THE INFLUENCE OF DISTINCT COACHING STYLES ON PERSONALITY
AND SPORTSMANSHIP ATTITUDES OF ELEMENTARY AGE GIRLS
PLAYING COMPETITIVE BASKETBALL

by

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B.P.E., University of British Columbia, 1967

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
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of
Physical Education and Recreation

We accept this thesis as conforming to the
required standard

Chairman
THE UNIVERSITY OF BRITISH COLUMBIA
September, 1976

Daniel Robert Miscisco, 1976
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Department of Physical Education

The University of British Columbia
Vancouver 8, B.C.

Date October 6, 1976
ABSTRACT

The purpose of this study was to examine the effects of different coaching styles on elementary school age girls who were involved in a competitive basketball program. The study was concerned with effects of athletics and coaching styles upon the emotional, personality, and character development of girls. A comparison of girls who were not involved in competitive athletics with those who were was also undertaken.

The sample included thirty-two participants and fourteen non-participants. The groups studied consisted of Grade VII girls attending Catholic elementary schools, in the Greater Vancouver area of British Columbia, Canada. The thirty-two participants were divided into three selected groups. Group I girls were exposed to a non-aggressive, "easy-going" coach for a period of approximately 3-1/2 months. Group III girls were exposed to an aggressive and autocratic coach, while Group II girls were exposed to a coach who fell between these two extremes. A control group of non-participants was selected from each school.

This study was designed to investigate hypotheses based on the following five problems:

I. changes in personality characteristics of participants as elicited by different coaching styles,

II. changes in sportsmanship attitudes of participants as elicited by different coaching styles,
III. changes in the self-concept of participants as elicited by different coaching styles,

IV. differences in attitude of the players toward their coach as elicited by respective coaching styles,

V. differences in sportsmanship and personality between participants and non-participants.

A 3 X 2 multivariate analysis of variance was performed on the fourteen personality variables as well as the two attitude variables to test hypotheses I, II, III and IV.

Hypothesis V was tested by a 2 X 2 multivariate analysis of variance on the same dependent variables with the exception of attitude toward the coach, to test the differences between the changes elicited in the participants (from all schools) and the non-participants (also from all schools).

The empirical findings were not in agreement with the predicted hypotheses. The differences among the three coaching styles in the changes elicited in personality characteristics including self-concept and sportsmanship attitudes were found to be non-significant at the .05 level. It was also predicted that there would be differences among the three coaching styles in the attitude of the players toward their coach. The differences in the attitude of the players was found to be non-significant at the .05 level. Finally, the differences between the participants and non-participants in personality and sportsmanship attitudes were once again non-significant at the .05 level.

Thesis Chairman
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CHAPTER I

INTRODUCTION TO THE PROBLEM

Background of the Problem

The effects of highly organized competitive sports upon immature participants have concerned men at least since the days of Aristotle. It was he who pointed the finger of criticism at the youth divisions of the Olympic Games.

Much has been written on the hazards of competitive sports for youngsters (Rarick, 1969; Burke, 1963; St. Clair, 1959; American Academy of Pediatrics, 1956; Lowman, 1947). Equally strong sentiments regarding the benefits of competitive athletics have been voiced by those who favour such competition (Danmehl and Razor, 1971; Brown, 1968; Jones, 1963; Salario, 1961). While the issues have been well defined, reliable information bearing directly on them is limited.

Nowhere is the need for guidance and cooperation among educators, physicians, and parents greater than in the problems connected with the participation of children in competitive athletics (Reichart, 1957). Many agree that competition is essential in the growth and development of children into well-balanced, responsible adults, however, there is a distinct difference of opinion as to the level and intensity of competition in which children should engage at the various stages of their development.

The most vehement arguments centre on the question of athletic competition for children under 13 years of age. Unfortunately, much of the argument has been on an emotional rather than an intellectual basis (Danmehl and Razor, 1971; Rarick, 1969; Brown, 1968; Burke, 1963; Hawks, 1963; Jones, 1963; American Association for Health, Physical Education, and Recreation, 1962; Salario, 1961; Grieder, 1959; St. Clair, 1959; Hein, 1958; Hoxie, 1958; Maksim, 1958; Wear, 1957; American Academy of Pediatrics, 1956; Hess, 1955; Hanson, 1954; Lowman, 1947). While the lines have not been too clearly drawn, on one side there are those who would place definite limitations on the intensity and scope of competitive athletics for young children. In this group, according to the review of literature by this researcher, are the majority of educators and physicians who have studied the issue. On the other side, are those who maintain that highly organized, highly competitive, "varsity-type" athletics are a desirable activity for children in their early school years. This group consists largely of sports promoters, professional athletes, sports fans, and some coaches. As well as these two advocacy groups many parents of young participants also take a position concerning their children's sporting endeavours. Some parents, with a natural ambition to develop their children's athletic powers to the full, are drawn to the side of highly organized
programs of athletics; others, concerned more with the broader welfare of their children, tend to support or endorse less intense sports and recreation programs.

The opinions of many writers are now being replaced by systematic, controlled studies (Behraman, 1967; Pierson and Antonacci, 1965; Kehr, 1963; Hale, 1959; Booth, 1958; Seymour, 1956; Skubic, 1955; Johnson, Hutton, Johnson, 1954; Scott, 1953; Lareau, 1950).

According to the American Association for Health, Physical Education, and Recreation (1973) research must give to the fields of physical education the building materials of accurate facts and principles with which to construct sound practice and wise philosophy. More data on injuries for the various sports should be accumulated and analyzed. Because emotional response is a complex phenomenon, more research is needed in this specific area. The effect of rejection from participation in athletics needs further investigation since Lareau (1950) found that girls who were interested in athletic competition but did not make the team scored higher in anxiety and lower in emotional stability than others in the group studied. In fact, there remains a great amount of research to be conducted on the effects of athletic participation upon girls (Hale, 1959).

Purpose of the Study

The purpose of this study was to examine the effects of different coaching styles on elementary school
age girls who were involved in a competitive basketball program. The study was concerned with effects of athletics and coaching styles upon the emotional, personality, and character development of girls. A comparison of girls that were not involved in competitive athletics with those that were was also undertaken.

Changes in personality and character, whether positive or negative, which may occur as the result of participation in competitive sports have been demonstrated in a limited number of controlled studies (Orlick, 1972; Rarick, 1969; Hanson, 1967; Powers, 1960; Salz, 1957; Hale, 1956; Johnson, 1956; Seymour, 1956; Skubic, 1956; Vovas, 1954; Lareau, 1950). Girls' sports programs at the elementary school level have been subject to even less scrutiny than boys' programs (Brown, 1970; Powers, 1960; Lareau, 1950).

The Problems

The purpose of this study was to investigate two major problems.
A. What are the effects of three distinct coaching styles upon the personality, attitudes and self-concept of elementary school age girls participating in an interschool basketball program?
   i. Will personality development be influenced by distinct coaching styles?
   ii. Will self-concept be influenced by distinct coaching styles?
iii. Will sportsmanship characteristics such as honesty, integrity, fairness, generosity, courtesy, and acceptance of results by influenced by distinct coaching styles?

iv. Will attitude toward the coach differ depending on what coaching style girls are exposed to?

B. Do elementary school age girls participating in an interschool basketball program exhibit changes in personality, self-concept and attitude beyond growth and development variations normally found in girls of this age group?

i. Will differences be shown between participants and non-participants in regard to personality development?

ii. Will differences be shown in regard to personality development between non-participant girls and the three groups of participants exposed to their respective coaching style?

iii. Will differences be shown between participants and non-participants in regard to self-concept?

iv. Will differences be shown in regard to self-concept between non-participant girls and the three groups of participants exposed to their respective coaching style?

v. Will differences be shown between participants and non-participants in regard to sportsmanship attitudes?
vi. Will differences be shown in regard to sportsmanship attitudes between non-participant girls and the three groups of participants exposed to their respective coaching style?

Research Hypotheses

i. There are significant differences among girls exposed to the three coaching styles in changes elicited in personality characteristics such as self-confidence, drive, aggressiveness, determination, responsibility, and leadership.

ii. There are significant differences among girls exposed to the three coaching styles in changes elicited in self-concept relating to self-identity, self-satisfaction, moral-ethical self, and personal self.

iii. There are significant differences among girls exposed to the three coaching styles in changes elicited in sportsmanship attitudes relating to honesty, integrity, fairness, generosity, courtesy, and acceptance of results.

iv. The attitude of the players toward their coach varies depending upon the coaching style.

v. Competition elicits significant changes in personality and sportsmanship characteristics beyond normally expected changes due to development and maturation. Moreover, changes will vary with the coaching style to which girls are exposed.

Rationale for the Hypotheses

The research concerning the effects of competition on elementary school age girls is extremely sparse. To say that
competition initiates greater than normal changes in personality, attitude and self-concept among participants is being too general. The researcher believes that factors such as parental attitudes, coaching styles, community values, and participants' goals are prime determinants of positive and negative development of children's qualities.

Children of elementary school age are very impressionable. Therefore, it may be assumed that distinct coaching styles will influence changes beyond expected growth and development patterns. The nature of this development, however, will be dependent upon the coaching style to which the girls are exposed. This rationale is based on behavioralistic theories as outlined by Paul Goodman (1964).

This study proceeds on the assumption that elementary school age girls not participating in competitive basketball and, therefore, not being exposed to a distinct coaching style would exhibit little, if any, change in emotional, personality, and character development beyond expected growth and development patterns. Barring environmental trauma such as a broken home, parental neglect, or a learning disability these girls would show normal developmental changes.

It is assumed here that a distinct coaching style will influence sportsmanship attitudes of elementary school age girls. If a coach believes "in winning at all costs", throws temper tantrums, blames referees for losses, or exhibits other poor sportsmanship qualities, this behaviour
will likely affect the girls in regard to their personality and attitudes.

Furthermore, because of the impressionable age of these girls involved the researcher assumes that personality qualities of the coaches such as enthusiasm, aggressiveness, emotions, and temperament will be transmitted to participants on the respective teams. It is further assumed that the attitudes of the girls toward their coach will differ depending on the coaching style to which they were exposed.

**Definition of Terms**

A. **Competitive Basketball Program.** A competitive basketball program for Catholic elementary schools is administered by the Catholic Youth Activities. Catholic Youth Activities, a non-profit organization, administers all aspects of competitive sports in Catholic elementary schools. In regard to basketball the following administrative duties are performed:

- schedules are sent to respective schools and coaches
- scores are reported to the Catholic Youth Activities office
- standings are mailed out to coaches
- league play-offs and championships are conducted
- a trophy is awarded to the league champion
- many schools run independent tournaments during the season
B. Elementary School Age Girls.

Pubescent Player.

Immature Youngster.

Young Girls or Youngsters.

The aforementioned terms are used interchangeably and refer in this study to girls enrolled in Grade 7. This means that all girls would have been 12 years old until 1974. That is, they would have turned 13 years old after January, 1974.

C. Highly Organized Competitive Sports. Programs in which players are selected on the basis of athletic or potential skill, where coaches are assigned for each team, and where teams are organized for league or tournament play.

D. Non-participant Group. The group of girls who at the time of this study did not participate in organized school basketball nor on an outside competitive basketball team.

E. Personality. For purposes of this study, personality will be thought of as representing the essence of the individual in terms of what is most typical and characteristic of her. In more concrete terms, personality consists of a set of scores or descriptive phrases which are used to describe an individual according to particular variables, traits, or dimensions. These traits include reserved vs outgoing, stability, humble vs assertive, shy vs venturesome, forthright vs shrewd, and placid vs apprehensive.
F. **Self-Concept.** For purposes of this study self-concept relates to self-identity, self-satisfaction, moral-ethical self, and personal self.

G. **Sportsmanship.** For purposes of this study sportsmanship is defined as those patterns of behaviour pertaining to qualities such as honesty, integrity, fairness, generosity, courtesy and graceful acceptance of results which are acceptable to the established values of contemporary Canadian society.

H. **Aggressive Coach.** Characteristics of the aggressive coach include:

- directive and dominant
- can be cruel, often insulting
- emotional, frequently yells
- emphasizes winning
- relies upon exhortation and stimulation
- verbally abuses officials
- uses threats to motivate, threatening the athlete with criticism and embarrassment
- score seems more important than people

I. **Non-aggressive Coach.**

- personable
- flexible
- deeply concerned with welfare of his players
- popular and sociable
- more interested in people than scores
- uses positive means to motivate athletes
- rarely shows emotions or shouts at players
- rarely, if at all, shows condemnation of officials

Limitations of the Study

The study was conducted with girls between the ages of 11 and 13 residing in Greater Vancouver, British Columbia, Canada. It was restricted to schools located in two areas of Vancouver (Victoria-Fraserview; Renfrew-Collingwood) and Census Tract 239 of the municipality of Burnaby. The girls involved were of the Catholic faith and attended Catholic elementary schools. The schools attended by the girls included grades 1 - 7 and were co-educational. The coaches were Catholic males.

One limitation of the present study is lack of random sampling. Another limitation is the causality assumption which states that changes in personality or sportsmanship attitudes may be due to some factor other than the coaching style.

In the present research no attempt was made to assess motivation, general motor ability, intellectual capacity or cultural background. However, the subjects attended schools in communities with approximately the same general social, economic and cultural background. Table I shows population, household, and family characteristics of the two census tract areas of Vancouver and Census Tract 239 in Burnaby (1971).
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POPULATION, HOUSEHOLD AND FAMILY CHARACTERISTICS BY CENSUS TRACTS - 1971
(CENSUS METROPOLITAN AREA OF VANCOUVER)

<table>
<thead>
<tr>
<th>MARITAL STATUS</th>
<th>CORPUS CHRISTI (Victoria-Fraserview)</th>
<th>ST. MARY'S (Renfrew-Collingwood)</th>
<th>HOLY CROSS (Census Tract 239)</th>
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<tbody>
<tr>
<td>Single</td>
<td>43.9%</td>
<td>Single</td>
<td>44.2%</td>
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<tr>
<td>Married</td>
<td>46.1%</td>
<td>Married</td>
<td>46.6%</td>
</tr>
<tr>
<td>Other</td>
<td>10.0%</td>
<td>Other</td>
<td>9.2%</td>
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<tr>
<th>ETHNIC GROUP</th>
<th>CORPUS CHRISTI</th>
<th>ST. MARY'S</th>
<th>HOLY CROSS</th>
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<tr>
<td>British Isles</td>
<td>54.9%</td>
<td>49.5%</td>
<td>58.0%</td>
</tr>
<tr>
<td>German</td>
<td>9.3%</td>
<td>7.9%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Italian</td>
<td>3.5%</td>
<td>6.5%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Chinese</td>
<td>5.3%</td>
<td>6.4%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Scandinavian</td>
<td>4.2%</td>
<td>4.0%</td>
<td>4.6%</td>
</tr>
<tr>
<td>East European</td>
<td>8.8%</td>
<td>10.2%</td>
<td>6.2%</td>
</tr>
<tr>
<td>English as mother tongue</td>
<td>77.9%</td>
<td>73.1%</td>
<td>82.2%</td>
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<tr>
<td>Managerial</td>
<td>3.2%</td>
<td>1.6%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Professional</td>
<td>3.3%</td>
<td>3.1%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Clerical</td>
<td>22.6%</td>
<td>19.8%</td>
<td>23.8%</td>
</tr>
<tr>
<td>Service</td>
<td>14.4%</td>
<td>18.0%</td>
<td>15.1%</td>
</tr>
<tr>
<td>Sales</td>
<td>12.4%</td>
<td>9.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Construction</td>
<td>8.1%</td>
<td>9.4%</td>
<td>10.8%</td>
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<tr>
<td>Transportation</td>
<td>10.7%</td>
<td>13.2%</td>
<td>7.9%</td>
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<tr>
<td>Under 4,000</td>
<td>21.0%</td>
<td>Under 4,000</td>
<td>18.8%</td>
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Justification of the Study

One of the most controversial areas in education today concerns the matter of competitive athletics at the elementary school level. There has been a multitude of writings, both positive and negative, on the subject (Danmehl and Razor, 1971; Rarick, 1969; Brown, 1968; Burke, 1963; Hawks, 1963; Jones, 1963; Salario, 1961; Grieder, 1959; Hoxie, 1959; St. Clair, 1959; Hein, 1958; Wear, 1957; American Academy of Pediatrics, 1956; Hess, 1955; Hanson, 1954). Unfortunately, much of this writing is based on subjective viewpoints.

