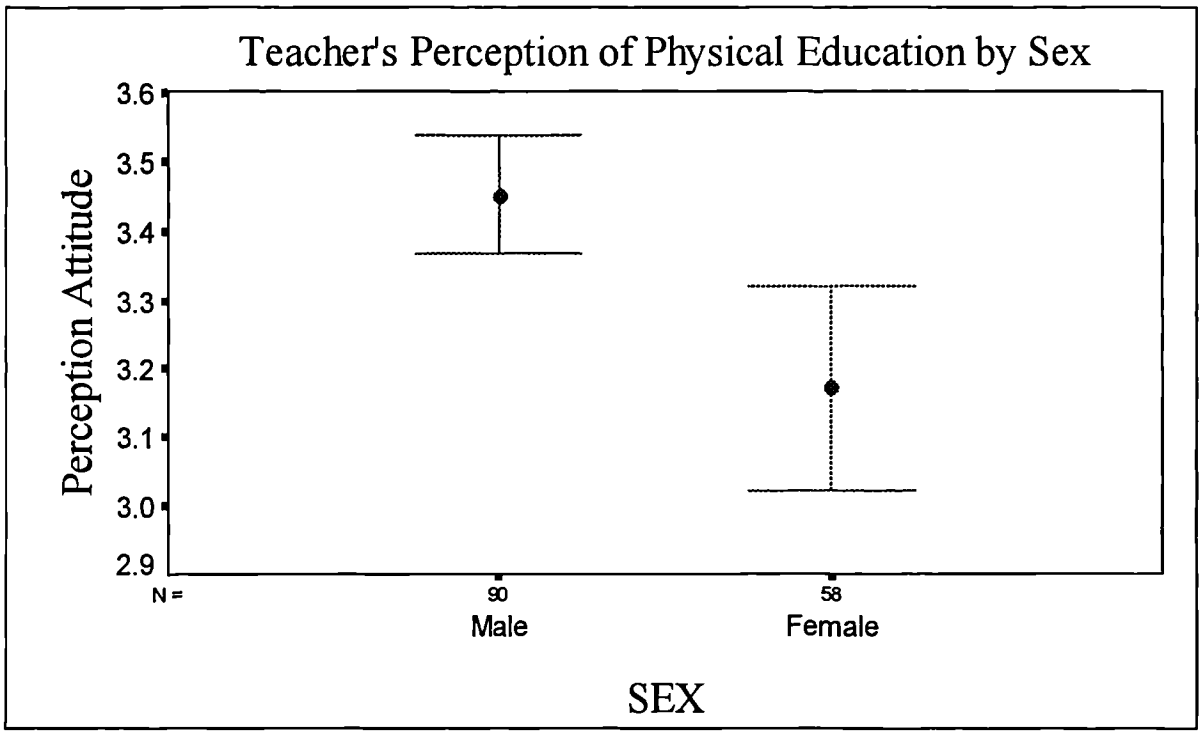

Teacher's Perception of Physical Education by Sex
Perception Attitude
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
N =
90
58
Male
Female
SEX

Fig (57)

6. The perceived effect of the mass media on teachers attitudes to Physical Education : Part 4

The findings for this section will be presented in two tables. The first table shows to what extent the Jordanian teachers feel they should be informed by the mass media about the objectives of Physical Education and sport programmes, and the role that Physical Education and sports programming can play in maintaining good health. The second table shows, in order of importance, how Jordanian teachers rate the usefulness of the different media outlets in informing them about school Physical Education programmes.

Table: 19 Teachers' Attitudes towards the need to be informed about the objectives of Physical Education and sports programmes

	Mean	S.D
39. the role that Physical Education and sports programme can play in maintaining good health	4.58	0.60
38. the objectives of Physical Education and sport programme	4.54	0.63

Table 19 shows that all teachers have positive attitudes in relation to their perception of the importance of being informed about Physical Education by the mass media. The table presents the sample teachers' attitudes in order of importance. The findings from these statements are summarised in graph form below.

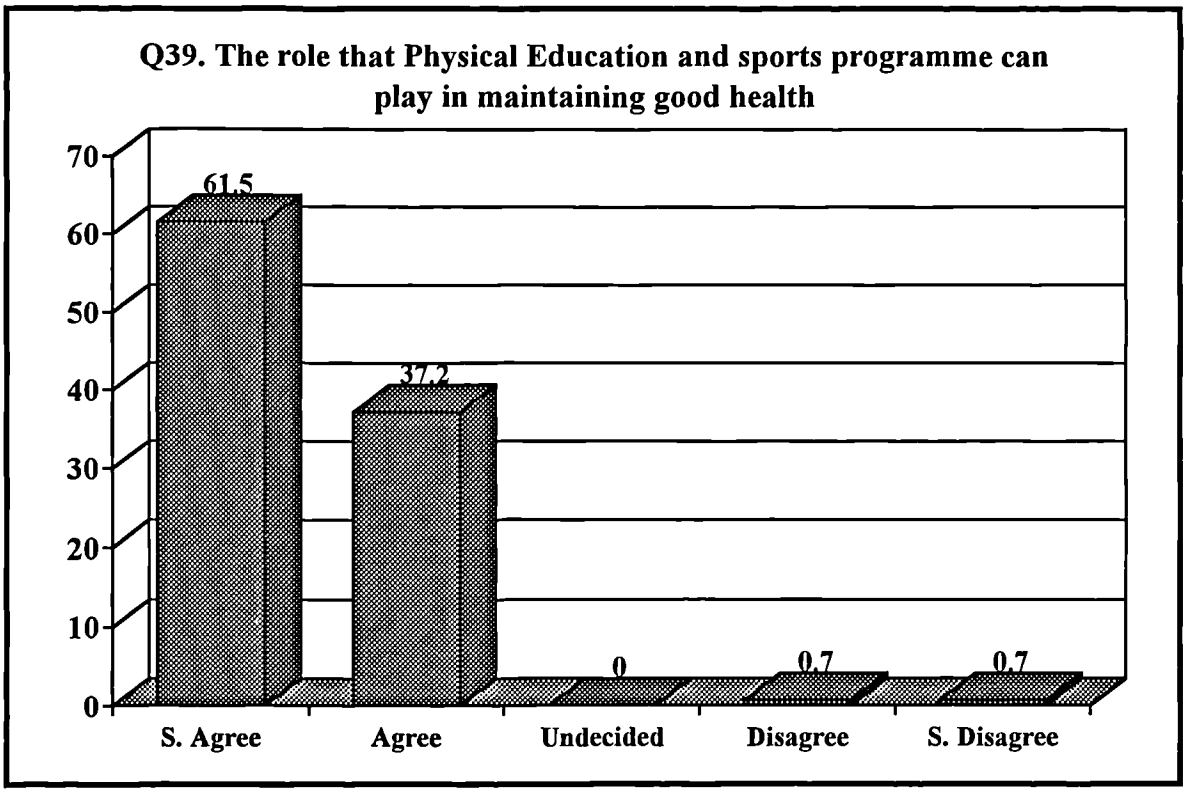

Q39. The role that Physical Education and sports programme can play in maintaining good health
70
60
50
40
30
20
10
0
61.5
37.2
0
0.7
0.7
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (58)

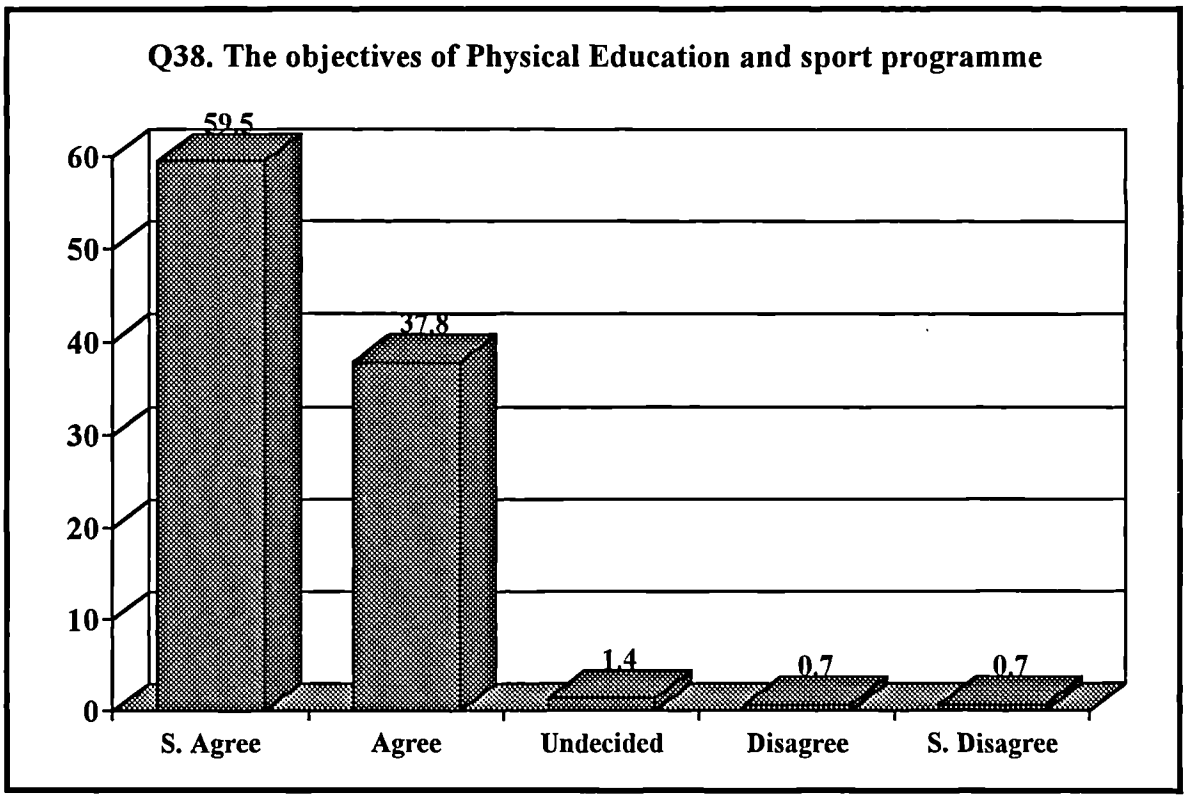

Q38. The objectives of Physical Education and sport programme
60
50
40
30
20
10
0
59.5
37.8
1.4
0.7
0.7
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (59)

Table: 19.1 Teachers' Attitudes in relation to the usefulness of the mass media in offering information about Physical Education

42. television	4.88	0.34
40. newspapers and magazines	4.71	0.48
41. radio	4.51	0.64
44. lectures, conferences, and special programmes	4.39	0.72
43. brochures and pamphlets	4.20	0.81

Table 19.1 indicates that all teachers regard the mass media as useful in offering information about Physical Education. The table is constructed to illustrate the attitude statements ranked in order of importance. There would appear to be considerable agreement that the Jordanian teachers feel they should be informed about school Physical Education programmes by television, newspapers and magazines, radio and lectures, conferences and special programmes. The findings from these statements are summarised in graph form below.

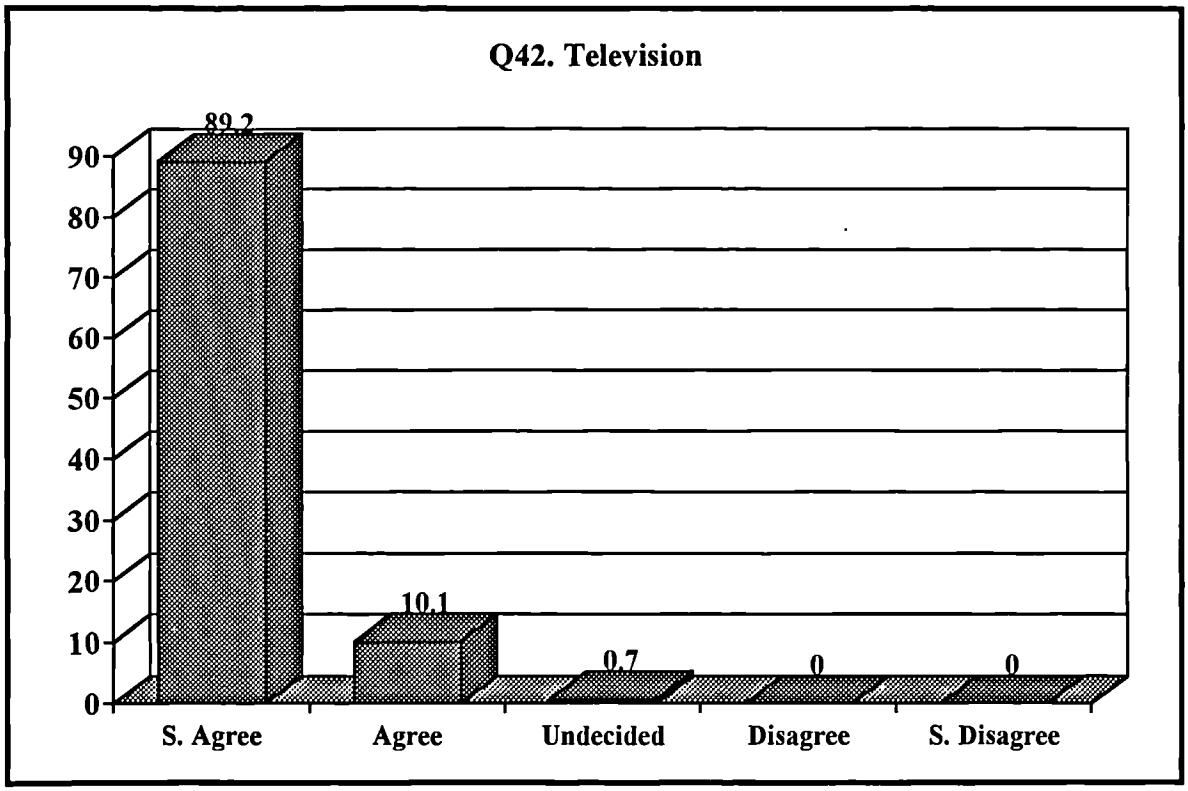

Q42. Television
89.2
10.1
0.7
0
0
90
80
70
60
50
40
30
20
10
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (60)

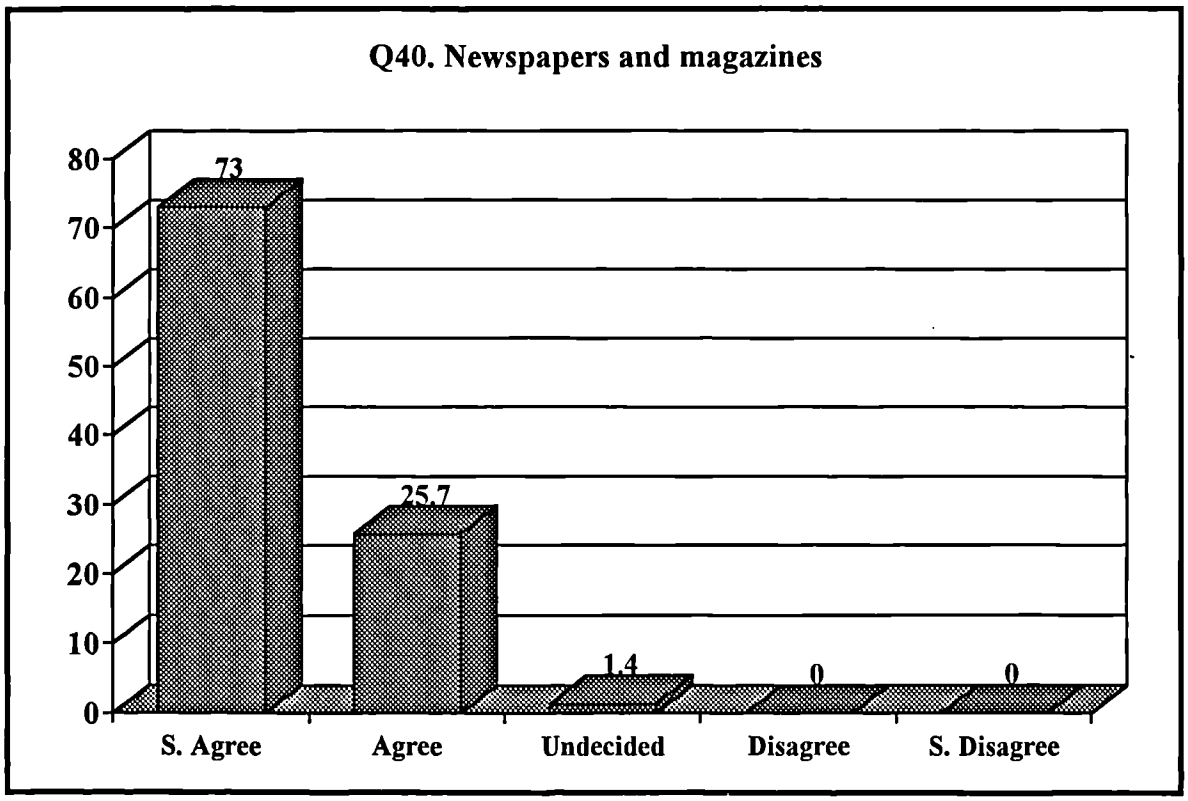

Q40. Newspapers and magazines
73
25.7
1.4
0
0
80
70
60
50
40
30
20
10
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (61)

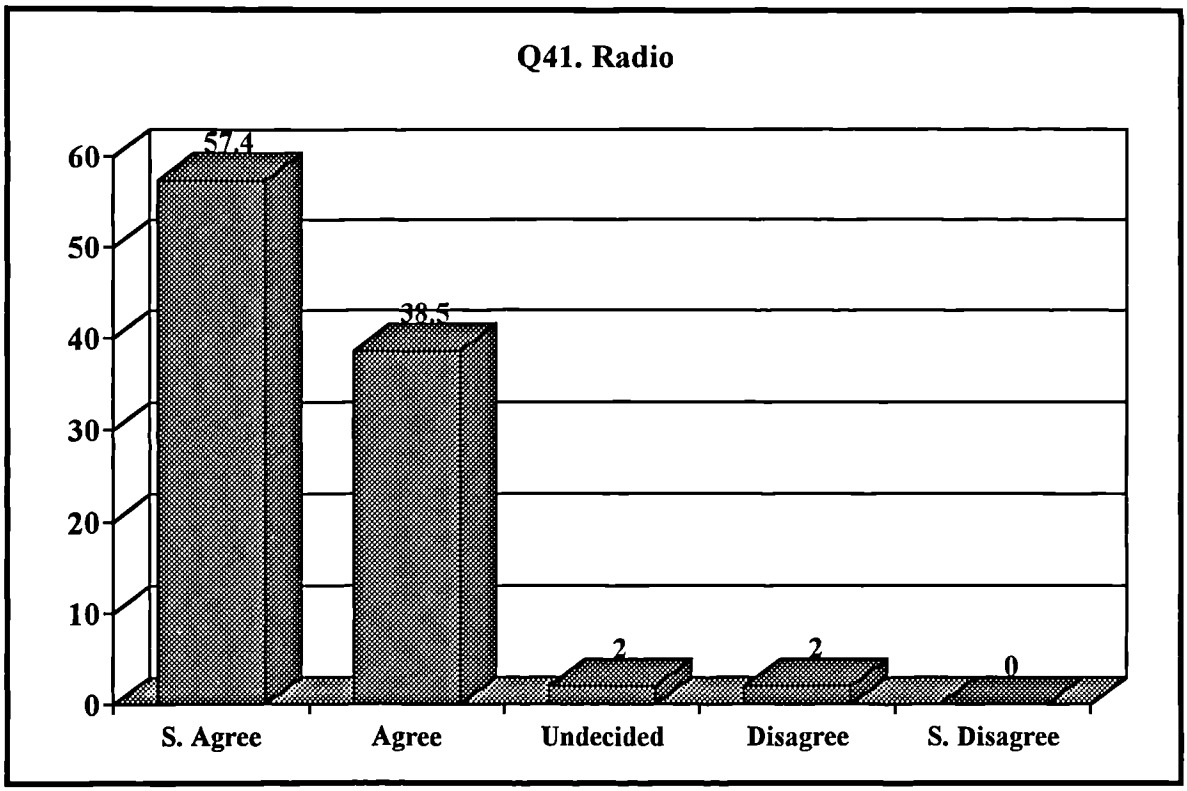

Q41. Radio
60
50
40
30
20
10
0
57.4
38.5
2
2
0
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (62)

