CHAPTER-II
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The review of related literature is a significant aspect of the research process. It helps the researcher by giving him some information about the status of knowledge in the area he intends to study.

Money (1962) rightly said that "Man is the only animal that does not have to begin anew in every generation, but can take advantage of the knowledge which has accumulated through centuries. This fact is of particular importances in research which operates as a continuous function of every closer approximation to the truth. The investigator can be sure that his problem does not exist in vacuum and that considerable work has already been done on problems which are directly related to his problem. The success of his efforts will depend in no small measure on the extent to which he capitalizes on the advances, both theoretical and empirical, made by previous research."

The study of related literature also works as a guide post not only with regard to the quantum of work done in the field but it also enables us to perceive the gap and lacunae in the concerned field of research.

According to Scott and Wertheiner (1932), "Review of related literature may serve to avoid unnecessary duplication and may help to make progress towards the solution of new problems."
Good, Barr and Scates (1941) have pointed out, "Survey of related literature helps us to know whether evidence already available, solves problems adequately without further investigation and thus may save duplication. It may contribute to the general scholarship of investigator by providing ideas, theories and explanations valuable in formulating the problem and also suggest the appropriate method of research."

The survey of related literature is a crucial aspect in the planning of the study. It is an exciting task calling for deep insight and clear perspective of the field. It promotes a greater understanding of the problem and its crucial aspects ensure the avoidance of unnecessary duplication. It also provides comparative data on the basis of which to evaluate and interpret the significance of one’s findings. Taking into consideration the above-stated facts, the investigator felt it necessary to take a review of research studies related to the present investigation. Providing programmes in education without an awareness of intelligence and stability of personality of the learner is aimless and the purpose of such an understanding is easily lost. That is because level of intelligence and the stability for adjustment with stable and consistent personality can be effective predictors of the achievement of the individual.
The increasing complexity of society and the competitive pressure of the fast changing world require a continuous investigation in the field of education and guidance in order to assist an individual to adjust to it. The persons concerned with the development of the students (Youth) are also aware about this and, therefore, they put in their maximum efforts into investigating the factors concerned.

The purpose of the present study is to study the variables of personality traits, achievement-motivation interests_intelligence and academic achievement of athletes and non-athletes of Prince of Songkhla University, Thailand.

Gary (1970) conducted a study utilising an adaptation of the college Student Survey Questionnaire, which was developed by C. Robert Pace and James Trent, to describe and compare athletes and non-athletes at UCLA.

The strength of this findings is lessened by the fact that in almost all comparisons the direction of the differences were in favour of the non-athletes. Although athletes are similar to non-athletes in many ways, the fact that there are certain differences and, perhaps, some isolation, is not surprising. The extent of the differences to which isolation and lack of involvement might be attributed does not differ from what might be expected from the influence of any well-defined peer group, whether it be other students' groups, a fraternity or sorority. It is
obvious that athletes are not identical to a cross-section of non-athletes nor would this be expected. Considering the time and effort required for participation in athletics, the finding of so few significant differences, even though many small differences tend to be in a consistent direction, does not justify the conclusion that athletes are a highly unique group of students.

Evie (1972) reported findings from the results of the study as follows:

1. No particular basketball or softball personality was evident from the findings of the study
2. Personality proved to be significant factor in the success of women basketball and softball athletes; successful women athletes were more relaxed than the non-successful athletes; (a) Placegetters tended to be more imaginative, venturesome, and less intellectual than non-placegetters. (b) Starters and placegetters were more relaxed than non-starters and non-placegetters
3. Performance levels were not significantly different on any of 16 personality factors
4. Personality variables that differentiated the inter-collegiate participants were found to be more happy-go-lucky and imaginative
5. Sports participation did play a role in the athletes' view of "self"
6. The lower levels of performers did not have lower view of "self" than did the higher levels of performers.

Blankenbaker (1973) discovered in a "comparison of social class characteristics of athletes in different types", that athletes in the club related sports come from families of higher social status than did athletes in other sports.

