

AN ABSTRACT OF THE THESIS OF

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Title: THE RELATIONSHIP BETWEEN COMPETITIVE RECREATION  
AND PERSONAL ADJUSTMENT

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The purpose of this investigation was to explore the relationship between attitudes toward competitive recreation activities and selected measures of personal adjustment. In addition, certain aspects of behavior associated with involvement in competitive recreation activities were examined in relation to personal adjustment. Interest in this topic was partially stimulated after a review of the literature revealed a lack of research relating to the competitive recreation experience. The lack of such research has been partially due to the fact that programs have generally been assessed along quantitative dimensions, determined by numbers of participants, rather than in terms of social and psychological variables.

Competitive recreation programs have frequently been external in focus since awards, status, and recognition are common by-products of competition. The research findings of Riesman (1950)

and Maslow (1968) suggest that such an orientation may inhibit growth toward optimal personal adjustment since they found that well-adjusted individuals tend to be principally governed by intrinsic motivators. This viewpoint has been supported by research from a variety of academic disciplines. For example, the findings of Mead (1937), Deutsch (1949), Blau (1954), and Maslow (1973) all supported the viewpoint that competitiveness may act as a barrier to positive personal, and interpersonal, adjustment. Thus, the theoretical framework underlying this study was provided primarily by these writers.

Data were obtained by administering the Competitive Recreation Activities (CRA) attitude scale, developed as a part of this study, and Shostrom's (1972) Personal Orientation Inventory (POI). The POI subscales selected for use in the study included Inner Directed, Self-Actualizing Value, Existentiality, and Capacity for Intimate Contact. The study sample consisted of 178 subjects varying in academic major, grade level in college, age and sex.

Three statistical models were utilized to test the hypotheses under study. These included the product-moment correlation coefficient, the t-test, and analysis of variance. Obtained differences were accepted as significant when  $p \leq .05$ .

The following conclusions were formulated based upon the findings of this investigation:

1. Selected measures of personal adjustment were significantly related to certain attitudinal measures associated with competitiveness in recreation.

2. Scores on the POI subscale Existentiality significantly related to scores obtained on the CRA scale. The negative correlation indicated that as subjects demonstrated more favorable attitudes toward competitive recreation activities, scores assessing Existentiality decreased.

3. Based upon self-reports, independent of the CRA scale, subjects who believed that competition in recreation is good scored significantly lower on the POI subscales Inner Directed, Existentiality, and Capacity for Intimate Contact, than subjects who believed that competition in recreation is not good.

4. Based upon self-reports, independent of the CRA scale, subjects' congruency levels between assessed evaluation of competition in recreation and self-reported identity as competitors or noncompetitors, did not relate to any of the selected dimensions of personal adjustment.

5. No statistically significant evidence was found which suggested that competitive attitudes or behavior relate positively to any of the selected measures of personal adjustment.

The following trends were identified based upon findings which were significant only at the .10 level of confidence:

1. Among low participators in competitive recreation activities, CRA scores significantly related to scores on the POI subscales Inner Directed and Capacity for Intimate Contact. The correlations in both instances were of an inverse nature. Personal adjustment was higher among low participators who were less favorable toward competitive recreation activities which suggests that within this group, subjects who were consistent in attitude (CRA scores) and behavior (participation levels) reflected higher levels of personal adjustment on these two subscales of the POI. It was concluded that consistency in attitude and behavior, among low participants, relates positively to these dimensions of personal adjustment.

2. Low participators in competitive recreation activities scored significantly higher on Existentiality than high participators. It was concluded that on this measure of personal adjustment, low participators in competitive recreation activities reflected higher adjustment levels than high participators.

The Relationship between Competitive Recreation  
and Personal Adjustment

by

Lawrence Ronald Klar, Jr.

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. . . early though the laurel grows  
It withers quicker than the rose.

A. E. Housman  
"To An Athlete Dying Young"



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# THE RELATIONSHIP BETWEEN COMPETITIVE RECREATION AND PERSONAL ADJUSTMENT

## CHAPTER I

### INTRODUCTION

Competitive recreation programs have grown rapidly in popularity and number in recent years. Concurrently, controversies centering around the effects of the competitive experience upon personal adjustment have been widespread, particularly in relation to sports activities (Myers, 1962), but more recently in the area of competitive recreation programs as well (Gray and Greben, 1973). Although interest in the effects of the competitive experience has existed for some time, deeper inquiry was promoted as a result of the growth of humanistic psychology.

Humanistic principles, which focus upon the internal aspects of the individual, including sense of self-worth, feelings, values, and attitudes, have been found to relate directly to the expressed goals and ideals of the recreation profession in a number of instances. Examples of these goals include the enhancement of self-esteem (American Association for Health, Physical Education, and Recreation, 1964), the expansion and growth of the inner person (Brightbill, 1960), and the enhancement of creative capacities (Carlson, Deppe, and MacLean, 1972). Such goals are primarily oriented toward internal

aspects of the individual and the development of positive personal adjustment, concepts consistent with the humanistic point of view. For example, in discussing the importance of an internal, rather than external orientation, Maslow (1973, p. 192) has suggested that mentally healthy people ". . . seem to do what they do for the sake of ultimate, final values, which is for the sake of principles which seem intrinsically worthwhile."

The emphasis of competitive recreation activities, however, is frequently directed toward external ends, since awards, status, and recognition have been adopted as important by-products of the competitive experience. Such by-products may foster an atmosphere which is not conducive to healthy personal adjustment. For example, if the end result of the recreation experience becomes more important than enjoyment of the activity itself, the total experience may be adversely affected. The potential for such an outcome was described by Maslow (1968, p. 31) as follows:

Activity can be enjoyed either intrinsically, for its own sake, or else have worth and value only because it is instrumental in bringing about a desired gratification. In the latter case it loses its value and is no longer pleasurable when it is no longer successful or efficient. More frequently, it is simply not enjoyed at all, but only the goal is enjoyed.

Examples of these two extremes were observed among shuffleboard players by Senters (1971) in a study of uncertainty and stakes in recreation. She reported that players learning the game appeared to

play for the reward of play itself. As the players increased in proficiency, playing shuffleborad without the added value of betting or league competition, was described as "no fun." According to Maslow's viewpoint, only the former condition would be characteristic of the mentally healthy, or self-actualized individual.

Riesman (1950) also suggested that the inner-directed individual possesses a number of desirable characteristics that are not shared by those who are other-directed. Inner-directed people were described as those who have some degree of independence in their actions and do not necessarily follow what others do. Such individuals were contrasted with those who are other-directed who may be constantly responding to cues from within the peer group, rather than to inwardly based desires. According to Riesman, the inner-directed person is capable of greater stability.

In the area of sport, many writers have focused on the competitive experience. Some have suggested that competitive sports and athletics may negatively affect personality development and self-image, foster aggression, and hinder the development of positive interpersonal relationships (Hoch, 1972; Scott, 1972; Edwards, 1973). Furthermore, based on the study of more than 15,000 athletes, psychologists Ogilvie and Tutko (1971) have postulated that, contrary to generally accepted notions, athletic competition may hinder, rather than foster, positive character development. While self-improvement,

positive ego development, and healthy maturation are recognized as potential outgrowths of sport by these and other writers, Thompson (1959, p. 466) has suggested that ". . . if competition is too keen, the individual is likely to suffer defeat, humiliation, frustration, and possibly demoralization." Thus, these writers, among others, have identified conditions associated with competitive activities which would ostensibly limit growth toward optimal personal adjustment.

Research from an anthropological perspective, as well as in the area of small group study, has provided evidence which suggests that cooperation is more conducive to healthy personal adjustment than competition. For example, Benedict (cited in Maslow, 1973), and Mead (1937) found that cooperative peoples demonstrated characteristics common to self-actualized persons, while individuals in competitive societies did not. Studying individuals within the context of small groups, Deutsch (1949) and Blau (1954) reported that healthier indices of personal adjustment were demonstrated by individuals functioning cooperatively, rather than competing against each other.

From a recreation perspective, writers Gray and Greben (1973) have encouraged professionals in the field to rethink competition and the way it is presently used in recreation. Defining recreation in psychological terms, as a positive emotional response to involvement in an activity, they suggested that an experience cannot be considered recreational in nature unless the participant emerges with favorable

feelings toward himself and others. Since individuals who are unsuccessful competitors may experience a loss in self-esteem, these writers have pointed out that, for many participants, competitive activities may not facilitate a "true" recreation experience.

Whether an individual seeks involvement in competitive recreation activities for enjoyment of the activity itself, or for other, externally oriented reasons, will depend in part upon the type of fulfillment which is sought. The participant's response to a given activity will be contingent upon his frame of mind, motives, and values. Stated more broadly, the attitude of the participant will influence expectations and, subsequently, the level of satisfaction derived from the activity.

The importance of attitudinal study has been well established in the social science disciplines but has not traditionally been a central area of focus in the field of recreation in comparison to other areas of study (Neulinger, 1971). Yet, more recently, interest in such research has increased and is being explored in a growing number of areas (Heath, 1968; Neulinger and Breit, 1969; Neulinger and Raps, 1972; Knopp and Tyger, 1973; Jackson, 1973). In spite of the increases in attitudinal study in certain areas of recreation, research directed toward the competitive recreation experience has been limited. In an attempt to gain insight into this aspect of recreation, the principal focus of this investigation was directed toward examining



the relationship between attitudes associated with competitive recreation activities and selected measures of personal adjustment. A secondary purpose was to explore the relationship between certain behaviorally related aspects of competitive recreation and selected measures of personal adjustment.

### Purpose of the Study

The primary purpose of the study was to examine the relationship between attitudes toward competitive recreation activities and selected measures of personal adjustment derived from Shostrom's (1972) Personal Orientation Inventory (POI).

A second purpose was to determine if this relationship is affected by varying behavioral patterns associated with competitive recreation activities. Thus, the relationship between attitudes toward competitive recreation activities and personal adjustment among subjects reporting high and low levels of involvement in competitive recreation activities was explored. This added control was included to identify the extent to which attitudes, independent of behavior, may be related to certain areas of personal adjustment.

A third purpose of the study was to determine if personal adjustment is affected by behavior; that is, one's level of participation in competitive recreation activities. Thus, the personal adjustment of

(1) high and (2) low participators in competitive recreation activities was compared.