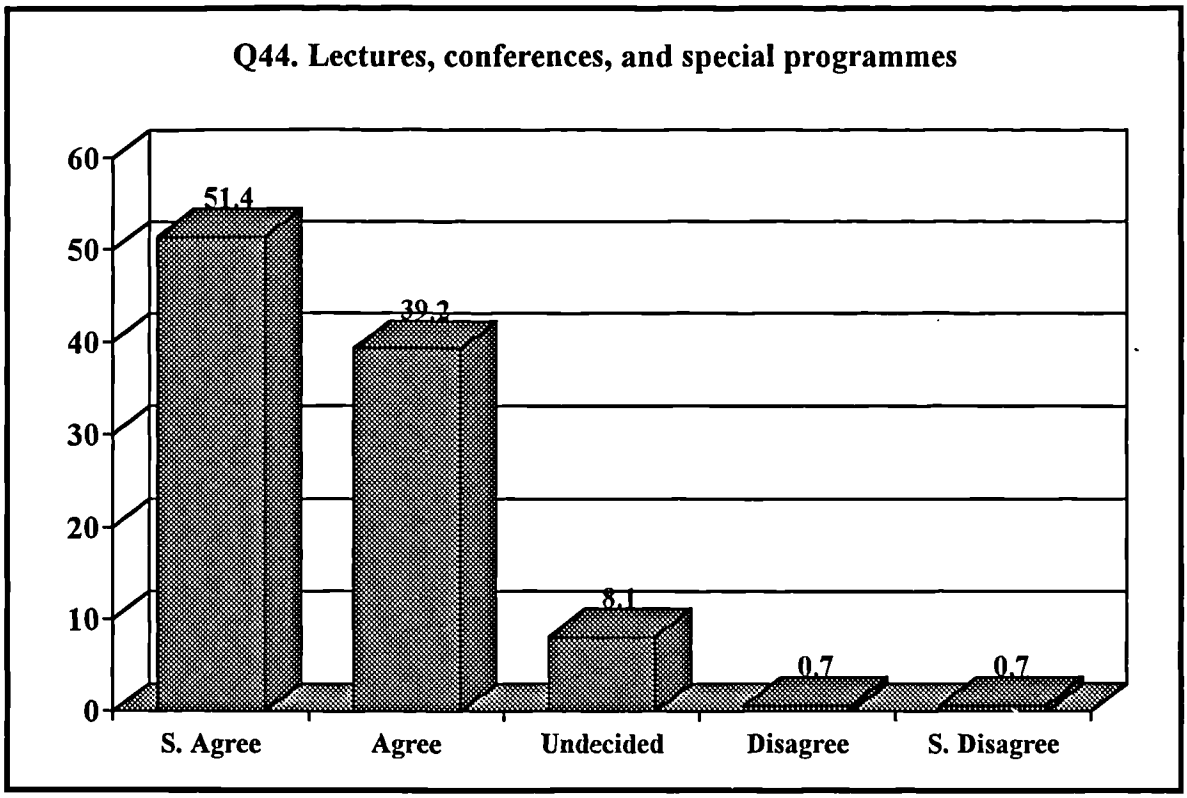

Q44. Lectures, conferences, and special programmes
60
50
40
30
20
10
0
51.4
39.2
8.1
0.7
0.7
S. Agree
Agree
Undecided
Disagree
S. Disagree

Fig (63)

Table: 19.2 Reliability Analysis of the Mass media scales

	Corrected Item Total Correlation	Alpha if Item Deleted
38. the objectives of Physical Education and sport programme	0.47	0.64
39. the role that Physical Education and sports programme can play in maintaining good health	0.42	0.65
40. newspapers and magazines	0.29	0.68
41. radio	0.40	0.66
42. television	0.31	0.68
43. brochures and pamphlets	0.59	0.59
44. lectures, conferences, and special programmes	0.35	0.67

Alpha = 0.69 Standardised item alpha = 0.69

Table 19.2 reports the results computed via the SPSS "Reliability" programme using the Cronbach's Alpha score. From the above table, it can be seen that all seven items are consistent with each other.

Table: 19.3 Teachers' Attitudes Towards Physical Education with reference to the mass media by Sex

Sex	N	M	S.D
Male	90	4.54	0.32
Female	58	4.57	0.43

Table 19.3 shows that both male and female teachers have similar positive attitudes towards Physical Education regarding the mass media.

Table: 19.4 Teachers' Attitudes Towards Physical Education with reference to the mass media by Experience

Experience	N	M	S.D
1 - 5	56	4.55	0.34
6 - 10	33	4.50	0.39
10 - above	59	4.58	0.38

Table 19.4 indicates that all teachers have positive attitudes towards Physical Education regarding the mass media.

Table: 19.5 Teachers' Attitudes Towards Physical Education with reference to the mass media by Qualification

Qualification	N	M	S.D
Diploma	53	4.56	0.30
B.A	81	4.57	0.30
M.A + Ph.D.	14	4.43	0.48

Table 19.5 shows that all teachers have positive attitudes towards Physical Education with regard to the mass media, with B.A and Diploma teachers having more positive attitudes than the M.A + Ph.D. teachers.

Table: 19.6 Teachers' Attitudes Towards Physical Education with reference to the mass media by Sex and Experience

Experience	1 - 5		6 - 10		10 - above	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	20	4.43	19	4.50	51	4.60
Female	36	4.62	14	4.50	8	4.45

Table 19.6 shows that male teachers of 10-above years have more positive attitudes than female teachers. All teachers of 6-10 years' experience have similar positive attitudes, but female teachers of 1-5 years of experience have the most positive attitude overall in the sample.

Table: 19.7 Teachers' Attitudes Towards Physical Education with reference to the mass media by Sex and Qualification

Qualification	Diploma		B.A		M.A + Ph.D.	
Sex	Number	Mean	Number	Mean	Number	Mean
Male	24	4.54	54	4.58	12	4.37
Female	29	4.58	27	4.54	2	4.79

Table 19.7 shows that female Diploma and M.A + Ph.D. teachers have more positive attitudes than male teachers, but B.A male teachers have a slightly more positive attitude than their female counterparts.

Table: 19.8 Teachers' Attitudes Towards Physical Education with reference to the mass media by Experience and Qualification

Qualification	Diploma		B.A		M.A + Ph.D	
Experience	Number	Mean	Number	Mean	Number	Mean
1 - 5	18	4.57	30	4.59	8	4.38
6 - 10	12	4.50	17	4.50	4	4.46
10 - above	23	4.58	34	4.58	2	4.57

Table 19.8 shows that the Diploma and B.A teachers of 1-5 and 10-above years' experience show a slightly more positive attitude than 6-10 teachers.

Table: 19.9 Analysis of Variance for the mass media by Sex, Qualification and Experience.

Main Effects	Sum of Squares (SS)	Degree of Freedom (DF)	Variance Estimate (MS)	F-Ratio (F)	Sig of F
SEX	0.034	1	0.034	0.246	0.621
Experience	0.122	2	0.061	0.447	0.640
Qualification	0.211	2	0.106	0.773	0.464
Sex/Experience	1.053	2	0.527	3.856	0.024*
Sex/Qualification	1.050	2	525	3.845	0.024*
Experience/Qualification	0.744	4	0.186	1.362	0.251
Explained	1.959	13	0.151	1.104	0.361
Residual	18.300	134	0.137		
Total	20.260	147	0.138		

Data summarised in Table 19.9 show that there was a significant difference in terms of interaction between sex and experience ($P< 0.05$). Figure 64 shows that for teachers with 1-5 years of experience, females have a more positive attitude ($M = 4.62, 4.43$ respectively, Table 19.6). Also, as can be seen in the above table, there was a significant difference in terms of interaction between sex and qualification ($P<0.05$) as shown in Figure 65, where M.A + Ph.D. female teachers showed a more positive attitude than male teachers ($M = 4.79, 4.37$ respectively, Table 19.7). Again, it should be noted that there are only two female teachers with M.A + Ph.D. qualifications. With regard to the other main effects there were no statistically significant differences. The findings from Table 19.8 are summarised in graph form below.

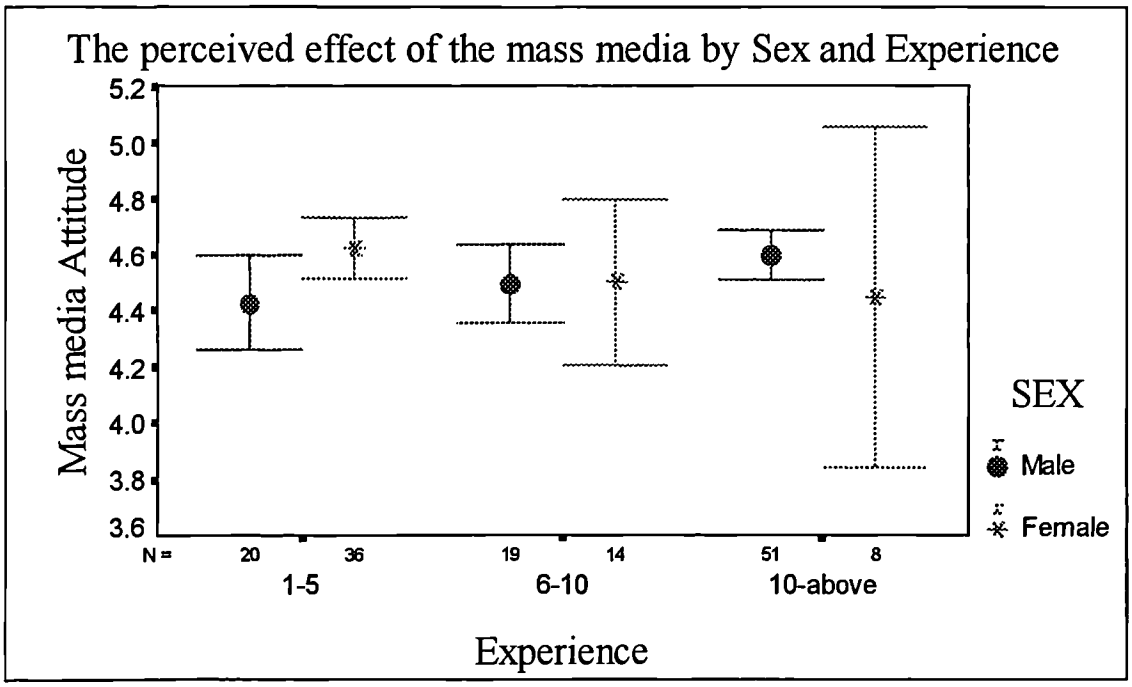

The perceived effect of the mass media by Sex and Experience
Mass media Attitude
5.2
5.0
4.8
4.6
4.4
4.2
4.0
3.8
3.6
N =
20
36
19
14
51
8
1-5
6-10
10-above
Experience
SEX
Male
Female

Fig (64)

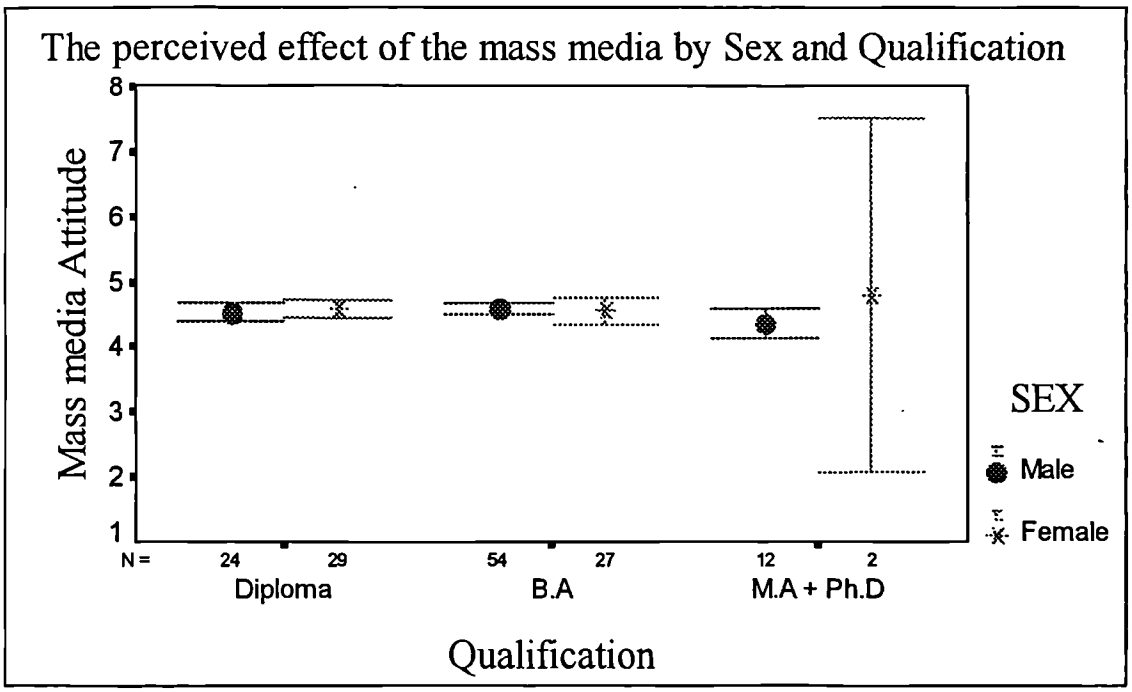

The perceived effect of the mass media by Sex and Qualification
Mass media Attitude
8
7
6
5
4
3
2
1
N =
24
29
54
27
12
2
Diploma
B.A
M.A + Ph.D
Qualification
SEX
Male
Female

Fig (65)

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Fitz-Gibbon, C. T. and Morris, L. L. (1987). *How to Analyze Data.* SAGE Publications, London, pp. 107: 110-112.

Norusis, M. J. (1990). *The SPSS Guide to Data Analysis.* Chicago: SPSS Inc.

Chapter Five

Discussion of the Findings

The main purpose of this study was to investigate the attitudes of Jordanian secondary school students and their teachers towards Physical Education in Jordanian public education. Of the 1125 students in the study, 544 (48.%) were male and 581 (51.6) were female, and of the 148 teachers 90 (60.8%) were male and 58 (39.2%) were female. The study sample consisted of students studying in secondary schools in different regions of Jordan, namely Irbid, a rural area; Mafraq, a Badia area (Bedouin) and Amman, an urban area. Care was taken to ensure that the sample included similar numbers of males and females and the three different types of residential areas were included to ensure the heterogeneity of the sample. Thus, of the six (6) secondary schools for males and the six (6) secondary schools for females, two of the male schools and two of the female schools were rural, two were urban and two were Badia (Bedouin). All the schools were randomly selected. Three classes per school were selected from the 10th grade (age 15-16), 1st year secondary (age 16-17), and 2nd year secondary (age 17-18) students. The teachers employed in these same schools formed the teacher sample.

This chapter discusses the issues which emerged from the analysis of the data in relation to the findings of the studies reviewed in earlier chapters. The discussion is divided into two main sections. The first section is concerned with the findings from the student questionnaires and the second reviews the findings from the teacher questionnaires.

1. Section One

It should be remembered that the specific objectives of this part of the study in order of importance were:

1. to examine the factors which combine to form Jordanian secondary school students' attitudes to Physical Education
2. to establish whether there were significant differences between male and female attitudes to Physical Education
3. to establish whether there were significant attitudinal differences between rural, urban and Badia (Bedouin) students
4. to compare the attitudes of grade 10 (age 15-16) students, 1st secondary (age 16-17) students, and 2nd secondary (age 17-18) students
5. to look for correlations or significant differences between sex, region and school grade level and
6. to search out plausible explanations for negative or positive attitudes towards Physical Education.

The discussion in this section is organised and presented under the following headings:

1. students' attitudes to Physical Education
2. students' attitudes in respect of their Physical Education teachers

3. students' attitudes to Physical Education in respect of culture, religion and parental opinion
4. the perceived effect of the mass media on student attitudes to Physical Education
5. a review of general trends surrounding the students' responses.

1. 1 Students' attitudes to Physical Education : Part 1

This part of the discussion aims to offer a general review of the statements included in the questionnaire. These statements consisted of 42 items and provided data in relation to the attitude of students toward Physical Education, in particular, with respect to the variables of sex, class and place and the interaction between these variables. The 42 statements were grouped under the following sub-headings:

1. Physical Education and health
2. Physical Education in relation to participation
3. Physical Education in respect of enjoyment
4. Physical Education and the curriculum
5. Physical Education and dissatisfaction.

1.1.1 Physical Education and health

This section will first attempt to consider the significance of health in relation to Physical Education. The significance of sport activity and exercise in life is highlighted by Armstrong and Biddle (1992), who in their definition of health, indicate that

> This [health] refers to disease prevention and avoidance, as well as risk reduction, and also considers mental and physical 'well-being'. *Wellness* might be a better word for describing the goal of 'healthy' physical movement (1).

In considering the students' attitudes to 'health' as a whole, the results in this section indicate that all the students' mean scores for the variables sex, class and place show a positive attitude towards the health effect which they believe results from participation in Physical Education. Statistically significant differences were evident in terms of the interactions between sex by class, sex by place and between classes. Female 2nd secondary students have a more positive attitude than their male counterparts. Furthermore, females in the Badia area showed more positive attitudes than male Badia students in relation to the health effects of participation in Physical Education lessons. For students in grade 10 through 2nd secondary, statistically significant differences were also indicated, where 1st and 2nd secondary students showed a more positive attitude than the 10th grade students.