Is competition really bad? Or is it the outside forces that warrant the blame? By outside forces the researcher is referring to coaches, parents, all-star tournaments, and professional influences. To say that competitive athletics at the elementary school level is good or bad, is being far too general. Research dealing with all components of competitive athletics is needed.

Competitive athletics are becoming increasingly popular with elementary school age youngsters. The increased number of minor hockey leagues and pee-wee football leagues, in addition to the popularity of little league baseball, minor soccer, and expanded elementary inter-school sports programs warrants a close examination of the effects of these activities upon the participants.

In recent years, competitive athletics at the elementary level has made roots in girls' sports and leisure
activities. More girls are involved in competitive sports today than ever before. Research looking at the effect of these organized activities upon girls is certainly needed.

To summarize, the study is significant for the following reasons:

A. Evidence concerning the effects of competitive athletics on elementary school age girls in regard to personality, self-concept, values, and attitudes is needed.

B. Insight should be developed into the possibility of positive and/or negative effects emanating from competition itself or from distinct coaching styles.

C. Knowledge of the ultimate aims and goals of coaches is needed.

D. Discrimination must be made between goals of coaches, such as the emphasis on winning, and the emotional effects of competition in regards to the results they may have on the participants.

E. Decisions should be sought on the type of controls required to make competition for girls at the elementary school age level a worthwhile experience.

F. Research is needed in the area of emotional pressure resulting from competition and the ability of elementary school age girls to cope with it.
CHAPTER II

REVIEW OF THE RELATED LITERATURE

The present review of the literature has been divided into three main sections all of which contains specific subdivisions. The first section deals with socialization and behavioural acquisition, and looks principally at socialization and the family, socialization and the coach, and socialization and the female athlete. The second section explores personality and specifically, reviews literature related to the following seven areas:

A. Personality of male athletes vs male non-athletes.
B. Personality of male athletes of various sports groups.
C. Personality of female athletes.
D. Personality research with athletic children.
E. Emotions and competitive athletics.
F. Sex differences between males and females.
G. Personality and self-concept.

An investigation of pertinent sportsmanship studies is reviewed in the third section.

I. Socialization and Behavioural Determinants

The topic of socialization within the science sociology, is a major concept and field of study. The socialization process involves the acquisition of motives, feelings, skills, cognitive sets, and social norms and expectations. It embraces the informal acquisition of these attributes through peer groups and friendship.
relationships, as well as from formally designated socializing agents such as parents, teachers, ministers, and others. The process incorporates both the development of the individual as well as transmitting cultural values and providing a means of securing potential consensus and social control in the collectivity of society (Mussen, Conger, Kagan, 1969).

A. Socialization and the family. "A child's behaviour is a function of his biological nature and the learning that results from interaction with his environment particularly, his social environment." (Orlick, 1972:9) Most of a child's desires, skills, values, and attitudes are learned within his social environment and have a direct influence upon his behaviour. People, especially those who are in some way significant to a child, are his primary sources of motivations, fears, and rewards (Mussen, Conger, Kagan, 1963).

Models are utilized in all cultures to promote the acquisition of socially sanctioned behaviour patterns (Bandura and Walters, 1963). A child is continually taking the attitudes and emulating the behaviour of those around him, particularly those who in some sense control him and on whom he depends (Mead, 1934). In a child's early years the parents are the principal models of behaviour or the primary agents of socialization (McNeil, 1969). This is exemplified by the fact that children frequently reproduce not only the appropriate adult-role
behaviour patterns of their parents but also reproduce such things as parental attitudes, mannerisms, gestures and even voice inflections which the parents have never attempted to teach directly (Bandura and Walters, 1963).

The tendency of the child to incorporate parental attitudes and values reaches its maximum point at approximately eight or nine-years of age, which is before the peer group makes its full impact on the child (Williamson, 1966).

The role of the family in socializing a child involves "teaching" him about the real world, about the behaviour expected of him in it, about who and what he is, and about what other people are like. Identification and imitation are the two indirect means by which the young are socialized in the family early life, and later in the society (McNeil, 1969). Both concepts encompass the same behavioural phenomenon, namely the tendency for an individual to reproduce the actions, attitudes, or emotional responses exhibited by real-life or symbolized models (Bandura and Walters, 1963). Attitudes are apparently more communicable through indirect rather than direct stimulation. For example, if persons around a child are interested in and enjoy activities, the child falls readily into the pattern. However, if people around a child are uninterested or dislike activities, the probability of interest on the part of the child is greatly diminished (Pressy and Kuhlen, 1957).
The models and reinforcements to which a child is exposed during his early years are extremely important due to the fact that basic orientation toward experience is established early in life. Failure to establish interests in childhood and youth "often results in significant gaps persisting throughout life" (Pressy and Kuhken, 1957:426). This finding was supported by the Baldwin (1948) longitudinal studies which indicated that children who adopted traditional masculine (athletics, mechanics, competitiveness) or feminine (gardening, cooking, sewing) activities during the early school years retained this orientation through adolescence and adulthood.

The literature on socialization and behaviour acquisition seems to indicate that a child becomes socialized into sport in much the same manner that one becomes socialized into any mode of behaviour. The implication being that learning a sport role is largely dependant upon the models available to the child and the reinforcements to which the child is exposed. When a child is young the parents are reported to be extremely important factors in providing models for emulation as well as reinforcements. According to the principles of role theory, a boy identifies with his father because in the child's eyes he is very powerful in controlling both rewards and punishment (Mussen, 1967). Love, affection, approval, attention and praise serve as
extremely effective incentives for children (McNeil, 1969; Pressy and Kuhlen, 1957). From a social learning perspective, the desire for a young child to participate in sport arises largely from the desire to please his parents (or significant others) who encourage this motive and an identification with parents who are effective models of sporting behaviour.

A number of investigators have studied the influence of socialization agents upon adolescents. For example, considerable evidence has been accumulated to indicate a congruency between parental and children's attitudes, particularly in regard to educational and occupational aspirations. Evidence for parental and familial influences has been presented in many research studies (Campbell, 1969; Kandel and Lesser, 1969; Sewell and Shah, 1968, Rehberg and Westby, 1967; Ellis and Lane, 1963; Strauss, 1962; and Burdua, 1960). Orlick (1972) carried out an exhaustive study of sixteen non-participants and sixteen participants in minor hockey in the city of Edmonton. Six research instruments were used to collect information from the children: Child Sports Environment Interview, Children's Attitudes about Sport Interview, S.R.A. Inventory of Children's Interests, Children's Personality Questionnaire, and Attitudes about Sports. The results indicated: 1) that athletic children have parents who are themselves active, and/or 2) athletic children have parents (or significant others) who encourage their participation.
The hypothesis that family factors influence choice of sport mode was investigated by Birrell (1973). She classified sport into two modes: competitive group sports involving a winner/loser, and natural sport participation in which an individual competes with some natural force such as mountains, snow or water. The 139 undergraduate college women who completed the questionnaire generated data suggesting attitudinal effects from parents and brothers and sisters of considerable import to sport motives.

B. Socialization and the coach. Noticeably absent in the previously mentioned studies is empirical data related to athletic coaches as socialization agents. According to Tutko (1971) a student, throughout his educational years, has, in most cases, a closer relationship with coaches than other teachers. This close relationship with a coach over a period of months – the work, the agony, the disappointment, and the successes – produces an atmosphere in which the coach can become a truly influential builder of character and a moulder of personality. Although empirical data has been lacking, several investigators have noted the theoretical relevance of the coaching role in socialization. Kenyon (1968) has suggested that physical education and sports provide the necessary conditions for socialization with the
existence of agents and models. Elsewhere, Kenyon (1969) has discussed the degrees and types of involvement by participants in a sport and the variations of reference groups that are likely to be important to them. Page (1969:200) has cited the function of coaches as reference persons and educational advisors: "when the kid who at fifteen or sixteen has tremendous promise, coaches are apt to think in career terms, 'you go to Michigan State, we have connections with such and such pro team'. In this way, coaches become career specialists."

The influence of the coach in the socialization process for athletes is particularly important when several dimensions of the coach-player relationship are analyzed. Since participation in high school athletics is a highly-prized, prestige-granting activity, the coach normally has considerable control in matters such as the selection of players and granting rewards and punishments. The players, in most situations, voluntarily submit to the coach's control and influence. Brim (1966:27) has noted that this procedure of selection help to assure that those who enter the organization (or activity) will not present difficult problems for the socialization program.

The importance of the coach as a reference person is supported by Kemper's (1968) approach to reference groups. He has suggested that there are three types of reference groups. The normative which defines the role
the individual is to assume; the role model with whom the actor (i.e. the player) can compare his performance; and the audience to whom the actor attributes certain values that serve as his behavioural guides. For many athletes the high school coach embodies all three types of reference groups. Kemper (1968:40-41) has noted that the coincidence of these three types of reference groups potentiates the most effective type of socialization. Snyder (1972) drew upon a sample of 270 Ohio high schools that participated in basketball. A questionnaire was sent to the basketball coaches and two varsity team members of each of the 270 schools. His research provides empirical data that document several aspects of the coaches' influence over his players in the socialization process. A large majority of the players in the survey indicated that their basketball coach had been influential to them. A breakdown of the major types of influence included: helped with personal problems; development of basketball proficiency; taught pride, teamwork, sportsmanship, and hard work.

The data further demonstrates the important role of the coach in guidance and counselling of the players regarding their educational and occupational plans for the future. In general, the coaches ranked immediately behind the players' parents in this regard. The coach's influence as a socialization agent extends considerably beyond the behaviour of players in the actual practice
and participation in the game situation. Furthermore, the data shows that many former players continue to seek out their coaches for advice and suggestions in post school years.

Rider (1973) researched the influence of basketball coaches upon the personalities of athletes at junior high, high school, and collegiate levels of competition. The eleven-trait Athletic Motivation Inventory was administered pre and post season to six coaches and seventy-five players. No significant results were found at the junior high or high school level regarding the coaches' influence over their players' personalities. At the college level, the one trait revealed a significant difference was "emotionality".

C. Socialization and the female athlete. One of the early reports of survey research into female sport participation was offered by Heuser (1965). Although the study pertains to young German women between the ages of fourteen and twenty-eight, the technique utilized by Heuser is somewhat unique and the findings provide interesting comparative data. Eighty girls, from a given high school, wrote anonymous essays concerning why they like to engage in sports and why they did not like to participate in physical activity. According to Heuser, "between the lines" of the essays she discerned a group of motives that would prevent devotion to sport
in spite of subjects' general affirmation of physical exercise. A noteworthy result from the study showed that the lack of qualified instructors proved a deterrent to physical activity.

Gerber, Felshin, Berlin and Wyrick (1974) investigated some of the background factors that precede collegiate sport involvement of females. They collected data relative to two age factors: (1) age at which the college performer was first introduced to the sport(s) in which she elects to compete during her college years, and (2) the age at which she made the decision to pursue competition seriously in the activity. The modal age at which these young women were introduced to the sport was in the early teen years. However, more than half of the athletes, 55.5% had their introductory experience earlier. Serious pursuit of the sport was also determined during the early adolescent years of twelve and fourteen. Thirty-five and a half percent of the subjects indicated a later decision to compete and only 10.5% revealed making a commitment to their sport during the childhood years before age eleven.

Inasmuch as role models are thought to be important behavioural influences, the following questions were put to subjects comparing the Berlin (1974) sample. "Who do you strive most to emulate in your sport accomplishment? What, if any, is your relationship to this individual?" The person emulated most was the coach. That more of the
athletes identified friends and teammates than members of the family certainly lends credence to Landers' and Lüschen's (1970) speculation that peers may be just as relevant in influencing sport pursuit as members of the family.

II Studies Relating to Personality and Emotions of Males and Females

A. Personality of male athletes versus male non-athletes. Investigators (Berger and Littlefield, 1969; Bruner, 1969; Hunt, 1969; Kroll, 1969; Chipman, 1968; Johnson, 1966; Werner and Gottheil, 1966; Schendel, 1965; Slusher, 1964; Merriman, 1960; Booth, 1957; and Biddulph, 1954) have studied the personality traits of the athlete versus the non-athlete at all levels, high school through college, to find a contrast to their personality profiles.

1. Studies using the Minnesota Multiphasic Personality Inventory

Booth (1957) compared the personality ratings of

(1) freshman and upperclass athletes and non-athletes,
(2) freshman and varsity athletes who participated in only team, individual, or team and individual sports, and (3) athletes who were rated as poor or good competitors. He found that varsity athletes and upperclass non-athletes significantly (P < .05) showed more dominance than the freshman athletes. He also found that the varsity athletes participating in individual sports scored significantly higher on the depression trait than those varsity athletes participating only in team sports.
Slusher (1964) compared 400 male high school junior and senior class lettermen and 100 male non-athletes relative to their personality profiles. He found that seven of the factors, hypochondriasis, depression, hysteria, psychopathic deviation, femininity, paranoia, and psychasthenia, on the MMPI distinguished \((P < .05)\) between the athletic and non-athletic groups. Only two factors, hypomania and the validity scale showed non-significant results.

ii. Studies using the California Psychological Inventory

Berger and Littlefield (1969) used thirty outstanding college football athletes, thirty non-outstanding college football athletes, and thirty college non-athletes. After controlling for scholastic aptitude, the investigators found no significant differences \((P > .01)\) between the groups or on any of the eighteen items of the CPI nor a composite score.

In the Merriman study (1960) the California Psychological Inventory was administered to 808 high school boys classified in the following groups: upper and lower motor ability groups, athletes and non-athletes matched according to motor ability scores, participants in team sports, participants in individual sports and participants in team-individual sports. Few significant differences were found between the mean scores on the CPI for participants in team, individual, and team-individual sports. The results of this study indicated that motor ability may
be related to personality traits.

Schendel (1965) compared the personality characteristics of 334 ninth, twelfth, and college males in respect to levels of athletic participation. He found there were specific differences ($P < .05$) between the measures of the personal-social psychological characteristics of athletes and non-participants at the ninth, twelfth, and college levels.

iii. Studies using the Gordon Personal Profile and Inventory

Chipman (1968) found with college males that participants in team sports were more sociable and ascendent than were participants in individual sports and non-participants. He also found that non-participants were more original in thinking than team sports members.

Hunt's study (1969) was designed to investigate personality differences of a sample of 111 college males. Results obtained from the profile suggested that the white varsity athletes ranked higher in ascendancy, emotional stability, and responsibility traits when compared to the Negro and white non-athletes. The Negro varsity athletes ranked higher on the responsibility trait when compared to Negro non-athletes. Hunt concluded that athletes, regardless of ethnic background, tend to differ ($P \leq .05$) in selected personality traits when compared to non-athletes.
iv. Studies using the Cattell Sixteen Personality Factor Questionnaire

Werner and Gottheil (1966) administered the Cattell questionnaire to 340 cadets entering the United States Military Academy who were considered to be the athletic group and another group of 116 who were considered to be athletic non-participants, and found no evidence ($P > .05$) to support the view that college athletics significantly influenced personality structure.