The fourth purpose of the study was to explore the extent to which personal adjustment may relate to the level of congruency which exists between subjects' self-reported identity as competitors or non-competitors and assessed evaluation of competition in recreation. In other words, if individuals are supportive of competition, but are not competitors, or if the converse exists, is personal adjustment lower than is the case under conditions of congruency?

A review of the literature disclosed no instruments which have been designed for the purpose of assessing attitudes related to competitive recreation activities. Thus, the final purpose of the study was to develop a Likert-type scale designed to measure attitudes toward competitive recreation activities.

#### Importance of the Study

Research efforts directed toward identifying the effects of the competitive experience have been quite limited. While interest in competitive recreational and sports activities has been widely expressed among psychologists (Ogilvie and Tutko, 1971), sociologists (Loy and Kenyon, 1969), educators (Biehler, 1971; Holt, 1972), and recreators (Gray and Greben, 1973), research designed to determine the importance of attitudes associated with competition in relation

to mental health and personal adjustment is virtually non-existent.

One of the reasons underlying the absence of attitudinal research in the area of competitive recreation may relate to the fact that recreation programs have traditionally been evaluated in quantitative terms; that is, by counting the number of participants in various programs. The presence of numerous participants was generally considered to be a valid indicator of program success. Thus, competitive programs were often considered successful, since participation rates have been high.

More recently, however, it has been suggested that there is a need to assess programs along qualitative dimensions, particularly focusing attention upon the social and psychological well-being of the participant (Staley and Miller, 1972; Carlson, Deppe, and MacLean, 1972; Gray and Greben, 1973). New approaches for the study of the recreation experience must be developed for this shift in emphasis to take place.

The study of attitudes and values is central to developing insight into the psychological nature of individuals, since personal adjustment, attitudes, and values are intertwined; thus, healthy personal adjustment generally corresponds with healthy attitudes and values. This perspective has been supported by Neulinger (1971) who has attempted to relate attitudes associated with specific dimensions of leisure to mental health and is presently in the process of refining his methodological approach for further study.

Many questions remain unanswered concerning the extent to which the competitive recreation experience enhances or inhibits personality development and adjustment. For example, is growth toward optimal mental health compatible with competitiveness? Does striving for prizes and awards under competitive conditions preclude growth toward inner-directed adjustment? Are interpersonal relationships negatively or positively affected under competitive conditions? Are attitudes and personal adjustment affected by the extent to which individuals participate in competitive recreation activities? While the focus of this paper cannot include the study of each of these areas of question, it may prompt the exploration of these and other queries in future research undertakings.

### Hypotheses

The following hypotheses, stated in the null form, were formulated for the study:

1. There is no relationship between attitudes toward competitive recreation activities and selected measures of personal adjustment.
2. There is no relationship between attitudes toward competitive recreation activities and selected measures of personal adjustment among subjects reporting (1) high and (2) low levels of

involvement in competitive recreation activities as determined by self-reported behavior patterns.

3. There is no difference in personal adjustment between (1) high and (2) low participators in competitive recreation activities.
4. The level of congruency between subjects' self-reported identity as competitors or noncompetitors and their expressed evaluation of competition in recreation is unrelated to personal adjustment.

#### Limitations of the Study

The limitations of the study include the following:

1. The subjects comprising the study group were limited to Oregon State University students enrolled in the classes Man and Leisure, Wilderness and Leisure, Camp Leadership, and Leisure Ecology, during the spring 1974 academic term. Although these courses are offered by the Department of Resource Recreation Management, a broad spectrum of academic majors was represented in the enrollments since these courses are taken as electives by students from a variety of disciplines. In spite of the diversity of the sample, however, results from the study may not apply to other populations.
2. The accuracy of the data obtained from subjects in the study group is contingent upon the reliability and validity of the

Competitive Recreation Activities scale and the Personal Orientation Inventory.

3. The scales utilized in the study must rely upon a self-reporting methodology. All instruments which require respondents to subjectively express attitudes, values, beliefs, or behavioral patterns necessarily share this limitation.
4. The study was limited to assessing the relationship between certain variables. Inferences relating to causality would be inappropriate and were not attempted.

### Definition of Terms

#### Recreation

Recreation is defined as a state of mind, involving feelings of personal satisfaction, a sense of well-being, and a positive feeling toward the self and others. Specifically, recreation is defined in accordance with the definition formulated by Gray (Gray and Pelegrino, 1973, p. 6):

Recreation is an emotional condition within an individual human being that flows from a feeling of well-being and self-satisfaction. It is characterized by feelings of mastery, achievement, exhilaration, acceptance, success, personal worth and pleasure. It reinforces a positive self-image. Recreation is a response to aesthetic experience, achievement of personal goals, or positive feedback from others. It is independent of activity, leisure, or social acceptance.

For the purpose of the present study, however, recreation was considered within the context of competitive recreation activities.

### Competitive Recreation Activities

Competitive recreation activities include all individual and team games, events, sports, and activities traditionally sponsored by recreation providing agencies and institutions which include for the participant ". . . the process of attempting to meet needs through activities that make individuals contenders for rewards and goals" (Brennecke and Amick, 1971, p. 125). It should be emphasized that competitive recreation activities extend beyond athletics and sports. Such activities might include chess, checkers, pet contests, costume contests, treasure hunts, and a number of other activities in which participants are contenders for common goals or rewards.

### Attitude

Attitude is defined as a disposition toward overt action; a verbal substitute for overt action (Likert, 1932, p. 9). It is not behavior, but the precondition of behavior, which exerts a dynamic influence upon the individual's response to all objects and situations with which it is related (Allport, 1967, p. 8).

## Personal Adjustment

Personal adjustment has been defined by Shostrom (1972, p. 5), based on the writings of Maslow (1954, 1968), in terms of the person who is self-actualized and is thus

. . . more fully functioning and lives a more enriched life than does the average person. Such an individual is seen as developing and utilizing all of his unique capabilities or potentialities, free of the inhibitions and emotional turmoil of those less self-actualized.

Operationally, for the purpose of the present study, personal adjustment is assessed in terms of selected dimensions of the Personal Orientation Inventory, which includes the following concepts defined by Shostrom (1972, p. 6):

- I Inner-Directed Support: measures an autonomous self-supportive, or being-orientation (127 items).
- SAV Self-Actualizing Value: measures affirmation of a primary value of self-actualizing people (26 items).
- Ex Existentiality: measures ability to situationally or existentially react without rigid adherence to principles (32 items).
- C Capacity for Intimate Contact: measures ability to develop contactful intimate relationships with other human beings, unencumbered by expectations and obligations (28 items).

Within this context, self-actualizing people are those who are motivated primarily by growth, of an intrinsically oriented nature, toward the fulfillment of their human potential (Maslow, 1968).



## CHAPTER II

### REVIEW OF RELATED LITERATURE

A review of the literature related to competitive recreation programs and activities disclosed that very little attention has been devoted to this aspect of the recreation experience. On the other hand, an abundance of material was available in the related field of competitive sport. The review of the literature encompassed the following areas of importance to the study: (1) competition in recreation; (2) competition in sport; (3) competition and personal adjustment; and (4) the Personal Orientation Inventory.

#### Competition in Recreation

A number of writers have suggested that competitiveness, which becomes visible during the play of children, is a direct by-product of socialization processes (Leuba, 1933; Piaget, 1938; Allport, 1961). For example, Allport (1961) has pointed out that the concept of "winning" occurs in many children between the ages of three and four and by the age of six or seven in our culture, the self-esteem acquires a competitive flavor. Allport suggested that this phenomenon was not found in all cultures.

Piaget (1938) also noted changes in competitiveness among different age groups of children. He observed that the young child, between the ages of three and five years, desires only to shoot his marbles at other marbles. The child's focus was on the enjoyment of the activity itself, rather than on winning the game. This orientation was seen to change with age toward a greater awareness of outcomes associated with winning and losing.

Others have also demonstrated that competitiveness in individuals is related to the socialization process. Webb (1969) found that the development of a professionalized attitude toward play occurred to a greater extent among males than females. He attributed this difference to the influence of societal factors which encourage males to become involved in activities which are preparatory for adult roles, that is, participation in the competitively oriented economic sector of society. These findings were supported in a replication study conducted by Maloney and Petrie (1972). In the latter study it was also found that those who had the greatest degree of involvement in athletic participation were more professionalized in their orientation toward physical activity, although participation in intramural programs appeared to act as a damper upon the development of a professionalized attitude toward play.

There is some evidence which suggests that extensive involvement in competitive recreation and sports activities may not relate

positively to personal adjustment. Studying the attitudes toward the recreation program among inmates at Washington State Penitentiary, Fain (1959) found that inmates believed that sports should receive more emphasis in the recreation program. Thus, an affinity for competitive recreation activities was evidenced among persons comprising a population ostensibly low in personal adjustment.

Fain's results are not inconsistent with the findings of Winter (1973) who suggested that there may be a relationship between the desire for power and participation in competitive athletic activities. Specifically, Winter (1973, p. 100) stated that, "Athletics is another form of power. One person or team defeats another. The language of sports journalism is full of power words and images." Since the need for power would seem to be characteristic of persons comprising the prison subculture, and power and competitiveness may be related, Winter's conclusions are ostensibly consistent with the findings reported by Fain.

The importance of external benefits which are frequently outcomes of the competitive recreation experience has been demonstrated in at least two independent studies. In an experiment designed, in part, to create conflict between two groups of normally adjusted 12-year-old boys attending a resident summer camp, Sherif (1954), and his associates, held a tournament utilizing such competitive games as baseball, touch football, tug-of-war, and treasure hunts, in which

the two groups of boys competed against each other. Through the use of external rewards given to the winning team of each event, friction soon developed between the two groups. Although the tournament began in the spirit of good sportsmanship, good feelings disappeared as the play progressed.

In a later study directed toward assessing the effects of stakes (betting) in the competitive game of shuffleboard, Senters (1971) also noted changes in the participants over time. She reported that during the learning stage of the game, players appeared to play for the reward of play itself. However, during the second stage, play became more formalized. Ultimately, playing the activity without the added value of either betting or participating in competitive league play was described to the researcher as being "no fun." Thus, in each of these studies, the activity seemed only to have worth when it was instrumental in bringing about a desired, external goal. Such a development is ostensibly inconsistent with the basic goals and ideals espoused by professionals in the field of recreation.