It can thus be seen that female Badia students' attitudes to Physical Education in relation to health are more positive than their male counterparts. As far as the interaction between sex and class, 2nd secondary female students also showed more positive attitudes than male students. In considering the reasons for this and in attempting to suggest why females have developed such attitudes, one explanation might be that females in the Badia areas have a greater concern for their health, particularly in relation to their appearance. They tend to strive to be slim and graceful and in many cases they make an effort to lose weight as this is strongly required in the lifestyle prevalent in the Badia area where females are expected to ride horses and sometimes go hunting. Females in the Badia area are used to moving and running and this is a daily routine in their lives. Their desert life requires them to look after cattle and in many situations they are forced, for reasons of nature, to leave their homes and move to other places where they can find good water and grazing areas for their cattle. In short, female Badia students are heavily involved in physical activity in their daily life and this could be a basic reason for their positive attitude towards Physical Education in relation to health. Their interest and positive attitudes to physical activity are presumably considered to be an important factor in their physical build-up in relation to good body shape, muscle strength and general well-being.

With regard to 2nd secondary female students' attitudes in respect of the health benefits of Physical Education, it is evident that they expressed a more

positive attitude than their male counterparts. This attitude might reflect the cultural impact which is prevalent in Jordanian society where normally the expectation of females in this age category is preparation for marriage. Female attitudes which are collated in this study, could therefore reflect the attitudes and beliefs which are imposed by the culture in which they live. Because of this, and because of the cultural (religious and social) restrictions which are imposed on female movements outside the school environment, the females have an excellent opportunity and indeed their only opportunity, to fulfil their 'health' needs within the school and this could explain their positive attitude to Physical Education in relation to their needs. Similar findings about gender differences have been reported by Mathes and Battista (1985) in their study of college males' and females' attitudes towards participation in Physical Education. Their major finding suggested that females rated highly the effect that participation in Physical Education had on health, fitness and social experience (2). Moreover, Mowatt, DePauw, and Hulac (1988), who undertook the task of investigating the differences in attitudes to physical activity by gender among college students argued that, taken as a whole, females showed more positive attitudes towards physical activity than males (3).

With regard to the variable age however, the results of this study show that students exhibit more positive attitudes towards Physical Education as they get older. This finding is significant because in the Western world this is seldom

the case. There, students of this age have opposite views in terms of participation in Physical Education in school towards health or any other factor. Cale and Almond (1992), showed that Physical Education is seen in a more positive light by younger children, and that this attitude changes with age. Indeed British students show little interest and are known to drop out of Physical Education as they grow older (4). This could be because they have much wider choices outside the school curriculum, which the society in which they live provides; equally, the culture of a non-Muslim society perhaps does not impose such strict beliefs or expectations on females of this age. The fact that males are also more positive can be justified if we take into consideration that these students do not have wider choices outside the school environment compared to their western counterparts. As they grow older these male students feel the need for extra participation in physical activity. Given the lack of facilities outside the school, and the way they are deprived of participation in Physical Education lessons in favour of other examinable subjects inside the school, this could be the reason why they expressed a more positive attitude towards Physical Education.

As has been shown, students in this cohort clearly believe that the role of Physical Education is important because it keeps the individual fit and healthy. Similar findings have been arrived at by Goudas and Biddle (1993) in a study concerned with pupil perceptions of enjoyment in Physical Education. The general findings of this study were that students liked Physical Education

because of its contribution to fitness and health (5). Furthermore, a survey carried out by Sharples (1969) on children's attitudes towards school activities discovered that most children held favourable attitudes towards Physical Education. Sharples concluded that involvement in Physical Education contributed to the development in children of a healthier lifestyle (6). Brumbach and Cross (1965) also found that students who participated in high school athletic programmes were more likely to have a healthy attitude towards Physical Education (7). Finally, in a study conducted by Mathes and Battista (1985), college males and females are reported to have rated health and fitness benefits very highly and gave these as important reasons for participating in physical activity (8).

The students surveyed in the present study, in addition to having positive attitudes to Physical Education in relation to physical health, also agreed or strongly agreed that Physical Education makes important contributions to mental health. In support of this finding, Armstrong and Biddle (1992), point out that there is a likely correlation between mental health and physical activity. They state that 'some people with particularly poor mental health, such as those suffering depression, will have low activity and fitness levels ...' (9).

However, it appears from the results in this study that the students do not value emotional well-being as a health factor as highly as their belief that

involvement in physical activity can contribute to both their mental and physical well-being. It is possible that the students in this sample do not have enough knowledge in this area to assess the benefits and value which can be derived from participation in Physical Education in the promotion of emotional health. This could be a result of the methods and teaching styles used by their teachers, which in turn perhaps reflects a lack of a well informed teaching staff together with a poorly constructed curriculum.

This 'education factor' is worth discussing at this point since it has a major role to play in the promotion of a healthy lifestyle. Ewles and Simnett (1990) for instance, highlight the value of education in respect of health promotion (10). Equally, an examination of the document "Physical Education in the National Curriculum in England and Wales" (1995) shows the value that the English government places on a well constructed Physical Education curriculum. It is also worth noting that this government document expects teachers to highlight the importance of promoting both healthy lifestyles and positive attitudes to Physical Education throughout Physical Education lessons (11), something which is not the case in Jordan.

Teachers in Jordan should be made aware of this finding. They should be encouraged to assign more importance to this issue and try to help their students understand the principles underlying health related fitness, and to ensure that the students are knowledgeable about the positive effects Physical

Education can have on their physical, mental and emotional health. Ministry of Education and Department of Curricula officials in Jordan should also be made aware of this finding and take it into account when constructing the curriculum.

The discussion above has attempted to examine the findings related to students' attitudes to Physical Education in relation to health. This discussion has shown that Western societies in general, and Britain in particular, have moved to a culture concerned with health related activity and fitness. This culture allows people in these societies to participate in various types of physical activities in order to maintain good physical, mental and emotional well being. While these societies have incorporated physical fitness programmes in to their daily lives, in Jordan such programmes have not been given this level of importance neither within society as a whole, nor within the school system, even though a type of National Curriculum exists.

This debate becomes even more important given the WHO (1995) report that 'men who fail to take sufficient exercise have about twice the risk of coronary heart disease as their more active counterparts'. Moreover, the report states that women must be offered a range of opportunities as well as more encouragement to participate in healthy exercise (12). The report goes on to point out that comprehensive research projects assert that physical activity leads to longevity and protects against, among other things, the development of

coronary heart disease. These findings are even more significant particularly in the Jordanian context where, according to the report of National Health Planning in Jordan (1977), 'classification of deaths by cause shows that enteritis, pneumonia, heart conditions, other than Ischemic heart diseases, and accidents are the four leading known causes of death' (13).

The report also shows that the above mentioned heart conditions are present in all age groups: pre-school age (0-4 years), school age (5-14 years), adult age (15-44 years) and the oldest generation (45 years and over) without exception (14). The Economic and Social Development Plan (1997) states that for 1991 67.6% of Jordan's population was below adulthood (15). This means that more than half of the Jordanian population is in fact in schools, and as such Physical Education in the Jordanian school system is of crucial importance if Jordan is to increase the longevity of people's lives.

In this case Physical Education will have a double function, firstly, an immediate and direct function concerned with educating young people to understand that regular physical activity has a health effect which can prevent physical diseases particularly those related to obesity and heart conditions, and secondly, an indirect function which is to help create the example of an active citizen in all respects. In short Physical Education in our schools can be, if given due priority, of great help in contributing to general national health plans. Indeed, Physical Education might even be more effective in achieving

good national health standards than many government health campaigns, due to the factors of enjoyment and satisfaction that are inherently attached to good Physical Education curricula, although clearly, a partnership between Education and Health Ministries in producing such a philosophy is essential.

The students in this study clearly value Physical Education in relation to health promotion and in the light of the above evidence these findings should be taken into consideration and quality Physical Education lessons, with an emphasis on health should be allocated appropriate space and time in the curriculum and in school cross-curricula teaching programmes.

1.1.2 Physical Education in relation to participation

This second section deals with students' attitudes towards Physical Education in relation to participation. Cale (1996a) asserts that fostering positive attitudes towards Physical Education is necessary with regard to participation. She agrees with Williams (1988) in that a positive attitude towards Physical Education is an essential condition for participation in physical activity outside the school environment (16).

The results in this section indicate that the students' mean scores for the variables sex, class and place show a positive attitude towards Physical Education with reference to participation. Statistically significant differences

were indicated only between classes. The 2nd secondary students showed a more positive attitude than the 10th and 1st secondary students.

This is an interesting finding, particularly if comparisons are made with similar research in Western societies. Jordanian students would seem to have a more positive attitude towards participation in Physical Education lessons as they become older, yet in Western societies the reverse is the case (17, 18). The reasons for this apparent discrepancy as mentioned in the previous section, might be that Jordanian students, if compared to their Western counterparts, do not generally have wider choices outside the school environment. The programmes provided by the school are in many cases the only time in their lives that students can participate in physical activities, and once these students are deprived of Physical Education lessons, they have few opportunities to partake in physical activity as they grow older. Thus they feel the need to participate in physical activity inside and outside the school whilst the possibility exists. It therefore becomes evident why the students stress the importance of participation in Physical Education activities in this particular age category. As Jordanian students get older they begin to perceive the value of Physical Education because of the situation which is thrust on them due to the force of circumstances of the society in which they live.

In Jordan it is the case that older students are often deprived of Physical Education lessons in favour of academic and examinable subjects within the

school curriculum. It is possible therefore, that the result of this could be that the students enjoy the mental release which participation in physical activity brings, together with a whole health 'well-being' effect which thrusts them into an understanding of the value of Physical Education lessons. Dickenson and Sparkes (1988), support this view. They reported that the students in their study stated Physical Education was their most enjoyable school subject as it offered a release from normal school work (19).

It has been stated earlier that significant differences in the outcome of the findings of this present study were centred upon age. However, in terms of sex, male students showed more positive attitudes than female students towards participation in Physical Education. In this case the results of the present study confirm those of the studies conducted in the West (20, 21).

From these findings it can be seen that most of the students hold positive attitudes towards participation in Physical Education. Furthermore, the majority of the students who participated in the study considered Physical Education of great value and significance in the development and training for leadership. Further support of these findings may be found in Mathes and Battista. This study, as was stated earlier, was concerned with an investigation of male and female college students' attitudes towards participating in physical activity along with social interaction. They point out that physical activity and

social interaction are highly valued among students of both sexes (22). Indeed Coakley and White (1992) confirm this and maintain that,

> past experiences in Physical Education and school sports were incorporated into current decision making about sport participation (23).

1.1.3 Physical Education in respect of enjoyment

The aim of this section is to examine the way in which students manifest their enjoyment and degree of liking for Physical Education. The results show that students' mean scores for the variables sex, class and place display positive attitudes towards Physical Education in relation to enjoyment.

In statistical terms, significant differences were seen in the interaction between sex by class where female students in the 2nd secondary show a more positive attitude than their male counterparts. A possible explanation for this, as was stated previously, could be that female students, who, under the characteristics of the Jordanian culture, customs and beliefs, do not have the chance to practice any kind of physical activity or participate in any entertainment activity in their environment. As such, they find the classes of Physical Education as the only outlet by which they can express their feelings of enjoyment in a physical context. Similar differences were also seen in terms of the interaction between sex by place, where females in the Badia area show

more positive attitudes than male students in relation to enjoyment in Physical Education.

As indicated earlier, one basic explanation might be that these Badia female students do practise physical activities in their local environment, but this is normally performed as part of household responsibilities. This could be why the element of enjoyment is missing despite there being some kind of health benefit. The Badia female students expressed positive attitudes towards Physical Education in school programmes because this could be the only way they feel they can have fun and enjoy what they are practising, especially if the issue of clothing and peers is considered. With regard to clothing the female students often enjoy the school programme of Physical Education more because they can wear sports clothing which is forbidden in their local home environment. These clothes make them feel at ease when doing physical exercises. With regard to peers, it is possible that the females find it more enjoyable to do physical activities with friends in school than to do household activities alone or with their mother or father. Clearly, this is not uncommon in Western societies, but in Jordanian society the females are much more restricted in their lifestyle out of school.

The most significant positive attitude which may be discerned from students' responses is that which is related to 'fun'. They state that they like doing Physical Education and games, because they are fun. Further support for these

findings is found in Goudas and Biddle (1993), who came to a similar conclusion. They found that "fun, change in schoolwork and health and fitness are factors that make Physical Education an enjoyable subject" (24). Similar findings are indicated by Dickenson and Sparkes (1988). In their study, in which they asked the students (age 11-16 years) why they had reported Physical Education as the most enjoyable subject, four reasons were given. First, Physical Education was a break or release from normal school work. Second, Physical Education was fun and enjoyable. Third, Physical Education afforded contact with friends and fourth Physical Education provided for health and fitness (25).

Students in this present study state that they believe Physical Education is beneficial for everybody and has something to contribute to the advantage of all. Their liking for Physical Education, they state, is due to the fact that Physical Education enables them to have contact with their friends in all sorts of games and sports. The element of competition in school games has been reported by the students as a primary reason for liking the subject. The students enjoy the idea of competing for qualification for the school teams in various games. This suggests that teachers of Physical Education should give all students equal opportunities to participate in this type of competition. Through this competition students can be educated in many ways:

- to explore and develop their skills in a variety of games
- to learn about the nature of competition
- to understand the nature of the social and psychological aspects of the concept "team"
- to have fun and gain enjoyment
- to understand the health benefits (social, emotional, mental, physical)
- to strengthen social relationships and social interaction amongst the students.

In short, the three main categories of enjoyment in Physical Education given by the students in this sample may be summarised as follows:

1. a liking for Physical Education and games because they are fun
2. Physical Education is interesting for everyone, and
3. Physical Education enables students to compete with their friends and get into the school team.

1.1.4 Physical Education and the curriculum

This fourth section provides a discussion of the attitudes of students towards the importance of Physical Education in relation to the curriculum. The results in this section indicate that the students' mean scores for the variables sex, class and place were generally inconclusive but wide ranging. The first finding

indicates that there is a general tendency among the respondents to agree that they wish to choose what they do in Physical Education. Students expressed a wish that they might be given more choice of the type of physical activity they are asked to perform or are expected to do. This gives us insight into the importance of addressing students' needs if the curriculum of Physical Education is to be deemed satisfactory by them. It also gives credence to the issue of students' involvement in curriculum construction.

The second finding of this section is about students' almost unanimous agreement that more time should be given to Physical Education and that Physical Education should be included in the curriculum at all ages to offer a more complete education. These findings clearly show that students are not satisfied with the time allocated to the subject and they think that there is not enough time for them to benefit from the activities offered. They feel that education without Physical Education is by no means complete and it is only when Physical Education is seriously considered and fully accounted for in the curriculum that it will be possible to achieve a proper education.

The third finding is related to the students' complaint that grades in Physical Education are generally not fair. This may be due to the fact that students are not assessed in this subject by means of objective and reliable criteria. It is assumed here, in response to this student attitude, that if Physical Education were to be fully integrated into the National Curriculum then it would

consequently have an objective and reliable assessment procedure and possibly an examination based on nationally approved standards. By using such a method, it would be possible to ensure that grades awarded would be fair and reliable and, as a result, students would see the subject having credibility. This in turn might change their attitudes towards their perception of Physical Education.

Students also expressed the view that they believe that they go to school to learn other more important subjects than Physical Education. This again, could reflect the fact that Physical Education is not given an important place in the curriculum. It is not assessed, nor is students' progress reported to parents. This could be a reason for the students devaluation of the subject, which in the circumstances is not surprising. Similarly, it is not surprising that students only pay serious attention to those subjects such as mathematics and physics which are assessed by examination and which are important in accessing the next stage of Higher Education or employment.

It is worth noting here that the Jordanian students still have a positive attitude towards Physical Education despite their perceived needs not being met. Yet in a study which was conducted by Rice (1988), which also assessed students' attitudes to Physical Education and the curriculum, the students had developed a negative attitude to Physical Education, (a most unusual finding), because of their concerns with the subject. These factors included criticism of the status

of Physical Education in the curriculum, the lack of variety of activities offered, the amount of time which was allocated to Physical Education within the curriculum, and the lack of contact between the staff and the students in lesson time (26).

The results of this present study would suggest that since Jordanian students have positive attitudes to Physical Education, despite the low status of Physical Education as a subject in the curriculum, it should be given due importance in Jordanian schools. Equally a balanced curriculum should be established to meet the perceived needs of the students.

In addition, statistically significant differences were evident in terms of interaction between class by place where 10th grade rural students have the most positive attitude and the Badia students the least. Moreover, in the 1st secondary, Badia students are the most positive and urban students are the least. In the 2nd secondary, urban students have the most positive attitude and Badia students the least. In view of these results, further comment cannot be made as there seems to be no consistent pattern between the groups. Although they all agree that more time should be allocated to the subject and more activities should be offered, the students appeared inconsistent in their attitudes towards this issue when examined by place and class.

This inconsistency might be explained by the fact that the students' views were not taken into account, as was the case in the Rice study (27), or that the students have little knowledge both of the possible content of a Physical Education curriculum and no reliable information from influential sources such as parents, teachers, the media and government departments about good curriculum models. Thus, one of the outcomes of this study may be to eventually show that the need for any future restructuring of the curriculum to include Physical Education in the whole national curriculum should give more credence to the "education" within Physical Education.

There was also a significant difference by sex in relation to the status of Physical Education in the curriculum. Female students were shown to have a more positive attitude towards the issues raised in this study as crucial elements of a good curriculum. A possible explanation for this could be that female students, particularly those in the rural and urban areas, who, under the characteristics of the Jordanian culture, customs and beliefs, do not have the chance to practise any kind of physical activity or participate in any entertainment activity in their environment outside the school find the classes of Physical Education are the only outlet by which they can express their feelings of enjoyment in a physical context. Another explanation for this might be that female students, as indicated earlier in the health section, understand the importance of receiving a well balanced Physical Education curriculum where they are educated about the importance of activity for their health. The

exception was the Badia female students who actually practise several types of physical activities as part of their household responsibilities.

However, male students who are more likely to take Physical Education as a future career, find the current status of Physical Education in the curriculum inadequate for the purpose of developing professional skills in various physical activities. The students also expressed concern that the current curriculum not only fails to develop skills but does not even promote or encourage practising physical activities outside the school in their leisure time, as is the case in the Physical Education curriculum in Britain. Having examined the English National Curriculum and the English National Examination system at both GCSE (16 years) and A level (18 years), DFE (28), it would seem that Jordan could meet the demands of such students by adopting this type of system. The process of change in the English Education system in relation to entry requirements for undergraduate sports degrees in British Universities has resulted in many students being required to have passed an A level examination in either Sport Studies or Physical Education and/or human biology, a situation which is welcomed by both students and lecturers. Again, Jordan would be well advised to evaluate such a system and consider its adoption.