Kroll (1969) studied 94 amateur and collegiate wrestlers using the Sixteen Personality Factor Questionnaire. When compared to norms, wrestlers demonstrated a significant departure from average on Factor I indicating tough-mindedness, self-reliance, and masculinity.

v. A Study using the Guildford-Zimmerman Temperament Survey

Johnson (1966) conducted a personality investigation of 340 secondary school boys who were either football players or non-football players. While there were no significant effects contributable to a season of football on personality traits of junior and senior football players, there were significant effects on the personality traits of ascendency and objectivity of the sophomore players. In addition, the football players were significantly different from the non-football players on the same two traits.
vi. A Study using the Adjective Check List and Questionnaire

Bruner (1969) investigated personality and motivating factors influencing adult participation in vigorous physical activity. The Adjective Check List and a questionnaire were administered to sixty adult male Caucasians; the men were divided into two equal groups - participants and non-participants in vigorous physical activity. Results disclosed significant differences between the groups on eight scales. Participants scored significantly higher on: Intraception, Number of Favorable Adjectives Checked, Defensiveness, Achievement, Dominance, and Self-Confidence, whereas non-participants were superior on Succorance and Counselling Readiness.

vii A Study using the California Test of Personality

Biddulph (1954) researched the personal and social adjustment of high school boys of high athletic achievement with the adjustment of boys of low athletic achievement. It was found that students ranking high in athletic achievement demonstrated a significantly greater degree of personal and social adjustment than did students ranking low in athletic achievement.

B. Personality of male athletes of various sport groups

Some investigators (Straub and Davis, 1971; Kroll, 1969; Singer, 1969; Newman, 1968; Ogilvie, 1968; Kroll
and Carlson, 1967; Kroll and Petersen, 1965; Bosco, 1962; Lakie, 1962; and La Place, 1954) have studied the personality traits of various sport groups at high school through college levels to find a contrast in their personality profiles. The following studies outline their findings.

i. A Study using the Minnesota Multiphasic Personality Inventory

LaPlace (1954) investigated the success in professional baseball using forty-nine major league players and sixty-four minor league players. Results indicated ($P \leq 0.05$) that major league players apply their strong drive towards a definite objective by exercising self-discipline, by adjusting to occupations requiring social contact, and by exercising initiative.

ii. Studies using the Cattell Sixteen Personality Factor Questionnaire

Bosco (1962) found ($P \leq 0.05$) that the eighty-four champion male gymnasts have a strong tendency toward brightness and intelligence, calmness and maturity, criticism and experimentation, and control and enactness.

Kroll and Carlson (1967) and Kroll and Petersen (1965) found no significant differences ($P > 0.05$) when looking at collegiate wrestlers, amateur karate participants, and winning and losing collegiate football teams. When making within-group comparisons the investigators were not able to distinguish between higher- and lesser-skilled athletes dealing with the personality profiles.
Straub and Davis (1971) administered the questionnaire to 246 college varsity football players, 50 of whom were attending a small private college, 69 attending an Ivy League University, 83 attending a Big-Ten University, and 44 attending a small state-supported college. The results indicated that the teams scored significantly higher ($P \leq .01$) on factors I, toughminded versus tenderminded; N, forthright versus shrewd; Q1, conservative versus experimenting. The teams were found higher ($P \leq .05$) in personality on factors; M, practical versus imaginative; O, self-assured versus apprehensive and Q2, group dependent versus self-sufficient.

Ogilvie (1968) claims from his many studies that those who retain the motivation for competition will possess most of the following personality traits:

1. ambition, 2. organization, 3. deference, 4. dominance,
5. endurance and 6. aggressiveness. No claims that personality data does separate the outstanding athlete from the average athlete were found.

iii. A Study using the Omnibus Personality Inventory

Lakie (1962) compared the personality traits of 230 athletes from a state university, a private university, and two state colleges. The scores of the sports group, each group consisting of athletes from all four schools, showed no significant differences. A significant difference on the Social Maturity Scale was shown with
the athletes at the private university scoring higher than athletes at each of the other three schools.

iv. A Study using the Thurstone Temperament Schedule

Twenty-one male swimmers were ranked according to swimming ability as determined by actual time tests in events used in the National Collegiate Athletic Association high school dual meets. Newman (1968) found no set of personality traits ($P > .05$) that could be used to identify the better swimmers except the swimmers that ranked high in the 100 yard freestyle ranked high in dominance. Those swimmers that ranked high in the 100 yard breast-stroke ranked low in both dominance and impulsiveness and in the sociable trait.

v. A Study using the Edwards' Personal Preference Schedule

Singer (1969) found no significant difference ($P > .05$) among ten varsity collegiate tennis players and fifty-eight varsity and freshman baseball players. When making between- and within-athletic group comparisons with normative data, achievement, intracception, and dominance emerged as being significant ($P < .05$) with tennis players scoring higher.

The conflicting views found with studying the personality traits of male athletes versus the male non-athletes and the personality traits of male athletes of various sport groups points to the need for further research. Until the personality inventories are more
reliable and until they tend to measure the same or similar personality traits, few conclusions about the personality profile of the male athletes may be drawn. Certain personality traits of the male athlete seem to be indicated as significant in most of the literature reviewed, but as to which exact traits are important, it is difficult to predict. In order to provide some clarity, further research utilizing the most reliable and refined personality measuring instruments is needed.

C. Personality of female athletes

Investigators (Bird, E.T., 1970; Dayries and Grimm, 1970; Moore, J.T., 1970; Mushier, 1970; Williams, Moody, Hoepner, and Ogilvie, 1970; Moore, S.M., 1969; Malumphy, 1968; Ogilvie, 1968; Petersen, Weber, and Trousdale, 1967; Bird, A.H., 1965; Neal, 1963; and Flemming, 1934) have studied the personality traits of the female athlete at all levels looking for contrast in their personality profiles.

i. Studies using the Cattell Sixteen Personality Factor Questionnaire

Malumphy (1968) investigated women participating in various intercollegiate sports competition. The results indicated that the groups, fifteen individual sports participants, sixteen subjectively-judged sports participants, twenty-eight team sports participants, eighteen team-individual sports participants, and forty-two non-
participants, were similar on fourteen of the dimensions of personality and significantly different ($P \leq 0.05$) on nine dimensions of personality. The investigator stated that a sport participant may select a competitive sport on the basis of her personality. Specifically, team sport individuals were less venturesome, and less extroverted than the individual sports group. The team-individual sports group was significantly differentiated as being less venturesome, and less extroverted than the individual. The non-participants were significantly differentiated from the sports groups as being less conscientious than the subjectively-judged group; less tough-minded, less tough poise, and less leadership than the individual and subjectively-judged groups; more outgoing than the team sports group; and more imaginative, more extroverted, and more venturesome than the team-individual sports groups.

Mushier (1970) studied junior high, senior high, college, association, and national level females in competitive lacrosse. The total competitive lacrosse group was characterized as significantly ($P \leq 0.05$) more reserved, intelligent, assertive, happy-go-lucky, tough-minded, and experimenting than the norms established for the Cattell Sixteen Personality Factor Questionnaire. No regular pattern of differences was found on the significant factors. The investigator concluded that personality development may be independent of competitive sport
competition; that self selection of the individual into competitive sports may be determined by personality factors that the individual already possesses.

Ogilvie (1968) found young females, ages ten to fourteen, involved in high level competition, to possess increased control, self assurance and self assertiveness, and were more tough-minded, individualistic, self disciplined, and slightly less anxious and tense than those who were not involved in high level competition.

Petersen, Weber, and Trousdale (1967) studied 156 women AAU athletes and the women on the 1964 United States Olympic team. The women who were engaged in individual competition were found to be significantly (P < .05) more dominant, aggressive, adventuresome, sensitive, imaginative, radical, and self-sufficient and resourceful than women engaged in team sports. The team sportswomen were significantly (P < .05) more realistic, steady, sophisticated, practical, dependable, and interested in immediate issues than the individual sport competitors.

Moore, J.T. (1970) investigated the personality differences between a team sport, an individual group sport, and a combined group sport. One hundred and fifty-eight girls who participated on varsity interscholastic teams were given Cattell's High School Personality Questionnaire (H.S.P.Q.). More similarities than differences existed among the groups. The individual sports group was characterized by their emotional stability and their
relaxed attitude. They showed less excitability, were more adventurous, tender-minded and lacked self-control while the combined sport group was conscientious, persistent, more self-sufficient, self-assured, self-controlled, tough-minded and was more tense than the other two groups. The team sport was characterized by having the least amount of emotional stability, liked group action, was insecure, and had a tendency to worry.

Shafor (1971) investigated 179 athletes, and 92 non-athletes. The sports represented were basketball, field hockey, volleyball, tennis, badminton, and track and field. Differences were ascertained between athletes and non-athletes. Team sportswomen were more trusting, practical, and group dependent. Individual sport team members were more intelligent than non-athletes. Non-athletes were more sophisticated and self-sufficient than either group of athletes.

Williams, Moody, Hoepner and Ogilvie (1970) used three psychological tests: Jackson's Personality Research Form, Edwards' Personal Preference Schedule, and Cattell Sixteen Personality Factor Questionnaire to measure the thirty female champion level competitors who were in the 1968 National Fencing Championships. On the basis of the findings of this study, the investigators concluded that it may be possible to identify a fencing sport type by means of personality trait assessments. They also stated that at a high level of skill only the personality trait
known as dominance distinguishes \((P \leq .05)\) between the achievement levels in fencing.

ii. Studies using the Edwards' Personal Preference Schedule

Neal (1963) investigated the personality traits of women athletes who participated in the 1959 Pan-American Games. She found that women athletes scored significantly higher \((P \leq .05)\) on the variables of achievement, autonomy, affiliation, aggression, order, and nurturance than did a control group of non-athletes. Of the fifteen variables measured, six resulted in a significant difference \((P \leq .05)\) between the Pan-American athletes with some college training, and the norm group.

Dayries, J.L. and Grimm, R.L. (1970) investigated twenty-one inter-collegiate athletes, and compared them with the norm. As a group the athletes were higher than norms on achievement, exhibition, autonomy, affiliation, intraception, dominance, nurturance, heterosexuality, and aggression. The athletes were lower than the norms on the factors of deference, order, succorance, abasement, change, and endurance. Athletes desire to be independent, unconventional, and the centre of attention. They want to be successful and to accomplish tasks requiring great skill and effort. They express aggression with no guilt feeling, have need to indicate interest in other's problems, have low need for neatness and organization.
iii. Studies using the California Psychological Inventory

Bird (1965) investigated the personality traits of fourteen basketball players and thirteen modern dancers. She found that the basketball group scored significantly ($P < .05$) higher on the communality scale and the modern dance group scored significantly ($P < .05$) higher on the flexibility and femininity scales.

Moore, S.M. (1969) studied 102 University of Kansas women between the ages of eighteen and twenty-two. The results of the study revealed that the active group scored significantly higher than the inactive group in responsibility, socialization, and communality. The inactive group did not score significantly higher than the other two groups in any of the personality scales, however, significant correlations were found between activity and socialibility, well being, and dominance in the inactive group.

iv. Studies using the Ogilvie-Tutko Battery of Four Personality Tests

Bird (1970) investigated fifty-four Canadian College women ice hockey players who volunteered to take the Ogilvie-Tutko battery of four personality tests which consisted of the Cattell Sixteen Personality Factor Questionnaire, the Jackson's Personality Research Form, Edwards' Personal Preference Schedule, and Osgood's Semantic Differential. The women athletes on the Cattell Questionnaire rated very high in general ability, were somewhat reserved, self-sufficient, and liberal in thought.
On the Jackson's Form they rated very high in autonomy and in endurance and abasement. The Edwards' Schedule also indicated the subjects rating high in the autonomy trait. The investigator concluded that the results of the study may have shown trends toward a consistency of personality characteristics which may support a definite personality type for female competitors in team sports.

v. Study using the Adjective Trait Check-List

Flemming (1934) studied eighty-four high school athletes and 219 high school non-athletes. The summary of major findings showed the athletic type of girl is not strikingly different from the non-athletic type except in her interest in sports. If there is a difference (as perceived by teachers) it is that the athletic type is more of a "good sport", fairer, livelier, has a more pleasant voice, has wider interests, is more beautiful or pretty, is more interesting in conversation, is more honest or truthful and more helpful than average.

D. Personality research with athletic children

Very few research studies have been conducted which explore the personality traits of athletic children. Those studies which have investigated the problem were subjective in their orientation and were generally completed in the 1950's. Keeping these facts in mind some of the pertinent findings of these studies are briefly explained here.
Seymour (1956) conducted a study on ten-to twelve-year-old participants in little league baseball. Teachers subjectively rated the participants higher on every personality trait (cooperation, social consciousness, emotional adjustment, leadership, and responsibility) in both pre-season and post-season tests. However, only leadership was significantly higher for the participants. In terms of social acceptance from peers the participants received significantly higher ratings from both boys and girls on both pre-season and post-season tests. The hypothesis that participants would make greater advances in terms of acceptance from pre-season to post-season was rejected.

The major hypotheses of the study, that greater improvement would be made by the participants during the course of the study, was not supported by the data, except in the area of leadership. From this study it appears that ten-to twelve-year-old baseball players begin playing with a higher level of social acceptance and more desirable personality traits than their non-participating peers. However, it is not known whether the subjects in this study had been participating since the age of eight or whether this was their first encounter with a little league team.

Skubic (1956) found that teachers rated little league and middle league baseball players as being better adjusted socially and emotionally than boys who were not members of
teams. The players also received significantly higher grades in physical education when compared to the non-players. Brown (1970) studied the relationship between emotional adjustment and rating on a physical performance test for children aged nine to twelve. He found that physical performance and emotional adjustment were not highly related.

Rarick and McKee (1949) utilized the case study technique to investigate the personal characteristics of ten children of high and ten children of low motor proficiency, all of whom were in the third grade. As subjectively evaluated by the teacher, children in the superior motor proficiency group tended to be popular, active, calm, resourceful, attentive, cooperative, and leaders. Children in the inferior motor proficiency group were more often found to be shy, retiring, tense, imaginative, and followers.

Tuddenham (1951) found that athletic skills, leadership, and daring were associated with popularity in young boys. The most highly esteemed boys in grade one were those whom their peers considered good at games, good sports, "real boys", not bashful, and daring. The most important correlates of popularity with grade three boys were fairness in play and leadership ability. Hahn (1970) used a sociogram on boys aged ten to twelve and found that physical fitness and sports played a significant role in their social order.
Salz (1957) utilized five personality tests and found that the group of boys who had been exposed to varying levels of competitive play, including the Little League World Series, scored significantly higher on the personality tests than boys who did not have competitive athletic experiences. The boys with competitive exposure possessed broader interests in science, music, social studies, home arts, active and quiet play; were superior in traits of cooperation, friendliness, integrity, leadership, and critical thinking, and were significantly higher in total adjustment scores.

Girls in grades eight and nine were given the University of California Inventory to determine the relationship between athletic competition and personal and social adjustment. Powers (1960) reported little difference between the effects of intramural and interscholastic participation with the exception that interscholastic competitors improved significantly more in "behaviour immaturity" and feelings of inadequacy.

Lareau (1950) looked at the relationship between athletic competition and personal and social adjustment in junior high school girls. The results of the study were that girls with experience in athletics showed better personal and social adjustment, were more popular, exhibited higher leadership qualities, were more active in clubs and organizations and were emotionally more stable.
E. Emotions and competitive athletics

Johnson (1956) demonstrated that motivation could produce nausea in some boys during severe physiological stress.

Hale (1956) reported that among 1,300 physician-fathers of little leaguers surveyed, 97 percent indicated that the games did not excite their sons sufficiently to effect their health adversely.

