Chapter I
CHAPTER I

INTRODUCTION

Games and sports, in one form or the other, have been of tremendous interest to people throughout the world. In our own country various types of games provided an opportunity to sports persons to display their talent and skills and for common man it was a source of entertainment. In order to acquire skill various exercises and strategies were evolved but no systematic and scientific methods were developed to improve the aspects mentioned above. It was visualised that if mental and physical training has to be imparted it should start from early stages of life. Thus, it emerged that sports activity should be combined with education. Our point of view is vindicated when we come across old Persian literature of games and sports where it was claimed that young boys were trained in such activities as running, jumping, riding, javelin throwing, etc. Similarly Egyptians, Babylonians and Jewish Community patronised extensive physical education programmes (Kamlesh and Sangral, 1988).

The objective of education calls for the whole some personality development of a child, which includes development of physical and mental faculties in addition to social and emotional uplift of the child. Since human being is a combination of body, mind and spirit, he cannot be compartmentalised into body and mind separately. Therefore combining the word physical with education brings out a clear sense that the discipline is capable of developing harmonious personality of a child which includes physical, mental, social, emotional and spiritual
development. Bucher and Wuest (1987) have elaborated the objectives of physical education. They are (a) physical development (b) Neuro-muscular development (c) Cognitive development and (d) Social-emotional-affective development.

Let us examine the development of physical education in India. Kamlesh and Sangral (1988) have reported that in 1882 the British Govt. appointed a commission that recommended that physical training should be given to natives in games like gymnastics, drills and other exercises. Ex-servicemen imparted military drill and physical training exercises in schools. Mr. H.C. Buck in Madras founded YMCA College of physical education in 1920. In 1931 Govt. College of physical education in Hyderabad was established. Lucknow Christian College of physical education was started in 1932. After independence Govt. of India appointed a Central Advisory Board of Physical Education & Recreation. M.K. Kaul & M.N. Kapoor submitted a report to all India council of sports and made some useful recommendations in 1961. The salient features were as follows:

1. Physical education should be considered as part of general education of schools and colleges.

2. Educational institution should establish the department of physical education.

The new education policy (proposed in 1986) has highlighted the importance of physical education. Recommendations were made that physical education be introduced as a compulsory subject in all schools and colleges of the country. A number of States, accepting these recommendations introduced physical education in their school curriculum. Central schools, Navodaya Vidyalayas and schools affiliated
to CBSE, New Delhi took a lead in this regard and introduced physical education as an academic subject. The UGC gave liberal grant to universities to start the department of physical education. They also recommended that three-year degree course should be started and an expert committee recommended the subjects to be covered under physical education. Elaborate syllabi were framed and forwarded to universities as requisites for theory and practical to be incorporated in the three years degree course (UGC letter dated April 24, 1985-appendix A).

Starting of the three years degree course led to the institution of master courses in the department of physical education. Ph.D. programme was a natural outcome of the development of physical education programme. It has now been reported that the people who lead sedentary life suffer from various ailments such as cardiac, over-weight problems and breathing disorders, etc. Therefore people have started developing a positive attitude towards exercise and physical activities. New fitness clubs and multigyms are coming up in a big way to meet the demands of the people. The positive attitude towards physical education has also been witnessed among the students.

With the introduction of physical education as an academic discipline a considerable change towards physical education activities has been noticed among the students. These changes have motivated the researcher to take up a study of attitude of school students towards physical education in relation to motor fitness, academic anxiety and academic achievement.

The key terms used in the present investigation are Attitude towards physical education, Motor fitness, Academic anxiety and
Academic achievement. Therefore it is imperative to carry out detailed discussion about these variables.

**ATTITUDE**

According to Longman dictionary the meaning of attitude is i) a way of feeling or thinking about some one or something especially as this influences one's behaviour ii) a position of the body.

According to Allport (1935), "An attitude is a mental and neural state of readiness organised through experience, exerting a directive or dynamic influence upon the individuals response to all objects and situations with which it is related."

Petty & Cacioppo (1986) believe that, “Attitudes are general evaluations people make about themselves, other persons, object or issues.” In other words, attitudes involve lasting likes and dislikes, preferences and aversions, toward specific aspects of the external world.