Nowlin (1974) in his research found that athletes higher in ischemia pain tolerance possess the personality traits of being self-sufficient whereas those low in ischemia pain tolerance display the personality traits of groups dependence.

Dubois (1976) found that only non-team sport athletes had significant effect (P < .05) on attainment (and only on occupational prestige) and that this effect was negative.

Three possible reasons were given concerning why the former athletes in this study did not achieve significant higher attainment than non-athletes:

- First, athletes may no longer be the enthral here they once were
- Second, it may be that only athletes who formerly attended universities with high powered and highly visible athletic programmes have high status.
- Third, athletes may have higher status because of the traits and qualities needed to succeed in sport but these traits may not be regarded in players as transferable to occupational roles.

Anderson (1977) designed a study to determine if there were significant differences between sex and type of activity and if there was significant interaction in the four subscales of California Psychological Inventory.

The findings of this study warranted the following:

i) The personality traits of male and female athletes differ from those of male and female non-athletes

ii) The personality traits of men and women athletes differ from those of men and women non-athletes

iii) It was concluded that men and women athletes do not significantly differ on the personality factors of achievement via performance, and intellectual efficiency

iv) Significant differences were found in this study not only for the main effects of sex and type of activity but a significant interaction was also revealed for subscale IV of the CPI. Therefore, it was concluded that men and women athletes and non-athletes significantly exhibited differences on the personality factors of flexibility and femininity

v) It was also concluded that women should share equal opportunities as men in varsity athletics.
Smith (1977) compared the sportmanship attitudes of male and female athletes. The following conclusions were drawn:

1. Overall, female subjects indicated a higher level of sportmanship than did male subjects.
2. Overall, there was no difference between athletes' and non-athletes' sportmanship attitudes.
3. Female athletes indicated a higher level of sportmanship attitude than did male athletes.
4. Female non-athletes indicated a higher level of sportmanship attitude than did male non-athletes.
5. Years of athletic experience had no effect in the development of sportmanship attitude of either sex.

Grimmett (1979) made psychological and physiological comparison between female athletes and non-athletes. The purpose of the study is to compile a psychological and physiological profile of female variety volleyball and basketball players and non-athletes. The only physiologically significant differences were noted between volleyball and basketball players.

Collins (1979) in his study investigated the differences between female high school athletes and female non-athletes in sex-role perceptions between the female athletes and non-athletes were found. Of the five selected dimensions of the POI, three resulted in significant
differences between female athletes and non-athletes. These were self-actualization, self-regard, and self-acceptance. Only three significant relationship between self-actualization and sex-role perception of female high school athletes or non-athletes were found. No significant conclusions were drawn due to the possible influence of several factors. These were:

i) ethnicity

ii) type of sport participation

iii) adolescent social and work environment and

iv) the need for new research instruments in sex-role research.

Browlow (1979) studied differences between athletes and non-athletes in student teaching performance. Male athletes scored significantly higher than female athletes in knowledge of subject matter and in inter-personal relationship while male-non-athletes in communication skills.

Libbertto’s (1979) in the results of investigation, suggested that additional studies should examine the role of career maturity in athletes in the early stage of their athletic and educational careers. The career behaviour did not significantly increase as a result of the treatment.
Theoneberry (1979) investigated sex-role concepts and self-actualization among college female team sport athletes. The conclusions of this study were as follows:

1. Women athletes possess masculine personality attributes to a larger degree than non-athletes.
2. Women athletes perceive larger differences between sex-sterotype rating than the non-athletes.
3. Women athletes and non-athletes are not different in perception of the rights and roles of women.
4. Women athletes and non-athletes are not different in the expression of self-actualization values.
5. Androgynous women are more inner directed than women with a feminine sex-role identity.
6. Women holding more traditional attitudes concerning sex-appropriate roles also perceive larger personality attribute differences between the sexes.

Christensen (1980) conducted an exploratory study of athletes’ perceptions on athletic scholarships. There were 61 teams participating with 30 being males and 31 being females. The results have been found as follows:

The first null hypothesis was supported as there were no significant differences between the athletes’ perceptions.
toward athletic scholarships and type of athlete (scholarship/non-scholarship).