Skubic (1955) conducted a study to obtain by means of the Galvanic Skin Response Test, scientific data regarding the emotional responses of boys in a variety of competitive situations. The Galvanic Skin Response affords an indication of the activity of the autonomic nervous system which is of major importance in the bodily changes associated with emotional states. Insofar as the Galvanic Skin Response can be taken to be a valid measure of the emotional excitation of boys in this age level, the results of the study suggest that youngsters were no more stimulated by competition in league games than they were by competition in physical education games.

Vovas (1957) found that among boys grades eight to twelve, basketball elicited the greatest emotional response, baseball the lowest, and football in between.

Sevier (1973) conducted a comparative study of aggression and related personality characteristics. The study was designed to see if members of a boys' championship soccer team in Baltimore County possessed similar personality
characteristics to those of adult male champion soccer players from Great Britain. In addition, the boy championship soccer players were compared with a control group of non-soccer players to see if any significant differences existed on a series of personality factors as measured by the Children's Personality Questionnaire. The results showed a boys' championship soccer team was significantly different from a control group in intelligence, emotional stability, aggression, expedience, venturesomeness, and confidence. In these scores the boys tended to exceed levels of the British. It appears then that the members of the boys' championship soccer team compared very favourably with British soccer champions as reported by Kane (1967). This may suggest that a sport type does exist in terms of personality characteristics. It may also help to give support to the thesis that one's personality traits lead an individual into certain sports. It would seem that the statistical analysis for the above study (Sevier's) is questionable. For example, he states a significant difference at the .05 level. However, in reality, because of doing a T-test on a number of variables his significance level is .55. A large error factor is present.

The focus of much research in physical education during the past twenty-five years has been in the area of sport psychology. Investigators have sought to determine the relationship of various personality factors as related
to participation and competition in athletics. Unfortunately, bias has encouraged studies lacking necessary controls as well as questionable statistical analysis as exemplified in the Sevier study. Furthermore, the research findings of the studies reviewed on the male and female athlete seem to indicate that personality differences possible exist between the subjects and the national norms established for the personality measuring instruments, and between various comparisons within the samples. Until the personality measuring instruments tend to measure the same or similar personality traits, few conclusions can be drawn. All of the studies reviewed recommended that further research be completed investigating the personality traits of the male and female athlete.

There are a considerable number of personality tests available, however, the majority are designed for older adolescents and adults. In addition, many of the adult tests are clinically orientated. For this research the Jr. - Sr. High School Personality Questionnaire was selected. The test, assessing major aspects of the teenager's personality, has four available forms. According to the Institute of Psychological Research, 1973, the HSPQ gives the most complete coverage of personality possible in a brief time. The dimensions measured have been isolated by over twenty years of factor analytic research on normal and clinical groups. The test has been revised and intensified in validity several times since its initial publication. The simpl-
icity in scoring along with attractive profile sheets influenced the researcher's selection. Cattell has a Children's Personality Questionnaire (CPQ) designed for ages 8 - 12. Since subjects were thirteen at the time of the post test, it was decided to use the HSPQ. The Institute of Psychological Research (1973) recommends its use for ages 11 - 17.

F. Sex differences between males and females - roles and personalities

Howe (1971) in a discussion of the studies done by Broverman (1968) and others at Worcester State Hospital in Massachusetts, pointed out that clinical psychologists equated the clinically healthy male and the clinically healthy adult. These male and female psychologists viewed the clinically healthy female as quite divergent. The "male valued items" used in these investigations were such things as: very aggressive, very independent, not at all emotional, very logical, very direct, very adventurous, very self-confident, very ambitious; the "female valued items" included: very talkative, very tactful, very gentle, very aware of feelings of others, very religious, very quiet, very strong need for security. In a study of college students using the same instruments, the findings led the investigators to conclude that:

Despite historical changes in the legal status of women and despite the changes in permissible
behaviours accorded men and women, the sex-role stereotypes continue to be clearly defined and held in agreement by both college men and college women. (Broverman, 1968)

The socialization process depends upon individuals internalizing the norms and roles that society expresses and requires. McClelland (1965) found that "the female image is characterized as small, weak, soft, and light. In the U.S. it is also dull, peaceful, relaxed, cold, rounded, passive and slow."

Masculine roles, as rigid and confining as they may be, at least allow the development of a consistent and complimentary physical and psychological identity from infancy onward. Girls are given a little more than a decade of such freedom — if that — and then, at puberty, are expected to literally split their personalities. They are permitted to be intellectually and artistically precocious as adults. But at the age when boys are encouraged to become physically competitive and aggressive, to test their strength and physical ability, girls are asked to give up these pursuits. Only in adolescence is it acceptable for females to be physically aggressive and competitive. This attitude was unconsciously reflected in the television coverage of the 1972 Olympics, when ABC's commentators referred to all the women contestants as "girls". After a group of feminine activists swamped the switchboard for an hour with protests, the harried deskman finally told one caller: "You win. I just got
through to Munich. They're not saying girls anymore. They're calling them ladies." (Boslooper and Hayes, 1973)

The result of this kind of role pressure is that "as age increases, sports prowess increases in boys but not in girls," says Dr. John Kane of St. Mary's College, London. "A girl's performance level is deflected to other, more acceptable behaviour during late adolescence."

And he adds: "With society's expectations of women, it's not surprising we get the kind of women we're asking for." (Boslooper and Hayes, 1973)

Women's attitudes toward competition and success are established early. Infant girls are handled differently from boys - more affectionately, more protectively. And as soon as they learn to walk, girls are trained differently. Sociologists John Roberts and Brian Sutton-Smith (1969) confirmed this in a cross-cultural study of 1900 elementary school children given a variety of psychological tests and interviews. "Boys ... are given higher achievement training," they concluded, "while girls are given more consistent obedience and responsibility training. These differences in socialization correspond to the general differences between adult male and female roles over the world."

Having been taught that "winning" means losing love, girls usually find that achievement is accompanied by anxiety. In a study conducted by Matina Horner, now
president of Radcliffe College, 65 percent of a group of women at the University of Michigan expressed anxiety over feminine success figures, equating success with a loss of femininity. At Radcliffe, students were asked to describe a hypothetical student named Anne, who is at the top of her medical school class. Nearly 75 percent of the group pictured her as unattractive and hard up for dates. When asked what would happen to Anne when she learned about her top standing in the class, one student replied: "Anne will deliberately lower her academic standing during the next term, while she does all she can to subtly help Carl. His grades come up, and Anne soon drops out of medical school. They marry, and he goes on in school while she raises their family." (Boslooper and Hayes, 1973)

In a statement about the concept of aging and its effects on women, Susan Sontag (1972) said:

From early childhood on, girls are trained to care in a pathologically exaggerated way about their appearance and are profoundly mutilated (to the extent of being unfitted for first-class adulthood) by the extent of the stress put on presenting themselves as physically attractive objects. Women look in the mirror more frequently than men do. It is virtually, their duty to look at themselves - to look often. Indeed a woman who is not narcissistic is considered unfeminine. And a woman who spends literally most of her time caring for, and making purchases to flatter her physical appearance is not regarded in this society as what she is: a kind of moral idiot. She is thought to be quite normal and is envied by other women.
Perhaps the best summary of the social dilemma appeared in a newspaper advice column.Jean Adams, the columnist who handles teenage problems, received a letter from a thirteen-year-old girl who wanted boys to both like her and to play football and baseball with her. The reply was as follows:

A girl who wants boys to like her, and almost every girl does, usually learns as she grows older to be more like a girl and less like a boy. She tries to look like a girl, smell like a girl, and act like a girl. She does not have to give up football or baseball, but she does a lot better if she lets the boys do the playing while she watches and admires them. If actually playing is very important to you, keep at it. Many girls are doing it these more relaxed days. But the ones who want to attract boys are following the rules faithfully. They look, feel, smell, and act like girls. It takes quite a girl to play rough and still do that. Good Luck. (Boslooper and Hayes, 1973)

Landers (1970) found that physical education majors had significantly lower and less feminine scores than education majors on the MMPI and Gough Scale of Psychological Femininity, but further analysis indicated that the differences were on only two categories; i.e. restrained and cautious versus brag and exaggerate, and religious beliefs. These kinds of data continue to be available, but they are usually reported only to the effect that athletes are "more masculine" than other groups.

In 1971, Harris reported on the differences between the "social self" and "competitive self" of the female
athlete. Since the athletes did not differ from the average population in terms of "social self" and did not present a significantly different view of themselves in competitive situations, Harris concluded:

It appears that the athletic female must assume the role of the chameleon; she must be feminine or assume the socially acceptable role for the female in social situations. At the same time, if she desires to be successful in athletic competition, she must become more aggressive, dominance, achievement oriented and demonstrate more tough mindedness and endurance and be less afraid to take risks (1971).

Cattell, Eber and Tatsuoka (1970) state that "the difference between men and women, in our own culture and others, show up very clearly on the 16PF". In their explanation of these differences, they identify only four of the sixteen factors, corrected for age, that are the same for both sexes: Factor B, intelligence; Factor C, ego strength; Factor F, surgency; and Q_2, self-sufficiency. According to Cattell and his colleagues, sex differences are of magnitude in comparison to age differences. Although the latter are identified, they are regarded as less influential.

Barry, Bacon, and Child (1964) generalize age differences in relation to sex insofar as socialization is concerned. Their comment seems to bear especially on the athlete. According to these researchers, sex differences in personality are unimportant in infancy. But ...
childhood there is ... a widespread pattern of greater pressure toward nurturance, obedience, and responsibility in girls, and toward self-reliance and achievement striving in boys.

In regard to specific sex differences among athletes, Ogilvie (1968) reported a somewhat unclear relationship between personality and competition when separating athletes by sex and age grouping. However, when controlling for sex differences and level of competition among Santa Clara Swim Club team members, Ogilvie stated that "... we find that boys and girls become much more similar between the ages of ten and fourteen years of age."

Females shift toward being more outgoing, but do not achieve the level of youthful males in Factor A, reserved-outgoing. Differences, as well as similarities, were also found by Ogilvie for the same age group of male and female swimmers from Indiana. In his summary of the study of these traits he stated that "... these data suggest that there is a movement toward extraversion with age for males but less so for females."

Kane (1972) in comparing female personality data of athletes with that of males, reported that his findings for women subjects tended to fit social expectations. Women were described as measuring lower on Factor E, dominance and Q2, self-sufficiency. On the other hand, they were higher on Factor I, emotionally sensitive;
M, anxious; Q, conservative, and A, socially warm.

Relative to sex differences, Kane poses a critical question in considering whether differences in personality between sportsmen and sportswomen are less than those of the so-called average non-participating men and women.

It is important to note that both femininity and feminism have been the major socialization themes for women in North American society for the past thirty years. Bardwick (1971) has suggested that "evolutionary change in sex roles is inevitable - but radical change is unlikely." Because of the role changes taking place in our society this subject area will warrant considerable research in the near future. There are a vast number of worthwhile topics that could be researched.

G. Personality and self-concept

The effect of a residential camping experience on the self-concept of boys from low income families was studied by Alexander (1969). He divided 150 boys into two groups with three sub-groups in each. The camping experience consisted of six weeks of camp residence where the program covered a full spectrum of camping activities supervised by a competent staff. The control group met the same criteria as the experimental group, but did not have the camping experience; although they participated in Boys' Club activities or other similar organizations. He found that both campers and non-campers improved their
self-concept over a six weeks period; however, the camper group did not improve any more than the control group. Read (1968) studied the effect of a competitive and non-competitive program of physical education on the self-concept of high school juniors over a three month period. The Tennessee Self Concept Scale was used as the measure of self-concept. The author concluded that the two types of programs made no difference in the self-concept of those that participated. Within the competitive program, constant winning improved self-concept while constant losing caused a negative change in self-concept.

Studies involving other self-concept measuring instruments have also found change in self-concept over different periods of time. Ludwig and Maehr (1959) studied the effects of approval or disapproval on the self-concept of seventh and eighth grade boys. The boys performed physical tasks in front of an expert, who then made approving or disapproving statements irrespective of the performance. Tests of physical self-concept, general self-concept and the boys' preference for activities were made prior to evaluation and at intervals after evaluation. Increases in self-concept rating and preference for related activities followed the approval treatment. Results were interpreted to support contentions that (a) self-concept change is a function of the reaction of meaningful others, and (b) change in self-concept eventuate in changes in preference and choice.
Yeatts and Gordon (1968) investigated the self-concept of seventh graders by using Gordon's "How I See Myself" scale. They found no differences in the self-image of the students who had participated in good physical education programs for three years as compared to students who had little or no physical education for the three year period.

The United States Little League program was studied by Seymour (1956). Claims and counter claims as to the desirability of competition of this sort among boys eight-to twelve-years-old were investigated. The author concluded that the Little League program did not affect in either a positive or a negative manner the normal problems confronting young boys.

Wilkin (1963) investigated the effect on inter-scholastic competition on certain areas of self-concept of seventh grade boys in eight randomly selected schools in a county school population of sixty. There were significantly different changes between the non-participants and participant groups over the total time period. The participant group showed significant decrease in self-ideal distance in the area labelled "Parents:, the non-participant group showed significant decrease in self-ideal distance in the area labelled "Appearance". In general, lessening of self-ideal-distance is accepted as reflecting adjustment. The participant group showed significantly higher self and ideal "arbitrary" scores at the second testing, but this was
not significant on the third test. When self-ideal differences were summed for each individual, there were no significant within-group or between group changes.

Reviewing the literature of self-concept, it is obvious that it has many facets, depending on the instrument used. The Tennessee Self Concept Scale divides self-concept into five areas: physical, moral-ethical, personal, family and social.

Regardless of the instrument used there is general agreement that self-concept can alter, even though it is relatively stable. The key to change in self-concept is that the experience (treatment) must have meaning for the individual. Usually, in order to discover change in the self-concept, time is a critical factor.

III Related Studies of Sportsmanship

Several studies were predicated on the assumption that sportsmanship attitudes of characteristics would improve as the child became more mature. O'Neel (1937) devised a behavior frequency rating scale and found that character and personality traits increase as the student becomes older. Blanchard (1946) also found that character traits increase or become more desirable as the child matures as measured by a rating scale. A situational test was developed by Wood (1953) in which the student indicated how he would react and why. The students scored progressively higher each year.
McAfee (1959) devised a situational test to study the sportsmanship attitudes of sixth, seventh, and eighth grade boys. There was found to be a statistically significant difference between the sportsmanship attitudes of sixth, seventh, and eighth grade boys as measured by the Sportsmanship Preference Record. The sixth grade mean score, and the seventh grade mean score was 2.40 points higher than the eighth grade mean score.

Kehr (1965) did a comparative analysis of sportsmanship response among groups of eleven- and twelve-year-old boys who were classified as participants and non-participants in Little League baseball. On the basis of this experiment, it may be concluded that Little League baseball, as currently conducted, has no measurable effect upon sportsmanship as tested by the McAfee Preference Record.

As with personality, further research is required in the area of sportsmanship. Not only are there few studies, but the selection of a measuring instrument was cited as a major problem. In the studies cited the lack of consistency in the results show a need for further research regarding sportsmanship and the development of a more suitable measuring instrument.
CHAPTER III

METHODOLOGY

Experimental Design - The Pre-test Post-test control group design.

The groups studied consisted of Grade VII girls attending Catholic elementary schools in the Greater Vancouver area of British Columbia, Canada. All girls were twelve years old on December 31, 1973, that is, they turned thirteen after December 31, 1973. The number in each experimental group was as follows:

- Group I: 12
- Group II: 12
- Group III: 8

**Group I**
Girls that attended a Catholic elementary school and played competitive basketball in the Catholic Youth Activities School League. These girls were exposed to a non-aggressive, "easy-going" coach for a period of approximately 3-1/2 months.

**Group II**
Girls that attended a Catholic elementary school and played competitive basketball in the Catholic Youth Activities School League. These girls were exposed to a coach who fell between the two extremes for a period of approximately 3-1/2 months.