A recent study completed by Howard (1973) examined the relationship between leisure activity preferences and personality. He found that persons with high scores on the Sports factor were inclined to be impulsive, aggressive, dominant, and high on endurance. These persons were found to be low on nurturance, order, and understanding. It was concluded that selected variables of personality were

significantly related to leisure activity preferences. The scope of the study did not include an examination of mental health or personal adjustment, which has also been the case for other studies concerned with recreation participation preferences and personality (Farina, 1965; Ibrahim, 1969).

The recent findings of Kleiber (1972) have important implications for the present study. Studying the relationship between free time activity and sense of competence among college students, Kleiber found no support for the idea that involvement in physical activities is positively related to a sense of competence. The Personal Orientation Inventory was utilized as one measure of personal adjustment. Inner Support and Self-Acceptance were found to relate negatively to involvement in physical activities. The possibility was suggested that physical activities may be detrimental to self-awareness. Stated differently, Kleiber postulated that people who are introspective are less likely to be physically active.

The type of physical activity was not controlled for in Kleiber's study. Thus, no distinction was made between competitive and non-competitive types of physical activity. Since the element of competition is so pervasive in physical activities, it may be that the external focus of competition, rather than physical activity itself, does not attract individuals who are inwardly oriented.

Although not writing from a research oriented perspective, recreators Gray and Greben (1973) have focused attention upon competition as it is used in recreation. They expressed the view that we must rethink competition and the way it is used in present day programs to insure that the principal emphasis of programs is directed toward human development, well-being, and the enhancement of the self-image of the individual. Encouraging practitioners in the field to evaluate recreation in humanistic terms, they suggested that psychological dimensions of the participant should be of prime concern:

The critical questions are not, "How many were there?" or "Who won?" The critical question is, "What happened to Jose, Mary, Sam, and Joan in this experience?" (p. 10).

Gray and Greben have recommended the adoption of a humanistic viewpoint as the central value system of the recreation movement. They have stressed that programs of all types, competitive and non-competitive alike, should be evaluated within this framework.

### Competition in Sport

Although very little research has been directed toward the competitive experience in the field of recreation, competition has received wide attention in sport related research. The majority of research, however, has not focused upon the study of competition in relation to personal adjustment.

### Attitudinal Research in Sport

In one of the earlier attitudinal studies conducted in sport research, Scott (1953), following the previous work of McCue (1950), examined attitudes toward inter-school athletic competition at the elementary level. She found that parents, teachers, and administrators were favorable toward inter-school athletics at the elementary level. Attitudes were not examined in relation to the personal adjustment of the respondents.

Lakie (1964) also studied attitudes associated with competitive sports by devising a Likert-type scale which was designed to assess the win-at-any-cost philosophy among participants in various sports activities. He found that athletes could not be differentiated by measured attitudes. Again, no attempt was made to examine the relationship between attitudes and personal adjustment.

Also concerned with ethical behavior and attitudes in sport, Johnson (1966) used the Scale Discrimination Technique to study attitudes associated with unsportsmanlike behavior. Scale development procedures were based upon a composite of the methods of equal appearing intervals, summated ratings, and scale analysis. Although there was high agreement among judges as to what constitutes unsportsmanlike behavior, the study was limited essentially to reliability and validity concerns.

Directly concerned with the relationship between involvement in athletics and personal adjustment, Anderson (1965) examined personal adjustment and social status of elementary and junior high school boys who possessed differing levels of athletic ability. Levels of athletic ability were differentiated by identifying various success levels among participants on inter-school competitive teams in Medford, Oregon schools. It was concluded that successful athletes evidenced a higher level of peer status and social adjustment than did boys who had less successful or no experiences in elementary inter-school athletic competition. The Mental Health Analysis revealed few significant differences in the personal and social adjustment of athletes of varying abilities, and nonparticipants.

Also directing attention toward attitudes and values associated with competitive athletics and sports, in a highly philosophical presentation, Allard (1972) hypothesized and concluded that competitive sport is painful, while cooperative sport is pleasurable. From a historical and philosophical perspective, he supported the viewpoint that competitive sports activities, as they exist in present society, foster an atmosphere which is in conflict with the humanistic ethic. Agreeing with Slusher (1967), Allard suggested that the sportsman is ". . . obsessed with becoming what he will be, never is, but always was" (p. 43a). He concluded that sport involvement must be made



cooperative in emphasis to become genuinely satisfying for the participant.

Slusher (1967) also examined attitudes and values in sports from a philosophical perspective. Highly existential and humanistic in his approach, Slusher (1967, p. 185) stated that, "The spirit of sport has been replaced by the product. . . . Perhaps what is needed is the development of a spirit of play and not a spirit of sport."

Slusher has based many of his views upon ideas expressed in Martin Buber's (1953) book, I and Thou. Supporting the viewpoint that the essence of self-realization is found in relationships with others (I-thou), he is aware that in sport, participants may play against an opponent (I-it), and that the latter orientation deprives the participant of positive growth. Specifically, Slusher (1967, p. 66) stated that, "The real joy and greatness of sport participation comes in the development of I-thou relationships. Yet frequently man foresakes the thou for an it." The following viewpoint was offered as an alternative:

If the theory of oneness is accepted, then man must reject I-it; for it is the I-thou which needs to be reached when attempting to achieve wholeness. Sport exists only when the individual is completely involved in the activity. He needs to be able to respond to the other. In this way sport becomes a human achievement (p. 67).

Neal (1972) also directed her emphasis toward the mental frame of mind, or the attitude, of the sport participant. She has

suggested that sports provide the opportunity for positive fulfillment, but only if the orientation of the athlete is principally inward in direction. While pointing out that winning in sport is geared toward conquering and achieving, all at the expense of an opponent, an alternate possibility was suggested: ". . . to those who are aware, the value is in the total participation of the being, not in the results" (p. 36).

Thus, Allard, Slusher, and Neal share a common perspective, a perspective which is principally humanistic in nature, inward in focus, supportive of the potential which is possible through involvement in sports activities, yet aware of the influences which can adversely affect the total experience. The chief concern of each of these writers is with the frame of mind, or mental attitude, which affects the quality of the competitive experience. Concepts which embody the goals of self-actualization theory are common to each of their viewpoints.

#### Personality and Adjustment among Athletes

Many writers have suggested that participation in athletic competition can positively influence personality development. For example, Werner and Gottheil (1966) pointed out that the development of certain personality characteristics has long been considered an

important objective of athletic participation. However, as a result of their study of personality characteristics among athletics at the United States Military Academy at West Point, they concluded that no evidence was found to support the assumption that college athletics significantly influence personality structure.

The work of psychologists Ogilvie and Tutko (1971) also suggested a similar conclusion. Based on their study of more than 15,000 athletes, they concluded that no empirical support for the tradition that sport builds character could be found. Furthermore, they suggested that athletic participation may limit growth in some areas.

Focusing specifically on identifying personality traits among their athletically oriented subjects, Ogilvie and Tutko (1971) found that (1) they have a great need for achievement and tend to set high but realistic goals for themselves and others; (2) they are highly organized, orderly, respectful of authority, and dominant; (3) they have a large capacity for trust, great psychological endurance, self-control, low-resting levels of anxiety, and slightly greater ability to express aggression.

While the profile presented by Ogilvie and Tutko was generally favorable, the presence of clearly undesirable personality traits has been found to be associated with athletes by other researchers. They have generally agreed that personality development may be adversely

affected as a result of participation in athletics (Sperling, 1942; Biddoulph, 1954; Peterson, Weber, and Trousdale, 1967; Berger and Littlefield, 1969; Schafer, 1969).

Biddoulph (1954) concluded, for example, that the unnatural popularity which many athletes enjoy is often a disintegrating influence, rather than one which is stabilizing. According to Biddoulph, this represents an inaccurate gauge of adjustment. This viewpoint was supported by Schafer (1969, p. 35) who reported that ". . . athletes whose sense of identity and self-worth is entirely linked to athletic achievement often experience an identity crisis when the athletic career has ended, and it becomes necessary to move on to something else. "

Carmen, Zerman, and Blaine (1970) have also studied athletes from a mental health perspective. They attempted to determine if athletes had fewer psychiatric problems than nonathletes. Testing 106 athletes over a five-year period, and 26 athletes in a smaller study, the results showed that in the larger study athletes used counseling facilities less frequently than nonathletes. The findings of the smaller study revealed that the athletes who came in for treatment tended to have a greater number of problems than did nonathletes.

In spite of many studies which have examined the personality of the athlete, many questions in this area remain unanswered. Sperling

(1942), and, more recently, Cooper (1969) have stressed that personality differences among athletes and nonathletes may or may not be determined by sports involvement on the part of the athletes. While personality differences may be due to participation in sports by athletes, it is equally possible that those with certain personality traits are attracted to this type of activity. This issue has yet to be resolved.

### Values and the Winning Ethic in Sport

A growing number of writers have expressed concern over the increased emphasis in winning which has been common to many sports. Recently interviewed by a writer for a major newspaper (Oates, 1973), psychologist Thomas Tutko was critical of the over-emphasis on winning that has been associated with sports at all levels. Referring to youth athletic programs, such as Little League baseball and Pop Warner football, he suggested that a tragic disservice to America results when the win-or-else creed of big league sports is emulated by the participants. When asked if it is wrong for youths to learn to compete, Tutko responded with the following:

The thing they learn from such professional sports as football and baseball isn't that this is a competitive world but that it's a world with one winner--and everybody else loses. One NFL champion and 25 losers. That champion is glorified. He can do no wrong. The loser can't be tolerated. But this isn't the way life is. This is a grotesque distortion and it adversely affects youngsters (Oates, 1973, p. III-B).

Criticisms of the win-at-any-cost ethic in sports have also been expressed by such former athletes as Dave Meggyesy (1970), Jack Scott (1972), and Harry Edwards (1973). These and others have suggested that the overemphasis on winning the game may adversely affect sportsmanship, negatively affect the values of the young, and foster an atmosphere in which organized crime can flourish.

Many of the discussions centering around the winning ethic in sports have been emotionally based, rather than grounded in research. For example, Philipp D. Woolpert, ex-coach at the University of San Francisco, has verbalized concern for the values associated with the winning ethic in sports: "I think there is something wrong with these games we play when winning becomes a motivating factor of behavior beyond the game itself" (Johnson, 1968, p. 68). He suggested that this is the product of a bad system of values which creates psychological problems where there should not be any.