1.1.5 Physical Education and dissatisfaction

This fifth section deals with the discussion of the students' attitudes towards Physical Education in relation to dissatisfaction. The students' mean scores in this section for the variables sex, class and place showed that the students in general like Physical Education. Statistically significant differences were evident in terms of sex by class and sex by place. Female 2nd secondary students showed a more positive attitude than their male counterparts. Furthermore, females in the Badia area showed a more positive attitude than male Badia students in relation to the notion of satisfaction in Physical Education. It can thus be seen that female students have shown more interest in the benefits of Physical Education in relation to playing games and liking sports. This finding is similar to that in the health and enjoyment section where female students in 2nd secondary in general, and in the Badia area in particular, have shown more positive attitudes towards the benefits of Physical Education than their male counterparts. The explanation provided in that section also applies here.

Nevertheless, there is a general tendency for all students to consider Physical Education as essential and important. The value of satisfaction has also been discussed in Goudas and Biddle who conducted a study on pupils' perceptions of satisfaction in Physical Education. They asserted that 'the major reason both for satisfaction and dissatisfaction was the content of the lessons' (29). All this gives further emphasis to the importance of curriculum content with

respect to Physical Education which, if properly designed to take into consideration the students' needs and likes and dislikes, could lead to tangible benefits on the part of the students. As a result, the students might also have a more sustained interest in the subject.

To summarise: in all five aspects which were concerned with the attitudes of Jordanian students to health, participation, enjoyment, curriculum and dissatisfaction in relation to the curriculum, the results show a strong positive attitude to the inclusion of Physical Education in the curriculum despite the low status given to the place of Physical Education in secondary schools in Jordan. Significantly, it has been made evident that all the students regardless of sex, age or place have agreed that the curriculum needs to change to meet their new and changing needs and to live up to their expectations. Females emphasised the inclusion of more activities and more time and suggested that their needs and expectations should be considered in curriculum planning and syllabus design. The importance of these findings in relation to the future development of Physical Education within the National Curriculum in Jordan will be revisited in the conclusion of this thesis.

1.2 Students' attitudes in respect of their Physical Education teachers : Part 2

This section deals with a discussion of the students' attitudes in respect of their Physical Education teachers. The students were given five statements relating to their attitudes towards their teachers of Physical Education. They were asked to give their opinions in order of importance. The findings indicate that most of the students (81%) either agreed or strongly agreed that their Physical Education teachers only picked the good students in Physical Education for the school teams and eventually these students were given all of their attention in class time. Inevitably, both at school and at university these students are normally few in number compared to the overall number of students, and it would appear that in most cases all other students, are almost totally neglected. This finding was also highlighted by Luke and Sinclair (1991), who studied the factors that help in developing positive and negative attitudes towards Physical Education. Their findings indicated that the most important factor in attitudes towards Physical Education was the teacher's behaviour towards their students (30).

If these findings reflect the real situation of Physical Education in Jordanian public schools, there is clearly a real need for teachers of Physical Education to be trained not only in the physiological and physical aspects of Physical Education, but also in the educational and psychological dimensions of the

process in general and in the principles of student-teacher interaction in particular. Furthermore, it seems important that teachers should be required to create differentiated teaching plans which would enable all students to participate and show their abilities. All students, as has been discussed earlier, must receive a well balanced and well constructed curriculum if they are to be educated in the importance of life long physical activity.

This initiative should include those students who wish to do physical activity for recreation and for enjoyment as well as for those who are members of the school team. It is also worth considering the possibility that extra curricular games and sports activities should be arranged outside school time so that students are given enough time to practise more often, and improve their skills. Extending physical activities outside the school day would enhance a balanced curriculum. Extra curricular activity is a feature of the National Curriculum in England and Wales (1995). It would therefore be advisable for Jordanian curriculum planners and syllabus designers to consider the adoption of such an initiative. However, there has to be some sort of incentive for the teachers to encourage them to do this job.

The second important finding is that most of the students demanded that more or extra activities be offered. This is an important finding because it shows that the students are well aware of the defects and inadequacies of the curriculum for Physical Education, and that they know what they should be

offered. However, as statement 47 shows, the students were disappointed in this respect as they complained that the teachers did not offer a variety of activities and that they always stuck to one game or activity. These results suggest that an inspection and examination should be initiated as soon as possible in both Physical Education curriculum design and in Physical Education teacher training and education. Students' demand for more or extra activities reflects a major concern of the students. A need that has been taken cognisance of in developed countries, but unfortunately, not yet in Jordan. In Great Britain, for example, it has been recommended that:

> pupils up to 16 years of age should be taught the minimum of two different activities; at least one of these two activities should be a game. All aspects of the programme of study relating to the appropriate area must be taught for each activity, even if both activities are drawn from the same area. Throughout the key stage, pupils should be given opportunities to participate in frequent physical activity conducive to a healthy lifestyle. They should be taught:
>
> 1. to plan, undertake and evaluate a safe health-promoting exercise programme;
> 2. to show understanding of the principles involved (31).

This is a structure which could be considered in Jordan.

It should be noted here that in applying tests for significance, it was found that there were no significant differences between the students in terms of the

variables sex and place. However, significant differences with respect to class were evident, with the students from 1st and 2nd secondary showing more positive attitudes than those in the 10th secondary. This discrepancy has been discussed earlier and it was suggested then that the students in this age group tend to require not only more time allocation to be added to the time specified for the current lessons in the school, but also for more activities to be offered within the curriculum. This is best understood in the light of the circumstances that surround these students in this particular age group. They feel deprived of physical lessons and state that too much emphasis is given to academic and examinable subjects.

Further support of these findings may be found in a study conducted by Rice (1988), in which he found that students at high school level had negative attitudes towards Physical Education. The students' main concerns were " a need for a wide variety of activities to be offered", "lengthening class periods", "preference for team over individual sports" and "increased participation by physical educators with their classes" (32).

1.3 Student attitudes to Physical Education in respect of culture, religion and parental opinion : part 3

This section deals with the discussion of students' attitudes towards Physical Education in respect of culture, religion and parental opinion. This will be carried out in two ways. Firstly, consideration is given to the students' views regarding the impact of culture, religion and parents on the formulation of their attitudes towards Physical Education. Secondly, consideration is given to the views of the students with regard to their parents' attitudes to their majoring in Physical Education.

In considering students' attitudes in respect of the first of these considerations, the results indicate that the mean scores for the variables sex, class and place show that the students have positive attitudes towards participation in Physical Education in relation to culture, religion and parents. Statistically significant differences were evident in terms of class and place. Students in the tenth grade show a more positive attitude than first and second secondary students, and students from rural areas have a more positive attitude than those from urban and Badia areas. The reason might be that students in the younger age group do not normally begin discussing with their parents what they wish to specialise in as a career as it is considered too early. Regarding place, it seems that students in the rural areas who live in a relatively more religious environment are influenced by this atmosphere and thus show a more positive

attitude towards the factors of religion, culture and parents than urban and Badia students. On the whole, the students showed a remarkable interest and a positive attitude towards participation in Physical Education regardless of place, sex or class. The students also expressed clearly that not only do they themselves respond positively to Physical Education but also that their parents regard Physical Education lessons as necessary for all pupils.

This is an interesting finding and in fact largely unexpected, particularly with regard to the effect of culture and religion on the students' attitudes. The researcher expected that the students would show low interest in Physical Education given the kind of conservative culture evident in Jordan. It would have been reasonable to expect that the students would reveal that both culture and religion would constitute an obstacle with regard to participation in Physical Education.

The general opinion among the students is that Islam is a religion which strongly encourages education and health in general, Physical Education and care of the body in particular. Islam is concerned with building up an integrated personality and stresses physical activities like swimming, archery and horse riding. In the early Muslim society, these activities were seen as crucial to the overall development of the individual's personality. The general pattern of lifestyle in that society encouraged the individuals of that society to

develop these skills for personality developing purposes. These activities were believed to build a strong individual and a strong society.

The well-known dictum attributed to Omar Ibn Al-Khattab, the second Caliph, 'Teach your children swimming, archery and horse riding' is often cited as evidence. This shows that religion and culture, according to the students' perceptions, are, in fact, in favour of participation in Physical Education, a finding that the researcher considers very important given the neglect of Physical Education by government institutions. This neglect is inevitably due to the lack of balance in that some aspects of study are given priority over others. It is true that Jordan is a country which needs control over electronic communications in terms of training scientists and engineers, as is the case throughout the world, but those working in Physical Education, like those in developed countries, must continue to stress the importance of keeping a balance between the needs of the economic society and the health needs of the individual. This balance could be achieved once equal importance is given to science, which cares for the mind, and that which cares for the body. Physical Education can play a very effective role in creating this balance. The widely known statement, 'a healthy mind in a healthy body', is significant in this connection. If physical activity is seen to develop physical, mental and emotional health then it is a science equal in importance to medicine and engineering.

The teachings of any religion are regarded very highly by the followers of such a religion and they generally induce great influences on the people's attitudes towards or against any aspect of social or cultural life. However, people tend to forget or neglect these teachings with the passage of time. The teachings of religion concerned with the care of the body and the promotion of a healthy lifestyle have been neglected in most Islamic societies, particularly as an element of the curriculum of Physical Education. Because Jordan is an Islamic country where these teachings have been neglected, as in any other Muslim country, the attitudes of the people towards the importance of physical activities have changed. This is why the attitudes of the people in Jordan, in general, and the government officials in particular, are not positive, a fact which is reflected in the current low status of Physical Education in Jordan. This particular finding which relates to the role of religion in shaping peoples' attitudes is significant. The researcher believes therefore, that the exploitation of the religious dimension in this debate could definitely result in change in favour of more encouragement and further promotion for Physical Education from the point of view of both the attitudes of people generally as well as government officials.

It should be noted here that Jordanian students who were surveyed in this study showed positive attitudes towards the role of religion in encouraging them to participate in Physical Education. This supports the observation made earlier that religion does encourage physical activity. Because these students

are educated and these religious concepts have presumably been revived in their minds, they were able to adopt positive attitudes towards participation in Physical Education. It is important therefore, to stress once again, that Physical Education is seen as essential by the average student in Jordan and that there is a need for Physical Education as a fully integrated school subject which is guaranteed appropriate space and weight in the school teaching programme.

The remaining problem is concerned with the attitudes of parents and government officials who continue to give the subject low status. The religious dimension suggested in this study should be directed towards these two categories of people to persuade them to first change their own attitudes towards the discipline and second, to propose a consequent change in the curriculum of Physical Education. Giving Physical Education a good status in the curriculum and more importantly opening new career prospects in the public as well as in the private sector is a practical way to change these parents' attitudes. One of the main aims of this study is to use the results to try to create change. One of the vehicles of change might be to re-examine the context of our religious teachings as the nation moves into the millennium.

Because students have a positive attitude to Physical Education, which the religion and culture in Jordan provides, Physical Educators should fully exploit this in order to recruit official as well as public support to introduce

any reforms whose main objective is to change the current situation of Physical Education in the Jordanian National Curriculum.

In considering parents' attitudes about majoring in Physical Education at university and the opportunities to major in Physical Education, the findings show that parents do not encourage their children to take this option. Significant differences were found in terms of sex, class and place. Female students agreed or strongly agreed with these findings about their parents' attitudes. This may be due to the fact that females have fewer chances to major in Physical Education, due to social constraints. The findings also show that more students from first secondary and second secondary agreed more with these statements than tenth grade students. This may be accounted for by the fact that students in second secondary levels are moving towards a stage where they have to specialise in a subject and their parents do not value Physical Education. When these students think about making a decision as to their future career and specialisation, the parents start to exercise influence on these students to major in subjects which have superior social value such as engineering and medicine.

Finally, significant differences were also found in terms of place, where students from both urban and Badia areas agree more with this statement than the rural area students. One explanation for this might be that parents in the urban areas tend to encourage their children to enrol in colleges of medicine or

engineering, as these disciplines are highly regarded by the people in these areas. With respect to the parents in the Badia area, it seems that the preference here is for the students to enrol in military and police colleges. This of course has affected the way these parents encourage or discourage their children in choosing a subject as a future career.

It can be seen from these findings that students in general feel that their parents do not encourage them to major in Physical Education. This is almost certainly due to parents' perception of Physical Education as a subject which does not offer enough in the way of career prospects and/or opportunities for further study and research. Physical Education in this sense is simply regarded as entertainment and recreation.

It would appear from these results that attempts should be made to change parents' views on Physical Education and to convince them that it can have equal status with other subjects. Parents must also be made aware that the subject embraces many different specialist areas such as sport psychology, sport injury, sport administration, teaching and university lecturing.

This could be achieved by establishing strong ties between educational institutions and parents. Parents' councils are a practical and immediate step towards establishing channels of contact between the school and the environment outside the school. In fact, there are numerous methods of linking

the school to its environment. The media plays a vital and a leading role in this regard. The media bears the responsibility of educating the people about the significance of the work done inside schools. They could be influential in showing that co-operation between schools and other social institutions is crucial in trying to achieve satisfactory results.

1.4 The perceived effect of the mass media on student attitudes to Physical Education : part 4

The results in this section indicate that all students have positive attitudes in terms of their belief of the importance of being constantly informed by the media about the objectives of Physical Education and sport programmes, and the role that Physical Education and sport programmes can play in maintaining good health. In particular, students state that they believe that the mass media play a major role in informing them about the benefits of Physical Education in maintaining good health, and in shaping knowledge, convictions and attitudes. Students name television, radio, newspapers and magazines as very good sources of information.

On the basis of these results it is clear that the advantages of Physical Education can be greatly enhanced by the mass media. There will however, always be a need to ensure that the information given out by the media is both relevant and appropriate to the needs of students. For example, television can contribute a great deal by means of programmes whose aims are to touch upon general issues relating to health and activity whilst at the same time making parents aware of the benefits of Physical Education. In addition, television could introduce debates and meetings where parents, Physical Education teachers, Physical Education supervisors and curriculum planners take part

along with students. Such open discussions could make it possible to discuss the importance of Physical Education.

From the above findings it can be seen that the mass media should be encouraged to be committed to the service of the country as a whole. Information and communication media should serve as channels of assessing the country's progress, and developing more co-operation among government authorities to improve the public attitude towards various social issues and the issue of Physical Education in particular. Media campaigns should also maintain a regular review of cultural and social issues that are of importance to the public. The mass media should also function as a means of transferring new knowledge and cultural and scientific advances to the citizens. This requires an enhancement of national capabilities and recourse to expert services. The function of the media must be exercised in a manner that would integrate the roles of the family, schools and places of worship in developing citizens' awareness, knowledge and attitudes towards the benefits of participation in Physical Education.

It should be mentioned here that while the role required from the mass media is essential in creating public awareness, it is also feasible in Jordan to achieve such an objective. The media in Jordan is a government institution and thus can be directed towards achieving social objectives, one of which could be to inform the people about the effects Physical Education has on creating a

generation of young adults with strong personalities who understand that serious diseases and particularly heart conditions can be prevented. If the co-operation of the media can be guaranteed it will be possible to ensure that the general opinion of the people in various areas of the country, be it rural, urban or Badia could be radically changed for the better since the media has such a strong influence on peoples' attitudes.

1.5 A review of general trends surrounding the students' responses.

From the findings of this study and from the discussion chapters, three major trends can be discerned. It should be noted here that although the study has employed three variables, namely sex, place and class, most of the trends that figured in this study did not fall neatly into one of these variables. In fact, there was a clear interaction between these variables.

The first trend to be discussed here is related to the interaction between sex and place where female students in the Badia area have shown the most positive attitude towards Physical Education in relation to health, enjoyment and satisfaction in comparison to female and male students in general.

The second trend is related to the interaction between sex and class where female second secondary students in general showed more positive attitudes towards Physical Education in relation to health, enjoyment and satisfaction than other students in these classes.

The third trend is related to the variable class where first and second secondary students have more positive attitudes than students in the 10th grade. This clearly indicates that in Jordan as students get older they develop more positive attitudes towards Physical Education particularly in terms of

participation in Physical Education and in terms of their attitudes towards their Physical Education teachers.

It is worth mentioning here that although there was not a significant difference in terms of place, the rural area students in general, show more positive attitudes than students in the urban and Badia areas. It could be suggested that the reason for this significance might have to do with social and subcultural reasons. That is to say that the local cultural and social patterns in the rural areas have contributed to this effect. As was mentioned in the discussion above, rural students tend to be more religious and these results might reflect the impact of religion which encourages participation in Physical Education.

2. Section Two

This section will discuss the findings from the teacher questionnaires which consisted of 44 items and elicited data related to the attitudes of Physical Education teachers towards Physical Education, particularly with respect to sex, experience and qualifications as well as the interaction between these variables. The discussion in this section is organised and presented under the following headings:

1. Physical Education objectives
2. the Physical Education Curriculum
3. Physical Education as perceived by teachers
4. the possible effect of the mass media on teachers' attitudes to Physical Education.

2. 1 Physical Education objectives : part 1

This section deals with the findings in respect of the teachers' attitudes towards Physical Education in relation to the objectives of Physical Education. The teachers were given 9 statements and asked to record their responses on a five point scale [Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree]. The results in this section indicate that the teachers' mean scores for the variables sex, qualifications and experience, show a positive attitude

towards the nine objectives of Physical Education. The strongest level of agreement is in three objectives:

1) meeting the needs of the students
2) meeting the needs of the community
3) meeting the needs of the nation as a whole.

From these findings it seems to be very important to take into account these factors when planning realistic objectives in the development of the Physical Education curriculum and sport programmes. It should be noted here that although the nine factors listed in Table 16 all had high rates of agreement, the three factors mentioned above have been regarded as especially important in the process of developing a realistic curriculum. Meeting the needs of the students has been a main concern of the teachers as well as the students surveyed in this study. In fact, this issue has been the focus of numerous studies during the last forty years. In the area of language teaching and learning, for example, this topic has been a key area of study (33, 34, 35 and 36). These studies surveyed attitudes and learners' needs in an attempt to develop language curricula and teaching materials.

The hypothesis here is that what applies to language teaching could also be assumed to apply to Physical Education as far as the learners' needs and attitudes are concerned. In the present study, the emphasis which the teachers

of Physical Education placed on this factor could be a reflection of a common concern among teachers that traditional curricula have tended to neglect the needs of the students. In this connection Davidson (1982), who conducted a study on pupils' perceptions of Physical Education, states that '... the crux of the matter is undoubtedly the aims and objectives of physical education as an aspect of education. Learning experiences through movement should therefore be relevant to the specific needs of individuals as members of a particular society' (37).

The needs of the community and the nation as a whole have been given the highest priority by the teachers in this study. They see Physical Education as a developmental activity which aims at preparing and building the individuals' personality and addressing the needs of the community so that they can face the demands of life and the future. The teachers also consider that Physical Education aims at establishing a set of values and social relations based on moral principles. They also regarded the integrative development of the learner physically, psychologically, mentally, emotionally and socially as an essential objective of any successful Physical Education and sport programme. This is a view with which the researcher totally agrees and intends to put forward in this study. The teachers here have reflected a common concern regarding the way Physical Education should be viewed.