The second null hypothesis was rejected ($\leq .01$) with significant differences being found between the athletes' academic year in school and their perception on athletic scholarships.

Petitpas (1981) studied "The identity development of the male inter-collegiate athlete." As predicted, the senior non-athletes showed significantly (.05) greater psychological maturity in their responses on the F-scale, the fore closure sub-scale of the OM-EIS, and the combined measure on the ANOVA for Repeated Measures. Although, a significant interaction in favour of the senior non-athletes was also found on the GEFT, the conservative Scheffe's Test failed to confirm significance. No significant differences were found on the I-E Scale but similar to the findings on the GEFT, mean scores for the athlete X class interaction revealed a trend in which senior athletes showed lower psychological maturity than freshmen athletes. The senior non-athletes showed greater psychological maturity than the freshmen non-athletes. As predicted, there were no differences between population groups as a function of college of attendance.

Overall, the results indicated that the senior non-athletes showed significantly higher psychological maturity than senior athletes, freshmen athletes, or freshmen non-athletes. As a correlational study, it is recognized that cohort distortions may have accounted for the differences.
between groups but the results allow the hypothesis to remain tenable that participation in college athletics stunts psychological maturation. Need for a longitudinal investigation is identified.

Bryant's (1982) findings showed that the mean annual grade point average of athletes was significantly lower than that of non-athletes in the fall, spring and annually. Both minority and white athletes earned significantly lower grade point average than the non-athletes.

The athletes carried significantly fewer credit hours than the non-athletes when the athlete population was subdivided into major and minor sports groups. The study found the major sports carried significantly fewer credit hours than the non-athletes but the minor sport did not.

The correlation of credit load with grade point average was not significantly different between athletes and non-athletes or between minor sports and non-athletes.

However, the correlation of credit load with GPA was significantly different between major sports and non-athletes.

According to Lourdersmilk's (1983), purpose of the study was to determine the degree of importance of selected factors influencing the college choice of student athletes’ sub-problems involved in assessing the importance of these factors for each of the following student athlete groups:

i) males and females
ii) athletic grant recipients and non-recipients

iii) athletes attending private and state-supported institutions

iv) athletes with high and low socio-economic backgrounds

v) high and low academic-achievers.

Several differences were revealed when an analysis was made of each of the paired sub-groups of student-athletes, using a comparison of means and regression analysis

a) Females places greater importance on "size of student body", "advice of parents", and "advice of high school teacher" than did the males while "advice of high school each" and "level and quality of competition" were rated more importantly by males than females.

b) Private institution enrollers reported being influenced to a greater extent by "religious/moral atmosphere; "financial aid (other than athletic)", and phone calls (S) from college coach than were the state-supported institution enrollees. "Cost of tuition and fees" was rated more important by those attending state-supported colleges than by those attending private colleges

c) The low academic group placed greater importance
on the amount of athletic scholarship offered and on correspondence and visits with the college coach than did the high achievers.

d) The student-athletes who were receiving athletic scholarships placed greater importance on the amount of athletic scholarship offered and no contacts with the college coach than did the student-athletes who were not receiving athletic scholarships.

Shen (1983) conducted the study on an exploratory investigation of the relationship between the intrusive behaviour of coaches and the performance of success-fearing athletes. The study yielded two major findings: First, a significant interaction emerged between fear of success and coaching behaviours related to the elicitation of better performance. Second, there were significant relationships between the athletes' perception of intra-team competitiveness and coaching behaviours that either stressed winning or were highly critical of athletes' personal matters.

Reeves (1983) indicated that there were three significant interactions between:

1) need for achievement, position played, and success
2) need for achievement, degree of success, and position performance
3) need for affiliation, position played, degree of success, and position performance.
Finally, an interesting trend emerged: the more skilled and successful the athlete who played a preferred position, the less was his need for achievement.