**Group III**
Girls that attended a Catholic elementary school and
played competitive basketball in the Catholic Youth Activities School League. These girls were exposed to an aggressive and autocratic coach for a period of approximately 3-1/2 months.

A control group of non-participants was selected from each school. The numbers were as follows:

- Group I: 2
- Group II: 6
- Group III: 6

In most cases, especially at the elementary level, if girls are not involved athletically at school, they will not be involved elsewhere. This is a major reason the researcher used girls for the study. Unlike boys there are little, if any, opportunities for competitive athletics outside of school.

Design of the Study

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The experimental design as outlined in the above figure is a 3x2x2 factorial design with repeated measures on the last factor.
A. Coaching Styles.

A₁ Aggressive, autocratic.  } Distinct Coaching Styles
A₂ Moderate (in-between).  } Styles
A₃ Non-aggressive, easy-going.  }

B. Youngsters attending Catholic elementary schools.

B₁ Participants in basketball.
B₂ Non-participants.

C. Time of testing.

C₁ Pre-season.
C₂ Post-season.

INDEPENDENT VARIABLES - Coaching styles.
Non-participants vs participants.

DEPENDENT VARIABLES - Re: COACHING STYLES
Personality
Self-concept
Sportsmanship
Attitude toward Coach

- Re: NON-PARTICIPANTS VS PARTICIPANTS
Personality
Self-concept
Sportsmanship

Consideration of how this design controls for the various threats to validity.

History was controlled, since events in time that might produce changes showed differences in both the exper-
perimental and control groups. Likewise, maturation was controlled through the use of a control group. Instrumentation was controlled as tests and test instructions were similar. To conduct the study, the researcher had to make use of available subjects. In the Catholic schools, class size in most cases is small. Therefore, numbers are few. To select a control group from the three grade VII classes it was necessary to utilize the remaining students that were not involved in the competitive basketball program.

External Validity

The researcher is satisfied that the pre-testing did not increase or decrease individual sensitivity or responsiveness to the treatment.

Because the researcher disguised to both the coaches and players the exact nature of the research, hopefully, reactive arrangements were minimized.

Catholic Youth Activities Basketball League (C.Y.A.)

The C.Y.A. administers a competitive basketball league for all interested Catholic elementary schools. There was a Grade VII league, and a Grade VI league. The research was concerned with the Grade VII league.

The league was organized into divisions, with the top two teams in each division advancing to the play-offs. After the play-offs and championship, the winning team received a trophy.

League play began in early January. All pre-tests regarding the study were administered prior to the season,
that is, before the first league game. Practice time, number of games, and tournaments were all controlled. Each coach held two 2 hours practices during the weeks of the season. Each team played a total of twelve league games. Furthermore, each team participated in two weekend tournaments. The cooperation of the coaches was excellent regarding practice time, games, and tournament participation.

Measurements
a. For the Coaches.

A classification of coaching style was required. Each of the selected coaches received tests in personality and sportsmanship to supply further pertinent information. During the past season, there were seven male coaches directing twelve-and-under girls' basketball teams. The researcher interviewed the seven coaches regarding his six colleagues. In two cases it was impossible to get a reliable cross-section of evaluation since these coaches were new to the Catholic schools. However, based on the ratings three distinct styles were selected. As mentioned, these coaches were given further tests.

b. For the Girls involved in Competitive Athletics.

1. Personality - Pre-Post program.
2. Sportmanship Attitude Inventory - Pre-Post.
3. Attitude Toward Coach - Pre-Post.
4. Sports Cohesiveness - Pre-Post.
c. For the Girls not involved in Competitive Athletics.
   1. Personality - Pre-Post program.
   2. Sportsmanship Attitude Inventory - Pre-Post.

Selection of the Sample

Control of as many variables as possible was attempted in selecting the sample. Factors such as sex, age, grade, socio-economic status, intactness of the family unit (i.e. parents alive and living together in the home), all attending Catholic elementary schools that are co-educational, were considered.

Since the enrolment of Catholic schools is small, only a small number of girls turn out for basketball. Therefore, the research was conducted with the girls who turned out for the respective teams. Random sampling was not utilized in this study for either the experimental or the control group. To conduct the study it was necessary to make use of available subjects. In fact, because of the limited enrolments, as previously mentioned, it necessitated using all girls in the grade VII classes.

Organization of Time, Space, Personnel and Equipment

1. Basketball Season. The basketball league games began in the first week of January, 1974 and continued until April 10th. All subjects were tested prior to the season, and at the end of the season. No testing was conducted during the actual season.
2. **Practices, Games, and Equipment.** All practices and games were held at respective schools. All required equipment, in regard to basketball, was supplied by the schools. This included the gymnasium, balls, scoring apparatus, team uniforms, and referees.

3. **Test and Equipment.** Testing was administered at the respective schools. All written tests were done in the classroom, under the researcher's supervision.

4. **Personnel (Coaches).** The coaches freely carried out their own program.

5. **Personnel (Regarding Tests).** The researcher gave all test instructions, as well as evaluated all tests.

**Instruments and Their Validity**

**I. For the Coaches**

**A. Coaching Style Rating Scale**

A coaching style rating device was designed by the researcher and given to all coaches for the purpose of selecting three distinct coaching styles. Tutko and Richards (1971) have identified several coaching styles with those defined as aggressive and non-aggressive being selected for this study. The characteristics included:

**Aggressive**

- Direct and dominant.
- Can be cruel — often insulting
- Emotional, frequently yells.
- Emphasizes winning.
- Relies upon exhortation and stimulation.
Verbally abuses officials.
Uses threats to motivate, threatening the athlete with criticism and embarrassment.
Score seems more important than people.

Non-Aggressive - Personable.
Flexible.
Deeply concerned with welfare of players.
Popular and sociable.
More interested in people than scores.
Uses positive means to motivate athletes.
Rarely shows emotion or shouts at players.
Rarely, if at all, shows condemnation of officials.

Using the above statements the seven coaches directing twelve-and-under girls' basketball teams were given the coaching style rating scale for his six colleagues. In two cases, because coaches were new, the researcher could not get a good cross-section of evaluations. In regard to the coach being rated, the interviewed coach would rate each of the sixteen previous statements between 0 - 10. The statements were reorganized by the process of random selection. Based on the available ratings three distinct styles were selected. As mentioned, each statement was rated from zero to ten. The higher the score, the more the statement characteristic was evident. Items ii, v, vii, viii, x, xi, xii, xv are descriptive of the aggressive coach while items i, iii, iv, vi, ix, xiii, xiv and xvi are descriptive of the "easy-going"
coach. A mean score for each coach was obtained for aggressive items, and a mean score was obtained for "easy-going" items. The coach with the highest mean score for the aggressive items was selected, as was the coach with the highest mean score for the "easy-going" items. The coach with the closest combined score to forty was selected as representative of the "in-between" style. These three coaches were given the following tests.

B. The Competitive Attitude Scale

The CA Scale was developed by Lakie (1966) for the purpose of revealing the degree to which individuals subscribe to the "win-at-any-cost" philosophy of athletes. Fifty-five items were selected from a variety of sources: books, popular magazines, personal observations, professional journals, and situations reported by others. This set of fifty-five items was administered to sixty college students, and their responses were used for item analysis. After items that seemed questionable by the item analysis and decisions of the judges were discarded, the twenty-two items in the final scale remained.

Reliability Test-retest scores obtained three months apart yielded a Pearson r of .61 (N=25), and similar scores obtained six weeks apart resulted in an r of .64 (N=16). Internal consistency was estimated using Lord modification of the K-R 21 formula, yielding a reliability coefficient of .81 (N=80).
Validity  The author suggests that the validity of the CA Scale is based upon the thoroughness and comprehensiveness of the item analysis and the advice of the judges. The items appear to have high content validity, and the content domain is adequately sampled.

C. Sixteen Personality Factor Questionnaire

The Sixteen Personality Factor Questionnaire ("The 16PF") is an objectively scored test devised by basic research in psychology to give the most complete coverage of personality possible in a brief time. The 16PF is based on over 30 years of basic research and development, documented in numerous books and over four hundred journal articles, in which every item has been subjected to factor analytic investigation. This has provided an unusually sound foundation of empirical evidence that the sixteen personality scales are stable and independent.

The test has been revised, modernized in scoring, and intensified in validity several times since its initial publication in 1949 (Cattell). All essential information is contained in the Handbook for the 16PF, which was completely rewritten and updated in 1970 (Cattell and Eber).

The factors measured include:

A  Reserved  vs  Outgoing
B  Less Intelligent  vs  More Intelligent
C  Affected by Feelings  vs  Emotionally Stable
E  Humble vs Assertive
F  Sober vs Happy-Go-Lucky
G  Expedient vs Conscientious
H  Shy vs Venturesome
I  Tough-Minded vs Tender-Minded
L  Trusting vs Suspicious
M  Practical vs Imaginative
N  Forthright vs Shrewd
O  Placid vs Apprehensive
Q₁  Conservative vs Experimenting
Q₂  Group-Dependent vs Self-Sufficient
Q₃  Undisciplined vs Controlled
Q₄  Relaxed vs Tense

Reliability and Validity

Test-retest reliabilities for the sixteen factor scales average about .75 for a single form and .86 for combined (A+B) forms. Internal construct validities average .67 for single form scales and 1.77 for combined (A+B) forms. Generally, the test has proved itself flexible and powerful in the prediction of various life criteria. For example, multiple correlations of the test scores run typically 0.6 with school achievement, 0.5 with clinically judged neurotic trend, and .05 with earnings in salesmanship. For highest reliability, the authors recommend that at least two and, preferably, as many forms as possible be given.
II For the girls involved in competitive athletics

A. Sportsmanship Preference Record

The Sportsmanship Preference Record (McAfee, 1959) which measures sportsmanship attitudes, consists of twenty situations commonly encountered in physical education at the junior high school level. Each situation is followed by a list of four suggestions as to possible course of action from which the pupils are asked to choose one. The test produces a sportsmanship rating which can be compared numerically and which is geared to the interest level of twelve-year-old girls.

In order to establish the reliability, McAfee tested 150 seventh and eighth grade boys in October, 1963, and retested in April, 1964. A correlation of the two tests was computed and a correlation of .80 was obtained.

The validity of the test is somewhat questionable, as shown by a correlation coefficient of .53 between the McAfee Preference Record and a peer group rating.

B. Attitude Toward the Coach

For purposes of the study this attitude scale was modified from an Attitude Toward the Supervisor Scale (AS). This scale was constructed by Schmid, Morsh, and Detter (1961), as part of a larger program designed to measure job satisfaction. The wording was slightly altered, and for the purpose of this study seemed suitable. The only evidence of reliability reported was the measure of internal
consistency (K-R 20 = .90) of the original set of seventeen items derived by the homogeneous keying procedure. However, it is probable that the final scale is also internally consistent, since all of the fourteen items were contained in the original seventeen. Evidence of validity is not great. The content of the items suggests that the scale does indeed measure attitude toward supervisors, since each statement begins with "My coach ...". The scale appears to be factorially pure, but additional evidence of validity would be desirable.

C. High School Personality Questionnaire

The HSPQ is a high school version of the 16PF that can be administered to subjects ages twelve to eighteen. The questionnaire is a standardized test that can be given within a class period, to single individuals or in groups, to yield a general assessment of personality development. The HSPQ measures fourteen distinct dimensions or traits of personality which have been found by psychologists to come near to covering the total personality. The reading level of the test is adapted to ages eleven through eighteen years, and the scoring can be done rapidly by a stencil key. The factors measured include:

A. Reserved vs. Outgoing
B. Dull vs. Bright
C. Affected by Feelings vs. Emotionally Stable
D. Undemonstrative vs. Excitable
E. Obedient vs Aggressive (Assertive)
F. Sober (Serious) vs Enthusiastic, Happy-Go-Lucky
G. Disregards Rules vs Conscientious
H. Shy vs Adventurous
I. Tough-Minded vs Tender-Minded
J. Liking Group Action vs Individualism
O. Self-Assured vs Apprehensive (Insecure)
Q₂. Group Dependent vs Self-Sufficient
Q₃. Uncontrolled vs Controlled
Q₄. Relaxed vs Tense

Table II shows the reliabilities of the fourteen variables on a test-retest basis. Retesting after one day shows a high of .85 on variable A, and a low of .72 on variable G. Retesting after six months shows a high of .69 for variable H, and a low of .53 for variable H. All of the figures mentioned are for A or B retesting. A + B retesting shows substantially higher coefficients.

Table III shows one estimate of validity based on the multiple correlation between the items in each test scale and the corresponding pure factor.

Data Analysis

A. Scoring Procedures

MARKING OF COACHES' SCORES

a. Coaching Style Rating Scale.

Refer to page 64. Discussed in detail.
<table>
<thead>
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<th>Interval</th>
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</table>
b. Sixteen PF - Adult.

Each answer scores 0, 1, or 2 points, except the Factor B (intelligence or "crystallized general ability") answers which score zero (incorrect) or one (correct). The score of each single item contributes to only one factor total. Hand scoring is accomplished by key, easily, rapidly, and in a standard manner.

The meaning of raw scores from any form or combination of forms of the 16PF depends, of course, upon the particular forms used. Consequently, before these raw scores can be evaluated and interpreted, they must be converted into a system which places the examinee's score in relation to scores obtained by other people in some defined population. The standardization tables from the Handbook for the Sixteen Personality Factor Questionnaire (1969) were used to convert raw scores to stens.

c. Competitive Attitude Scale.

For items 6, 13, and 18, five points are given for "strongly approve", four for "approve", three for "undecided", two for "disapprove", and one for "strongly disapprove". For all other items, the number of points are given in reverse order. The attitude score is the sum of the points assigned to each item response. Thus the scoring range is from twenty-two to ninety. The higher the attitude score, the more closely the subject subscribes to the "win-at-any-cost" philosophy, i.e. the more competitive his attitude toward athletics.
MARKING OF SUBJECTS' SCORES

a. Sportmanship Preference Record.

Each item of the McAfee Preference Test is scored on a four or five point scale. Each alternative in each item has a point value depending on the degree to which that alternative indicates good sportsmanship attitudes. A score of five represents good sportsmanship, and a score of zero represents poor sportsmanship. The highest possible test score is ninety-eight and the lowest possible test score is nine.

b. Attitude Toward the Coach.

The items are scored by giving a one for agreement with a positive (favourable) statement or zero for disagreement with a negative (unfavourable) statement. The authors did not specify the method of computing the total score, but it seems apparent that the scale score should be the sum of the item scores. The range of possible scores is, therefore, from zero to fourteen. The higher the score, the more favourable the attitude toward coaches.

c. High School Personality Questionnaire.

The scoring procedures for the HSPQ are identical to those used in the 16PF.

B. Statistical Analysis

Program SIMCORT (U.B.C.) was run on all sixty variables for each of the six groups separately to provide means, standard deviations, and intercorrelations. The
sixty variables included thirty pre-test scores and thirty post-test scores. For the thirty scores there are raw scores and sten scores for the fourteen personality traits. The remaining two scores are for sportsmanship attitude, and attitude toward the coach. It should be noted that the non-participant groups do not have an attitude toward the coach score. Though correlation was not part of the hypothesis testing the scores were obtained to aid in the interpretation of results.

A 3 X 2, coaching style by pre-post, multivariate analysis of variance was performed on the fourteen personality variables from the HSPQ as well as the two attitude variables, sportsmanship and attitude toward the coach for the participants only. This multivariate analysis of variance tests hypotheses I, II, III and IV.