Writing for a popular magazine, Commager (1961) criticized the role of the media in influencing values associated with sports at the college and university levels. He reported the following:

Perhaps worst of all, the boys and girls of the country are corrupted: here is the real corruption of the innocent. Almost every newspaper, every weekly magazine, every television network makes clear to them that what is most important in education is athletics, and what is most important in athletics is winning (p. 120).

Some athletes have openly stressed that winning in sport is of utmost importance, perhaps more important than how the game is played. For example, the following viewpoint was expressed by football quarterback Joe Kapp: "Winning is everything. You do anything you have to do to win" (Maule, 1970, p. 14). The classic statement expressed by the late football coach Vince Lombardi further typifies this value system: "Winning isn't everything. It's the only thing" (Edwards, 1973, p. 137). Much of the criticism launched against competitive sports has been stimulated by the expression of such values.

Ogilvie and Tutko (1971) have suggested that the world of sport is going to take the emphasis off winning-at-any-cost. Emphasizing the need for a more positive approach, they stated that, "The new direction will be toward helping athletes make personally chosen modifications in behavior; toward the joyous pursuit of esthetic experience; toward wide varieties of personality types and values" (p. 63).

It is noteworthy that behaviorist B. F. Skinner (1968), while far removed from the humanistic point of view, has also indicated that competitions which produce "winners" may not contribute to the welfare of all who are involved. He warned that, "Those who advocate competition as a useful social motive may wish to use reinforcements which follow from excelling others, although there is difficulty that

in this case the reinforcement of one child is necessarily aversive to another" (p. 201).

### Competition and Personal Adjustment

Many studies have been directed toward assessing the effects of competitive and cooperative situations among people. The research has generally shown that there is better understanding and positive affect among individuals cooperating with each other as opposed to competing against each other (Deutsch, 1949; Grossack, 1949; Blau, 1954; Gottheil, 1955). For example, Deutsch (1949) found that group harmony and effectiveness appear to be disrupted when members see themselves to be competing for mutually exclusive goals and, furthermore, that there is some indication that competitiveness produces greater personal insecurity (expectations of hostility from others) than does cooperation.

In an early study concerned with the effects of cooperation and competition among elementary school students, Maller (1929) found that the efficiency of work under competitive conditions was greater than work under cooperative settings, but that such efficiency may be obtained at the expense of certain factors related to personal adjustment. Specifically, he found that intelligence, resistance to suggestibility, school deportment, and teacher character ratings all related positively to cooperativeness.



Early research in the field of anthropology has also been directed toward the study of cooperative and competitive groups and peoples. In her classical study of cooperation and competition among primitive peoples, Mead (1937) found that characteristics of the cooperatively oriented societies were similar to those demonstrated by self-actualized persons, as later described by Maslow (1968). These elements included the absence of the need to acquire personal power, a weak emphasis upon external status, and a high degree of security for the individual. These characteristics were not found to be common among competitive peoples.

Also from an anthropological perspective, the work of Benedict, discussed by Maslow (1973), supported Mead's findings. Cooperative societies were found to exhibit characteristics consistent with Maslow's model, while competitive societies were described as surly, selfish, and aggressive. Maslow (1973, p. 202) summarized Benedict's discussion of cooperative societies by describing them as societies

. . . in which the social institutions are set up so as to transcend the polarity between selfishness and unselfishness, between self-interest and altruism, in which the person who is simply being selfish necessarily reaps rewards for himself.

The highly cooperative society was described as one in which virtue pays.

### The Personal Orientation Inventory

The Personal Orientation Inventory (POI) was developed by Shostrom (1964) to measure an individual's level of self-actualization. The theoretical framework underlying the items comprising the scale was derived from the writings of Maslow, Rogers, Riesman, and Perls (Shostrom, 1972). The instrument was developed in an attempt to provide therapists with a measure of the client's level of positive mental health; however, the instrument has been used widely in a variety of settings. According to Shostrom (1972), POI items are non-threatening to examinees and ostensibly reflect value orientations which are commonly held, and which are considered to be significant to a person's approach to living.

The instrument consists of 150 paired items. Respondents are required to indicate which of each of the paired statements most consistently applies to them. The following paired statements are examples of items which appear in the instrument (Shostrom, 1964, p. 212):

- 21. I do what others expect of me.
- 21. I feel free to not do what others expect of me.
  
- 41. I must justify my actions in the pursuit of my own interests.
- 41. I need not justify my actions in the pursuit of my own interests.
  
- 44. I live by the rules and standards of society.
- 44. I do not always need to live by the rules and standards of society.

- 46. Reasons are needed to justify my feelings.
- 46. Reasons are not needed to justify my feelings.
  
- 61. I only feel free to express warm feelings to my friends.
- 61. I feel free to express both warm and hostile feelings to my friends.
  
- 71. I will continue to grow only by setting my sights on a high-level, socially approved goal.
- 71. I will continue to grow best by being myself.
  
- 91. People should always control their anger.
- 91. People should express honestly felt anger.

The instrument has been used widely in a variety of settings. Groups tested have included college students, high school students, delinquent males, alcoholic males, student nurses, service organization volunteers, and male supervisors in a large electronics company (Shostrom, 1972). Profiles have been developed for each of these groups. Profile comparisons among the groups revealed findings which were generally consistent with expectations.

#### Scale Validity and Reliability

Although a relatively new instrument, Shostrom's (1972) Personal Orientation Inventory (POI) has been used widely. For example, Shostrom (1972) compiled a bibliography of research in which the POI was utilized that includes more than 150 separate studies.

Many of these studies have been directed toward assessing the reliability and validity of the instrument. For example, Shostrom

(1965) reported that the results of an initial validity study demonstrated that the POI significantly discriminates between clinically judged self-actualizing and non-actualizing individuals. In a later study conducted by Shostrom and Knapp (1966), the POI was found to differentiate individuals in beginning therapy groups from those in intensive therapy groups, at the .01 level of confidence or higher. The latter group had been involved in therapy for a mean time of almost 27 months.

Additional confidence in the scale resulted when Murray (1966) found that teachers who had received favorable ratings by students were more self-actualized, as measured by the POI, than teachers who had received low ratings. Teacher ratings were based upon data obtained from more than 2,000 students who based their evaluations upon perceived teacher concern for students.

Validation results have been supportive based upon findings generated in similarly oriented studies in which the POI effectively discriminated between individuals judged well adjusted from those rated poor on adjustment. The growing number of studies reporting such results includes work completed by McClain and Andrews (1969), McLain (1970), Maul (1970), and Graff, Bradshaw, Danish, and Alterkuse (1970).

The POI has been found to correlate significantly with other scales. For example, Shostrom and Knapp (1966) found the POI to correlate highly with certain scales of the MMPI. Scales of the MMPI

which appeared to have especially meaningful relationships to the POI included the Depression scale, the Psychasthenia scale, and the Social I. E. scale.

Utilizing the Eysenck Personality Inventory, Knapp (1971) related the personality construct of neuroticism to the self-actualization construct of the POI. High and low neurotic groups were identified based on scores obtained from the Eysenck scale, and mean scores for each of the POI scales were calculated to enable inter-group comparisons. All mean differences were found to be significant beyond the .05 level.

Shostrom (1972) presented data obtained from high school and college students which revealed that levels of self-actualization, as measured by the POI, increased with education. Thus, juniors and seniors in college obtained higher scores than freshmen and sophomores. High school students obtained the lowest scores among the three groups. The rationale for including students from all grade levels in the present study was based partially upon these findings. It was felt that a wider distribution of scores would be obtained by including all grade levels rather than only freshmen and sophomores, for example.

Reliability findings related to the POI have also been encouraging. Klavetter and Mogar (1967) reported reliability values ranging from .52 to .82 based on the retest reliability of the scale over a

one-week interval. With the exception of the scales (1) Acceptance of Aggression, (2) Nature of Man, and (3) Feeling Reactivity, stability coefficients were generally high, exceeding .71 in all cases. The reliability coefficients for the scales selected for use in the present study were .77 (I scale), .69 (SAV scale), .82 (Ex scale), and .67 (C scale).

In a separate study, the retest reliability of the scale was examined over a period of almost one year (Ilardi and May, 1968). Coefficients for the scales ranged from .32 to .74 over the 50-week interval.

The effects of intentionally faking responses on the POI have been examined by a number of researchers. Shostrom (1972) found that when subjects were instructed to complete the questionnaire for the purpose of making a favorable impression, the resulting profiles did not correspond to those of self-actualized individuals. In more than one case, a result distorted in an unfavorable direction was produced. Findings indicating that the POI is a difficult instrument to fake in a positive direction were also reported by Braun and La Faro (1969), Braun and Astra (1969), and Foulds and Warehime (1971).

It has been suggested by Bloxum (Buros, 1972) that the normative data in Shostrom's (1972) manual are biased toward the college population. However, such a bias in data reporting may have little or no bearing upon the merit of the instrument, particularly in light of the

number of studies which have been conducted which involve non-college groups. In addition, since the present study has only included subjects from the college population, this was not seen as a limiting factor. While various shortcomings have been discussed which relate to the POI, it has generally been highly regarded. Coan (Buros, 1972), for example, concluded that its advantages seem to outweigh its shortcomings and that the supportive validity data for the POI are reassuring.

#### Research in Recreation

Very little research was found which related directly to the field of recreation in which the POI was utilized in some manner. No studies were found which examined competitive recreation and personal adjustment, as measured by the POI. Several studies were identified, however, which have some implications for the present study.

In one study which related indirectly to recreation, the presence of peak experiences, as described by Maslow (1968), was examined among subjects and related to measures of personal adjustment by McClain and Andrews (1969). The purpose of the study was to determine if peak experiences relate positively to levels of self-actualization, as measured by the POI. The study included 139 upper division and graduate students with a mean age of approximately

25 years. Subjects were asked to identify and write about their most wonderful past experiences. Their writings were classified as peak or non-peak experiences by two judges. Interjudge reliability was .87 (phi coefficient). The findings supported the hypothesis that individuals reporting peak experiences were more self-actualizing than those who did not.

In a separate study by Maul (1970), the creativity of subjects was related to levels of self-actualization, as measured by the POI. Like peak-experiences, creativity relates indirectly to the field of recreation. Maul administered the Torrance Test of Creative Thinking and the POI and found significant relationships between all of the subscales of the two instruments. It was concluded that a positive correlation exists between creativity and self-actualization. In an earlier study conducted by Gerber (1964), similar findings were also reported.