Yeager's (1984) the primary purpose of study was to determine the difference in academic advisement effectiveness between the faculty system of academic advisement and the athletic system of academic advisement. A secondary purpose was to determine the variables which contributed to the observed differences between the two systems of advisement. Effectiveness was measured by student satisfaction, grade point average, and number of credit hours attempted and completed. Participants were (a) all freshmen and sophomore athlete advisees (157) in the system of athletic academic advisement and (b) a stratified and randomly selected group of 157 freshmen and sophomore non-athlete advisees under the system of faculty academic advisement.

Athletes perceived a significantly higher level of satisfaction (.05 level) with basic need fulfillment than did non-athletes and perceived a high level of need importance for the advising function concerned with the explanation of university regulations. Non-athletes achieved significantly higher grade point average and attempted and completed more credit hours than did the athletes. The student demographic variable, SAT score, was significantly correlated (.05 level) with grade point averages for both athletes and non-athletes. ACT scores were significant
correlated with the number of credit hours attempted and completed by athletes. Black racial origin was the only student demographic variable which had a negative correlation. The negative effect was limited to non-athletes grade point average. Athletes responses indicated that advisor assistance with the transition from high school to the university had a significant effect on grade point average and that level of satisfaction was significantly related to the frequency of advisor/advisee meetings.

Snead (1984) studied a comparison of perceived effects of increased grade point standards on student-athletes. The intent of this research was to ascertain and compare the perceived effects of the 2.0 grade point average (GPA) requirements for student-athletes in Detroit Public Schools. The three basic questions of the study pertained to the perceived effect of the 2.0 rule on Student Eligibility, Academic Performance and the School System. There was much agreement among groups pertaining to effectiveness of the 2.0 rules.

Henderson (1984) conducted an investigation on the impact of a counselling model on the academic performance of the college athletes. The significance of this study cannot be overemphasized because in the area little empirical research exists.

The results suggested that classification was not a significant source of variance. The difference in grade
point average can possibly be attributed to a better attendance record because class attendance was statistically related to grade point average.

Forry (1985) compared the aggressiveness among one hundred and twenty-three male undergraduate combative athletes, non-combative athletes and non-athletes. Results: combative athletes were significantly more assaultive than non-athletes ($p \leq 0.26$). This was not evident when they viewed video non-athletes. Thus, the significant effect was due to video violence. The correlations indicated that subjects who displayed one type of aggressive behaviour were likely to display other type ($p \leq 0.05$ to $0.01$).

Mills (1985) studied the achievement of student development tasks by male college scholarship athletes and non-athletes. The problem with which this study is concerned is to determine whether or not differences exist in the achievement of student development tasks by college athletes and non-athletes. The sample consisted of 276 male students (201 non-athletes, 75 athletes).

A significant difference was found at .01 level between athletes and non-athletes in the achievement of the development task of autonomy. Non-athletes had achieved that task of developing autonomy at a greater rate than athletes. Athletes scored lower than non-athletes on all interpersonal relationship orientation behaviour scale.

Anglin (1985) studied the effects of participation in inter-scholastic athletes upon the academic achievement of
junior high school athletes.

The results indicated that female mathematics scores were significantly higher after the sports season than prior to it. In all three of the other classifications, no significant differences were found before, during and after the season. Scores were empirically higher after the season and highest during the season. Significant differences were found among basketball, tennis and track athletes. Tennis athletes scored higher than track athletes. It was concluded that participation in inter-scholastic athletes had no deleterious effect on academic achievement.

Hartney (1985) the purpose of the study was to investigate need-achievement and self-concept in athletic performance. Significant differences were found for actual and fitness - performance for the total sample and for the female and male sub-samples but not for potential performance. Significant differences were found for gender on the total sample.

It was concluded that these traits identified the high performer: high self-criticism, high social self-concept, high physical self-concept, high self-satisfaction, high need-achievement, high personal self-concept, and identity. Three traits: high self-criticism, physical self-concept and behaviour that identified the male athlete.

Hill (1985) studied factors relating to academic success and college satisfaction among male athletes. The
results, a stepwise regression analysis indicated that there is a significant relationship between college grade point average and college entrance exam scores, social personality scores, athletic personality scores and race.