A 2 X 2 multivariate analysis of variance was performed on the same dependent variables, except attitude toward coach, to test the difference between the changes elicited in the participants (from all schools) and the non-participants (also from all schools). The 2 X 2 refers to:

2 - All participants
   - All non-participants

2 - Pre - Post

This multivariate analysis of variance tests hypothesis V.
Although it would have been desirable to include the participant-nonparticipant factor in the initial analysis, resulting in a 3 X 2 X 2 MANOVA, this was not possible due to the very small per cell sample size. Consequently, the participants, and the non-participants, were each pooled across schools following the initial analysis which showed no differences between schools (coaching styles). Furthermore, the actual analysis was performed on the pre-post difference scores rather than treating this as a separate two level factor on the dependent variables. It is acknowledged that difference scores tend to be unreliable, however, it was necessary to minimize the number of dependent variables because of the small sample size. The effect of any unreliability will result in an increase in the mean square error term with a subsequently more conservative F test.
CHAPTER IV

RESULTS AND DISCUSSION

Results

All data collection was carried out and completed as outlined in Chapter III. However, minor differences should be mentioned. First, in the post-tests a few parents expressed minor concern to the teacher regarding the "tests" their daughters were being subjected to. This was in spite of the fact letters expressing the nature of the study were sent to the parents at the outset of the research. The few parents that were alarmed could have influenced to some degree the answering of the questionnaire. Second, when the researcher administered the respective test, there were a few absentees. For these pupils the teacher, with written administrative directions, administered the tests to the girls in a quiet room on the first day they returned to class. Outside of these two instances the study was conducted according to the methodology outlined in Chapter III.

Upon successful completion of data collection the raw data was put on punch cards and the analysis done by the University of British Columbia I.B.M. 360/65 computer. The empirical findings were subjected to statistical tests through the use of computer programs; University of British Columbia SIMCORT for means, standard deviations, and correlations; and MULTIVAR (Finn, 1975) for the univariate and multivariate analysis of variance. Means were obtained for
both raw scores and sten scores on fourteen personality variables and two attitude variables for participants under coaching styles 1, 2, and 3, as well as the non-participants. This descriptive statistics is shown in Table IV-A and Table IV-B.

This study was designed to investigate hypotheses based on the following five problems:

I. changes in personality characteristics of participants as elicited by different coaching styles,

II. changes in sportsmanship attitudes of participants as elicited by different coaching styles,

III. changes in the self-concept of participants as elicited by different coaching styles,

IV. differences in attitude of the players toward their coach as elicited by respective coaching styles,

V. differences in sportsmanship and personality between participants and non-participants.

The hypotheses I, II, III and IV were tested by multivariate ANOVA on pre-post different scores. The two degrees of freedom available for contrasts among the three coaching styles were used to make two single degree of freedom significance tests. Style 1 (non-aggressive, easy-going) vs the average of styles 2 and 3 (moderate, in-between; aggressive and autocratic); and style 2 vs style 3 were the two orthogonal comparisons made. The results for sixteen variables are given in Tables V and VI. Hypothesis V was tested by multivariate ANOVA on pre-post different scores.
### Table IV-A

#### Descriptive Statistics (STEN Scores)

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### TABLE V

**MULTIVARIATE ANOVA FOR COACHING STYLES 1 vs (2+3)**

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<tr>
<th>VARIABLE</th>
<th>UNIVARIATE F</th>
<th>UNIVARIATE P</th>
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F - RATIO FOR MULTIVARIATE TEST OF EQUALITY OF MEAN VECTORS = 1.175

\[ Df = 16 \text{ and } 14.000 \text{, P less than } .3839]
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F - RATIO FOR MULTIVARIATE TEST OF EQUALITY OF MEAN VECTORS = .603
Df = 16 and 14.0000 P less than .8346
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<td>Sportsmanship</td>
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F - RATIO FOR MULTIVARIATE TEST OF EQUALITY OF MEAN VECTORS = 1.220
Df = 15 and 30.0000  OVERALL P less than .3106
The results for the sixteen variables are given in Table IX.

Discussion

Hypothesis I  The differences among the three coaching styles in the changes elicited in personality characteristics were found to be non-significant at the .05 level. For coaching style 1 (non-aggressive, easy-going) vs the average of 2 (moderate, in-between) and 3 (aggressive and autocratic) the multivariate F ratio of 1.1758 showed a p = .38. For coaching style 2 vs coaching style 3 the p was approximately equal to .83. A closer examination of coaching style 1 and the average of 2 and 3 shows that variable 1 (reserved vs outgoing) as analyzed by an univariate analysis of variance was significant. However, due to a higher non-significant overall F this single significant factor should not be considered meaningful. Figures 1 - 6 show the graphing of the sten scores for coaching styles making the non-significant differences evident.

The literature that has been covered certainly implies that the coach can have a very noticeable influence on participants (Tutko, 1971; Page, 1969; Snyder, 1970; Kemper, 1968), however, the results of this study seem to be contrary to those cited in the related review of literature. Furthermore, Schendel (1970) found high school athletes had a significantly higher degree of personal worth and self-acceptance than non-participants at both grade nine and grade twelve. He maintained that whatever produced these differences between athletes and non-athletes had their major influence prior to
Figure 1. PERSONALITY PROFILES FOR COACHING STYLES - PRE/POST AND CONTROLS - POST
Figure 2. SPORTSMANSHIP ATTITUDE FOR COACHING STYLES - PRE/POST
Figure 3. SPORTSMANSHIP ATTITUDE FOR PARTICIPANTS AND NON-PARTICIPANTS - POST
Figure 4. ATTITUDE TOWARD COACH FOR COACHING STYLES
Figure 6. PROFILES FOR COACHING STYLES - POST
grade nine. One consideration was the distinctness of coaching styles. The rating device designed for the study enabled the selection of three distinct styles. The selection was verified by the Cattell Sixteen Personality Factor Questionnaire profiles as exhibited in Appendix F. In summary, the coaches selected for the study had personalities that were different and, consequently, should have influenced the development of the adolescent girls in a different way. A second consideration was the length of the study. Perhaps more than three and one-half months is needed for the coaches' personality traits to be transcended to the players. This is implied in the self-concept studies (Alexander, 1969; Read, 1968) where Wilkins (1964) stated regardless of the instrument used there is general agreement that personality can change, even though it is relatively stable. The key to change is that the experience must have meaning for the individual, and, as well, that sufficient time and exposure to a model are necessary. In this case, the model would be a coach with a distinctive style.

It is the investigator's belief that the coach as a model is influential in the development of a child's personality. As mentioned, the non-significant results may be attributed to the short time span of the study. The basketball season was too short to see any significant changes. Furthermore, not enough games were played. Three and one-half months of a program of this relatively low intensity is likely not long enough for a coach to influence a child
in the development of personality traits.

Hypothesis II  The differences among the three coaching styles in the changes elicited in sportsmanship attitudes were found to be non-significant at the .05 level. For coaching style 1 (non-aggressive, "easy-going") vs the average of 2 (moderate, "inbetween") and 3 (aggressive and autocratic) the multivariate F ratio of 1.1758 showed a $p = .38$. The univariate sportsmanship $p = .08$. As a single variable sportsmanship approaches significance, however, due to a highly non-significant overall F this factor should not be considered meaningful. For coaching style 2 vs coaching style 3 the $p$ was less than .83. The univariate sportsmanship variable showed a $p = .70$ which is also highly non-significant.

Once again the non-significant results seem to be contrary to previous research. As discussed in Hypothesis I a particular coaching style should be influential to adolescent girls. The literature on sportsmanship tends to be inconsistent (Kehr, 1963; McAfee, 1959). However, several researchers (Wood, 1953; Blanchard, 1946; O'Neel, 1937) suggest that character and personality traits increase as the child gets older. Therefore, the socializing agents at the early ages should prove influential. McAfee (1959) found little league baseball to be detrimental to sportsmanship. However, he did not arrive at the culprit - was it the coach, the parents, or the pressures of competition? The non-significant results arrived at by the study could be attrib-
uted to the length of the study as explained in the discussion of Hypothesis I.

**Hypothesis III** The differences among the three coaching styles in the changes elicited in self-concept were found to be non-significant at the .05 level. For coaching style 1 (non-aggressive, "easy-going") vs the average of 2 (moderate, "in-between") and 3 (aggressive and autocratic) the multivariate F ratio of 1.1758 showed a $p = .38$. For coaching style 2 vs coaching style 3 the $p$ was less than .83. A closer examination of coaching style 1 and the average of 2 and 3 shows that variable 11 (self-assured - apprehensive), as analyzed by an univariate analysis of variance, was $p = .75$. For coaching style 2 vs coaching style 3 the variable 11, as analyzed by an univariate analysis of variance, was $p = .61$.

This ascertains, with no doubt, that the changes in self-concept of the girls was not different among the three coaching styles as set forth in this study. Hypotheses I, II, and III were not supported by the results. The researcher, as expressed earlier, still is confident a distinct coaching style would be influential to adolescent girls. However, to influence the participant a sufficient time span is needed, and the researcher has expressed that the shortness of the season disallowed lasting personality and attitudinal changes.

Three other considerations that may have influenced the results should be mentioned. First, perhaps all girls studied has a very strong family socialization that discouraged the characteristics of the coach to become evident. While this
is a possibility the researcher dismisses it as highly unlikely. Second, perhaps girls have a physiological or psychological makeup that does not allow them to take on aggressive qualities as exemplified by the aggressive coach. There is considerable research that supports this viewpoint (Boslooper and Hayes, 1973; Sontag, 1972; Howe, 1971; McClelland, 1965). According to Roberts and Sutton-Smith (1969) infant girls are handled differently from boys - more affectionately, more protectively, and as soon as they learn to walk, girls are trained differently. Despite these role pressures the investigator believes that distinct coaching styles can be influential to adolescent girls. Boslooper and Hayes, 1973, state that this role pressure comes after puberty. Girls are given a little more than a decade of freedom. Only in adolescence is it acceptable for females to be physically aggressive and competitive. Since the subjects of the study are in adolescence the coach could prove influential in personality and sportsmanship development. Third, a large number of girls were of Italian descent. The traditional role expectations of these girls may have been influential in their reluctance to assume aggressive qualities. This consideration adds to the aforementioned discussion of girls' physiological and psychological characteristics.

**Hypothesis IV** The differences in the attitude of the players toward their respective coach was found to be non-significant at the .05 level, as shown by the overall multivariate F's for the two planned comparisons (Tables VII and
A closer examination of coaching style 1 and the average of 2 and 3 shows that variable 16 (attitude towards coach) as analyzed by an univariate analysis of variance was .59 which was highly non-significant. In coaching style 2 vs 3 the univariate p = .90 is once again highly non-significant. This result seems to agree with the research (Read, 1968) in that the style of a coach is not as important as the success of the team. Children seem to enjoy winning, and will not be bothered by the methods of a coach as long as the verdict of the scoreboard is in their favour. This is exemplified in the research in that the school with the aggressive coach were Catholic Youth Activity league and play-off champions. The other two schools did not reach the finals of the play-offs. In league standings they were second and third in their respective league sections. Both schools were defeated in their first play-off game and subsequently eliminated from further competition.

**Hypothesis V** The differences between the participants and non-participants in personality changes and sportsmanship attitudes were found to be non-significant at the .05 level. The multivariate F ratio of 1.2202 showed a p = .31. Figures 7, 8 and 9 show the graphing of the sten scores for participants vs non-participants, making the non-significant differences evident. The research findings seem contrary to the investigator's results (Shafor, 1971; Dayries and Grimm, 1970; Malumphy, 1968; Flemming, 1934). The research findings of the studies reviewed regarding the woman athlete seem to
Figure 9. Sportsmanship attitude for participants and non-participants - Pre/Post.
indicate that personality differences possibly exist between the subjects and the national norms established for the personality measuring instruments, and between various comparisons within the samples. Unfortunately, the research is at the high school level and beyond. Schendel (1970) in a longitudinal study indicated that high school athletes had a significantly higher degree of personal worth and self-acceptance at both grade nine and grade twelve. He maintained that whatever produced these differences between athletes and non-athletes had their major influence prior to grade nine. Considering the shortness of the study, and the sociological role characteristics of the female that were mentioned earlier, it is understandable that the participants and non-participants were similar. The investigator once again feels that given a longer time span, a distinct coaching style would influence the participants' personality and sportsmanship characteristics and thus show differences between the participants and the non-participants.

Summary

To conclude, Hypotheses I, II, and III were not supported by the results in the two orthogonal comparisons. Furthermore, in a post hoc multivariate analysis of variance, coaching style 1 (non-aggressive, "easy-going") vs 3 (aggressive and autocratic) showed non-significant results at the .05 level. The multivariate F ratio of 1.2511 showed a p less than .34. Even though variable 1 (reserved vs outgoing)
is significant, and variable 15 (sportsmanship) approaches significance the highly non-significant overall F of the results of these two variables should not be considered meaningful. With these results it can be said, on the basis of this study, that a particular coaching style does not influence personality or sportsmanship development of twelve-year-old girls over the course of a three and one-half month basketball season. The investigator is of the belief that coaching style will influence the participants. However, as previously expressed, time is necessary for change or development of personality and sportsmanship attitudes. The feminine role explanation of many authors (Boslooper and Hayes, 1973; Howe, 1971; Sutton-Smith, 1969; McClelland, 1965) stating that girls will not take on aggressive, outgoing tendencies was not accepted as a reason for non-significance. The investigator accepts Boslooper and Hayes' (1973) position that until puberty the role differentiation does not become explicit. Therefore, since the girls were not at the teenage level this was not accepted as a reason for non-significance.

The non-significant results for participants versus non-participants proved questionable. Coupled with a short season in which the coach did not have the necessary time to impose his personality on the girls, and the fact that the girls have a feminine role that may provide a barrier to aggressive tendencies, these results seem justifiable. The investigator, as before stated, is confident that more
time exposure to the coach would have elicited personality and sportsmanship differences between participants and non-participants.
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS
FOR FURTHER RESEARCH

Summary

The main purpose of this study was to investigate the possibility that distinct coaching styles could influence personality and sportsmanship attitudes of adolescent girls participating in a competitive basketball league. Further, the study examined differences between personality changes and sportsmanship attitudes of participants and non-participants. A total of forty-six twelve-year-old girls were involved in the experiment as subjects of which thirty-two were classed as participants and fourteen were classed as non-participants. By the use of a rating device, and a personality test three distinct coaches were selected and classified by type as outlined by Tutko in Psychology of Coaching (1971). Twelve girls were exposed to the "easy-going", non-aggressive coach, eight girls were exposed to the aggressive coach, and twelve girls were exposed to the "in-between" coach. The time of exposure was three and one-half to four months. The girls were exposed to approximately four hours of practice time per week plus two league games. Also, there were two weekend tournaments during the season. All three teams were involved in post-season play-offs. There was a non-participant group of girls at each school. These non-participant girls acted as a control group.
An examination of the dependent variables: personality, self-concept, sportsmanship, and attitudes toward the coach were considered for all girls under each respective coaching style. Furthermore, the dependent variables of personality, self-concept, and sportsmanship attitudes were examined regarding the participants and non-participants. The experimental design utilized pre-and-post testing.

A 3 X 2 multivariate analysis of variance was performed on fourteen personality variables as well as two attitude variables. The personality variables were as follows:

Reserved vs Outgoing
Less intelligent vs More intelligent
Affected by feelings vs Emotionally stable
Phlegmatic vs Excitable
Obedient vs Assertive
Sober vs Happy-go-lucky
Disregards rules vs Conscientious
Shy vs Venturesome
Tough-minded vs Tender-minded
Vigorous vs Doubting
Self-assured vs Apprehensive
Group dependent vs Self-sufficient
Casual vs Controlled
Relaxed vs Tense

The two attitude variables included sportsmanship and attitude toward the coach.
The 3 X 2 refers to:

3  -  Three participant (schools)
2  -  Pre-post

This multivariate analysis of variance tests Hypotheses I, II, III and IV.