The study completed by Kleiber (1972), previously mentioned, was the only research found in the literature that related indirectly to aspects of recreation, which utilized the POI as a measure of personal adjustment. As reported earlier, Kleiber suggested that excessive involvement in physical activities may not be conducive to the enhancement of self-discovery and awareness. Findings were limited, however, to physical activity, rather than to competitiveness.



From a different perspective, research efforts have been directed toward the study of self-actualization among individuals involved in the practice of Transcendental Meditation, founded by Mahesh (1968, 1969). While the practice of meditation would not generally be associated with the field of recreation, it is similar in many respects to concepts embodied in the classical view of leisure advocated by Pieper (1963) and de Grazia (1964).

Shelly (undated) found that meditators reported behavioral changes which paralleled those of persons whom Maslow (1968) termed self-actualized. Specifically, meditators reported an increased acceptance of self, of others, and of nature; an increased desire for privacy; greater freshness of appreciation; increased autonomy; improved interpersonal relations; and superior perception of reality. Although the POI was not utilized in this study, the characteristics reported by meditators are elements of personal adjustment which are generally addressed by the instrument.

Following a more systematic procedure, Seeman, Nidich, and Banta (1972) discussed findings which were also based on data obtained from meditators. Transcendental Meditators completed the POI just prior to the commencement of their involvement in the practice of meditation, and were again tested two months later. As a result of analyzing pre- and post-test data, the writers concluded that the practice of Transcendental Meditation for a two-month period had a

salutory influence on subjects' psychological states, as measured by the POI.

### Summary

Four major areas were examined in this chapter: (1) competition in recreation; (2) competition in sport; (3) competition and personal adjustment; and (4) the Personal Orientation Inventory.

Very little empirical research was found which examined competitive recreation in any context. Some evidence was presented which suggests that certain personality traits may be common to sports competitors which may not be conducive to optimal personal adjustment. Studies directly focusing upon this issue in recreation were not located, however.

Many writers have questioned the values associated with competition, particularly in sport. Primary concern has centered around the win-at-any-cost ethic, sportsmanship, and the presence of a professionalized ethic among young children participating in organized sports, such as Little League baseball and Pop Warner football.

A number of studies were reported which supported the position that personal adjustment is enhanced under cooperative rather than competitive conditions. Research findings from several academic disciplines supported this viewpoint.

Validity and reliability findings germane to the Personal Orientation Inventory were presented. The findings reported for both areas were generally favorable. Although the instrument has not been used widely in the field of recreation, several studies were reported which related at least indirectly to the field.

## CHAPTER III

### METHODOLOGY AND PROCEDURES

The purpose of this chapter is to describe the characteristics of the population from which the samples were selected, the procedure employed to develop the Competitive Recreation Activities scale, the testing procedure, and the statistical methods utilized in the treatment of the data.

#### Population Studied

The population studied consisted of approximately 15,000 students registered at Oregon State University during the 1973-74 academic year. A land and sea grant institution, a considerable portion of the student body consisted of science and technically oriented students. Approximately 8,000 students were enrolled in science and technically oriented academic programs, contrasted with 4,000 students registered in liberal arts and education options, and 2,000 students enrolled in business and physical education fields of study.

In addition to an emphasis upon technical fields, athletics and sports programs are a major influence at the University. As a member of the Pacific-8 Conference, inter-collegiate athletic

competitions receive substantial attention. Sport involvement in the All-University Intramural program is also extensive. In addition to high participation trends among males, many female students are actively involved in both intramural and inter-collegiate athletics.

#### Development of the Competitive Recreation Activities Scale

The procedure followed in the present study for developing the Competitive Recreation Activities (CRA) scale was originated by Likert (1932) and has remained unchanged since its inception (Edwards, 1957; Selltiz, 1959; Likert, 1967). The procedure has been described by Selltiz (1959, p. 367-8) as follows:

- (1) The investigator assembles a large number of items considered relevant to the attitude being investigated and either clearly favorable or clearly unfavorable.
- (2) These items are administered to a group of subjects representative of those with whom the questionnaire is to be used. The subjects indicate their response to each item by checking one of the categories of agreement-disagreement.
- (3) The responses to the various items are scored in such a way that a response indicative of the most favorable attitude is given the highest score. . . .
- (4) Each individual's total score is computed by adding his item scores.
- (5) The responses are analyzed to determine which of the items discriminates most clearly between the high scorers and low scorers on the total scale. . . . Items that do not show a substantial correlation with the total score, or that do not elicit different responses from those who score high and those who score low on the total test, are eliminated to ensure that the questionnaire is "internally consistent"-- that is, that every item is related to the same general attitude.

Assistance in the scale development procedure was obtained from 18 upper division students enrolled in the psychology class Attitude and Opinion Methodology. The students served as research assistants during the 1973 fall term for 10 weeks. Specifically, the research assistants participated in administering and scoring questionnaires completed by the first two study groups involved in this investigation. The data collection and tabulation efforts of the students were carefully supervised by the writer as well as by the professor in charge (Larsen, 1973) on at least a weekly basis throughout the 10-week period of the term.

#### Formulation of Items

The first step followed in developing the scale was the assembly of a large number of statements considered relevant to the attitudinal object under study. The research assistants participated in this process. Only statements meeting the criteria summarized by Edwards (1957, p. 13-14) (Appendix A) were retained.

#### Sampling Procedure

In order to refine the scale, it was necessary to administer the instrument to a representative group of subjects from the University population. To insure that a representative cross-section of the University was included in the sample, the quota method of sampling

was utilized. Selltiz (1959) has pointed out that the quota system is particularly appropriate for insuring that diverse elements of a population are reasonably represented in the sample.

It is recognized that there are certain limitations inherent in the quota method of sampling and precautions were taken to minimize potentially debilitating influences. For example, Selltiz (1959) pointed out that interviewers may gather data from friends in excessive proportion, friends who would likely be rather similar in many respects to themselves, thereby limiting the representativeness of the sample. In addition, interviewers may attempt to fill quotas by stopping passers-by in areas where large numbers of people gather, which might also produce a sample which would be unrepresentative of the total population.

To avoid these dangers, interviewers were instructed to test only persons who were unknown to them and quota requirements were only to be fulfilled by seeking subjects in designated locations. Each of the research assistants were assigned to specific academic buildings on the campus and were instructed to test students majoring in specific areas of academic study.

Quota proportions were based on the figures presented in the Daily Registration Report compiled by the Oregon State University Office of the Registrar for the fall term of the 1973-74 academic school year. The distribution of academic majors was reported in

approximately the following proportions: (1) Science and Technical: 51 per cent; (2) Liberal Arts and Education: 34 per cent; and (3) Business Administration and Physical Education: 15 per cent.

In order to obtain a sample which corresponded to the proportions of the University at large, research assistants were assigned to specific academic buildings for data collection: (1) Science and Technical: Peavy Hall, Bioscience Building, Weniger Hall, Gilbert Hall, Cordley Hall, Agriculture Hall, and the Science Building; (2) Liberal Arts and Education: Education Hall, Fairbanks Hall, Old Forestry Building, and the Social Science Building; and (3) Business Administration and Physical Education: Bexell Hall, the Women's Gymnasium, and the Men's Gymnasium.

As a result of utilizing this method of data collection, a diverse sample of academic majors was obtained. The sample consisted of 128 students in the following proportions: (1) Science and Technical: 63 (49.2 per cent); (2) Liberal Arts and Education: 40 (31.3 per cent); and (3) Business Administration and Physical Education: 25 (19.5 per cent). These proportions closely represented the general University distributions.

Distributions by sex also closely approximated the general University population. Proportions reported by the Office of the Registrar showed that approximately 63 per cent of all students were male and 37 per cent were female. Nearly identical figures were



obtained in the present sample: 62.5 per cent of the sample was male (N=80) while females constituted 37.5 per cent of the study group (N=48).

The distribution of students according to year in college was as follows: (1) Freshmen: 18; (2) Sophomores: 29; (3) Juniors: 35; (4) Seniors: 37; and (5) Graduate Students: 9. The sample somewhat favored upper division students, as is the case for the University at large. More than 60 per cent of all Oregon State University students are upper division or graduate students.

#### Item Reduction

It was necessary to identify those statements on the scale which were not differentiating; that is, statements which did not measure what the total battery measured, thereby failing to contribute to the scale (Likert, 1967). The method utilized for identifying undifferentiating statements was through the application of the criterion of internal consistency. Although an item analysis would also be appropriate, the calculation of the necessary coefficients of correlation through this method is quite laborious and is not recommended (Likert, 1967). In comparing the two methods, Likert found that they yield essentially the same results ( $\rho = .91$ ) but the criterion of internal consistency is considerably easier to calculate.

The process for calculating the criterion of internal consistency was described by Edwards and Kenney (1946, p. 74) as follows:

Criterion groups consisting of the upper and lower 10 (or some other) per cent of the subjects in terms of the total scores are compared to find whether the individual items will differentiate between the two groups. The means of the upper and lower groups for each item are found; items which show the largest differences between the means of the two groups are retained in the final scale.

It was necessary to categorize each of the scale items into statements (1) favorable and (2) unfavorable to the attitude object and to assign numerical values to each response. The numerical equivalents were designated as follows:

	<u>Favorable Items</u>	<u>Unfavorable Items</u>
Strongly Agree	5	1
Agree	4	2
Undecided	3	3
Disagree	2	4
Strongly Disagree	1	5

Thus, a high score represented an individual holding a favorable attitude toward competitive recreation activities while a low score corresponded to subjects less favorably inclined toward the attitude object.

The revised scale consisted of 44 items of which 20 statements expressed a positive orientation toward competitive recreation activities and 24 items were negative in direction. The retained

statements which constituted the final scale are reported in Appendix B. The most differentiating statement had a difference score of 2.65 while the difference score on the lowest scale item, of those which were retained, did not fall below 1.95. Thus, all statements ostensibly had high discriminatory power since all statements differentiated high and low scores by an approximate margin of at least two full places on a five-point scale. Examples of the highest and lowest discriminators include the following:

Competition should be a low priority in recreation programming (2.65).

The value of competition is highly overrated (2.60).

I am hesitant to be supportive of competitive recreation programs (2.55).

Competitive recreational activities spoil the fun of the activity itself (2.50).