There was no significant relationship found between college grade point average and college satisfaction scores. No relationship was found to exist between the factors that were identified as being significant in predicting academic success and those factors that were identified as being significant in predicting college satisfaction male student athletes.

Giese (1986) made "a comparison of college choice factors and influential sources of information between division three male athletes and male non-athletes." This study attempted to determine the three groups. The analysis of the data indicated that:

1) There were significant differences among the three groups for the primary reason that they identified with choosing a college

2) There were significant differences among the three groups in the most influential source of information for selecting a college

3) One cannot generally distinguish significantly different college choice factors between higher and lower academic ability and income groups except when one compares - (a) the higher income sub-groups, and (b) the lower academic ability sub-groups of the three groups.
Croy (1986) studied the relationship between achievement-motivation and socio-economic status among female-athletes and non-athletes. Findings and conclusions of 2 x 3 analysis of variance confirmed significant differences between athletes and non-athletes with regard to achievement, athletes having the higher motive to achieve. In addition, athletes participating in volleyball, had a higher need to achieve than golfers but no track and field or basketball participants. There was no relationship between achievement-motivation and three levels of socio-economic status.

Willis (1986) studied eating disorders and female-athlete in high school and college female students. The results indicated that athletes were less likely to develop an eating disorder than their non-competitive counterparts. The high school athletes reported more factors associated with anorexia and bulimia than the college athletes with 8 per cent of high school and 4 per cent of college respondent diagnosing themselves as having eating disorder. One and a half per cent of high school and 2 per cent of college athletes had received psychological counselling for an eating disorder. Of the athletes, 90 per cent indicated that participation in sport helped rather than hindered their problem with food and weight control.

Cowden (1986) conducted a study to investigate the relationship between participation in interscholastic
athletics and grade point averages. The results of the study indicated that female athletes in each of the schools had significantly higher than grade point averages; significantly better attendance records, higher class ranking and were more likely to select college preparatory courses than female non-athletes. Female athletes in larger school were significantly more likely to attend college than female non-athletes. In the smaller school, female athletes were more likely to attend college than female non-athletes but not to a significant degree. Based upon the results of this study, the conclusions indicate that participation in inter-scholastic athletic competition contributed positively to the academic performance and class rankings of female high school students.

Patterson (1987) identified and analysed the major problems of scholarship athletes and non-athletes at Temple University. These problems included: sex, class, grade point average (GPA). The results indicated that there were significant differences between relationship of athletes and non-athletes in three areas. Athletes had greater problems in the financial area. Males had more in the area of recreation, moral/religion, and social relations than females. Non-athlete females had more serious problems in the family area than athlete females. Significance was found by class with seniors having the greatest number of problems in vocational/future planning area and with freshmen athletes having the greatest number of problem in
the social relations area. By GPA and income, significance was found in the same problem area—scholastics. When athletes in the major and minor sports were compared, the following results were found:

a) athletes in major sports reported having more academic problems

b) both groups agreed on the benefits of the academic advisement problems

c) both groups agreed that the athletic training facilities were adequate

d) more athletes in the major sports reported being faced with the decision to use steroids or other drugs

e) both groups felt that their sport did not receive adequate spectator support.

Hump (1987) reported that the averages were found to be significant for both the male athletes and female athletes when compared to the non-athletes. When considering the athletes only with regard to the development tasks, there were no statistically significant differences in male athletes and female athletes. The number of sports participation for the male athletes and the female athletes was also not found to be a significant difference with regard to the three developmental tasks.

Bruno (1987) studied the sex-role orientation and personality characteristics of the female college athletes. The result revealed that the women athletes had greater
needs for achievement, aggression and dominance. The sample was found to be distributed differently across the sex-role categories from what was expected from probability or from the norm population. The four sex-role groups were also found to differ in personality traits.

Hazelton (1987) studied the relationship between attentional control and ego development stages for athletes and non-athletes. The results showed that the overall attentional style differed across groups of student. Lack of significant differences in universities made the differences impossible to interpret.