A 2 X 2 multivariate analysis of variance was performed on the same dependent variables with the exception of attitude toward the coach, to test the differences between the changes elicited in the participants (at all schools) and the non-participants (also at all schools). The 2 X 2 refers to:

2  -  Participants (from all schools)
Non-participants (also from all schools)
2  -  Pre-post

This multivariate analysis of variance tests Hypothesis V.

Conclusions

1. The differences regarding personality development of adolescent twelve-year-old girls involved in a competitive basketball league is not influenced to any noticeable degree by a distinct coaching style over a period of 3-1/2 months as set forth in this study.

2. The differences regarding sportsmanship attitudes of adolescent twelve-year-old girls involved in a competitive basketball league is not influenced to any noticeable degree by a distinct coaching style over a period of 3-1/2 months as set forth in this study.
3. The differences regarding the development of self-concept of adolescent twelve-year-old girls involved in a competitive basketball league is not influenced to any noticeable degree by a distinct coaching style over a period of 3-1/2 months as set forth in this study.

4. The differences regarding the attitude of the players toward the coach of adolescent twelve-year-old girls involved in a competitive basketball league is not influenced to any noticeable degree by a distinct coaching style over a period of 3-1/2 months as set forth in this study.

5. Participation of adolescent twelve-year-old girls in a competitive basketball league does not influence the development of personality or sportsmanship attitudes any differently from non-participant girls as set forth in this study.

Recommendations for further research

1. This study illustrates the importance of further research, preferably with a longitudinal dimension, to provide knowledge of the coach's importance on the socialization process. The longitudinal research could be boys and girls.

2. The same research, except over a larger span of time making use of different measures for: a) coaching styles, b) personality, sportsmanship, and attitudes.

3. The writer would like to see a long range study of personality and sports interests to determine if activity produced certain personality patterns or if they are present
before participation. Such research would have to begin studying subjects as children and follow their interests and psychological growth into adulthood. Information of this order may have therapeutic use in treating personality disorders.

4. With the revolution of the female role in contemporary Canadian society, a study of personality differences between males and females at various levels would be appropriate.

5. A study to investigate the hypothesis that socio-economic status and family size are less of an influence on sport motivation than factors associated with geography and climate.

6. This research found that the participants seemed to emphasize winning and were not concerned with the coaching styles as long as this need was met. Further research is needed in this area. For example, what qualities do youngsters look for in a coach that will influence their attitude toward that coach?

7. Research of the same topic using a more representative sample of boys and/or girls is needed. Also a comparative study of public vs Catholic boys and/or girls would prove worthwhile.
BIBLIOGRAPHY


APPENDIX A

Parental Consent Form
December 2, 1973

Dear Parents,

As part of my Master's Degree in Physical Education at the University of British Columbia I plan to conduct a study of the effects of competitive basketball on the personality and attitudinal development of Grade VII girls. I would appreciate your assistance in this endeavour by allowing your child, regardless of her playing basketball, to participate in this research project as this study involves both the players and non-players.

I have received permission from the school principal and class teacher to administer three inventories that will help me determine the effects, if any, of competitive basketball. The inventories would be administered during school time. The results would be of a group nature, and no one individual will be singled out. I would be pleased to discuss any further questions you may have.

Thank you very much for your cooperation in this worthwhile research. Please sign the consent form and return as soon as possible to your child's teacher.

Yours sincerely,

Dan R. Miscisco,
University of British Columbia.

PARENTAL CONSENT FORM

I, ________________________, give permission for my daughter ______________________ to be a subject in the educational research conducted by Dan Miscisco in preparation for his Master's Degree.
APPENDIX B.

Coaching Style Rating Scale
COACHING STYLE RATING SCALE

Will you please indicate your opinion on each of the accompanying statements in regard to your coaching peer. To indicate your opinion, draw a circle around the number which best describes your agreement as shown:

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<td>Agree</td>
<td>Undecided</td>
<td>Disagrees</td>
<td>Strongly Disagrees</td>
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</table>

1. Rarely shows emotion.
2. Openly attacks officials.
3. More interested in people than score.
4. Deeply concerned with welfare of players.
5. Uses threats to motivate - criticism and embarrassment.
6. Personable.
7. Score seems more important than people.
8. Emphasizes winning.
10. Can be cruel and sadistic - often insulting.
11. Relies upon exhortation and stimulation.
12. Direct and dominant.
13. Rarely if at all shows condemnation of officials.
14. Uses positive means to motivate athletes.
15. Emotional - frequently yells.
16. Popular and sociable.

NAME OF COACH RATED
APPENDIX C.

Coaches' Competitive Attitude Scale
COACHES' COMPETITIVE ATTITUDE SCALE (CA)

Circle the category that indicates your feeling towards the behaviour described in each of the situations.

4. Disapprove. 5. Strongly Disapprove.

1 2 3 4 5 1. During a football game team A has the ball on its own 45-yard line, fourth down and 1 yard to go for a first down. The coach of team A signals to the quarterback the play that he wants the team to run.

1 2 3 4 5 2. Team A is the visiting basketball team and each time a member of the team is given a free shot the home crowd sets up a continual din of noise until the shot has been taken.

1 2 3 4 5 3. Tennis player A frequently calls out, throws up his arms, or otherwise tries to indicate that his opponent's serve is out of bounds when it is questionable.

1 2 3 4 5 4. In a track meet, team A enters a man in the mile run who is to set a fast pace for the first half of the race and then drop out.

1 2 3 4 5 5. In a football game, team B's quarterback was tackled repeatedly after handing off and after he was out of the play.

1 2 3 4 5 6. Sam, playing golf with his friends, hit a drive into the rough. He accidentally moved the ball with his foot, although not improving his position he added a penalty stroke to his score.

1 2 3 4 5 7. A basketball player was caught out of position on defense and rather than allow his opponent to attempt a field goal he fouled him.

1 2 3 4 5 8. Player A during a golf match made quick noises and movements when player B was getting ready to make a shot.

1 2 3 4 5 9. School A has a powerful but quite slow football team. The night before playing a smaller but faster team, they allowed the field sprinkling system to remain on, causing the field to be heavy and slow.
10. A basketball team used player A to draw the opponent's high scorer into fouling situations.

11. The alumni of College A pressured the Board of Trustees to lower the admission and eligibility requirements for athletes.

12. Team A, by use of fake injuries, was able to stop the clock long enough to get off the play that resulted in the winning touchdown.

13. A tennis player was given the advantage of a bad call in a close match. He then "evened up" the call by intentionally hitting the ball out of bounds.

14. The coach of basketball team A removed his team from the floor in protest of an official's decision.

15. Between seasons a coach moved from College A to College B and he then persuaded three of College A's athletes to transfer to College B.

16. After losing a close football game the coach of the losing team publicly accused the game officials of favouritism when the game movies showed that the winning touchdown had been scored by using an illegal maneuver.

17. College C lowered the admission requirements for boys awarded athletic scholarships.

18. Team A's safety man returned a punt for a touchdown. Unseen by the officials he had stepped out of bounds in front of his team's bench. His coach notified the officials of this fact.

19. A college with very few athletic scholarships to offer, gives athletes preference on all types of campus jobs.

20. Several wealthy alumni of College C make a monthly gift to several athletes who are in need of financial assistance.

21. College K has a policy of not allowing any member of a varsity squad to associate with the visiting team until the contest or meet is completed.

22. The Board of Trustees at College C fired the football coach and gave as the reason for his dismissal his failure to win a conference championship during the past five years.
APPENDIX D

Coaches' Competitive Attitude Scale Raw Scores
TABLE VIII
COACHES' COMPETITIVE ATTITUDE SCALE RAW SCORES

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APPENDIX E

Sixteen Personality Factor Questionnaire

Adult - Form B
WHAT TO DO: Inside this booklet are some questions to see what attitudes and interests you have. There are no "right" and "wrong" answers because everyone has the right to his own views. To be able to get the best advice from your results, you will want to answer them exactly and truly.

If a separate "Answer Sheet" has not been given to you, turn this booklet over and tear off the Answer Sheet on the back page.

Write your name and all other information asked for on the top line of the Answer Sheet.

First you should answer the four sample questions below so that you can see whether you need to ask anything before starting. Although you are to read the questions in this booklet, you must record your answers on the answer sheet (alongside the same number as in the booklet).

There are three possible answers to each question. Read the following examples and mark your answers at the top of your answer sheet where it says "Examples." Fill in the left-hand box if your answer choice is the "a" answer, in the middle box if your answer choice is the "b" answer, and in the right-hand box if you choose the "c" answer.

EXAMPLES:

1. I like to watch team games.
   a. yes,   b. occasionally,   c. no.

2. I prefer people who:
   a. are reserved,
   b. (are) in between,
   c. make friends easily.

3. Money cannot bring happiness.
   a. yes (true),   b. in between,   c. no (false).

4. Woman is to child as cat is to:
   a. kitten,   b. dog,   c. boy.

In the last example there is a right answer - kitten. But there are very few such reasoning items.
Ask now if anything is not clear. The examiner will tell you in a moment to turn the page and start.

When you answer, keep these four points in mind:

1. You are asked not to spend time pondering. Give the first, natural answer as it comes to you. Of course, the questions are too short to give you all the particulars you would sometimes like to have. For instance, the above question asks you about "team games" and you might be fonder of football than basketball. But you are to reply "for the average game," or to strike an average in situations of the kind stated. Give the best answer you can at a rate not slower than five or six a minute. You should finish in a little more than half an hour.

2. Try not to fall back on the middle, "uncertain" answers except when the answer at either end is really impossible for you - perhaps once every four or five questions.

3. Be sure not to skip anything, but answer every question, somehow. Some may not apply to you very well, but give your best guess. Some may seem personal; but remember that the answer sheets are kept confidential and cannot be scored without a special stencil key. Answers to particular questions are not inspected.

4. Answer as honestly as possible what is true of you. Do not merely mark what seems "the right thing to say" to impress the examiner.
APPENDIX F

Coaches' Sixteen Personality Factor Questionnaire

Sten Scores and Profiles
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Figure 10. PERSONALITY PROFILE OF COACHING STYLES

Legend: Coaching Style I
Coaching Style II
Coaching Style III
APPENDIX G

Coaches' Personal and Basketball Background
COACHING STYLE I (non-aggressive, "easy-going")

- twenty-six years of age.
- single.
- no post-secondary education.
- works as a physical education instructor at school studied.
- has been Catholic Youth Activities Summer Camp Director for the past two years (Camp Latona).
- active as a player in high school.
- voluntarily coached basketball for seven years.
- coaching experience with boys and girls.
- has made an effort to attend basketball clinics.
- keenly interested in basketball.
- has had winning teams including one girls C.Y.A. league champion.
- has organized a number of weekend tournaments.
- has participated in many tournaments.
- basketball is a constant topic of discussion at social gatherings.
COACHING STYLE II (moderate, "in-between")

- thirty-one years of age.
- married, father of five children.
- no post-secondary education.
- works as a plumbing inspector for City of Vancouver.
- played very little basketball in high school.
- voluntarily coached basketball for nine years.
- coaching experience with boys primarily.
- has made an occasional effort to attend basketball clinics.
- keenly interested in basketball.
- reads basketball literature.
- his teams have enjoyed success, however, no league championship to his credit.
- has organized a number of weekend tournaments.
- has participated in many tournaments.
- basketball is a constant topic of discussion at social gatherings.
COACHING STYLE III (aggressive and autocratic)

- thirty years of age.
- married, father of three children.
- no post-secondary education.
- works as an engineer for British Columbia Ferries.
- active as a player in high school.
- voluntarily coached basketball for ten years.
- coaching experience with boys and girls.
- has made an occasional effort to attend basketball clinics.
- keenly interested in basketball.
- teams have enjoyed success, one Catholic Youth Activities league championship to his credit.
- has participated in many tournaments.
- basketball is a constant topic of discussion at social gatherings.
APPENDIX H

High School Personality Questionnaire

Forms A + B
WHAT TO DO: You have a Booklet and an Answer Sheet. Write your name, age, etc., on the Answer Sheet where it tells you to.

The Booklet before you has in it questions about your interests and your likes and dislikes. Although you are to read the questions in this Booklet, you must put your answers on the Answer Sheet, making sure that the number of your answer matches the number of the question in the Booklet.

First, we shall give you two examples so that you will know exactly what to do. After each of the questions there are three answers. Read the following examples and fill in the right boxes where it says Example 1 and Example 2, on the Answer Sheet, below your name. Fill in the left-hand box if your answer choice is the "a" answer, the middle box if your choice is the "b" answer, and the right-hand box if you choose the "c" answer.

EXAMPLES:

1. Which would you rather do: 2. If you have a quarrel, do you make friends again quickly?
   a. visit a zoo,  a. yes, b. in between,  c. no.
   b. uncertain,  c. go up in an airplane?

As you can see from these examples, there are usually no right or wrong answers, although sometimes a correct answer is expected. Each person is different and you should say only what is true for you. You can always find one answer that suits you a little better than the others, so never leave a question without marking one of the answers.

Inside you will find more questions like the ones above. When you are told to turn the page, begin with number 1 and go on until you finish all the questions. In answering them, please keep these four points in mind:

1. Answer the questions frankly and truthfully. There is no advantage in giving an untrue answer about yourself because you think it is the "right thing to say."

2. Answer the questions as quickly as you can. Don't spend too much time thinking about them. Give the first, natural answer that comes to you. Some questions may seem much like others, but no two are exactly alike so your answers will often be different too.
3. Use the middle answer only when it is absolutely impossible to decide on one of the other choices. In other words, the "a" or the "c" answer should be used most of the time.

4. Don't skip any questions. Sometimes a statement may not seem to apply to you, but answer every question, somehow.

If there is anything you don't understand, please ask your questions now. If you have no question now, but later on come across a word you don't know, ask the examiner then.
APPENDIX I

High School Personality Questionnaire

Sample Answer Sheet and Test Profile - Pre/Post
**ANSWER SHEET: The Jr.-Sr. H S P Q, FORM**  (A, B, C, or D)  
**EDITION USED: 1963 — 1968-69**

**TRUCTIONS: FILL IN COMPLETELY THE BOX BELOW WHICH IS NUMBERED THE SAME AS THAT YOU ARE ANSWERING IN THE TEST BOOKLET.**

**EXAMPLE 1:** a b c  
**EXAMPLE 2:** a o c

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**Second-Order Factors (Optional):**

- Extraversion □
- Anxiety □

A sten of 5 is obtained by about 2.3% 4.4% 9.2% 15.0% 19.1% 19.1% 15.0% 9.2% 4.4% 2.3% of teenagers.
Jr.-Sr. H.S.P.Q. TEST PROFILE

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Second-Order Factors (Optional):
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A sten of 1 2 3 4 5 6 7 8 9 10 is obtained by about 2.3% 4.4% 9.2% 15.0% 19.1% 19.1% 15.0% 9.2% 4.4% 2.3% of teenagers

Comments:
APPENDIX J

Sportsmanship Preference Record
SPORTSMANSHIP PREFERENCE RECORD

What would you do in a tough situation?

Instructions:

Read the paragraph below, then select the sentence below the paragraph which best answers what you think you would do. DO NOT MARK ON THE TEST QUESTION PAPERS. Mark your selection by encircling the appropriate letter on the accompanying answer sheet. Make your circle small. These are questions about what you do in your games and sports.

EXAMPLE:

You are team captain, in baseball. One of the fielders on your team drops a fly ball he should have caught easily. You think he is afraid of the ball. What would you do?

a. Complain to the teacher that this girl isn't trying hard?

b. Yell at her to catch the next fly or you will hit her. (You wouldn't really hit her but you want to scare her so that she will catch the next one.)

c. Give her encouragement to catch the next one.

d. Say nothing to her.