Of the other six objectives which were the subject of this part of the study, the teachers particularly emphasised the importance of developing the personal and social skills of the learners to prepare them for a normal and successful social life as members of a particular social community within a specific culture. These findings clearly show that any Physical Education plan or policy should be linked to broader social, economic, educational and political objectives. In addition, decisions about Physical Education should always be taken with reference to a particular social, political and cultural context. This is an important finding which is supported by findings in other countries. Curriculum planning in developed countries is often carried out with these ideas in mind. For example, Sparkes (1992) shows that in the UK studies have indicated that:

> at the local level schools are part of a community that is made of people who may differ significantly in their social class positions, educational backgrounds, religious beliefs, and views on the purpose of schooling. The parents and pupils that teachers interact with on a regular basis are drawn from this community, and they have the potential to shape the form and content of teachers' work. Likewise, governors are also drawn from this community that exists beyond the school gates and, as such, along with parents and pupils, form part of what Arfwedson (1979), cited in Hatton (1987), as the 'local social context' (LSC) (38).

Furthermore, studies in Australia by Hatton (1987) and Connell (1985), cited in Sparkes (1992) indicate that in certain circumstances variables outside the

school intervene in classroom proceedings and this results in more pressure on teachers' pedagogical practices (39). This clearly shows that curriculum planning should not be carried out without direct reference to the social context. It is believed that once the curriculum, as well as the practical teaching programmes, and teaching materials are planned, designed and produced in accordance with the overall national as well as community concerns, the pressure on the teachers' pedagogical practices will be radically reduced and the worries of compatibility between what goes on inside the classroom to the scale and cultural context outside the school gates, will be largely eliminated.

However, as far as Physical Education in Jordan is concerned, not much attention has been given to the cultural aspects which have been shown to be so important and a crucial aspect of curriculum planning and syllabus design. Moreover, the social context is seldom considered in planning improved and realistic Physical Education programmes. Despite the fact that both the social and cultural situation is so crucial in curriculum planning and syllabus design, these two aspects seem not to be adequately considered in Physical Education programmes in Jordan. The planning of Physical Education in Jordan should proceed through the identification of the issues and problems that face Physical Education in the curriculum, by surveying and analysing the current situation of Physical Education in all its aspects including the learner's personal and social needs. It will be valuable to bring the results of this

attitudinal survey to the attention of decision makers in government and to begin discussions in relation to the need for an evaluation of present practices in Jordanian schools, universities and Ministries of Youth and Education. In short, these results show the importance which teachers place on the social and cultural problems that should be considered when planning any Physical Education curriculum. If this is the case, then those who are influential in creating change within the curriculum might consider identifying these problems.

Statistically significant differences were evident in terms of qualifications and the interaction between sex by experience. The most significant difference was between male and female teachers with 6-10 years of experience in teaching Physical Education. Female teachers showed a more positive attitude towards these nine objectives than male teachers. The reason for this discrepancy might be better understood in the light of the discussion in the previous section in which it was suggested that females usually see Physical Education as helping them develop good health and good social rapport. It was suggested that this was particularly important for females rather than males, because males are more likely to take Physical Education as a future career and because success in Physical Education enables males to join national sport clubs. The significant difference clearly shows that the Physical Education curriculum should reflect the variable needs of both sexes. With female students in mind, the female teachers expressed concern that the curriculum should aim not only

at developing physical skills but also that it should prepare the learner for a normal social life that is compatible with the prevailing culture. After spending 6-10 years of teaching Physical Education, these female teachers presumably become more aware of the importance of the correlation and compatibility of what goes on inside the school in relation to that which takes place outside the school environment. They realise perhaps, that one of the most important tests for the validity of the school curriculum is its social and cultural implications and the impact it has on the life of females outside the school in Jordanian society.

In terms of qualifications, B.A and Diploma teachers showed a more positive attitude than M.A + Ph.D. teachers. This discrepancy might reflect the controversy in general in which there tends to be a gap between those who work with the theory of Physical Education and those who deliver practical material. Arnold has attempted to define the importance of both knowledge and understanding and the relationship between these and practical outcomes. Arnold (1988) calls it the 'knowledge of the what and the knowledge of the how'. Arnold addresses the issue of interdependence between theory and practice saying:

> the fact that an activity or skill provides intrinsic satisfaction for the participant, of course, does not by itself make something educationally worthwhile; but when this is combined with development of knowledge and understanding and a caring attitude

> towards what is accomplished by way of publicly attested standards, then what is meant by an educational process is well on the way to being realised (40).

He goes on to suggest that:

> education, even when seen as being centrally concerned with knowledge and rationality, goes far beyond curriculum based upon theoretically constructed forms of prepositional discourse. It is concerned also with an initiation into the whole range of practical pursuits such as sport and dance which form a significant and valued part of our culture (41).

The need to bridge this gap has been frequently addressed in developed countries. For example. in the UK, the Report of A Commission of Enquiry: Physical Education in Schools (1987), states that carrying out working sessions in which both advisors and teachers are all brought along to discuss educational matters is more likely to bring insightful ideas on curriculum planning and situational needs. The report recommends that

> In order to support, co-ordinate and review curriculum research and development in physical education, we recommend that a national committee or network be established reflecting central and local government collaboration with the profession. We would expect the initiative to be taken by the Department of Education and Science in consultation with the profession (42).

It could be argued that the B.A and Diploma teachers showed more concern about the applicability of the aims of the curriculum to real life, because they

are more involved in the practical situation than those Ph.D. and M.A teachers who are often remote from the 'chalk face' and might not be sensitive to the changing needs and requirements of the students' situation. One interpretation of this discrepancy could be that the practitioners (B.A and Diploma teachers) are expressing discontent with the current situation of Physical Education, particularly in respect of the objectives identified for Physical Education, which are no longer realistic in their view.

This finding might be a message that these practitioners understand the needs of the learners, the needs of the community and the needs of the nation. In addition their message is that their experience and the skills they have developed through time, qualify them to be at least partners in the decision making process if not the main decision makers in any matter related to the objectives of Physical Education that should be incorporated in the Physical Education curriculum. It is also possible that this attitude questionnaire has given them an opportunity to suggest that their views have not been considered in the process of curriculum design. The teachers views, particularly in relation to the social and personal needs of students studying Physical Education in the curriculum, clearly indicate the dissatisfaction they feel in relation to the present curriculum which they seem to allege to be alien to them.

On the other hand, the Ph.D. and M.A holders, whom I call 'the ivory tower theorists', although they showed a high positive attitude for the need for the objectives in the curriculum to be comprehensive, did not show as high an interest as that of the actual practitioners. This again could be a manifestation of the theory-practice controversy. Interestingly, the theorists do not miss the opportunity to express caution about the demands for change which the practitioners are insisting upon. The theorists would seem to think that the fact that these practitioners have been busy in the teaching process for years has made them solely involved in every day matters and that they do not understand the modern theoretical changes and scientific advancement regarding the nature of the learner, the nature of society, the nature of the school and finally the nature of the modern curriculum that should reflect all these changing variables. This is a view which must be challenged.

From the discussion above it can be seen that the gap between theory and practice in Physical Education needs to be bridged and a reconciliation has to be brought about. Clearly, it would be unwise to suggest that Physical Education activities in school, which are delivered by practitioners, should not be based on theoretical knowledge about the learner as a human being, as a member of a social community and as a member of the broader cultural context, but equally the theory should not be developed without having feedback from the practical situation.

It is worth stating here as part of the discussion that the findings in this study show that all teachers have agreed that these objectives are very important and must be taken into account when planning and designing realistic and appropriate syllabuses and teaching materials as well as actual teaching programmes for Physical Education. It would seem that after 6-10 years' practical teaching experience, these teachers might play a more important role in bridging the gap between theory and practice. This is an issue which will be considered in the conclusions of this study.

One important aspect of the delivery of a successful Physical Education curriculum is the training which teachers receive. According to the Physical Education Development Project Report (1993) in Jordan the teacher training programmes are unsatisfactory. This is because the training programmes are poorly planned and poorly carried out (43). The example of teacher training reform in Britain is evidence of the type of change which focuses on the 'good teacher role' rather than the 'ivory tower role' in relating theory to practice. In 1995 the teacher training agency (TTA) implemented a strategic plan in which mentors in school [teachers with sustained and qualitative school experience] would be trained by university lecturers, to guide trainee teachers in school practice for 50% of their teacher training course. All those involved would deliver the National Curriculum (P.E. 1995) and would be open for inspection by the Office of Standards in Education (OFSTED). This process is intended to give teachers a better opportunity to deliver quality Physical Education

curricula (44). This is another issue which will be considered in the conclusion.

2. 2. The curriculum of Physical Education : part 2

The main aim of this section is to examine the teachers' attitudes in respect of the curriculum for Physical Education. The results of this section show that all the teachers' mean scores for the variables sex, experience and qualifications show a positive attitude towards the Physical Education curriculum. There would appear to be considerable agreement among all the teachers that Physical Education should:

1. provide experiences which promote normal physical growth and development of students
2. provide experiences aimed at developing self confidence
3. provide experiences to develop leadership ability
4. provide for individual differences in the abilities of the students
5. encourage the students to continue to participate in extra-curricular programmes of Physical Education
6. enable students to derive enjoyment from participation in these programmes
7. increase students' knowledge in appropriate health habits.

It goes without saying that the views expressed by the teachers are important and these are the same views held by the researcher. Examining the teachers' responses, it appears that these views have reflected a common concern in educational circles. The arguments that are going on nowadays in these circles are centred upon giving the learner's needs more space in the curriculum and in the teaching programme and in giving the learner greater autonomy and greater individuality. I think if we, in Jordan, consider these crucial aspects of curriculum planning we will achieve a realistic and modern curriculum that accomplishes the desired objectives of education and the objectives of Physical Education in particular.

Statistically significant differences were evident in terms of teachers' qualifications. Once again the B.A. and Diploma teachers showed a more positive attitude towards the objectives of the curriculum of Physical Education than M.A and Ph.D. teachers. The reasons for this difference are almost certainly similar to those given in section one in which the discrepancy was justified by the fact that the overwhelming majority of teachers in the sample in this study were Diploma and B.A teachers. Furthermore, it was argued that only the B.A. and Diploma teachers were still in touch with the actual practice of Physical Education. This could account for the reason that their attitudes expressed more concern and more positive support for both the objectives in the last section and the curriculum in this section.

As was suggested earlier, it is hoped that the result of this study will provide a research base, which could bring together both practical and theoretical issues identified, in order to suggest a reform programme which could create and introduce effective changes to the current status of the Physical Education curriculum in Jordan.

One point which should be mentioned here is that the teachers' beliefs, concerning the content of the curriculum, gave strong support to the findings in the students' part of the study in which the students expressed their dissatisfaction with the content of the current curriculum of Physical Education. This in turn gives further support to the suggestion above concerned with the need for reform. Luke and Sinclair (1991) also support the concerns identified in this study. They studied the factors that help in developing positive and negative attitudes towards Physical Education. Their findings indicated that the most important factors in attitudes towards Physical Education were the content of the syllabus (45). In this connection, the teachers also voiced the need for the curriculum to go beyond the teaching and learning environment to include the social and cultural context outside the school. They maintained that the curriculum should promote and nurture the natural growth and development of students' self confidence.

It should once again be stressed that the teachers' attitudes towards the content of the curriculum of Physical Education discussed here have reflected more or

less similar concerns to those revealed by students in the previous section. This leads to the conclusion that if the teachers' ideas were incorporated in curriculum planning and syllabus design, the teachers' attitudes towards Physical Education would change for the better and as the teachers' attitudes changed the students' attitudes would be also more likely to change.

These findings are supported by Figley (1985), who conducted a study on male and female college students' attitudes towards Physical Education. Among his main findings were that the teachers' attitude towards Physical Education, was one of the important determinants of positive attitudes towards Physical Education (46).

Furthermore, Cale (1996a) in a review of teachers' attitudes and views of health related exercise, argued that 'teachers' attitudes and views are deemed important to the success of Health Related Exercise (HRE)' (47). She also carried out another study (1996b) on the assessment of the physical activity levels of adolescent females. She highlighted the importance of teachers and the role they play in Physical Education, 'Physical Education teachers can potentially have a strong influence over young people's physical activity behaviour'. Further, the curriculum, according to her, also influences children's attitudes towards Physical Education: "the curriculum has also been recognised as an important determinant of children's attitudes toward PE" (48).

2. 3 Physical Education as perceived by teachers : part 3

This section deals with the findings from the teachers' attitudes towards Physical Education. The teachers were given 12 statements concerning their perceptions of Physical Education and were asked to give their responses using the same five point scale as shown in section one. The results in this section indicate that the majority of teachers have positive attitudes towards Physical Education.

There is considerable agreement in other parts of the world that Physical Education should be a compulsory requirement from elementary school, through high school. In a study conducted by Scott and West (1990) on pupils' attitudes towards Physical Education in an Inner London Borough, the results showed that pupils had favourable attitudes towards Physical Education and the researchers concluded that Physical Education should be compulsory in both primary and secondary schools in Britain (49). The results of the above study assert the importance of Physical Education from the point of view of students.

The second finding in this section indicates that teachers agree that Physical Education provides an outlet for suppressed emotions. This concurs with the students' belief that participation in Physical Education is considered to be an outlet for suppressed emotions.

The teachers also agreed that students in elementary, preparatory and secondary schools should take part in physical activities at least twice a week. This demand has been voiced by both the teachers and the students, in that the time allocated is not enough, and that it should be increased and extra lessons should be added to allow more contact between teachers and students, and for students to have adequate regular training. These findings have been voiced and given further support in the report of the Department of National Heritage in Great Britain (1995) which recommends that Physical Education should be given at least two hours a week (50).

Significant differences were evident in relation to time for physical activity in terms of sex where male teachers show a more positive attitude than female teachers. This discrepancy might be attributed to the fact that male teachers who are directly involved with male students feel that their students need more time to be allocated to Physical Education lessons as they tend to demand practice in various games and activities. Clearly, it would be the case that it would be difficult to fulfil this demand at the present time given the shortage of time allocated to the lessons in current school timetables. On many occasions male teachers are involved in coaching teams outside the school as well and this gives them deeper insights into the nature of games teaching and coaching, particularly with regard to time allocation, the types of activities to be offered and the kind of training required for any of these activities. This shows that male teachers, because of their different role in society, seem to be

more concerned about the status of Physical Education with regard to the time given and the type and range of the activities. This, in turn, shows that male teachers are responsive to their situational needs.

Female teachers whose students showed satisfaction with the amount of activities provided, responded accordingly and did not demand that changes be made. However, male teachers whose students expressed dissatisfaction with the time allocated to Physical Education lessons and the type and range of activities offered, demanded more changes in the curriculum especially with reference to these two areas. There is also another possibility worthy of consideration in that the size of the sample in this study shows that the number of male teachers surveyed almost doubled the number of female teachers and this fact may have had a bearing on this finding.

2. 4 The possible effect of mass media on teachers attitudes to Physical Education : part 4

The results in this section indicate that all teachers have positive attitudes in terms of their belief in the importance of being constantly informed by the media about the objectives of Physical Education and sport programmes, and the role that Physical Education and sport programmes can play in maintaining good health. Teachers state that the mass media can play a major role in informing the populace about the benefits of Physical Education in maintaining good health. Teachers name television, newspapers and magazines, radio, lectures, conferences, and special programmes as very good sources of information.

Thus, on the basis of these results it is clear that the advantages of Physical Education can be greatly enhanced via the mass media, particularly television, radio, newspapers, lectures and conferences. There will always be a need however, to ensure that the information given out by the media is both relevant and appropriate to the needs of teachers, students and the general public. For example, television can contribute a great deal by means of programmes whose aim is to touch upon general issues relating to health related activity whilst at the same time making parents aware of the benefits of Physical Education.

One issue which is particularly important in planning successful media programmes is to involve religious leaders in these programmes. The culture prevalent in Jordan is one driven by religion. It is crucially important, therefore, to include religious leaders in any mass media presentation if it is to be credibly received.

It is believed that the influence of parents on the attitudes the students have about Physical Education is enormous and this was confirmed by the results of this study. It is known that the overwhelming majority of parents in Jordan do not want their children taking Physical Education as a career. This reflects the low regard these parents have for Physical Education.

Any mass media presentation could do exceptionally well if it directed messages to parents to inform them about the benefits of Physical Education. In addition, television could include debates and meetings where parents, religious leaders, Physical Education teachers, Physical Education supervisors and curriculum planners could all take part along with the students. Such open discussions would make it possible to discuss the importance of Physical Education and show that it can be included in the curriculum without detriment to other subjects.

From the above discussion it can be seen that both teachers and their students strongly agree that the mass media can play an important role in developing

Physical Education and sport programmes inside and outside of school. Furthermore, it has been emphasised that the media could have an effect in mobilising public support as well as official awareness concerning Physical Education. More than that, the media, it is believed, could play a vital role in the process of evaluation. The feedback, as the outcome of debates and discussions, could contribute directly to the assessment process of the curriculum and school programmes and activities. At the same time, this media information service might ensure a continuous evaluation process by which officials, as well as the public, will come to know more about Physical Education in the outside world and thus become able to make rational comparisons in relation to Physical Education in Jordan.

Although all teachers have high positive attitudes regarding the influence of the mass media and the role it plays, statistically significant differences were evident in terms of interaction between sex by experience, and sex by qualification. Female teachers with 1-5 years of experience and MA + PhD. degrees have more positive attitudes than male teachers. However, it is worth stressing the role of culture in this respect. Cultural values in Jordan are largely conservative particularly those related to women's participation in outdoor life. Female teachers here have shown more positive attitudes toward the need for more involvement of the mass media in creating new social models and new cultural patterns regarding women's freedom. This is probably why they expressed the view that a big responsibility lies with the

mass media in conveying these ideas and those related to Physical Education in particular to the parents. In addition to the factors of culture, religion and parents in connection with this discrepancy, it should again be noted that the factor concerned with the size of the sample might be a reason for this discrepancy.

The role of culture, society, parents, and mass media in forming attitudes towards Physical Education is an issue that has been emphasised by other studies. For example, in 1994 Carlson carried out a study on why students hate, tolerate, or love gymnastics. The purpose of his study was to investigate secondary students' attitudes toward Physical Education and to identify the variables which contribute to the formation of those attitudes. Aspects of cultural, societal, and school contexts were found to be the major influences on students' attitudes toward Physical Education. The major influences within the cultural context were gender, an idolisation of elite sports persons and a compartmentalisation of the body and mind. Within the societal context, influential factors were family, mass media, and the participants' sporting experience and skill level, peers, previous Physical Education experiences, and perception of fitness. These factors, he concluded, influenced the self concept and self esteem of the students. The most influential factor within the school context, however, was the teacher (51).