Collier (1987) investigated differences in the perceived stress levels of university freshmen athletes and non-athletes by sex, race, high-school size, home town, and basic stress knowledge. The results of this investigation indicated that in the area of patterns of Behaviour, SEP and FAMU-FA females had higher type A-like behaviour according to sex. Other areas for all groups were moderate. In the area of Anxious-Reaction Personality, SEP females had higher stress according to sex. All other areas for all groups were moderate or low. In the area of overload, all the groups experienced moderate stress. However, in the area of self-perception, all the groups had an extremely low self-image of themselves.

Staton (1988) analyzed the academic performance of all athletes (N=272) and stratified random sample of non-
athletes (N=272) at the University of Southern Mississippi who were enrolled in the 1986-1987 school year. Major finding was that the non-athletes arrived at the University better academically prepared than the athletes, as determined by ACT composite score of 18.6 compared to 17.4 for athletes. Athletes attempted fewer mean course work hours (14.5) than non-athletes (14.9) in the fall semester and attempted the same mean number (14.6) in the spring semester.

The findings also revealed that athletes performed significantly higher academically than non-athletes overall, according to gender, race and academic classification level. No significant difference between athletes and non-athletes was found according to sport of participation. Athlete/Non-athlete status x academic classification level interaction was significant.

Post-hoc tests revealed that male athletes, white athletes, freshman athletes, and sophomore athletes performed significantly higher than their non-athlete counterparts. Female athletes, black athletes, junior athletes, and senior athletes did not perform significantly different than their non-athlete counterparts.

Fortunato’s (1988) study was to explore emerging phenomenon of the women athletic directors and their experiences in the role of authority in athletics. The variables in the simpler combination were a deficiency of 8 or less honour points and semester GPA of the least 2.50
during the semester the student was placed on probation.

Patterson (1988) studied the academic-achievement of male intercollegiate athletes and compared male non-athletes at the University of Missouri-Columbia. Academic achievement was investigated in relationship to test score requirements of Proposition 48.

The findings revealed that the mean ACT scores of graduates and non-athletes were found to be significantly greater than the ACT scores of student-athletes. No significant differences was found in the graduation rates of student-athletes and non-athletes. However, student-athletes with less than 15 on the ACT were found to have a significantly greater chance of graduating than non-athletes.

Conclusions were that the non-athletes came to UMC better prepared academically than student-athletes.

Pflueger (1988) conducted a study to compare the contribution of personal and social psychological factors to academic success and retention of Community College athletes and non-athletes.

Chi-square and t-test analyses determined no significant differences between academic performance and retention of athletes and non-athletes.

It was concluded that no differences existed between the academic-success rates or the academic retention rates of athletes and non-athletes and of athletes with high and
low athletic aspirations. However, there was a difference in the relative contributions of the structural and social psychological predictor variables to both academic success and retention for athletes and non-athletes.

Higgs (1988) discovered that motivational factors influencing the performance of elite women athletes were found to differ according to the sport participated in and were dependent on the athlete’s initial, present, and future involvement with the sport. The results of this study provided qualitative data to area of motivation within the world of professional women athletes.

Newman (1988) conducted a study to determine the degree to which ACT assessment scores were related to and predictive of academic achievement as determined by the overall grade point average (GPA) of physical education students graduating from undergraduate degree programs.

Results of Pearson "r" indicated that each ACT score was significantly ($p<.001$) correlated to GPA. However, the magnitude of the r coefficients was low ($r =$ a significant predictive relationship ($R = .351, p<.001)$ between the four ACT, sub-tests and GPA, and (b) that the Composite and Natural Science scores were the best predictors. Analyses of variance revealed significant differences in ACT scores as a function of gender, i.e., females scored higher than males, race, i.e., whites scored higher than blacks, and athlete status, i.e., non-athletes
scored higher than athletes. No significant differences occurred as a function of programme status.