“Attitudes are enduring mental representation of various features of the social or physical world. They are acquired through experience and exert a directive influence on subsequent behaviour.” Breckler & Wiggins (1989).

Thurstone (1941) defined an attitude "as the degree of positive or negative affect associated with some psychological object.” By a psychological object, Thurstone means any symbol, phrase, slogan, person, institution, ideal or idea towards which people can differ with respect to positive or negative affect.
To conclude one can safely infer that attitude is the way one’s consciousness becomes conscious towards a particular thing, a situation or an idea.

Attitude is a predisposition to respond favourably or unfavourably towards an object, issue or situation. Sherif and Cantril (1947) have given the following characteristics of attitudes as described by Bonner (1953)

a) Attitudes have a subject-object relationship

b) Attitudes are formed

c) Attitudes have affective properties

d) Attitudes are relatively enduring states of readiness

e) Attitudes are as numerous and varied as the stimuli to which they refer

It may be summarised that attitudes are the basis of responding. Naturally they influence our behaviour and may be considered as basic ingredient of sports persons regarding physical activity related to various facets of their activity such as physical fitness, performance, subjects offered to pursue studies etc.

Sports scientists and experts have extensively researched on attitudes to determine its implications and applications on sports performance.

Valdez (1998) studied the attitude of middle school students and their parents toward physical education. Results indicated that students and parents attitude toward physical education were significantly different in the over all category scores and in the general attitude and
scientific basis construct areas. No significant differences on attitude toward physical education were found between gender ethnicity and socio-economic status.

Christie (1997) studied the effects of a physical fitness concept curriculum, on attitude, knowledge and fitness levels of Ninth grade physical education students. The attitude towards physical education and conceptual knowledge of physical fitness concepts were significantly affected by the physical fitness concept curriculum ($P = 0.04$). The overall results showed that the students reported more positive attitudes and greater conceptual knowledge from involvement in the concept curriculum.

Thomas (1996) analysed the attitude of high school students towards physical education and concluded that, as a whole there was a positive attitude towards physical education among all the students.

Carlson (1994) investigated secondary student's attitude towards physical education and also to identify the variables that contribute to the formation of those attitudes. Aspects of cultural, societal and school context were found to be the major influences of student's attitude towards physical education.

Cho (1991) in a significant study found that Korean national athletes and coaches had a favourable attitude towards athletic participation, they had favourable attitude towards self-concept and character development including social, moral and general aspects. Female national athletes had more favourable attitude towards athletics participation than their male counterparts. International athletes had more favourable attitude towards athletics participation than national level
athletes. Korean national coaches had more favourable attitude towards athletics participation than national level athletes.

Patterson and Fucette (1990) found that both boys and girls expressed favourable attitude towards physical activity.

Greenberg (1990) studied the effect of class size, scheduling patterns and curricular content on physical fitness achievement and attitude towards physical activity. Significant main effects of class size and programme were revealed for the ascetic sub-domain with students in single classes scoring higher than students in double classes, and students in physical fitness programme scoring higher than the students in traditional programmes.

Grewal (1986) studied to compare the physical fitness attitude towards physical activity and adjustment among college students of Panjab University across socio-economic levels. Data analysis in the case of attitude toward physical activity revealed that the comparison of high, middle and low socio-economic level groups have significant differences, while the differences between the high and low groups were found to be insignificant.

Krecik (1986) found that physical education students and non-participating students expressed a positive attitude towards physical education.

Doody (1984) conducted a study on 240 male and female fourth, fifth and sixth grade students. No difference (P >0.05) in attitude towards physical education was found between the two groups. Sixth grade male students had more positive attitude towards physical education than sixth grade female students.
Kamit (1984) conducted a study to analyse the influence of social group and past experience attitudes on participation and non-participation in sports and physical activities. The result indicated that nearly all the respondents had positive attitude towards participation in sports/physical activity and increase in the level of participation were associated with increase in positive attitude, social group influence and level of past experience.