2.5 A Review of general trends surrounding the teachers' responses.

From the above overview of this discussion it can be clearly seen that there is one main central trend. The trend which emerges is related to the variable of qualification, where B.A and Diploma teachers show more positive attitudes towards Physical Education in terms of objectives and curriculum than M.A and PhD teachers.

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Chapter Six

Conclusion and Recommendations

This study has given clear insights into the field of the study of attitudes of students and their teachers to Physical Education programmes. It has also given useful insights about the attitudes which the students and their teachers have about the importance of being educated, through the Physical Eduation programmes, about health and life-long physical activity. But perhaps one of the most important contributions which this study has provided is a comprehensive examination of Muslim females' attitudes to the importance of taking part in regular Physical Education programmes during their school years. In relation to this it is worth repeating that the attitude of Jordanian upper secondary school students differ from their Western sisters in that their interest in Physical Education does not decline as they become older.

The findings of this study show that both teachers and their students in general have positive attitudes towards Physical Education. The most significant findings of this study were those relating to students' attitudes towards Physical Education and health, their attitudes towards the content of the Physical Education curriculum and their attitudes towards their parents' views regarding the low status of Physical Education.

With regard to the students' attitudes towards Physical Education in relation to health, the study shows that the students in this study clearly value Physical

Education in relation to health promotion. They believe that the role of Physical Education is important because it keeps the individual fit and healthy. This finding is further made significant if one takes into account the facts, voiced in a number of other studies (Ewles and Simnett 1990, Armstrong and Biddle 1992, World Health Organisation 1995) reviewed in the course of the discussion chapter, that Physical Education assists in the prevention of a number of diseases, most notably those relating to heart disease (1, 2 and 3). These findings are of crucial importance to the Economic and Social Development Plan (1997) which, as stated earlier, shows that the majority of the Jordanian population is young, with over 67.6% being below adulthood (4). If Jordan is to make progress with public health in the future it will be partly through the maintenance of a well structured curriculum for Physical Education ensuring the establishment of good health habits and lifestyles which would continue with these students even after leaving school. In short, Physical Education in Jordanian schools could play a crucial role, if given priority and due importance, in contributing to national health plans. With these points in mind the following observations and recommendations are made.

1. Physical Education lessons with an emphasis on health should be given appropriate consideration in the National Curriculum, and space and time in school timetables. Teachers should be encouraged to assign more importance to health issues in their teaching and try to help their students

understand the principles underlying health related fitness. Teachers should also ensure that students are knowledgeable about the positive effects Physical Education can have on their physical, mental and emotional health.

2. Students of all ages should be provided with better facilities. This could be achieved by:

- providing schools with track and field areas as these are seen as essential to school sport programmes
- providing schools with at least one court for basketball or volleyball
- providing schools with at least one football playground.

3. Students should be encouraged to increase habitual activity gradually, aiming to carry out at least thirty minutes of enjoyable physical activity daily, where these activities take place in the school environment. They should be done under the supervision of a well trained teacher with advice from qualified physicians. In addition, gymnasiums should be established so that students have the chance to participate in physical exercise outside the school and develop healthy lifestyles. The need for at least one gymnasium in each governorate is essential as some of the available ones are not compatible with standards set.

4. Females must be given a variety of opportunities and should be offered more encouragement to engage in physical activity. If women are made aware of the benefits of physical activity and are convinced of its value they are more likely to pass this knowledge on to their children. Although the responsibility for personal health ultimately lies with the individual and to some extent the family, government action is also required to create a social and physical environment that is beneficial to the adoption and maintenance of physically active lifestyles. Ideally, the promotion of physical activity must be part of a public policy.

5. The Ministry of Education and Department of Curricula officials in Jordan should be made aware of the findings of this study and should take practical steps to incorporate these health related aspects of Physical Education into the curriculum.

6. The Department of Health need to be made aware that most of its national health plans can be successfully achieved through schools and that students at schools should be the main target of all future health initiatives.

In the light of the points made above, the first step should be to establish a joint working party made up of the Ministry of Education and the Ministry of Health to consider how best to develop an appropriate programme. The fact that a high percentage of individuals in Jordan suffer from heart conditions,

posits a great responsibility on both of these parties. It is assumed here that none of these parties could do any better alone and that only through co-operation and close contact can health concerns be appropriately addressed.

In considering all of these groups, there will be a need to educate and in some cases re-educate physicians, other health professionals and teachers at all levels in the need to promote physical activity, so that they can offer informed advice to parents and pupils.

In summarising this section it is worth concluding the following:

- daily physical activity should be accepted as the cornerstone of a healthy lifestyle
- physical activity should be reintegrated into the routine of everyday living
- raising the physical activity levels of individuals and improving overall health will improve lifestyles and increase life expectancy.

With respect to the students' attitudes towards the curriculum, the students clearly expressed the view that the curriculum is lacking in many areas, the major shortcoming being that it does not reflect, in any way, the needs and expectations of the students. Students would clearly like more freedom of choice in the type of physical activity they are asked to take part. This gives us insight into the importance of addressing students' needs if the curriculum of

Physical Education is to be deemed appropriate for them. It also gives credence to the need for student involvement in curriculum construction.

The following proposals are offered as a possible way forward.

1. Students expressed the view that more time be added to Physical Education lessons.

It is recommended therefore that the time given to Physical Education should be increased to three lessons per week. It is believed that once Physical Education is accepted as an important subject then allocating adequate or more time to it in the school timetable will not lead to any conflict for the school programme as a whole.

2. Students asked for more freedom in choosing what activities they take part in. Students should be given the chance to have a variety of options available to them instead of sticking to one particular game or activity. The results showed that the majority of the students preferred physical exercise which involved skill in movement such as dancing and gymnastics. The Physical Education curriculum in developed countries, particularly in Britain, shows a considerable variation in the type and amount of physical activities offered to the students. With this in mind, it is recommended for Jordanian educational authorities to consider the adoption of some aspects of the British Curriculum of Physical Education as a remedy for the defects

of the current curriculum. Reference here is being made to those aspects of the British Curriculum where a procedure has been adopted to offer a variety of choices for the student. It is possible that the Jordanian Ministry of Education could consider a similar system.

3. Students maintained that Physical Education, although very important for health and developing personality, had no credence in the school programme and the educational system in general, and that they went to school to learn subjects that were academically more important. In the light of these statements more weight should be given to the subject and this could be achieved by:

- producing textbooks especially designed for Physical Education
- devising evaluation techniques compatible with the nature of the subject
- establishing objective criteria for assessment
- retraining Physical Education teachers in specific areas of their subject
- providing training in educational and psychological aspects of teacher-student interaction.

It is believed that only through taking these steps will Physical Education be able to attain academic credence in the educational system. The training programme should be carried out basically by the Ministry of Education and with the co-operation of the universities in the country, to bring together both theory and practice. The lecturers in the universities should do the training and

the Ministry of Education should provide the funds. In fact, this procedure already exists in other subjects and training for Physical Education teachers should now be included.

4. Teachers should start using detailed programmed plans which address 'differentiation' in the syllabus to match different abilities, so that each student can work at their own level while the teacher gives equal amounts of time to each group. All students should be given the chance to participate and show their ability and those with low performance levels should also be given the opportunity to improve and develop their skills. Once again this proposal will have implications for the training of both present and future teachers. With regard to present teachers, in-service training programmes will be enough to enable them to deal with students' individual differences in a more appropriate way. For future teachers, introducing appropriate teaching materials, different teaching styles and courses relating to the psychology of the learner should be included in the teaching programmes in colleges where they are preparing for their degrees.

5. Teachers should consider those students who wish to do physical activity for recreation, enjoyment or those who are members of the school team. This might be better achieved by organising sporting activities and games outside school time so that students are given additional time to practise and improve their skills. Extending physical activities outside the school could

enhance a balanced curriculum if the time in school is seen as insufficient to give all students at all levels enough training to develop their skills. It would therefore be advisable for Jordanian curriculum planners and syllabus designers to consider the adoption of this initiative. However, there has to be some sort of incentive for the teachers to encourage them to do this job. Teachers need to be given additional financial support to enable them to spend more time with the students outside the school and as such it is recommended that they are paid for these duties.

6. Research should be carried out to investigate thoroughly the issue of developing a more modern and progressive curriculum for Physical Education in the Jordanian educational system.

In view of these findings, it is recommended that research be carried out to identify students' curriculum needs. Teachers and educators in Jordan need to understand that the student is the first and ultimate objective of the educational process.

In considering parents' attitudes about majoring in Physical Education at university, the findings show that parents do not encourage their children to take this option. When students think about making a decision as to their future career, parents encourage their children to major in subjects which have a superior social value such as engineering or medicine. Parents, with the

passage of time, have developed negative attitudes towards Physical Education, and should be made aware of the value of Physical Education as a subject of study, together with its value in terms of the mental, emotional and physical well being of their children. This could be achieved by:

- Establishing strong ties between educational institutions and parents. Parents' councils are a practical and immediate step towards establishing channels of contact between the school and the environment outside the school.
- Teachers should play an important role in increasing public awareness of the importance of sport both in schools and in the community as part of the general development of society.

- The media should play a vital and leading role in educating the people about the significance of the work done inside the school and that co-operation between the school and other social institutions is required to achieve satisfactory results. The role required from the media as far as Physical Education is concerned is to revive the religious dimension outlined earlier, not only among the students but more importantly among the general public. This will have the effect of increasing the importance of Physical Education as a subject.

Having considered issues relating to health, the curriculum, the status of Physical Education and parental influence, this section will conclude with a

brief review of the impact that religion, culture and the media can have on these four areas.

With regard to the role of religion, culture and the mass media on Physical Education, the findings of this study show that students are generally of the view that they each play an important role in changing public opinion regarding Physical Education.

The teachings of any religion are given great importance by the followers of that religion and these teachings generally induce great influence on the people's attitudes towards or against any aspect of social or cultural life. The researcher therefore believes that the exploitation of the religious dimension will greatly enhance the standing of Physical Education from the point of view of both people in general and government officials. The researcher therefore proposes the following recommendations:

- The religious dimension should be used to persuade the people and government officials to first change their own attitudes towards the discipline and secondly, to propose changes in the curriculum of Physical Education. One of the main recommendations of this study is to emphasise that if it is intended to introduce positive change in the status of Physical Education and to improve performance in this discipline, then Physical Education should be seen as part of our religious teachings. The positive

attitude towards Physical Education that religion and culture in Jordan provides, should be fully exploited in order to recruit official as well as public support to introduce much needed reforms.

With respect to the role perceived of the media in improving attitudes towards Physical Education, both students and their teachers have expressed a positive attitudes to its involvement in this respect. In particular, students state that they believe that the mass media plays a major role in informing them about the benefits of Physical Education in maintaining good health, and in shaping knowledge, convictions and attitudes.

The media could have a snowball effect in mobilising public support and raising official awareness of the importance of Physical Education. More than that, the media is believed to play a vital role in the process of evaluation as the feedback from debates and discussions feeds directly into the assessment process of the curriculum and school programmes and activities. From the findings of this study it is recommended that:

- The media should serve as channels for assessing the country's progress, and enlist more co-operation between government authorities to improve public attitudes towards various social issues in general and the issue of Physical Education in particular.

- The media should function as a means of transferring new knowledge and cultural and scientific advances to the citizens. This will require an enhancement of national capabilities and increased resources. Physical Education is seen to be a crucial aspect of Jordanian cultural and social life that should be encouraged through the media. The media can have a leading role in changing people's attitudes and beliefs.

- It is further recommended that the mass media should have a formative role in shaping students' attitudes. One function of the media is to integrate the roles of the family, schools and places of worship in developing students' awareness, knowledge and attitudes towards the benefits of participation in Physical Education. It is perceived that the media could accomplish the duty it is set to do, if and only if, the religious dimension is incorporated in their campaigns. The inclusion of this essential aspect of people's cultural and social life could create a snowball effect in changing people's attitudes towards Physical Education.

Finally, it should be made clear that any Physical Education plan that is at odds with the prevailing social or political climate, or which runs counter to the feelings and attitudes of interested people, is unlikely to succeed. Therefore, involvement of the learner in particular and people who are concerned with Physical Education in general, is a prerequisite for future successful Physical Education planning. Moreover, badly implemented

proposals for change in Physical Education may lead to conflict. These plans need to be carefully introduced over time and much attention needs to be given to the concerns of those whom the plan most closely affects.

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APPENDICES

Appendix 1

Allport's sixteen definitions, which are cited in Thomas (1971), are listed in the lines below:

1. [An attitude is] readiness for attention or action of a definite sort (Baldwin.1901-1905).
2. Attitudes are literally mental postures, guides for conduct to which each new experience is referred before a response is made (Morgan, 1934, p. 47).
3. Attitude = the specific mental disposition toward an incoming (or arising) experience, whereby that experience is modified, or, a condition of readiness for a certain type of activity (Warren, 1934).
4. An attitude is a complex of feelings, desires, fears, convictions, prejudices or other tendencies that have given a *set or readiness to act* to a person because of varied experiences (Chave, 1928).
5. ...a more or less permanently enduring state of readiness of mental organization which predisposes an individual to react in a characteristic way to any object or situation with which it is related (Cantril, 1934).
6. From the point of view of Gestalt psychology a change of attitude involves a definite physiological stress exerted upon a sensory field by processes originating in other parts of the nervous system (Köhler, 1929, p. 184).
7. An attitude is a tendency to act toward or against something in the environment which becomes thereby a positive or negative value (Bogardus, 1931, p. 26).
8. By attitude we understand a process of individual consciousness which determines real or possible activity of the individual counterpart of the social value; activity, in whatever form, is the bond between them (Thomas and Znaniecki, 1918, p. 27).

9. The attitude, or preparation in advance of the actual response, constitutes an important determinant of the ensuing social behaviour. Such neural settings, with their accompanying consciousness, are numerous and significant in social life (F. H. Allport, 1924, p. 320).

10. An attitude is a mental disposition of the human individual to act for or against a definite object (Droba, 1933).

11. [An attitude] denotes the general set of the organism as a whole toward an object or situation which calls for adjustment (Lundberg, 1929).

12. [Attitude] are modes of emotional regard for objects, and motor 'sets' or slight tentative reactions toward them (Ewer, 1929, p. 136).

13. An attitude, roughly, is a residuum of experience, by which further activity is conditioned and controlled.... we may think of attitudes as acquired tendencies to act in specific ways toward objects (Krueger and Reckless, 1931, p. 238).

14. When a certain type of experience is constantly repeated, a change of set is brought about which affects many central neurones and tends to spread over other parts of the central nervous system. These changes in the general set of the central nervous system temper the process of reception.....In terms of the subjective mental life these general sets are called attitudes (Warren, 1922, pp. 360 ff.).

15. An attitude is a disposition to act which is built up by the integration of numerous specific responses of a similar type, but which exists as a general neural 'set', and when activated by a specific stimulus results in behaviour that is more obviously a function of the disposition than of the activating stimulus. The important thing to note about this definition is that it considers attitudes as broad, generic (not simple and specific) determinants of behaviour (G. W. Allport, 1929).

16. We shall regard attitudes here as verbalized or verbalizable tendencies, dispositions, adjustments toward certain acts. They relate not to the past nor even primarily to the present, but as a rule, to the future. Sometimes, of course, it is a hypothetical future.....The 'attitude' is primarily a way of being 'set' toward or against things (Murphy and Murphy, 1931, p. 615).

Appendix 2

Students' Questionnaire

ABU-DALBOUH QUESTIONNAIRE

PUPILS ATTITUDES TOWARDS PHYSICAL EDUCATION IN SELECTED JORDANIAN SECONDARY SCHOOLS

Biographical Data - Section I

Please write in the appropriate response to each of the seven questions that describe you or your position.

1. Gender.

   A. _____ Male

   B. _____ Female

2. Present age.

   A. _____ (Years)

3. Name of school.

   A. _____

4. School year.

   A. _____ First

   B. _____ Second

   C. _____ Third

5. Type of School.

   A. _____ School in City

   B. _____ School in village

6. Father's occupation.

   A. _____

7. Place of residence.

   A. _____ Urban

   B. _____ Rural

   C. _____ Bedouin

Opinions About Physical Education and Sport Programmes within public schools in Jordan: Section II

Directions: A five-point scale is provided for responding to the statements listed below. For each statement tick the one response which best represents your opinion.

Physical Education Student's Interest: Part 1

	strongly disagree	disagree	undecided	agree	strongly agree
1. Physical education is one of the worst lessons we have in school	____	____	____	____	____
2. I do not go to school to do physical education but to learn more important subjects	____	____	____	____	____
3. I find the activities in physical education boring because we always do the same thing	____	____	____	____	____
4. I wish we could choose what we do in physical education and games	____	____	____	____	____
5. I would rather do physical education than other school subjects	____	____	____	____	____
6. A curriculum which does not include physical education does not offer a complete education	____	____	____	____	____
7. Academic requirements for majors in physical education are not as difficult as other subjects	____	____	____	____	____
8. Physical education is good because it keeps you fit and healthily	____	____	____	____	____
9. Physical education makes important contributions to mental health	____	____	____	____	____
10. Physical education offers training for leadership	____	____	____	____	____
11. Playing netball or football is very exacting when the scores get close	____	____	____	____	____
12. There are many opportunities for the development of moral and ethical conduct in physical education	____	____	____	____	____
13. Physical education activities provide opportunities for satisfying social experiences	____	____	____	____	____
14. Physical education should be a requirement from elementary school through high school	____	____	____	____	____
15. Physical education is one of the best lessons which we have in school	____	____	____	____	____

	SD	D	UN	A	SA
16. Most girls and boys do not enjoy physical education classes	____	____	____	____	____
17 There are a large variety of interesting activities offered in the physical education programme	____	____	____	____	____
18. Working together in physical education activities gives people a better understanding of each other	____	____	____	____	____
19. More time should be given to physical education lessons	____	____	____	____	____
20. A physical education credit should be required for graduation from high school	____	____	____	____	____
21. Physical education makes a valuable contribution towards building up reserves of strength and stamina for everyday living	____	____	____	____	____
22. I like physical education because if you are good enough you can get into the school team	____	____	____	____	____
23. I like physical education because I can compete against my friends	____	____	____	____	____
24. I don't like sport at all because I feel a fool in my physical education kit	____	____	____	____	____
25. There is something interesting for every-one in physical education	____	____	____	____	____
26. I hate getting muddy in games	____	____	____	____	____
27. Sometimes I pretend to be ill so that I do not have to do physical education and games	____	____	____	____	____
28. I would take part in physical education even if I did not have to	____	____	____	____	____
29. Even when I do not feel well, I do not want to miss physical education and games	____	____	____	____	____
30. I like doing physical education and games because they are fun	____	____	____	____	____
31. I prefer physical exercises which have beauty in movement such as dance and gymnastics	____	____	____	____	____
32. I do not like playing games because they are too rough	____	____	____	____	____
33. Physical education is not important because it does not lead to a job	____	____	____	____	____
34. Girls look forward to their physical education classes with enthusiasm	____	____	____	____	____

Students' Questionnaire

	SD	D	UN	A	SA
35. It is silly for high school girls to waste time playing games	____	____	____	____	____
36. Grades in physical education are not fair to the non-athlete in comparison to the " natural athlete "	____	____	____	____	____
37. Girls should develop their physical abilities to the highest level	____	____	____	____	____
38. Vigorous physical activity works off harmful emotional tensions	____	____	____	____	____
39. Participation in physical education. contributes to the promotion of emotional development	____	____	____	____	____
40. Physical activities are valuable for maintaining health.	____	____	____	____	____
41. Physical fitness is a most important aspect of life	____	____	____	____	____
42. Participation in physical activities is essential for all of us.	____	____	____	____	____

Physical education Teacher: Part 2

43. My physical education teacher does not treat people who are good at physical education differently from others	____	____	____	____	____
44. Physical education teachers are only concerned with muscle building	____	____	____	____	____
45. I like my physical education teacher	____	____	____	____	____
46. Only the good pupils are picked for a school team by the physical education teacher	____	____	____	____	____
47- The physical education teacher should offer extra activities for all children.	____	____	____	____	____

Culture: Part 3

48. Most parents would not approve of their daughters majoring in physical education.	____	____	____	____	____
49. My parents would never want me to major in physical education.	____	____	____	____	____
50. My parents always encourage me to participate and study physical education.	____	____	____	____	____

	SD	D	UN	A	SA
51. My parents are pleased when I participate in physical education.	____	____	____	____	____
52. My parents think that physical education lessons are necessary for all pupils.	____	____	____	____	____
53. My culture encourages participation in physical education.	____	____	____	____	____
54. My religion encourages participation in physical education.	____	____	____	____	____

Public Relations and Mass media: Part 4

Jordanian people should be given information about:

55. the objectives of physical education and sport programme	____	____	____	____	____
56. the role that physical education and sports programme can play in maintaining good health	____	____	____	____	____

Please rate the usefulness of the following for informing the Jordanian people about school physical education programmes.

	very Important	not Important	not sure	Important	not at all Important
57. newspapers and magazines	____	____	____	____	____
58. radio	____	____	____	____	____
59. television	____	____	____	____	____
60. brochures and pamphlets	____	____	____	____	____
61. lectures, conferences, and special programmes	____	____	____	____	____

ABU-DALBOUH QUESTIONNAIRE
PUPILS ATTITUDES TOWARDS PHYSICAL EDUCATION IN SELECTED JORDANIAN SECONDARY SCHOOLS

Biographical Data - Section I

Please write an appropriate response to each of the six questions that describe you or your position.