Petichkott (1988) examined the motive that the interscholastic spot participants have for sport participation and withdrawal. Independent examination of the theoretical construct finding revealed:

(a) Strong support for the existence of multiple achievement goal orientation, with achievement goal orientation discriminating among the groups no relationship to sport persistence.

(b) Difference remaining consistent over the course of the reason; and

(c) A significant relationship emerged between the cost/benefits of involvement measure (i.e. overall satisfaction) and the persistence categories - indicating that sport persistence/withdrawal is not simply a rewards-minus-costs evaluation.

Smickley (1989) conducted a study for investigating the relationships between academic achievement, athletic-achievement, self-concept, locus of control and achievement-motivation. Academic achievement and athletic achievement were not significantly associated but athletic achievement was positively related to self-concept (p<.03). School sport participants rated themselves higher in athletic ability (p<.03) and possessed higher personal and social-concepts (p<.05 for both) than the school sport non-participants,
while subjects with higher academic achievement had higher moral ethical self-concepts (p<.003). Group differences were also found with respect to gender and whether the subject participated in sports outside of school.

Antonek (1989) conducted a study for the comparison of developmental task achievement among three groups of colleges according to athletes, former athletes and non-athletes. The results showed that male and female athletes were further differentiated in terms of two sub-tasks, females were more advanced in "Mature relationships with peers", and males were more advanced in "Appropriate Educational Plans."

These data denote that differences exist among the collegiate athletic population being that the collegiate athletic population is variegated, demonstrating differing assets and needs regarding developmental task achievement.

Brian (1989) investigated the fear of success, self-transcendence, and the high-performance athletic personality. The results indicated that the personality of the high performance athlete is rather self-transcendent and success-oriented and dealing with life confidently and boldly.

Halm (1989) conducted a descriptive philosophical study to compare moral reasoning and moral development among general university students, students majoring in physical education and student athletes. The results were frightening in that physical education major and student

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athletes had significantly lower score than general students in deontology, females had more deontological reasoning and principled moral thinking than males.

Manning (1990) conducted a study to investigate attributes among female athletes at the middle and high school level. The findings were as follows:

1) There was no difference in the subjects' self-esteem whether investigating athletes/non-athletes for individual/team sport participants

2) Athletes were not more highly represented in the androgynous category than non-athletes

3) No marked differences were found in how subjects viewed their reward system. Both athletes and non-athletes attributed success or failure to their own effort or input as opposed to outside forces

4) No relationship was found between birth order and type of sport chosen

5) Athletes identified as androgynous were not more committed to sports than any other group

6) No one person was more influential than any other in terms of encouraging the female to participate in sports.

Baize (1990) examined the relationships between high school interscholastic athletic team participation and self-esteem when considering three indexes of academic achievement.
The results showed that males scored significantly higher than females on the self-esteem measures and that students participating in high school interscholastic athletics scored significantly higher than did non-participating students.

In examining that data when considering the indexes of academic achievement, females, on average have higher GPA's than their non-participating peers. Additionally, on average, males received more behavioural referral than females, and again, athletic participants scored significantly better than non-participants as also they receive fewer behaviour referrals.

Bennett (1990), studied athletic participation as related to tenth-grade achievement in small high schools in U.S.A. The purpose of the study was to determine if significant differences existed between the mean academic achievement of participants in sports as compared with the mean academic achievement of non-participants in sports by gender for students in Georgia's Class A Schools.

In reading, no statistically significant differences were found between participants and non-participants of sports, between males and females, or among interactions of the independent variables.

In mathematics, no statistically significant differences were found between participants and non-participants of sports or among the interactions of the
independent variables. The only null hypothesis rejected was for males scoring statistically significantly higher than females in mathematics.

Hicks (1991) conducted an investigation of the effect of selected predictor variables of academic achievement on the academic performance of freshmen athletes and non-athletes. The results of this study reflected what previous research had indicated that high school GPA was the best single predictor of academic performances and when combined with the ACT composite score accounted for most of the explained variance of cumulative college GPA.

In addition, gender was an effective predictor variable of freshmen cumulative college GPA but academic major, participation in sports, housing status, and school location were not effective predictor variables.