Singh (1978) studied the relationship of self-concept, socio-economic status and attitude towards physical activity of sportsmen and non-sportsmen. Result showed that there was significant difference between attitude of sportsmen and non-sportsmen towards physical activity and socio-economic status. Similar results were reported by Singh (1978).

Smoll (1976) studied the relationship among children’s attitude, involvement and proficiency in physical activities. The results suggested that a strong relationship exist between the attitude domain and a combination of the involvement and performance domains.

Rolph (1971) administered a semantic differential attitude scale (physical education) and AAPHER youth fitness test to 100 Negro and 100 white 5th and 6th grade boys and same numbers of 9th and 10th grade boys. It was found that Negro boys scored significantly higher than white boys on overall physical fitness at both levels. The difference was greater at the 9th and 10th grade levels. Correlation between attitude towards physical education and physical fitness were found to be positive but quite low for each of the four groups.

Janet (1970) studied the attitudes of physically handicapped children towards physical education. It was discovered that there was a
significant difference in attitudes between means of the two groups. Children in the regular physical education had a more favourable attitude toward physical education than those in adapted physical education programme.

Moyer (1966) in his findings suggested a preference for individual sports, a highly favourable attitude towards physical education on the part of both freshmen and juniors and a need for re-evaluation of methodology and interpretation of objectives in teaching the required programme.

Lyons (1997) studied to ascertain the effect of participation in various undergraduate physical education activity courses on attitudes toward physical activity. Analysis of variance revealed that the attitudes of the students who had enrolled in various courses were not significantly different ($P>0.38$).

Meenu (1988) while investigating the attitude of university students towards physical activity concluded that there was no significant difference between science, physical education, and arts students on the attitude scale for physical activity and its place in university programme.

Scopelitis and Luise (1971) in their study concluded that the subject's attitude towards physical education was very positive and '$r$' between attitude, skill and participation were positive but not large enough to be significant.

From the above studies it emerges that a few of the researches pertain to attitude towards physical education and its relationship with varied physical activities. Most of the studies are related with athletes and non-athletes. Thus attitude towards physical education has been selected
as one of the important aspect of the present investigation, which may be related to motor fitness, academic anxiety and academic achievement.

ANXIETY

Today, anxiety is a common phenomenon of every day life. It plays a crucial role in human life because all of us are the victim of anxiety in different ways (Goodstein and Layon, 1975).

There is a growing interest in simultaneously studying the individual and the environment as interacting sources of behavioural variance. It has received a considerable amount of systematic investigation. In spite of its popularity, a major part of consensus is that the area of anxiety is one of the confusing terminology and ambiguous equivocal research findings (Martin, 1961; Ruebush, 1964; Levitt, 1967).

Anxiety is a central concept in almost all-contemporary personality theories. At various times, anxiety has been conceptualised as a response, a stimulus, a trait, a motive and a drive (Spielberger, 1972).

Anxiety may be conceived of as a state of cognitive disintegration. It entails the disruption of a person's sense of personal identity. So, anxiety may be referred to as a formal property of a wide variety of reactions to a threatened loss of personal identity. In another usage, 'anxiety' refers to a specific kind of response to some degree of actual cognitive disintegration.

However, anxiety fluctuates as a function of situations and conditions of the organism. Anxiety results when the individual's ego needs are threatened. In logical sequence, the development of emotional and behavioural disorders follows these steps. At the outset, person, events and situations in life are regarded as threats to the individual's ego
needs of security and worth. However, experience of anxiety will depend on the value he/she has developed for his/her own security needs. Subsequently, these threats cause the individual to react with anxiety. Finally, anxiety gives rise to tension, which may cause psychosomatic conditions to defence mechanisms, which may lead to psychoneurotic disorders.

Psychologists have put forward different viewpoints to explain the nature of anxiety. Freud (1933) suggested that when an organism is prevented from carrying out an instinct, it would lead to anxiety. It may be done through repression or through prevention of gratification. Later, Freud (1949) suggested that repression occurs because of the experience of anxiety. Whenever real or potential danger is detected by ego, this perception gives rise to anxiety and then mobilises the defensive apparatus including repression, which in turn leads the organism out of danger.