I dislike competing against others in recreation programs (2.50).

Competitive recreation activities help young people to formulate their self-identity (1.95).

The greatest pleasure in a recreation program is the competitive experience (1.95).

People place too much emphasis on competitive recreation programs (1.95).

As a parent I would object to having my children involved in competitive recreation activities (1.95).

Positive personality adjustment is enhanced through involvement in competitive recreation activities (1.95).

### Reliability of the Scale

In addition to applying the criterion of internal consistency, reliability of the revised scale was further tested through the split-half reliability method. This method requires the calculation of a correlation coefficient of the odd and even statements of the scale. A second testing was necessary to acquire data for this purpose.

To obtain a second sample, the quota procedure described previously was repeated. Research assistants were assigned to specifically designated academic buildings on campus which were associated with identifiable fields of study. The same academic buildings were again utilized; however, building assignments were altered in the second testing in an effort to redistribute possible interviewer biases which may have operated during the first testing.

A total of 100 subjects comprised the second sample, and distributions of the demographic variables under concern again corresponded closely to proportions found in the general University population. Academic distributions were as follows: (1) Science and Technical: 47 (47 per cent); (2) Liberal Arts and Education: 34 (34 per cent); and (3) Business Administration and Physical Education: 19 (19 per cent).

Lower division students comprised 34 per cent of the sample while 66 per cent of the subjects were upper division or graduate

students. Sixty-one per cent of the subjects were male, and 39 per cent female.

The recommended procedure for obtaining a split-half reliability coefficient requires a correlation of the sum of the odd statements for each individual against the sum of the even statements (Likert, 1967). The reliability coefficient typically reported for scales constructed by this method is above .85, corrected by the Spearman-Brown formula (Edwards, 1957). The uncorrected split-half reliability coefficient calculated from the data obtained from the 100 subjects in the second sample was .94. The correlation coefficient, corrected by the Spearman-Brown formula was .97.

Based upon the findings which resulted from the application of the criterion of internal consistency, in which all of the retained scale items were found to discriminate by approximately two full places on a five-point scale, and the presence of a high split-half reliability coefficient, it was felt that the instrument provided a viable tool for assessing attitudes toward competitive recreation activities. The final scale has been identified as the Competitive Recreation Activities (CRA) scale.

#### Additional Scale Items

Two additional questions were developed for inclusion in the study in an attempt to control for certain dimensions of the

competitive experience which are related to (1) reported behavior and (2) expressed levels of congruency between self-reported identity as a competitor or noncompetitor and expressed evaluation of competition in recreation. The first item, which is directed toward identifying behavioral patterns, was presented in the following format:

Please keep in mind the following definition: COMPETITIVE RECREATION ACTIVITIES include all games, events, sports, and other similar activities in which rivalry is included, sponsored by municipal recreation departments, schools, and private organizations. Activities promoting either team or individual competition are included; professional sports, however, are not.

Using this definition as a frame of reference, about how many hours PER WEEK, over the past year, have you spent participating in recreation activities which include the element of competition? Attempt to estimate an average based upon the entire year.

Approximate Hours Per Week: \_\_\_\_\_

This item was administered to a group of 25 students in the class Foundations of Recreation and Leisure. Students found little or no difficulty in arriving at an average estimate. A discussion of the meanings of their responses revealed that class members computed estimates in a consistently similar manner.

The second item which accompanied the CRA scale attempted to identify certain incongruencies which might exist between stated level of competitiveness and individual assessments of competitive recreation activities. The following item was directed toward this issue:

Which of the following statements do you consider to be the most accurate description of yourself:

1. I think that competition in recreation is generally good, and I regard myself as a competitor.
2. I think that competition in recreation is generally good, but I do not regard myself as a competitor.
3. I do not think that competition in recreation is generally good, but I regard myself as a competitor.
4. I do not think that competition in recreation is generally good, and I do not regard myself as a competitor.

This item was also administered to the 25 students previously mentioned. All of the students reported that they fully understood the question and the choices. While some students felt that they should be allowed to qualify their response, no one reported difficulty in selecting one of the four choices.

#### Personal Orientation Inventory

The Personal Orientation Inventory (POI) was developed by Shostrom (1964) for the purpose of measuring mental health, in a clinical setting, in terms of Maslow's (1968) theory of self-actualization. A number of studies have been conducted, which were reported earlier, which suggest that the validity of the instrument is high (Shostrom, 1965; Shostrom and Knapp, 1966; Murray, 1966; McClain and Andrews, 1969; McClain, 1970). Reliability findings have also been encouraging as was evidenced by the research of Klavetter and Mogar (1967), Ilardi and May (1968), and Shostrom (1972).

The total scale consists of 150 paired statements. Respondents are required to identify the statement from each paired choice which best applies to them. The test takes approximately 30 minutes to complete.

The POI consists of two basic scales: Inner Directed Support (I scale, 127 items) and Time Competence (Tc scale, 23 items). The instrument is further divided into 10 subscales. Items are grouped in different combinations to formulate the subscales, and a given item frequently contributes to more than one subscale. The 12 scales were defined by Shostrom (1972, p. 6) as follows:

- |           |  |
|-----------|--|
| $T_I/T_C$ | Time Ratio: Time Incompetence/Time Competence-- measures degree to which one is "present" oriented (23 items).             |
| O/I       | Support Ratio: Other/Inner--measures whether reactivity orientation is basically toward others or self (127 items).        |
| SAV       | Self-Actualizing Value: measures affirmation of a primary value of self-actualizing people (26 items).                     |
| Ex        | Existentiality: measures ability to situationally or existentially react without rigid adherence to principles (32 items). |
| Fr        | Feeling Reactivity: measures sensitivity of responsiveness to one's own needs and feelings (23 items).                     |
| S         | Spontaneity: measures freedom to react spontaneously or to be oneself (18 items).  |
| Sr        | Self-Regard: measures affirmation of self because of worth or strength (16 items).   |



- Sa      Self Acceptance; measures affirmation or acceptance of self in spite of weaknesses or deficiencies (26 items).
- Nc      Nature of Man; measures degree of the constructive view of the nature of man, masculinity, femininity (16 items).
- Sy      Synergy; measures ability to be synergistic, to transcend dichotomies (9 items).
- A      Acceptance of Aggression; measures ability to accept one's natural aggressiveness as opposed to defensiveness, denial, and repression of aggression (25 items).
- C      Capacity for Intimate Contact; measures ability to develop contactful intimate relationships with other human beings, unencumbered by expectations and obligations (28 items).

Four subscales, relating to dimensions of personal adjustment of specific interest to the writer, were selected for use in this study. These were Inner Directed (I), Self-Actualizing Value (SAV), Existentiality (Ex), and Capacity for Intimate Contact (C).

#### Description of the Sample

Since the principal focus of the study required the identification of varying levels of competitiveness and personal adjustment, it was felt that a broad cross-section of subjects should be included in the study group to enhance the probability of obtaining diverse test scores. For example, POI scores have been found to vary less among subjects of the same age and academic standing in college than among heterogeneous groups (Shostrom, 1972).

Four classes offered in the Department of Resource Recreation Management provided such diversity. These included Man and Leisure, Wilderness and Leisure, Leisure Ecology, and Camp Leadership. Each of these classes was composed of students from a variety of academic backgrounds.

The sample, consisting of 178 subjects, was distributed in the following academic proportions: (1) Science and Technology: 73 (41 per cent); (2) liberal Arts and Education: 69 (39 per cent); and (3) Business Administration and Physical Education: 36 (20 per cent). There were 97 students of lower division standing and 81 students who were juniors or seniors. Males comprised 57.3 per cent (N = 102) of the sample, females 42.7 per cent (N = 76). The mean age of the sample was slightly over 20 years.

#### Administration of the Questionnaires

Subjects were tested during the Spring 1974 academic term. Eight separate groups were tested since there were multiple sections of the classes Leisure Ecology and Camp Leadership. The POI and the CRA scales were administered simultaneously to all subjects in each of the classes at one sitting, within a 50-minute period. A summary of the general instructions announced to all subjects is included in Appendix C.

Responses to the CRA scale items were registered by the students directly on the questionnaire. Answers to POI items were recorded on an accompanying answer sheet. Both instruments were hand-scored by the writer.

### Statistical Procedures

Three statistical models were used in the treatment of the data. These included the product-moment correlation coefficient, the t-test, and analysis of variance.

The product-moment correlation coefficient was utilized to test the first and second null hypotheses to determine the extent to which attitudes toward competitive recreation activities relate to selected measures of personal adjustment. The hypotheses were independently applied to each of the POI subscales selected for the study. Thus, the first hypothesis was tested by independently correlating CRA scores with the scores obtained on each of the POI subscales for the entire sample.

To test the second hypothesis, groups of (1) high and (2) low participators in competitive recreation activities were formed. The high group consisted of subjects reporting participation levels of 15 or more hours per week. The subjects comprising the low group reported less than one hour of participation in competitive recreation activities per week. Thus, CRA scores were correlated with each

POI subscale score within each group, which required the calculation of eight correlation coefficients. The .05 level of confidence was established to determine if obtained differences were significant.

Comparisons of (1) high and (2) low participators in competitive recreation activities were also required for testing the third hypothesis to determine if the groups differed in levels of personal adjustment, as measured by the four selected subscales of the POI. t-Test comparisons of the means of each POI subscale were calculated to enable this comparison. The .05 level of confidence was established to determine if obtained differences were great enough to justify a rejection of the null hypothesis.

The analysis of variance model was utilized to test the fourth hypothesis since it was necessary to analyze data categorized into four separate groupings. Groupings were made according to subjects' congruency levels between assessed evaluation of competition in recreation and self-reported identity as competitors or noncompetitors. Four combinations of responses were possible which related to congruency: (1) favorable toward competition, competitor (++); (2) favorable toward competition, noncompetitor (+-); (3) unfavorable toward competition, competitor (-+); and (4) unfavorable toward competition, noncompetitor (--).

In order to assess the relative importance of congruency levels, groups which viewed competition in recreation favorably were

compared to groups which did not feel competition in recreation is good, irrespective of congruency levels. Thus, differences in personal adjustment between the groups were examined by comparing subjects constituting: (1) congruent and incongruent groups and (2) groups favorable and groups unfavorable toward competition in recreation. In addition, the interaction effect between each pair of combinations was calculated. The analysis of variance was performed four times for each subscale of the POI. The .05 level of confidence was utilized to determine if obtained differences were significant.