1. Gender.
A. _____ Male
B. _____ Female

2. Present age.
A. _____ (years)

3. Who is your employer?
A. _____ Ministry of Education
B. _____ University

4. What is your current position?
A. _____ teacher
B. _____ supervisor
C. _____ professor
D. _____ others

5. How many years of physical education teaching experience have you had in each of the following?
A. _____ Public Schools
B. _____ University

6. Please write the degree which you have attained and the place where you obtained it:

Degree		School	Country
A. High School	_____	_____	_____
B. Diploma	_____	_____	_____
C. B.A.	_____	_____	_____
D. M.A.	_____	_____	_____
E. Ph.D.	_____	_____	_____

Opinions About Physical Education and Sports Programmes within public schools in Jordan: Section II

Directions: A five-point scale is provided for responding to the statements listed below. For each statement check the one response that best represents your opinion

Objectives of Physical Education: Part I

In planning realistic objectives in the development of physical education and sports programmes, each of the following factors must be carefully considered:

	strongly disagree	disagree	undecided	agree	strongly agree
1. serving the needs of the community and the nation	____	____	____	____	____
2. meeting the present needs of students	____	____	____	____	____
3. the amount of money allocated in the national budget for physical education and sport	____	____	____	____	____
4. the type of professional preparation of physical education teachers	____	____	____	____	____
5. the current physical fitness and skill level of the students	____	____	____	____	____
6. the indoor and the outdoor physical education facilities	____	____	____	____	____
7. the quantity of appropriate equipment	____	____	____	____	____
8. the quality of appropriate equipment	____	____	____	____	____
9. listing the objectives in physical education which are achievable	____	____	____	____	____

Curriculum of Physical Education: Part 2

The physical education curriculum offered in public secondary schools should:

10. provide experiences which promote the normal physical growth and development of students	____	____	____	____	____
11. encourage students to continue to participate in school physical education programmes whilst in school	____	____	____	____	____
12. encourage students to continue to participate in physical activities throughout their adult lives	____	____	____	____	____

	SD	D	UN	A	SA
13. provide experiences aimed at developing self-confidence	____	____	____	____	____
14. provide experiences to develop leadership ability	____	____	____	____	____
15 develop student's effective movement skills	____	____	____	____	____
16. develop student's knowledge and skills in life-time physical recreational activities	____	____	____	____	____
17. improve the cardiorespiratory endurance of students	____	____	____	____	____
18. increase the student's knowledge in appropriate health habits and life styles	____	____	____	____	____
19. provide for individual differences in the abilities of the students	____	____	____	____	____
20. consider the preferences of students in selecting physical education activities for the programme	____	____	____	____	____
21. enable students to derive enjoyment from participation in the programme	____	____	____	____	____
22. help students to find release from tensions and frustrations	____	____	____	____	____
23. concentrate on individual sports as the main activity	____	____	____	____	____
24. concentrate on team sports as the main activity	____	____	____	____	____
25. take into account the activities offered in elementary and preparatory schools.	____	____	____	____	____

Physical Education Teacher: Part 3

26. Physical education provides an outlet for suppressed emotions.	____	____	____	____	____
27. Physical education should be a compulsory requirement from elementary school through high school.	____	____	____	____	____
28. It should not be necessary for a woman to be a college graduate to teach physical education.	____	____	____	____	____
29. A physical education credit should be required for graduation from high school.	____	____	____	____	____

	SD	D	UN	A	SA
30. Salaries of physical education teachers should not be as high as the salaries of those who teach academic courses.	____	____	____	____	____
31. Physical education teachers are only concerned with muscle building.	____	____	____	____	____
32. Physical education teachers are not given the same respect by the public that other teachers receive.	____	____	____	____	____
33. Physical education teachers should only be required to complete a two year college course.	____	____	____	____	____
34. There is no need to be concerned over the present shortage of women physical education teachers.	____	____	____	____	____
35. Women who teach physical education are not popular socially.	____	____	____	____	____
36. Physical education should provide students in elementary, preparatory and secondary schools with physical activity at least twice a week.	____	____	____	____	____
37. There should be more physical education lessons for each student each week..	____	____	____	____	____

Public Relations and Mass media: Part 4

Jordanian people should be informed about:

38. the objectives of physical education and sport programme	____	____	____	____	____
39. the role that physical education and sports programme can play in maintaining good health	____	____	____	____	____

Please rate the usefulness of the following for informing the Jordanian people about school physical education programmes.

	very Important	not Important	not sure	Important	not at all Important
40. newspapers and magazines	____	____	____	____	____
41. radio	____	____	____	____	____
42. television	____	____	____	____	____
43. brochures and pamphlets	____	____	____	____	____
44. lectures, conferences, and special programmes	____	____	____	____	____

Appendix 3

Students' Questionnaire

20 April 1995

Dear student,

This questionnaire is part of a research process which aims to collect data concerning the secondary students' attitudes towards Physical Education in Jordanian public educational institutions.

The collection of this data is solely for academic and research purposes. Your honest and accurate answers will be greatly appreciated by the researcher in conducting this research. It will be of great help if you answer all the questions as indicated.

Your answers will be treated as confidential and no individual will be identified in the research. Note also that the answers will not be used for any purpose other than the research.

Each item in this questionnaire has five responses. Could you please tick the response you think is most appropriate?

If you have any comments to add please do not hesitate to do so. Your suggestions on the questionnaire will be of great help.

The researcher
Mousa Abu-Dalbouh
University of Durham
School of Education
Durham

Students' Questionnaire

ABU-DALBOUH QUESTIONNAIRE
PUPILS ATTITUDES TOWARDS PHYSICAL EDUCATION IN SELECTED JORDANIAN SECONDARY SCHOOLS

Biographical Data - Section I

Please write in the appropriate response to each of the seven questions that describe your position.

1. Sex.

   A. Male _____ B. Female _____

2. Present age.

   A. _____ (Years)

3. Place of school.

   A. Irbid _____ B. Mafraq _____ C. Amman _____

4. School year.

   A. 10th Grade _____ B. 1st Secondary _____ C. 2nd Secondary _____

5. Type of School.

   A. School in City _____ B. School in village _____

6. Father's occupation.

   A. _____

7. Place of residence.

   A. Urban _____ B. Rural _____ C. Badia

Opinions About Physical Education and Sport Programmes within public schools in Jordan: Section II

Directions: A five-point scale is provided for responding to the statements listed below. For each statement tick the one response which best represents your opinion.

Students' Attitudes to Physical Education : Part 1

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. Physical education is one of the worst lessons we have in school					
2. I do not go to school to do physical education but to learn more important subjects					
3. I find the activities in physical education boring because we always do the same thing					
4. I wish we could choose what we do in physical education and games					
5. I would rather do physical education than other school subjects					
6. A curriculum which does not include physical education does not offer a complete education					
7. Academic requirements for majors in physical education are not as difficult as other subjects					
8. Physical education is good because it keeps you fit and healthily					
9. Physical education makes important contributions to mental health					
10. Physical education offers training for leadership					
11. Playing netball or football is very exciting when the scores get close					
12. There are many opportunities for the development of moral and ethical conduct in physical education					
13. Physical education activities provide opportunities for satisfying social experiences					
14. Physical education should be a requirement from elementary school through high school					
15. Physical education is one of the best lessons which we have in school					
16. Most girls and boys do not enjoy physical education classes					
17 There are a large variety of interesting activities offered in the physical education programme					
18. Working together in physical education activities gives people a better understanding of each other					
19. More time should be given to physical education lessons					
20. A physical education credit should be required for graduation from high school					

Students' Attitudes to Physical Education : Part 1

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
21. Physical education makes a valuable contribution towards building up reserves of strength and stamina for everyday living					
22. I like physical education because if you are good enough you can get into the school team					
23. I like physical education because I can compete against my friends					
24. I don't like sport at all because I feel a fool in my physical education kit					
25. There is something interesting for every-one in physical education					
26. I hate getting muddy in games					
27. Sometimes I pretend to be ill so that I do not have to do physical education and games					
28. I would take part in physical education even if I did not have to					
29. Even when I do not feel well, I do not want to miss physical education and games					
30. I like doing physical education and games because they are fun					
31. I prefer physical exercises which have beauty in movement such as dance and gymnastics					
32. I do not like playing games because they are too rough					
33. Physical education is not important because it does not lead to a job					
34. Girls look forward to their physical education classes with enthusiasm					
35. It is silly for high school girls to waste time playing games					
36. Grades in physical education are not fair to the non-athlete in comparison to the "natural athlete "					
37. Girls should develop their physical abilities to the highest level					
38. Vigorous physical activity works off harmful emotional tensions					
39. Participation in physical education contributes to the promotion of emotional development					
40. Physical activities are valuable for maintaining health.					
41. Physical fitness is a most important aspect of life					
42. Participation in physical activities is essential for all of us					

Students' attitudes in respect of their Physical Education teachers : Part 2

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
43. My physical education teacher does not treat people who are good at physical education differently from others					
44. Physical education teachers are only concerned with muscle building					
45. I like my physical education teacher					
46. Only the good pupils are picked for a school team by the physical education teacher					
47. The physical education teacher should offer extra activities for all children.					

Student attitudes to Physical Education in respect of culture, religion and parental opinion : part 3

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
48. Most parents would not approve of their daughters majoring in physical education					
49. My parents would never want me to major in physical education.					
50. My parents always encourage me to participate and study physical education.					
51. My parents are pleased when I participate in physical education.					
52. My parents think that physical education lessons are necessary for all pupils.					
53. My culture encourages participation in physical education.					
54. My Religion encourages participation in physical education					

The perceived effect of the Mass media on student attitudes to Physical Education : part 4

Jordanian people should be given information about:

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
55. the objectives of physical education and sport programme					
56. the role that physical education and sports programmes can play in maintaining good health					

Please rate the usefulness of the following for informing the Jordanian people about school physical education programmes

	Very Important	Important	Not Sure	Not Important	Not Important at All
57. newspapers and magazines					
58. radio					
59. television					
60. brochures and pamphlets					
61. lectures, conferences, and special programmes					

Appendix 4

Teacher' Questionnaire

20 April 1995

Dear teacher,

This questionnaire is part of a research process which aims to collect data concerning the Physical Education teachers' attitudes towards Physical Education in Jordanian public educational institutions.

The collection of this data is solely for academic and research purposes. Your honest and accurate answers will be greatly appreciated by the researcher in conducting this research. It will be of great help if you answer all the questions as indicated.

Your answers will be treated as confidential and no individual will be identified in the research. Note also that the answers will not be used for any purpose other than the research.

Each item in this questionnaire has five responses. Could you please tick the response you think is most appropriate?

If you have any comments to add please do not hesitate to do so. Your suggestions on the questionnaire will be of great help.

The researcher
Mousa Abu- Dalbouh
University of Durham
School of Education
Durham

Teachers' Questionnaire

ABU-DALBOUH QUESTIONNAIRE
PUPILS ATTITUDES TOWARDS PHYSICAL EDUCATION IN SELECTED JORDANIAN SECONDARY SCHOOLS

Biographical Data: Section I

Please write an appropriate response to each of the six questions that describe you or your position.

1. Sex.
A. _____ Male
B. _____ Female

2. Present age.
A. _____ (years)

3. Who is your employer?
A. _____ Ministry of Education
B. _____ University

4. What is your current position?
A. _____ teacher
B. _____ supervisor
C. _____ professor
D. _____ others

5. How many years of physical education teaching experience have you had in each of the following?
A. _____ Public Schools
B. _____ University

6. Please write the degree which you have attained and the place where you obtained it:

Degree		School	Country
A. High School	_____	_____	_____
B. Diploma	_____	_____	_____
C. B.A.	_____	_____	_____
D. M.A.	_____	_____	_____
E. Ph.D.	_____	_____	_____

Opinions About Physical Education and Sports Programmes within public schools in Jordan: Section II

Directions: A five-point scale is provided for responding to the statements listed below. For each statement check the one response that best represents your opinion

Physical Education objectives : Part 1

In planning realistic objectives in the development of physical education and sports programmes, each of the following factors were considered:

Physical Education should:	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. serve the needs of the community and the nation					
2. meet the present needs of students					
3. consider the amount of money allocated in the national budget for physical education					
4. consider the type of professional preparation of Physical Education teachers					
5. consider the current physical fitness and skill level of the students					
6. consider the indoor and the outdoor Physical Education facilities					
7. consider the quantity of appropriate equipment					
8. consider the quality of appropriate equipment					
9. list the objectives in Physical Education which are achievable					

The Physical Education Curriculum : Part 2

The physical education curriculum offered in public secondary schools should:

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
10. provide experiences which promote the normal physical growth and development of students					
11. encourage students to continue to participate outside school programmes of physical education					
12. encourage students to continue to participate in physical activities throughout their adult lives					
13. provide experiences aimed at developing self-confidence					
14. provide experiences to develop leadership ability					
15. develop student's effective movement skills					
16. develop student's knowledge and skills in life-time physical recreational activities					
17. improve the cardiorespiratory endurance of students					
18. increase the student's knowledge in appropriate health habits and life styles					
19. provide for individual differences in the abilities of the students					
20. consider the preferences of students in selecting physical education activities for the programme					
21. enable students to derive enjoyment from participation in the programme					
22. help students to find release from tensions and frustrations					
23. concentrate on individual sports as the main activity					
24. concentrate on team sports as the main activity					
25. take into account the activities offered in elementary and preparatory schools.					

Physical Education as perceived by teachers: Part 3

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
26. Physical education provides an outlet for suppressed emotions.					
27. Physical education should be a compulsory requirement from elementary school through high school.					
28. It should not be necessary for a woman to be a college graduate to teach physical education.					
29. A physical education credit should be required for graduation from high school.					
30. Salaries of physical education teachers should not be as high as the salaries of those who teach academic courses.					
31. Physical education teachers are only concerned with muscle building.					
32. Physical education teachers are not given the same respect by the public that other teachers receive.					
33. Physical education teachers should only be required to complete a two year college courses					
34. There is no need to be concerned over the present shortage of women physical education teachers.					
35. Women who teach physical education are not popular socially.					
36. Physical education should provide students in elementary, preparatory and secondary schools with physical activity at least twice a week.					
37. There should be more physical education lessons for each student each week.					