In other words, Freud (1949) has referred anxiety as kind of signal, a premonition of impending danger, an indicator that something is not going well in the life of the affected individual. It was also stated that when the ego is forced to acknowledge its weakness, it breaks out into anxiety.

Sullivan (1953) placed a great deal of emphasis on the interpersonal contents from which anxiety arises. He contended that, “it is important to find the basic vulnerabilities to anxiety and interpersonal relations, rather than to deal with symptoms called out by anxiety or to avoid anxiety”.

Rachman (1998) defined anxiety as, “a pervasive and significant negative affect that is a central feature of many psychological problems”. 
On the basis of the results obtained from applying a variety of factor analytic procedures to both cross-sectional and longitudinal data, Cattell and his associates (1961) stressed that there are dimensions of stable inter-individual differences (traits) and dimensions of intra-individual changes (states).

A typical view of traits assumes that: (1) traits are dispositions within the person that predispose him to perceive situation in particular ways and to react in a consistent manner in a wide variety of situations (Allport, 1935; Spielberger, 1966); (2) Traits are a summary of the frequency and intensity of past states and can be validly assessed by asking the individual to describe himself as he is 'generally' 'often' or usually (Spielberger, 1972).

States are, hypothetical constructs, as are traits but state measures are responses of interest in themselves, while trait measures are simply a sampling of person’s self-labelling habits or retrospective and generalised accounts of past states.

ANXIETY AS A STATE

State anxiety (A-State) is a transitory emotional state or condition of human organism that varies in intensity and fluctuates over time. This condition is characterised by subjective, consciously perceived feelings of tension, apprehension and activation of autonomic nervous system (Spielberger, 1966). If a situation or thought is perceived as threatening irrespective of the presence of real or objective danger (stress), the person who perceives the situation as threatening will experience an increase in state anxiety. The stress levels of the situation and individual’s experience of it thus define state anxiety. State anxiety is enhanced by threatening and stressful situations as compared to non-stressful
situations. It is extremely dependent upon the perception of a situation by a person. In other words states are temporary moments in one’s life and are transitory in nature. Their quality and intensity will vary from situation to situation.

**ANXIETY AS A TRAIT**

Anxiety as personality trait refers to relatively enduring individual differences among people regarding their tendencies to perceive the world in a certain way and to behave in a specific manner. Spielberger (1966) also proposed that trait anxiety reflect anxiety proneness, that is, there were individual differences in the tendency to respond with increased state anxiety to various levels of stress. People who perceive a particular situation, as threatening will respond to it with an elevated state anxiety, irrespective of any real (objective) danger. Their behaviour can be predicted with extreme accuracy. "An anxiety (A-trait) is not directly manifested in behaviour, but may be inferred from the frequency and intensity of an individual’s elevations in A-state overtime" (Spielberger, 1972). Frequency and intensity of an emotional state depend upon the strength of personality traits. It means that there are relatively stable individual differences in anxiety proneness that is to perceive a variety of situations as threatening and to respond to these situations with differential elevations in state anxiety. Persons who are high in A-Trait tend to perceive a larger number of situations as dangerous or threatening than persons who are low in A-Trait and respond to threatening situation with A-state elevations of greater intensity.

In nutshell anxiety as a process refers to a sequence of cognitive, affective, physiological and behavioural events. Most of the investigators have defined anxiety in terms of complex personality processes with
multiple components and each investigator has tended to include different aspects in his definition of the anxiety process.

It could easily be inferred that academic anxiety is a kind of state anxiety, which relates to the impending danger from the changing environment of examination, accidents, punishments etc., of the academic institutions including teachers and certain subjects.

Panchanatham and Shanmugaganesan (1992) carried a study to find the relationship between academic achievement and psychological stress among the university Post-Graduate students. The sample comprised of 170 Postgraduate students of Annamalai University (Tamil Nadu). Everly Girdano Psychological stress scale was used to measure stress, and marks scored in the final year examination were treated as academic achievement. The results indicated negative correlation between psychological stress and academic achievement. No difference was found in the academic achievement of students on the basis of sex, nature of the course of study, Socio-economic status and the type of family.

Siddiqui and Akhtar (1983) studied the relationship between anxiety and academic achievement in students. The study revealed that there is a negative relationship between anxiety and academic achievement.