All statistical calculations were performed by computer through the use of the Oregon State University Statistical Interactive Programming Systems (SIPS). Technical assistance was provided by consultants serving in the Department of Statistics as well as in the Computer Center.

## CHAPTER IV

### RESULTS AND DISCUSSION

The principal purpose of the study was to explore the relationship between attitudes toward competitive recreation activities and personal adjustment among subjects sampled from the Oregon State University population. The study of this relationship among high and low participators in competitive recreation activities constituted a second purpose of the study. It was a third purpose of the study to identify possible differences in personal adjustment between members of the high and low participation groups. The fourth objective of the study was to explore the extent to which personal adjustment may relate to congruency between subjects' expressed assessment of competitive recreation and self-reported identity as competitors or noncompetitors.

In the treatment of the data, each of the four selected POI subscales was considered separately. Thus, each hypothesis was related to each scale independently. This chapter presents the findings and interpretations with respect to each of the hypotheses under study.

### Presentation of Results

Prior to testing specific hypotheses, mean scores for each of the scales utilized in the study were examined to insure that irregular patterns were not obtained. Table I presents mean scores for each of the scales.

Table I. Mean Scores on the CRA and POI Subscales for the Total Sample (N = 178).

	CRA	I	SAV	Ex	C
$\bar{x}$	140.1	83.5	19.8	20.7	17.5

Since the CRA scale is composed of 44 items, a gross score of 140.1 is equivalent to a score of 3.18 on a five-point scale ( $140.1/44=3.18$ ). A mean CRA score slightly above the mid-point (3.0) of the scale would be expected among subjects in this culture since competition is central to many aspects of American life. Mean scores shown for each of the POI subscales were also within reason. Subscale means reported by Shostrom (1972) among college students were consistent with those obtained in the present study.

Hypothesis 1: There is no relationship between attitudes toward competitive recreation activities and selected measures of personal adjustment.

The first null hypothesis was tested by calculating the product-moment correlation coefficient for scores obtained on the CRA scale

and each of the selected subscales of the POI. Correlation coefficients are presented in Table II.

Table II. Correlations between POI Subscale Scores and CRA Scores (N = 178).

Comparisons	r
CRA and I	-0.0958
CRA and SAV	0.1272
CRA and Ex	-0.1673*
CRA and C	-0.0743

\* $p_{.05} = 0.1654$

The only dimension of the POI found to correlate significantly with CRA scores was Existentiality (Ex), which relates to one's ability to flexibly apply values or principles in life situations with good judgment. The negative correlation indicates that CRA scores inversely relate to Existentiality scores. Thus, as CRA scores decreased, Existentiality scores increased. The null hypothesis relating to this dimension of personal adjustment was rejected since the correlation exceeded the .05 level of significance.

Coefficients obtained for the remaining scales were not significant, although slight trends toward a negative relationship were reflected in the comparison of CRA scores and the POI subscales of Inner Directed (I) and Capacity for Intimate Contact (C). The relationship between CRA scores and Self-Actualizing Value (SAV) scores



revealed a slight trend in the opposite direction; that is, as CRA scores increased, Self-Actualization Value scores also increased. Correlation coefficients for these scales were low, however, and the null hypothesis was accepted in each case.

Hypothesis 2: There is no relationship between attitudes toward competitive recreation activities and selected measures of personal adjustment among subjects reporting (1) high and (2) low levels of involvement in competitive recreation activities as determined by self-reported behavior patterns.

The second null hypothesis was tested by correlating POI subscale scores and CRA scores among subjects comprising (1) high and (2) low participation groups. Subjects reporting participation levels of 15 or more hours per week comprised the high participation group and subjects reporting participation levels of less than one hour were placed in the low participation group. Each group consisted of 23 subjects, or approximately 13 per cent of the total sample. Correlation coefficients for each group are reported in Table III.

Two dimensions of the POI, Inner Directed and Capacity for Intimate Contact, were found to correlate significantly with CRA scores among low participants in competitive recreation activities; however, both correlations were significant only at the .10 level of confidence. Existentiality and Self-Actualizing Value scores correlated to a moderate degree with CRA scores, but well below the level

Table III. Correlations of CRA Scores and POI Subscale Scores among High and Low Participants in Competitive Recreation Activities.

Comparisons	High Group (N = 23)	Low Group (N = 23)
CRA and I	0.1176	-0.3162*
CRA and SAV	0.1374	-0.1546
CRA and Ex	-0.2055	-0.1859
CRA and C	0.1400	-0.3377*

$$p_{.05} = 0.3598$$

$$* p_{.10} = 0.2841$$

of significance. In each case, relationships were found to be of an inverse nature; that is, personal adjustment related negatively to attitudes toward competitive recreation activities for all four POI dimensions. Since none of the correlations were significant at the .05 level, the null hypothesis relating to low participants was rejected for each of these dimensions.

No significant correlations were found to exist between CRA scores and POI subscale scores within the high group of participants. With the exception of the Existentiality subscale, correlations were toward a positive direction, unlike the trends demonstrated by the low participation group. Correlation coefficients, however, were quite low suggesting little or no relationship between the variables under study. The dimension of Existentiality negatively related to attitudes toward competitive recreation activities but the obtained coefficient

was well below the .05 significance level. The null hypothesis was accepted for all POI dimensions within the high participation group.

Hypothesis 3: There is no difference in personal adjustment between (1) high and (2) low participators in competitive recreation activities.

The third null hypothesis was tested by comparing the POI subscales of the high and low participation groups by means of t-tests. Again, high and low groups were respectively composed of subjects reporting 15 or more hours, or less than one hour per week, of participation in competitive recreation activities. Each group consisted of 23 subjects. t-Test results are presented in Table IV.

No significant differences, at the .05 level, were found between the two groups on any of the four subscales of the POI. There was a trend toward higher adjustment among low participators on the subscale of Existentiality, but the difference was significant only at the .10 level of confidence. Inner Directed and Capacity for Intimate Contact demonstrated a similar trend, but to an even lesser degree. There were virtually no differences between the groups on the measure of Self-Actualizing Value. Since correlation coefficients did not attain the .05 level of confidence, the null hypothesis for each POI subscale was accepted.

Table IV. Means and t-Test Values for POI Subscale Scores among High and Low Participators in Competitive Recreation Activities.

Group	N	I	t	SAV	t	Ex	t	C	t
High Participators	23	80.65		19.43		18.83		17.13	
			1.41		0.86		1.93*		1.02
Low Participators	23	84.87		18.70		21.08		18.13	

t<sub>.05</sub> = 2.015

\*t<sub>.10</sub> = 1.680

Hypothesis 4: The level of congruency between subjects' self-reported identity as competitors or noncompetitors and their expressed evaluation of competition in recreation is unrelated to personal adjustment.

In order to test the fourth null hypothesis, subjects were categorized into four groupings of varying congruency levels, based on their self-reported responses.<sup>1</sup> The four groupings consisted of subjects who: (1) were favorable toward competition in recreation and regarded themselves as competitors; (2) were favorable toward competition in recreation but did not regard themselves as competitors; (3) were unfavorable toward competition in recreation but regarded themselves as competitors; and (4) were unfavorable toward competition in recreation and did not regard themselves as competitors.

Two combinations of comparisons were carried out: (1) congruent vs. incongruent groups and (2) groups favorable vs. groups unfavorable toward competition in recreation, irrespective of congruency. In addition, the interaction effect of the combined variables was examined. All calculations were carried out through an analysis of variance which examined comparisons in relation to each of the POI subscales.

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<sup>1</sup> Congruency was assessed by the item discussed on p. 51 of this study and is independent of CRA scores and self-reported participation levels in competitive recreation activities.

Means and standard deviations for each subscale of the POI are shown for each congruency group in Table V. It is of interest to note that 68 per cent of the total sample viewed competitive recreation favorably. In addition, more than 63 per cent of the subjects regarded themselves as competitors.

The results of the analysis of variance are presented in Table VI. In the upper portion of the table, the two congruent groups were combined and compared to the two combined incongruent groups. The lower portion of the table presents the comparison of subjects who believe that competition in recreation is generally good with subjects who do not feel that competition in recreation is generally good. The latter comparison was made irrespective of the subjects' congruency levels to provide additional insight into the relative importance of the congruency factor.

The upper portion of the table reveals that subjects' congruency levels had no relationship to personal adjustment as measured by each of the POI subscales. F-values for each subscale were extremely low. Thus, the null hypothesis relating to congruency and personal adjustment was accepted.

The lower portion of the table reveals that subjects' evaluation of competition in recreation, irrespective of congruency levels, relates significantly to three of the POI subscales. Subjects who comprise the group unfavorable toward competition in recreation were

Table V. Means and Standard Deviations for POI Subscales for Each Congruency Group  
(N = 177).

	N	I		SAV		Ex		C	
		$\bar{x}$	S. D.	$\bar{x}$	S. D.	$\bar{x}$	S. D.	$\bar{x}$	S. D.
++	79	82.62	10.52	20.00	2.94	20.16	3.82	17.28	3.58
+-	42	81.55	8.74	19.83	2.99	19.88	4.16	16.40	3.41
-+	34	85.53	11.22	19.24	2.43	21.76	4.02	18.68	2.87
--	22	87.55	8.86	20.00	2.20	22.82	3.90	18.55	3.25

- ++ Favorable toward competition; competitor
- +- Favorable toward competition, noncompetitor
- + Unfavorable toward competition; competitor
- Unfavorable toward competition; noncompetitor

Table VI. Analysis of Variance of POI Subscale Scores and (1) Congruent vs. Incongruent Groups and (2) Groups Favorable vs. Groups Unfavorable toward Competition in Recreation (N = 177).

POI Scales:		I		SAV		Ex		C	
	N	$\bar{x}$	F Value	$\bar{x}$	F Value	$\bar{x}$	F Value	$\bar{x}$	F Value
++	79	82.62		20.00		20.16		17.28	
--	22	87.55		20.00		22.82		18.55	
			0.08		0.42		0.34		0.80
+-	42	81.55		19.83		19.88		16.40	
-+	34	85.53		19.24		21.76		18.68	
++	79	82.62		20.00		20.16		17.28	
+-	42	81.55		19.83		19.88		16.40	
			7.02*		0.42		11.85**		9.86**
-+	34	85.53		19.24		21.76		18.68	
--	22	87.55		20.00		22.82		18.55	
Interaction Effect									
Congruency x Favorable									
vs. Non-Favorable									
			0.84		1.01		1.03		0.43

\*  $F_{.01} = 6.63$

\*\*  $F_{.005} = 7.88$



significantly higher on personal adjustment in each of these cases.