DIRECTIONS:

Try to put yourself in each of the following 20 tough situations. Think what you would do, then pick the sentence which is the closest to what you think you would do. Remember we are not interested in knowing what you think you should do -- we want to know what you actually would do. There are no grades on this; it is just to see if you are honest with yourself.

QUESTIONS:

1. You are playing soccer with your team in the physical education period. One of the big girls on the other team is roughing up some of the smaller players on your team. These smaller players on your team are afraid of this big girl so they aren't playing as well as they ordinarily do. Your team is actually the better team, but now you are losing. You are about the same size as this big girl on the other team. What would you do?
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a. Try hard to win anyway.

b. Start roughing up the little players on the other team. If they can do it to your players, you can do it to their players.

c. Let it go, and if you lose the game protest to the teacher.

d. Warn the big girl to cut it out or you will rough her up.

2. The school championship volleyball game is schedule for Friday. You are team captain of one of the teams. One of the best players on the other team is absent for the game Friday. With that player absent your team will probably win the game; if the absent player were able to play in the game, there is a good chance that your team would lose. Winning this game means a lot to everyone on your team. There are no spares on either team. What would you do?

a. Play the game Friday so your team would be sure to win. It isn't your fault if she is absent.

b. Play the game when the absent player can be there to play.

c. Demand that the game be forfeited to your team because the other team hasn't enough players.

d. Play the game Friday, but have one of your players not play so that each team will be equal in numbers.

3. In a basketball game in which you are playing, the umpire did not know the rules too well and made a lot of mistakes. Most of these mistakes were in your favor; because of these mistakes by the umpire, your team is ahead. What would you do?

a. Say nothing to the umpire about his mistakes whether they are for or against you.

b. Tell the umpire to call them fair or you will beat him up.

c. Leave it up to the other team to correct the umpire's mistakes.

d. As long as the mistakes are in your favor, don't say anything about them. If the mistakes are against you, then correct them.

e. Correct all mistakes.
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4. You have the best basketball team in your physical education period, but two of your best players were absent for a long time, so you lost all of your games. At about the end of the season teams I and II were tied for first place. Your good players are back now and your team could easily beat either team I or II, but you have already lost too many games to win the championship. You like the players on team I and dislike the players on team II. What would you do in the remaining games?

a. Lose to team I on purpose and try to beat team II, so the team you like will win the championship.

b. Decide which team is better between team I and team II and lose to that team so that the better team of the two will win the championship.

c. Try to beat each team as badly as you can to prove that you have the best team, even if you didn't win the championship.

d. Play as you normally would.

5. Your team is playing basketball on an outdoor court. The sun is low this time of day and it shines in the eyes of the team that shoots at the west end of the court. You are playing a team from another school which hasn't noticed that the sun will affect their shooting. The rules don't permit a choice. What would you do?

a. Try to have the game played so that the other team will always face the sun; that way your team will have an advantage.

b. Try to have the game played so that each team will face the sun half the time.

c. Leave it up to the officials; say nothing about the sun; it is the other team's tough luck if they don't notice it.

d. Don't say anything to anybody; just leave it to luck.

6. On your basketball team there is one girl who is a better shot than the rest. Your team captain has this girl stay under the opposing team's basket. The other girls on your team pass the ball around until they can get the girl who is the good shot clear, then they pass it to her, and she usually makes the basket. Your team has a lot of teamwork playing this way, and so far your team has won all its games. You feel you should have a chance to make some of the baskets yourself. Why should one girl have all the glory? What would you do?
a. Take some shots now and then whether the team captain likes it or not.
b. Play a poor game yourself so that the team captain will have to change her methods.
c. Ask the team captain to have a team discussion and vote whether or not to change methods.
d. Continue to play as the team captain wants you to.

7. Your team lost the school championship in basketball 30 to 28. It seemed to you that the officials were calling a lot more fouls against your team than they were against the opposing team. You feel you had the better team and should have won. What would you do?
   a. Threaten to take a poke at the officials.
   b. Demand that the game be replayed.
   c. Just let it go.
   d. Challenge the winning team to another game; they are chickens if they don't play.

8. You are playing volleyball. The score is tied. It is the opposing team's serve and the ball landed near the line in the back court. You know the ball actually hit outside the line, but it was very close and most people thought it hit inside the line. What would you do?
   a. Say it was outside.
   b. Say it was inside; everyone thinks it was, so why argue.
   c. Ask that the serve be replayed.
   d. Say that you didn't see it and have someone else call it.

9. You are playing volleyball for the school championship. Your team is ahead by three points, but the best servers on the opposing team are coming up. When the bell rings the game will end. It is four minutes before the bell rings. The other team just made another point, narrowing your lead to only two points. What would you do?
   a. Have someone on your team hit the ball way out of the court to stall for time.
   b. Play hard to get the serve; then if you are still ahead, stall until the bell rings.
c. Play hard to get your serve and play hard to keep it, but give the other team a chance and don't stall.

d. Fake an injury and call time out.

e. Call a legal time out.

10. You are the best pitcher on your baseball team. The team captain knows this but she wants to be pitcher herself, so she has you play first base. You want to pitch and you don't like first base. What would you do?

a. Refuse to play unless you get to pitch.

b. Do a poor job of playing first base so that you will get changed to something else.

c. Get the other members of your team to tell the team captain you are the best pitcher.

d. Play first base as best you can.

11. You and your best friend are on opposing teams in the school baseball league. You dislike your team captain and most of the players on your team, but according to school rules once you are on a team you can't change. You know your best friend always hits to deep center field, and you see that the center fielder on your team is in too close. When your best friend comes to bat what would you do?

a. Keep your mouth shut and say nothing to the center fielder?

b. Tell the center fielder to play out farther, but don't say you know your best friend will probably hit there.

c. Tell the center fielder to play out farther, and say your best friend usually hits in deep center.

d. Tell the center fielder to play in even closer to be sure your best friend gets a hit.

12. You are playing baseball during physical education. The team at bat calls the balls and strikes during their turn at bat. When your team was out in field the umpire (who was a member of the other team) called all the plays in favor of his own team. You know a number of his decisions were deliberately wrong. Your team is losing. Your team is now up to bat and it is your turn to umpire. What would you do?
15. Call the decision in favor of your team like the fellow on the other team did. If they can do it, you can do it.

b. Call in favor of the other team to prove you are a good sport.

c. Call them as you see them, regardless of what the other team does.

d. Call in favor of your team until your team is ahead.

13. You are playing baseball and the opposing team has some players absent, which makes the teams uneven with your team having the advantage. What would you do?

a. Volunteer to play for the other team to even things up.

b. Volunteer to play for the other team, but don't play as well as you do for your team.

c. Don't volunteer to play for them at all.

d. Don't play for them until your team is ahead.

14. You are on a losing team in physical education. Your team has never won a game. In baseball sometimes the whole period will go by and you will never get your ups. Playing on this team is no fun at all. What would you do?

a. Fool around so that the opposing team won't have any fun either.

b. Let the other team get a big lead, and then maybe they will let up a little and let you get your ups.

c. Play as best you can anyway.

d. Refuse to play.

e. Speak to the teacher regarding the team inequalities.

15. You are team captain in baseball and have a player on your team who is the best baseball player in school. This girl gets all the glory and the rest of your team never gets credit for anything. Your team could win all its games even if this good player didn't play. What would you do?

a. Let her play where she can do the best job.

b. Let her play in only part of the games.
c. Put her in right field where she couldn't do much.

d. Tell her not to try to be a star -- have her let up a little.

16. You are a pitcher on your baseball team. Your team is playing a nearby school. You really want to win this game. It is against the rules to pitch side arm, but a big league pitcher who lives near you showed you a way to pitch side arm that was real hard to detect. You don't think the umpire would notice it if you pitched side arm this way. If you pitch side arm, you know you could win the game. What would you do?

a. Pitch side arm until the umpire catches you.

b. Pitch side arm just when the good hitters are up to bat.

c. Don't pitch side arm at all.

d. Don't pitch side arm unless you start to lose.

17. You are choosing girls to run on a relay team. You need eight girls and you have chosen the seven fastest. There are two girls who are equal in speed and they both want to be the eighth runner. One of the girls is your best friend, but she has never run in a relay before. The other girl was on the team last year. What would you do?

a. Choose your best friend -- give her a chance.

b. Choose the girl who isn't your best friend; she has more experience.

c. Have the two girls flip a coin to see who runs.

d. Ask someone else to choose between the two girls.

e. Alternate the girls.

18. The school record in the broad jump is 17 feet. You have jumped as far as 17'6" this year, but not officially. During the field day when the jumps are made, a mistake in measuring gave you credit for a jump of 17'2", which made you the new school champ. What would you do?

a. Tell the teacher he mis-measured.

b. Let it go as though you actually jumped 17'2"; you already have jumped farther.
c. Ask the teacher what he thinks you should do.

d. Let it go as though you actually jumped 17'2", and try hard to jump farther next time.

19. Your school is sending four girls to run in a relay at a track meet. The teacher has selected the four fastest girls in the school to run; you were selected as the fifth girl to run in case any of the first four girls were absent. When the meet began one of the four fastest girls didn't show up. You had the school jersey on and were all ready to start the race. At the last minute this absent girl arrives; you couldn't find the teacher to ask him what to do. What would you do?

   a. Let the faster girl run.

   b. Run the race yourself; teach her a lesson to be on time next time.

   c. Ask the other girls if they think you should run in the race or not.

   d. Run in the race yourself; act as though you don't see the girl who was late.

20. You are team captain and you hear a girl on your team swear. What would you do?

   a. Let it go.

   b. Ask her to cut it out.

   c. Tell the teacher.

   d. Ask the girl to leave.
APPENDIX K

Sportsmanship Preference Record Answer Key
SPORTSMANSHIP PREFERENCE RECORD — Answer Key

1. a - 5 points  
b - 0 points  
c - 2 points  
d - 1 point

11. a - 2 points  
b - 3 points  
c - 5 points  
d - 0 points

2. a - 0 points  
b - 5 points  
c - 1 point  
d - 3 points

12. a - 1 point  
b - 1 point  
c - 5 points  
d - 1 point

3. a - 3 points  
b - 0 points  
c - 3 points  
d - 1 point  
e - 4 points

13. a - 5 points  
b - 1 point  
c - 2 points  
d - 1 point

4. a - 1 point  
b - 2 points  
c - 2 points  
d - 5 points

14. a - 1 point  
b - 1 point  
c - 5 points  
d - 0 points  
e - 3 points

5. a - 0 points  
b - 5 points  
c - 3 points  
d - 4 points

15. a - 5 points  
b - 2 points  
c - 2 points  
d - 2 points

6. a - 0 points  
b - 1 point  
c - 5 points  
d - 4 points

16. a - 0 points  
b - 0 points  
c - 5 points  
d - 0 points

7. a - 0 points  
b - 1 point  
c - 5 points  
d - 1 point

17. a - 1 point  
b - 5 points  
c - 2 points  
d - 2 points  
e - 3 points

8. a - 5 points  
b - 1 point  
c - 3 points  
d - 1 point

18. a - 5 points  
b - 1 point  
c - 2 points  
d - 1 point

9. a - 0 points  
b - 1 point  
c - 3 points  
d - 0 points  
e - 3 points

19. a - 5 points  
b - 0 points  
c - 3 points  
d - 0 points

10. a - 0 points  
b - 1 point  
c - 3 points  
d - 5 points

20. a - 1 point  
b - 5 points  
c - 2 points  
d - 3 points
APPENDIX L

Attitude Toward the Coach Scale
ATTITUDE TOWARD THE COACH SCALE

Answer each item by entering the appropriate letter in the space provided according to the following scale:


1. My coach is admired and respected by all of his players.
2. My coach praises his men for a job well done.
4. My coach confidently handles emergency situations.
5. My coach takes all the credit when others do good work.
6. My coach ignores the feelings of his players.
7. My coach always backs up his players.
8. My coach treats his players unusually well.
9. My coach considers the safety of his players above all else.
10. My coach gives instructions that are hard to understand.
11. My coach has the wrong opinion of some of his players.
12. My coach has genuine interest in his work.
13. My coach works hard and welcomes additional responsibilities.
14. My coach is not always fair in judging our work.
APPENDIX M

List of Personality Tests Cited in the Review of Literature
<table>
<thead>
<tr>
<th>NAME OF TEST</th>
<th>SOURCE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjective Trait Check List</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td>A standardized 300-adjective list. Used in personality assessment and psychometric research. An attractive profile sheet is included. Test is geared for adults.</td>
</tr>
<tr>
<td>California Psychological Inventory</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td>A 480-item true-false questionnaire for normal individuals, based on the Minnesota Multiphasis Inventory. The CPI offers a combination of features which justify its description as &quot;a new achievement in personality testing&quot;. Geared for older adolescents and adults.</td>
</tr>
<tr>
<td>Cattell Sixteen Personality Factor Questionnaire</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td>The Sixteen Personality Factor Questionnaire are objectively-scorable tests devised by basic research in psychology to give the most complete coverage of personality possible in a brief time. Coverage of personality is ensured by the sixteen functionally independent and psychologically meaningful dimensions isolated by over twenty years of factor analytic research on normal and clinical groups. The range is for young adults and adults (15 years and over).</td>
</tr>
<tr>
<td>Cattell Jr.-Sr. High School Personality Questionnaire (HSPQ)</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td>Assesses major aspects of the teenager's personality. A multi-dimensional test giving scores on fourteen factors including general intelligence, emotional maturity, anxiety level, superego strength, extroversion, etc. The range is ages 11 or 12 to 17 or 18.</td>
</tr>
<tr>
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<tr>
<td>Children's Personality</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td>The objective analysis of the child's individual personality furnished by the test results supplements other available information. Each of the two test parts can be given in a class period to a single individual or to groups. The CPQ consists of fourteen scales, each measuring a dimension whose functionally independent nature has been established by factor-analytic research. The range is ages 8 - 12.</td>
</tr>
<tr>
<td>Edward's Personal Preference</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td>A forced-choice inventory designed to show the relative importance within the individual of fifteen key needs or motives. Minimizes the natural tendency of examinees to choose face-saving or socially desirable responses. Useful in personal counselling and personality research. The range is college students and adults.</td>
</tr>
<tr>
<td>Gordon Personal Profile and</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td>Two short, easily-administered inventories designed to measure eight aspects of personality. The range is high school and above.</td>
</tr>
<tr>
<td>Zimmerman Temperament Survey</td>
<td>Sheridan Supply Co., Beverly Hills, California, U.S.A.</td>
<td>University of British Columbia Test Centre has the test but no manual. Test is 1949. The catalogues consulted do not have it listed, therefore, it may be discontinued.</td>
</tr>
<tr>
<td>NAME OF TEST</td>
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<tr>
<td>Minnesota Multiphasic</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td>A diagnostic instrument constructed entirely on the basis of clinical criteria. Ten scales including hypochondriasis, depression, hysteria, paranoia, schizophrenia, hypomania, etc. The range is older adolescents and adults.</td>
</tr>
<tr>
<td>Personality Inventory</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td></td>
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<tr>
<td>Omnibus Personality Inventory</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td>A 385-item inventory with fourteen scales designed to assess selected characteristics of human behaviour, chiefly in the areas of normal ego-functioning and intellectual activity. Although norms are available only for college freshmen, it is expected that the OPI will be useful for both research and counselling with college-bound high school juniors and seniors. The range is for older adolescents and young adults.</td>
</tr>
<tr>
<td>Thurstone Temperament Schedule</td>
<td>Institute of Psychological Research, 34 Fleury St. West, Montreal 357, Que. Canada.</td>
<td>No information in catalogue.</td>
</tr>
</tbody>
</table>

* All of the above tests can be obtained on loan from the Psychology Test Centre, University of British Columbia, Angus Building.