Pandit (1969) studied the role of anxiety in academic learning and achievement of schoolboys of grade V and concluded that anxiety bore a negative relationship with learning and academic achievement.
Sharma and Ahuja (1979) attempted to find out the impact of anxiety on performance. It was found that the low anxiety students performed significantly better than the high anxiety students.

Shamim (1979) did an exploratory study to find out relationship between academic achievement and anxiety of school going children. She concluded that: (a) High achievers (boys) have low level of anxiety and low achievers have high level of anxiety showing thereby negative relationship between achievement and anxiety scores amongst boys, (b) Girls with high anxiety have low academic achievement and vice-versa. This gives the evidence that anxiety scores are inversely related to achievement scores. (c) The difference between means of anxiety scores of high and low achievers was significant i.e., higher anxious students have shown poor academic performance and less anxious students have shown good performance at school level. (d) It was also revealed that the girls were more anxious than the boys at high school level. (e) Anxiety scores and academic performance scores of students were negatively correlated meaning thereby that high achievers were psychologically less anxious.

Tandon (1978) attempted to investigate the anxiety level of underachievers. The investigation revealed that under achievers were highly anxious.

Vora (1978) studied the relationship between anxiety scale for children and Patel’s reading ability test served as measuring tools. The investigator concluded that anxiety and reading achievement show negative but significant relationship.

Vishnoi (1975) tried to find out the relationship between anxiety and academic achievement of over and under achievers. The findings of
the study revealed that there has to be negative relationship between anxiety and achievement.

Rai (1974) in his study also revealed that low level of anxiety helps in achieving high.

Dhaliwal (1971) conducted a study to find out the anxiety level of successful and failing students. It was found that if the level of anxiety is lower than a certain minimum, it will neither have a facilitating nor a harmful effect on academic achievement.

Feldbuson, Denny and Condon (1965) conducted a study to find out the relationship between anxiety and academic achievement. The finding revealed that high anxious males as well as females were lower on the criterion measure and vice-versa.

A study of university students revealed that low achievers were significantly more anxious than the high achievers (Sinha, 1965).

Reilly and Ripple (1967) attempted to study the relationship between anxiety and academic achievement. The investigation revealed that there was a correlation of − 0.53 points between test anxiety and achievement.

Singh (1950) attempted to test the hypothesis that low anxious students would show better performance records than high anxious students. Results showed a negative correlation between anxiety and achievement.

It may be concluded that optimum level of anxiety seems to be important for activating individuals but heightened anxiety may adversely influence almost all aspects of human behaviour.
MOTOR FITNESS

The term Motor Fitness was evolved during World War II. Barrow and Mc.Gee (1979) defined Motor fitness as, “a readiness or Preparedness for performance with special regard for big muscle activity without undue fatigue. It concerns the capacity to move the body efficiently with force over a reasonable length of time.

The basic component of motor fitness includes strength, endurance, speed, flexibility and coordinative abilities. Strength is considered primarily as muscular endurance, which denotes the ability to overcome resistance or to act against it. Endurance is the ability to perform a task for a longer duration with required efficiency under the condition of fatigue. Speed means rapidity of movement to accomplish a specific task in a minimum possible time. Speed is partly condition ability as well as coordinative ability its components are reaction ability, acceleration ability, locomotion ability and movement time. Coordinative ability are the replacement of the term agility. It is a complex ability that includes, differentiation ability, Orientation ability coupling ability, reaction ability, rhythmic ability and adaptation ability (Singh, 1993).

In view of its inherent significance with regard to all sort of physical activities the investigator selected motor fitness as one of the variables to explore its relationship with academic anxiety, academic achievement and attitude towards physical education.

ACADEMIC ACHIEVEMENT

The concept of achievement refers to the fact that the subject is not merely executing a task without assistance but is trying to perform well with the aim of eliciting positive reinforcement for his demonstrated
competence in the task. Academic achievement means, the achievement a student makes in school, college or university in terms of his marks scored in the examination, which is the criterion for the performance of the student. Academic achievement is also known as scholastic achievement.