The possible effect of the mass media on teachers attitudes to Physical Education : Part 4

Jordanian people should be given information about:

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
38. the objectives of physical education and sport programmes					
39. the role that physical education and sports programmes can play in maintaining good health					

Please rate the usefulness of the following for informing the Jordanian people about school physical education programmes

	Very Important	Important	Not Sure	Not Important	Not Important at All
40. newspapers and magazines					
41. radio					
42. television					
43. brochures and pamphlets					
44. lectures, conferences, and special programmes					

Appendix 5

Students' Attitudes to Physical Education : Part 1

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean	S.D.
1. Physical education is one of the worst lessons we have in school	9.7	8.8	8.1	39.1	34.2	2.20	1.27
2. I do not go to school to do physical education but to learn more important subjects	34.7	33.7	10.1	14.2	7.4	3.74	1.27
3. I find the activities in physical education boring because we always do the same thing	21.2	23.3	8.1	31.4	16.0	3.02	1.42
4. I wish we could choose what we do in physical education and games	39.9	39.2	10.5	6.7	3.7	4.04	1.05
5. I would rather do physical education than other school subjects	9.3	12.9	14.8	45.7	17.4	2.51	1.18
6. A curriculum which does not include physical education does not offer a complete education	28.9	35.5	12.3	16.7	6.6	3.63	1.24
7. Academic requirements for majors in physical education are not as difficult as other subjects	22.6	41.7	15.6	15.8	4.3	3.62	1.12
8. Physical education. is good because it keeps you fit and healthily	65.1	30.5	0.8	1.9	1.7	4.55	.76
9. Physical education makes important contributions to mental health	53.4	37.9	3.3	3.2	2.2	4.37	.86
10. Physical education offers training for leadership	41.3	38.9	10.9	6.3	2.6	4.10	1.00
11. Playing netball or football is very exciting when the scores get close	39.8	34.4	10.9	10.1	4.8	3.94	1.16
12. There are many opportunities for the development of moral and ethical conduct in physical education	27.6	47.4	15.0	7.5	2.5	3.90	.97
13. Physical education activities provide opportunities for satisfying social experiences	28.9	40.1	15.5	11.6	3.8	3.78	1.10
14. Physical education should be a requirement from elementary school through high school	21.7	23.2	12.7	25.9	16.6	3.07	1.42
15. Physical education is one of the best lessons which we have in school	15.1	22.9	17.1	34.2	10.7	2.97	1.26
16. Most girls and boys do not enjoy physical education classes	15.4	24.8	20.9	22.2	16.7	3.00	1.32
17 There are a large variety of interesting activities offered in the physical education programme	9.4	34.5	6.6	30.2	19.3	2.84	1.33
18. Working together in physical education activities gives people a better understanding of each other	33.6	52.0	7.2	5.2	2.0	4.10	.88
19. More time should be given to physical education lessons	36.8	26.4	9.5	19.0	8.2	3.64	1.35
20. A physical education credit should be required for graduation from high school	8.8	8.9	9.8	25.7	46.7	2.07	1.30
21. Physical education makes a valuable contribution towards building up reserves of strength and stamina for everyday living	34.9	52.3	6.9	4.3	1.6	4.14	.84
22. I like physical education because if you are good enough you can get into the school team	19.4	35.6	14.4	24.3	6.3	3.37	1.22

Students' Attitudes to Physical Education : Part 1

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean	S.D.
23. I like physical education because I can compete against my friends	25.8	45.3	9.1	15.6	4.2	3.72	1.13
24. I don't like sport at all because I feel a fool in my physical education kit	7.9	8.8	8.8	35.6	39.0	2.11	1.23
25. There is something interesting for every-one in physical education	28.3	49.0	12.6	7.9	2.2	3.93	.95
26. I hate getting muddy in games	26.2	39.0	14.7	13.6	6.5	3.64	1.18
27. Sometimes I pretend to be ill so that I do not have to do physical education and games	7.6	14.5	5.7	33.1	39.0	2.18	1.29
28. I would take part in physical education even if I did not have to	23.1	29.4	10.3	26.7	10.4	3.28	1.35
29. Even when I do not feel well, I do not want to miss physical education and games	18.5	27.2	12.3	29.0	13.0	3.09	1.34
30. I like doing physical education and games because they are fun	40.7	44.2	3.7	7.9	3.6	4.10	1.03
31. I prefer physical exercises which have beauty in movement such as dance and gymnastics	29.7	25.7	9.9	19.1	15.6	3.34	1.46
32. I do not like playing games because they are too rough	5.4	9.2	10.3	39.5	35.6	2.09	1.14
33. Physical education is not important because it does not lead to a job	14.2	17.8	15.8	32.7	19.5	2.74	1.33
34. Girls look forward to their physical education classes with enthusiasm	17.8	24.9	32.6	16.5	8.2	3.27	1.17
35. It is silly for high school girls to waste time playing games	17.0	13.8	13.2	31.8	24.2	2.67	1.41
36. Grades in physical education are not fair to the non-athlete in comparison to the "natural athlete "	43.8	28.0	12.4	10.2	5.6	3.94	1.21
37. Girls should develop their physical abilities to the highest level	23.8	41.5	12.6	15.3	6.8	3.60	1.19
38. Vigorous physical activity works off harmful emotional tensions	19.1	31.0	31.1	11.7	7.2	3.43	1.13
39. Participation in physical education contributes to the promotion of emotional development	14.6	31.0	27.8	19.5	7.1	3.26	1.14
40. Physical activities are valuable for maintaining health.	52.9	41.5	3.0	1.4	1.2	4.43	.73
41. Physical fitness is a most important aspect of life	49.4	35.6	6.5	7.0	1.6	4.24	.96
42. Participation in physical activities is essential for all of us.	37.3	37.3	10.9	11.1	3.3	3.94	1 10

Appendix 6

Q31. I Prefer physical exercises which have beauty in movement such as dance and gymnastics. Mann-Witness U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	152575.5	0.6087

Q31. I Prefer physical exercises which have beauty in movement such as dance and gymnastics. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	132	103	30	112	53	430
% of total	30.7	24.0	7.0	26.0	12.3	38.6
Rural	120	111	40	56	58	385
% of total	31.2	28.8	10.4	14.5	15.1	34.5
Badia	79	73	40	45	63	300
% of total	26.3	24.3	13.3	15.0	21.0	26.9
Column	331	287	110	213	174	1115
Total	29.7	25.7	9.9	19.1	15.6	100.0
Total	55.4		9.9	34.7		100.0

Q31. I Prefer physical exercises which have beauty in movement such as dance and gymnastics. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	5.2854	0.0712

Q31. I Prefer physical exercises which have beauty in movement such as dance and gymnastics. Crosstabulation, frequencies and percentage count by Classes.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	124	121	31	72	67	415
% of total	29.9	29.2	7.5	17.3	16.1	37.2
1st secondary	104	84	44	71	46	349
% of total	29.8	24.1	12.6	20.3	13.2	31.3
2nd secondary	103	82	35	70	61	351
% of total	29.3	23.4	10.0	19.9	17.4	31.5
Column Total	331	287	110	213	174	
	29.7	25.7	9.9	19.1	15.6	
Total	55.4		9.9	34.7		100.0

Q31. I Prefer physical exercises which have beauty in movement such as dance and gymnastics. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Classes.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	1.0850	0.5813

Appendix 7

Q4. I wish we could choose what we do in physical education. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	201	229	46	37	17	530
%of total	37.9	43.2	8.7	7.0	3.2	48.1
Female	239	203	70	37	24	573
%of total	41.7	35.4	12.2	6.5	4.2	51.9
Column	440	432	116	74	41	1103
Total	39.9	39.2	10.5	6.7	3.7	100.0
Total	79.1		10.5	10.4		100.0

Q4. I wish we could choose what we do in physical education. Mann-Witney U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	150588.5	0.7994

Q4. I wish we could choose what we do in physical education. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	171	183	35	29	10	428
% of total	40.0	42.8	8.2	6.8	2.3	38.8
Rural	159	135	43	23	20	380
% of total	41.8	35.5	11.3	6.1	5.3	34.5
Badia	110	114	38	22	11	295
% of total	37.3	38.6	12.9	7.5	3.7	26.7
Column	440	432	116	74	41	1103
Total	39.9	39.2	10.5	6.7	3.7	100.0
Total	79.1		10.5	10.3		100.0

Q4. I wish we could choose what we do in physical education. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	2.1673	0.3384

Q4. I wish we could choose what we do in physical education. Crosstabulation, frequencies and percentage count by Classes.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	152	162	54	30	14	412
% of total	36.9	39.3	13.1	7.3	3.4	37.4
1st secondary	150	127	33	21	13	344
% of total	43.6	36.9	9.6	6.1	3.8	31.2
2nd secondary	138	143	29	23	14	347
% of total	39.8	41.2	8.4	6.6	4.0	31.5
Column Total	440	432	116	74	41	1103
	39.9	39.2	10.5	6.7	3.7	100.0
Total	79.1		10.5	10.3		100.0

Q4. I wish we could choose what we do in physical education. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Classes.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	3.7624	0.1524

Appendix 8

Q36. Grades in physical education are not fair to the non-athlete in comparison to the 'natural athlete'. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	233	163	62	55	25	538
%of total	43.3	30.3	11.5	10.2	4.6	48.5
Female	253	148	75	58	37	571
%of total	44.3	25.9	13.1	10.2	6.5	51.5
Column Total	486 43.8	311 28.0	137 12.4	113 10.2	62 5.6	1109 100.0
Total	71.8		12.4	15.8		100.0

Q36. Grades in physical education are not fair to the non-athlete in comparison to the 'natural athlete'. Mann-Witney U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	151550.0	0.6838

Q36. Grades in physical education are not fair to the non-athlete in comparison to the 'natural athlete'. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	177	147	46	42	21	433
% of total	40.9	33.9	10.6	9.7	4.8	39.0
Rural	170	94	50	45	21	380
% of total	44.7	24.7	13.2	11.8	5.5	34.3
Badia	139	70	41	26	20	296
% of total	47.0	23.6	13.9	8.8	6.8	26.7
Column Total	486 43.8	311 28.0	137 12.4	113 10.2	62 5.6	1109 100.0
Total	71.8		12.4	15.8		100.0

Q36. Grades in physical education are not fair to the non-athlete in comparison to the 'natural athlete'. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	0.3558	0.8370

Q36. Grades in physical education are not fair to the non-athlete in comparison to the 'natural athlete'. Crosstabulation, frequencies and percentage count by Classes.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	171	109	50	47	37	414
% of total	41.3	26.3	12.1	11.4	8.9	37.3
1st secondary	162	96	35	39	12	344
% of total	47.1	27.9	10.2	11.3	3.5	31.0
2nd secondary	153	106	52	27	13	351
% of total	43.6	30.2	14.8	7.7	3.7	31.7
Column Total	486	311	137	113	62	1109
	43.8	28.0	12.4	10.2	5.6	100.0
Total	71.8		12.4	15.8		100.0

Q36. Grades in physical education are not fair to the non-athlete in comparison to the 'natural athlete'. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Classes.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	6.0045	0.0497

Appendix 9

Q2. I do not go to school to do physical education but to learn more important subjects. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	191	183	46	77	43	540
%of total	35.4	33.9	8.5	14.3	8.0	48.6
Female	194	191	66	81	39	571
%of total	34.0	33.5	11.6	14.2	6.8	51.4
Column Total	385 34.7	374 33.7	112 10.1	158 14.2	82 7.4	1111 100.0
Total	68.4		10.1	21.6		100.0

Q2. I do not go to school to do physical education but to learn more important subjects. . Mann-Witney U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	152293.5	0.7138

Q7. Academic requirements for majors in physical education are not as difficult as other subjects. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	115	257	72	79	17	540
%of total	21.3	47.6	13.3	14.6	3.1	48.5
Female	136	207	102	97	31	573
%of total	23.7	36.1	17.8	16.9	5.4	51.5
Column Total	251 22.6	464 41.7	174 15.6	176 15.8	48 4.3	1113 100.0
Total	64.3		15.6	20.1		100.0

Q7. Academic requirements for majors in physical education are not as difficult as other subjects. Mann-Witney U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	146203.5	0.0958

Q7. Academic requirements for majors in physical education are not as difficult as other subjects. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	92	182	36	73	22	432
% of total	21.3	42.1	14.6	16.9	5.1	38.8
Rural	95	149	57	63	18	382
% of total	24.9	39.0	14.9	16.5	4.7	34.3
Badia	64	133	54	40	8	299
% of total	21.4	44.5	18.1	13.4	2.7	26.9
Column Total	251 22.6	464 41.7	174 15.6	176 15.8	48 4.3	1113 100.0
Total	64.3		15.6	20.1		100.0

Q7. Academic requirements for majors in physical education are not as difficult as other subjects. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place..

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	0.9987	0.6069

Q7. Academic requirements for majors in physical education are not as difficult as other subjects. Crosstabulation, frequencies and percentage count by Classes.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	90	171	65	72	15	413
% of total	21.8	41.4	15.7	17.4	3.6	37.1
1st secondary	76	149	61	48	15	349
% of total	21.8	42.7	17.5	13.8	4.3	31.4
2nd secondary	85	144	48	56	18	351
% of total	24.2	41.0	13.7	16.0	5.1	31.5
Column Total	251	464	174	176	48	1113
	22.6	41.7	15.6	15.8	4.3	100.0
Total	64.3		15.6	20.1		100.0

Q7. Academic requirements for majors in physical education are not as difficult as other subjects. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Classes.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	0.3819	0.8262

Appendix 10

Q46 Only the good pupils are picked for a school team by the physical education teacher. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	254	192	34	39	21	540
%of total	47.0	35.6	6.3	7.2	3.9	48.5
Female	265	192	34	47	36	574
%of total	46.2	33.4	5.9	8.2	6.3	51.5
Column Total	519 46.6	384 34.5	68 6.1	86 7.7	57 5.1	1114 100.0
Total	81.1		6.1	12.8		100.0

Q46 Only the good pupils are picked for a school team by the physical education teacher. Mann-Witney U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	150824.5	0.4029

Q46 Only the good pupils are picked for a school team by the physical education teacher. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	198	170	18	31	14	431
% of total	45.9	39.4	4.2	7.2	3.2	38.7
Rural	183	120	19	33	30	385
% of total	47.5	31.2	4.9	8.6	7.8	34.6
Badia	138	94	31	22	13	298
% of total	46.3	31.5	10.4	7.4	4.4	26.8
Column	519	384	68	86	57	1114
Total	46.6	34.5	6.1	7.7	5.1	100.0
Total	81.1		6.1	12.8		100.0

Q46 Only the good pupils are picked for a school team by the physical education teacher. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	0.7996	0.6705

Q47 The physical education teacher should offer extra activities for all children. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	193	211	68	45	24	541
%of total	35.7	39.0	12.6	8.3	4.4	48.5
Female	198	199	78	60	40	575
%of total	34.4	34.6	13.6	10.4	7.0	51.5
Column Total	391 35.0	410 36.7	146 13.1	105 9.4	64 5.7	1116 100.0
Total	71.7		13.1	15.1		100.0

Q47 The physical education teacher should offer extra activities for all children. Mann-Witney U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	147572.5	0.1195

Q47 The physical education teacher should offer extra activities for all children. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	149	172	40	43	28	432
% of total	34.5	39.8	9.3	10.0	6.5	38.7
Rural	133	137	51	36	28	385
% of total	34.5	35.6	13.2	9.4	7.3	34.5
Badia	109	101	55	26	8	299
% of total	36.5	33.8	18.4	8.7	2.7	26.8
Column Total	391 35.0	410 36.7	146 13.1	105 9.4	64 5.7	1116 100.0
Total	71.7		13.1	15.1		100.0

Q47 The physical education teacher should offer extra activities for all children. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	0.6583	0.7195

Q45 I like my physical education teacher. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	76	151	87	44	70	428
% of total	17.8	35.3	20.3	10.3	16.4	38.6
Rural	77	131	73	41	61	383
% of total	20.1	34.2	19.1	10.7	15.9	34.5
Badia	71	86	70	34	37	298
% of total	23.8	28.9	23.5	11.4	12.4	26.9
Column	224	368	230	119	168	1109
Total	20.2	33.2	20.7	10.7	15.1	100.0
Total	53.4		20.7	25.8		100.0

Q45 I like my physical education teacher. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	1.3719	0.5036

Q44 Physical education teachers are only concerned with muscle building. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	78	118	82	119	35	432
% of total	18.1	27.3	19.0	27.5	8.1	38.7
Rural	66	70	89	110	47	382
% of total	17.3	18.3	23.3	28.8	12.3	34.3
Badia	51	57	87	75	31	301
% of total	16.9	18.9	28.9	24.9	10.3	27.0
Column Total	195 17.5	245 22.0	258 23.1	304 27.3	113 10.1	
Total	39.5		23.1	37.4		100.0

Q44 Physical education teachers are only concerned with muscle building. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	5.2986	0.0707

Q44 Physical education teachers are only concerned with muscle building. Crosstabulation, frequencies and percentage count by Classes.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	74	95	93	108	46	416
% of total	17.8	22.8	22.4	26.0	11.1	37.3
1st secondary	51	73	94	97	32	347
% of total	14.7	21.0	27.1	28.0	9.2	31.1
2nd secondary	70	77	71	99	35	352
% of total	19.9	21.9	20.2	28.1	9.9	31.6
Column Total	195	245	258	304	113	1115
	17.5	22.0	23.1	27.3	10.1	100.0
Total	39.5		23.1	37.4		100.0

Q44 Physical education teachers are only concerned with muscle building. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Classes.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	0.9526	0.6211

Q43 My physical education teacher dose not treat people who are good at physical education differently from others. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	125	106	67	148	94	540
%of total	23.1	19.6	12.4	27.4	17.4	48.3
Female	134	134	74	143	92	577
%of total	23.2	23.2	12.8	24.8	15.9	51.7
Column	259	240	141	291	186	1117
Total	23.2	21.5	12.6	26.1	16.7	100.0
Total	44.7		12.6	42.8		100.0

Q43 My physical education teacher dose not treat people who are good at physical education differently from others. Mann-Witney U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	150352.0	0.3013

Q43 My physical education teacher dose not treat people who are good at physical education differently from others. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	99	105	37	109	82	432
% of total	22.9	24.3	8.6	25.2	19.0	38.7
Rural	98	75	48	108	57	386
% of total	25.4	19.4	12.4	28.0	14.8	34.6
Badia	62	60	56	74	47	299
% of total	20.7	20.1	18.7	24.7	15.7	26.8
Column	259	240	141	291	186	1117
Total	23.2	21.5	12.6	26.1	16.7	100.0
Total	44.7		12.6	42.8		100.0

Q43 My physical education teacher dose not treat people who are good at physical education differently from others. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	0.6211	0.7330

Q43 My physical education teacher dose not treat people who are good at physical education differently from others. Crosstabulation, frequencies and percentage count by Classes.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
10th	96	84	64	96	79	419
% of total	22.9	20.0	15.3	22.9	18.9	37.5
1st secondary	72	95	48	81	53	349
% of total	20.6	27.2	13.8	23.2	15.2	31.2
2nd secondary	91	61	29	114	54	349
% of total	26.1	17.5	8.3	32.7	15.5	31.2
Column Total	259	240	141	291	186	1117
	23.2	21.5	12.6	26.1	16.7	100.0
Total	44.7		12.6	42.8		100.0

Q43 My physical education teacher dose not treat people who are good at physical education differently from others. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Classes.

Variables	Chi-Square (Corrected for ties)	Significance
10th 1st secondary 2nd secondary	0.8176	0.6645

Appendix 11

Q48. Most parents would not approve of their daughter majoring in physical education. Crosstabulation, frequencies and percentage count by Place.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Urban	139	117	65	59	54	434
% of total	32.0	27.0	15.0	13.6	12.4	38.7
Rural	125	89	64	51	58	387
% of total	32.3	23.0	16.5	13.2	15.0	34.5
Badia	102	58	59	50	32	301
% of total	33.9	19.3	19.6	16.6	10.6	26.8
Column	366	264	188	160	144	1122
Total	32.6	23.5	16.8	14.3	12.8	100.0
Total	56.1		16.8	27.1		100.0

Q48. Most parents would not approve of their daughter majoring in physical education. Kruskal-Wallis Test to determine the significance of the distribution of rating scale responses by Place.

Variables	Chi-Square (Corrected for ties)	Significance
Urban Rural Badia	0.4687	0.7911

Q49. My parents would never want me to major in physical education. Crosstabulation, frequencies and percentage count by Sex.

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Row Total
Male	148	135	78	108	72	541
%of total	27.4	25.0	14.4	20.0	13.3	48.6
Female	165	124	88	102	94	573
%of total	28.8	21.6	15.4	17.8	16.4	51.4
Column Total	313 28.1	259 23.2	166 14.9	210 18.9	166 14.9	1114 100.0
Total	51.3		14.9	33.8		100.0

Q49. My parents would never want me to major in physical education. Mann-Witney U Test to determine the significance of the distribution of rating scale responses by Sex.

Variables	U Value	Significance
Male Female	152925.0	0.6924