According to Remmers and Gage (1955) scholastic achievement is the degree to which the pupil has moved toward the objective of the school. From the definition it is clear that the academic achievement measures the extent to which individuals have acquired certain knowledge, skills, concepts and abilities as a result of instructions and training received at the school or college level. Singhal (1974) advocated achieving students had more adequate levels of both personal and social adjustment than did underachieving students. He also found a significantly high relationship between college achievement and the emotional and social adjustment of the school children.

Tucker (1999) found positive relationship between interscholastic athletic participation and academic achievement as defined by grade point averages of the students. Subjects who participated in interscholastic athletics had higher grade point averages than the general student population.

Beal (1999) compared academic achievement of student athletes and non-athletes at the university of North Dakota. Result showed that student athlete’s academic achievement surpassed non-athletes.

Biernacki (1994) studied the relationship between physical fitness development and achievement scores in mathematics and reading. A significant difference in the academic achievement of the students receiving the programme and those not receiving the programme was
observed. There was a significant interaction on the variable of achievement between the year of the programme and whether the student participated in the programme or not.

Smith (1989) in his study found that athletics has a direct bearing on student citizenship and athletic participation was an important predictor for grades. Athletic participation exerts a significant positive indirect influence on high school graduation using citizenship and grades as primary intervening variables.

Singh (1989) undertook a study with a view to find out a comparative difference between categorised groups of strength, speed, endurance, agility and flexibility in relation to their academic scores. It was concluded that group with greater agility, endurance and strength dominate academic achievement.

Patranella (1987) studied the academic performance, attendance and schedule rigor of extracurricular participants and non-participants. Results indicated that participants and non-participants were significantly different (P< 0.05) for each of the three dependent variables of academic performance, attendance and schedule. Also, those who participated in physical activities seemed to take the more difficult schedule of courses and make better grades.

Kiran (1986) studied the relationship of academic achievement and physical fitness of high school students and concluded that there was high positive correlation of physical fitness and academic achievements of boys but in case of girls no significant correlation between academic achievement and physical fitness was observed.
Kaur (1981) did a comparative study of personality adjustment, personality characteristics and academic achievement of teacher trainees and physical education students. The results showed that teacher trainees were more intelligent fast learners and mentally alert than physical education students. The results of academic achievement revealed significant differences between both groups. Academic achievement of teacher trainees was greater than physical education students.

McGill. (1979) Studied psychosocial and motor characteristic of participants and non-participants in children sports. Results indicated that the two groups of children could not be distinguished on the basis of these facts. It was found that number of children involved in sports was very large.

Hart (1975) Paired 50 high school male athletes who had participated in at least two varsity sports for at least one session with 50 non-athletes according to their scores on the verbal and numerical sub tests. The result showed that athletes were found to have consistently higher grade point average means than did their matched non-athletes. Further 54% of the athletes ranked in the upper half of their graduating class as compared to 36% for matched non-athletes.

Buhrmann (1972) in a longitudinal study conducted on a group of adolescent males over the period 1959 to 1965 observed that athletic participation was more strongly linked with educational success.

Sighultz (1971) observed that participation in athletics did not adversely affect academic achievement. Athletes achieved greater academic success than non-athletes. The better athletes were high academic achievers than the average athletes. The additional time
required for the better athletes to participate in practice games and sports had no apparent ill effects on their academic achievement.

Boespelug (1968) observed that the students who obtained high physical fitness scores appeared more socially accepted, socially adjusted and also had better academic achievement than the subjects with low physical fitness scores.

Arnett (1968) explored the relationship between selected physical fitness items and academic achievement of college women. Analysis of variance revealed significant differences among high, fair and poor fitness classifications in terms of grade point average. Those who achieved higher grade point average were also high on the physical fitness scores.

Baker (1967) reported a positive but insignificant correlation between physical fitness and the co-relations of physical fitness with academic achievement and emotional adjustment were positive and significant but low.

Carlson (1967) also found that correlation between physical fitness attainment and academic achievement for a group equated physically and mentally was significant at the .05 level. The physical fitness attainment scores of the academically high individuals in both groups were significantly higher than those of the academically low individuals.

Meeks (1966) observed that the physically fit students have better personalities, made better grades and were more socially accepted by their peers than the physically unfit students.

Thomas (1965) conducted an experiment on 113 male students. Significant correlation was found between physical fitness and motor
educability, physical fitness and physical education activity grades, and motor educability and physical education grades.

Hart (1964) in his study attempted to discover the relationship between academic achievement and the level of physical fitness of college students. It was concluded that the relationship between academic achievement and physical fitness was significant at .01 level of confidence.

McMillan (1962) found partial correlation of .26 between physical fitness and academic index holding the I.Q. constant. Using top and bottom quarters of academic index, a ‘r’ of 2.11 (at .05) indicated a higher level of physical fitness of those in top quarters than those in the bottom quarter.

Somers (1951) made a comparative study of participation in sports and academics. It was found that participation in class team competition does not appreciably affect either adversely or favourably the academic grade of student participants either in any single year or over the entire four periods of collegiate education.

Jacobson (1931) concluded that athletes were higher than non-athletes in terms of academic grades or achievement as measured by the school marks.

Main (1999) studied the interaction effects of athletic participation gender and academic stream with self-esteem academic achievement and educational aspiration. Result showed that academic achievement as measured by grade point average had no relationship with athletic participation.
Kline (1997) studied the relationship between academic achievement and athletic participation of female and male athletes. The results showed a difference between athletes, partial athletes and non-athletes with respect to academic achievement. It was revealed that although athletes, both male and female were categorised as performing at a lower academic level than partial athletes and non-athletes, the relationship between the groups on grade point average was not significant.

The academic achievement of college football and basketball players was compared with non-athletes. The results revealed no significant differences in grade point average existed between athletes and non-athletes (Billy and Berger, 1973)

Domingos (1961) attempted to determine the relationship between motor fitness and academic achievement of 643 fresh college men and women. Analysis of the data did not show any relationship between motor fitness and academic achievement. Similar inferences were drawn by Jorndt (1968).

Pangle (1956) undertook a study on academic achievement of high school athletes. He found that there was no significant difference with regard to academic attainment between those who participated in the athletics programme and those who did not.

Researches by and large have proved that people engaged in physical activity also do well in their studies. The review of literature revealed that a host of researchers have tried to study psycho-social variables such as parental attitude towards physical education, participation in physical activity, athletic participation, psychological stress, social and emotional adjustment, etc. in relation to physical fitness
and participation in physical education programme. But a very negligible investigations so far been conducted taking into account student’s attitude towards physical education, motor fitness, academic anxiety and academic achievement. Hence the present investigation is humble effort of the investigator to study these variables.

SIGNIFICANCE OF THE STUDY

There is a misplaced notion that participation in games and sports is usually responsible for poor academic attainment with the result that parents do not allow their children to indulge in physical activity. In my opinion it is the duty of physical education teacher to empirically prove that the contention is wrong. The present study may bring to light the significance of motor fitness for academic achievement and broad adjustment in the life of people. In other words we may say that motor fitness may improve the quality of life of people.

In the present study AAPHER youth fitness test has been used which consist of 600 yd run/walk, 50 yd dash, shuttle run, standing broad jump, sit up and pull up/ hanging (for girls). Researches have been done in our country on single or a few components of fitness test. Under present study we have considered all the five components of motor fitness.

The study was conducted in Chandigarh where government and private institutions are imparting education to students. Incidentally the emphasis on physical education in the two types of institutions is not similar. The present study is expected to highlight the differences or similarities if any, in the two type of institution. On the basis of the result obtained we may develop programmes to remove the shortcomings.
In our review of literature we have observed that attitudes play a significant role in the development of behaviour. The study of attitude towards physical education and its relationship with academic anxiety and academic achievement is expected to address the contentious issues related to the physical education programme in our country.

Furthermore a comparative study of boys and girls has also been undertaken on a wider sample. The findings may easily be generalised. This may help in motivating the students for mass participation in games and sports.

We have used random sampling technique to obtain data from 600 students of Chandigarh. Statistical methods such as product moment coefficient of correlation and 't' test have been used to analyse data and draw unbiased inferences from the analyses.