The Inner Directed dimension of the POI produced a significant difference at the .01 level of confidence, while differences on the Existentiality and Capacity for Intimate Contact scales were significant beyond the .005 level. Virtually no difference exists between the groups on the dimension of Self-Actualizing Value.

F-values reported for the interaction effect for each of the variables were not significant, and were quite low. Thus, there was no interaction effect between congruency levels and favorableness toward competition in recreation.

Although an analysis of variance was not conducted comparing subjects regarding themselves as competitors with subjects not regarding themselves as competitors, independent of congruency levels, a visual inspection of the data revealed that these groups did not differ significantly in personal adjustment on any of the POI subscales. Within the framework of these findings, only one's evaluation of competition in recreation related to personal adjustment.

#### Additional Findings

Two additional findings which do not relate to the hypotheses of the study are of interest. First, subjects were identified as high or low participators, according to the criteria previously described, to examine the relationship between behavior and attitudes associated

with competitive recreation activities. High participators would be expected to hold favorable attitudes toward competitive recreation activities, while nonparticipants might be expected to view competitive recreation in a less favorable light.

CRA scores were compared between high and low participators by means of a t-test. The results of this comparison are presented in Table VII.

Table VII. t-Test Comparisons of CRA Scores between High and Low Participators in Competitive Recreation Activities.

Group	N	$\bar{x}$ CRA Scores	t
High	23	157.70	5.46*
Low	23	109.09	

\*  
t<sub>.001</sub> = 3.52

A significant difference in attitudes toward competitive recreation, as measured by the CRA scale, was found between the two groups beyond the .001 level of confidence. Thus, high participators were significantly more favorable toward competitive recreation activities than low participators.

A second finding relates to a comparison among academic majors of CRA scores. Since Business Administration and Physical Education majors have selected fields in which competition may play

a central role, it was felt to be of interest to explore whether or not attitudes toward competitive recreation activities among these majors would differ from the attitudes of other majors. Thus, by means of an analysis of variance, CRA scores were compared among (1) Business Administration and Physical Education majors, (2) Technical and Science majors, and (3) Liberal Arts and Education majors. The results are presented in Table VIII.

Table VIII. Analysis of Variance of CRA Scores among Differing Academic Majors.

Group	N	$\bar{x}$ CRA Scores	F-Value
Business/P. E.	36	152.5	
Technical/Science	73	136.8	
Liberal Arts/Education	69	137.1	3.91*

\* $F_{.05} = 2.99$

While no difference was found between Science/Technical majors and Liberal Arts/Education majors, Business Administration/Physical Education majors scored significantly higher on the CRA scale than majors within the other two groups. The difference was significant at the .05 level of confidence.

### Summary of Results

Significant relationships were established between certain

aspects of competitive recreation and some dimensions of personal adjustment. In all cases of significance, the results showed favorableness toward competition, or high participation in competitive recreation activities, to be negatively related to personal adjustment. A summary of significant findings includes the following:

1. Attitudes toward competitive recreation activities correlated negatively with one measure of personal adjustment, Existentiality, at the .05 level of confidence. Thus, subjects less favorable in their attitudes toward competitive recreation activities, as measured by the CRA scale, were higher on the personal adjustment dimension of Existentiality.

2. Two dimensions of the POI, Inner Directed and Capacity for Intimate Contact, negatively correlated with attitudes toward competitive recreation activities, as measured by the CRA scale, at the .10 level among low participators in competitive recreation activities. Although significant by some standards, this was considered to be below an acceptable confidence level for rejection of the null hypothesis.

3. Low participators in competitive recreation activities were found to be higher in personal adjustment on Existentiality when compared to high participators. However, the low level of significance (.10) again was felt to be below an acceptable level of confidence to allow a rejection of the null hypothesis.

4. Groups composed of subjects who believe that competition in recreation is generally not good scored significantly higher on three dimensions of personal adjustment than groups composed of subjects who believe that competition in recreation is generally good. Differences on the Inner Directed scale were significant at the .01 level. Differences on the Existentiality and Capacity for Intimate Contact scales were significant beyond the .005 level of confidence. The obtained differences were unrelated to subjects' congruency levels or self-reported identity as competitors or noncompetitors.

5. An additional finding, unrelated to the hypotheses under study, revealed that high and low participators in competitive recreation activities differed in attitude toward competitive recreation activities, as measured by the CRA scale. High participators scored significantly higher on the scale than low competitors, at the .001 level of confidence.

6. A second additional finding showed that Business Administration and Physical Education majors were more favorable in their attitudes toward competitive recreation activities, as measured by the CRA scale, than either Technical/Science majors or Liberal Arts / Education majors. Business Administration and Physical Education majors scored significantly higher on the CRA scale at the .05 level of confidence.

## Discussion of Results

The purpose of this section is to present an interpretation of findings which attained statistical significance. In addition, identifiable trends will also be discussed. Since the findings were not consistently conclusive throughout the study, each area under study will be presented and discussed separately.

### Competitive Attitudes and Adjustment

A relationship between attitudes toward competitive recreation activities and the POI subscale dimension of Existentiality (Ex) was found when these variables were correlated for the entire sample. Significant at the .05 level, this finding indicates that subjects less favorable in their attitudes toward competitive recreation activities seem better able to flexibly apply values or principles in daily life situations, without rigid adherence to principles, compared to subjects who were more favorable in their attitudes toward competitive recreation activities. The Inner Directed (I) scale and Capacity for Intimate Contact (C) scale each showed similar relationships to competitive attitudes, but to a degree short of statistical significance. The trend of these findings lends some support to the previous research of Mead (1937), Deutsch (1949), Blau (1954), and Maslow (1973), who have suggested that competitiveness may act as a barrier to healthy adjustment.

The Self-Actualizing Value (SAV) scale related to attitudes toward competitive recreation activities in a direction opposite from the other three scales. Although only a trend was evident, the data suggest that subjects who were more favorable toward competitive recreation activities were higher in personal adjustment, as measured by the SAV scale. An individual high on the SAV scale would be, in part, capable of making decisions spontaneously, able to bear the consequences of such decisions, and capable of feeling free to be himself. Thus, individuals possessing these traits would seem to demonstrate a relatively high degree of autonomy.

The findings of Ogilvie and Tutko (1971) may provide a partial explanation suggesting why high participators in competitive recreation activities showed a trend toward higher adjustment on the dimension of Self-Actualizing Value. They found that athletes demonstrate low interest in receiving support and concern from others as well as low need for affiliation. These would seem to be related to autonomy; thus, if autonomy levels affect the SAV scale responses, then high competitors would tend to obtain higher scores. It should be emphasized, however, that the obtained correlation coefficient for this variable was below significance, and should be interpreted accordingly.

Existentiality was the only dimension of personal adjustment which correlated significantly with competitive attitudes. Thus, the

only statement which can clearly be inferred from the data is that subjects less favorable toward competitive recreation activities seem to be able to more flexibly apply values and principles in daily life situations than subjects who were more favorable in their attitudes.

#### Competitive Attitudes and Adjustment among High and Low Participators

When behavior, in the form of self-reported participation in competitive recreation activities was controlled for, the previous pattern changed in some instances. Within the low participation group, which consisted of subjects reporting less than one hour per week of involvement in competitive recreation activities, two significant relationships between attitudes toward competitive recreation activities and personal adjustment were found. Scores on the Inner Directed scale and Capacity for Intimate Contact scale related negatively to competitive attitudes; however, the obtained level of significance was at the .10 level in both cases. Although below an acceptable level of significance, these findings show a trend suggesting that low participants who are less favorable in attitude toward competitive recreation activities seem to be more inner-directed (guided by internal motivations rather than external influences) and better able to develop meaningful, contactful relationships with others, unencumbered by expectations and obligations.



The dimensions of Self-Actualizing Value and Existentiality also demonstrated a similarly negative relationship with attitudes toward competitive recreation activities but correlation coefficients were low in both cases, only suggesting a trend of an inverse nature between the variables. The trends involving the four comparisons of personal adjustment and attitudes toward competitive recreation activities were consistent; that is, personal adjustment tended to be higher among low participators who were less favorable, rather than more favorable, toward competition in recreation.

This trend would suggest that personal adjustment is enhanced among low participators if behavior and attitude are consistent. Non-participators holding more favorable attitudes toward competition in recreation may be experiencing a conflict indicative of dissonance. For example, a nonparticipator may have refrained from involvement as a result of having had unsuccessful past experiences as a competitor. Such a person might feel that competitive recreation activities are generally good, particularly for those who successfully compete, yet lack the self-confidence to become personally involved. If this has produced tensions in the individual, the effect may be that personal adjustment is negatively affected. On the other hand, low participators who hold attitudes which are consistent with their behavior demonstrate a trend toward higher personal adjustment.

A consistent trend was not demonstrated among high participators who reported participation levels in competitive recreation activities of 15 hours per week or more. The POI subscales I, SAV, and C demonstrated a very slight tendency toward being positively related to attitudes toward competitive recreation activities, but well below minimal levels of significance. The slight trend toward a positive relationship with competitive attitudes among these three subscales may suggest that consistency between attitude and behavior among high participators affects personal adjustment. This possibility would be reflected in the finding that high participators holding the more favorable attitudes toward competitive recreation activities seemed to be slightly higher on the three subscales than high participators holding comparatively less favorable attitudes.

This trend among high participators was clouded by the finding relating to the POI dimension of Existentiality which was found to relate negatively to competitive attitudes. Since Existentiality relates to one's ability to flexibly apply values and principles, the findings of Ogilvie and Tutko (1968) may again provide a partial explanation for this trend. These writers found athletes to be high in conformity to traditional morality with an idiosyncratic preoccupation with how reality should be. This would suggest an inability to flexibly apply values and principles, which may explain why high competitors holding the more favorable attitudes toward competition in recreation

were somewhat lower on Existentiality than high competitors less favorable toward competition. The fact that some high participators registered lower scores on the CRA scale suggests that they responded to the questionnaire in a more flexible, perhaps less stereotyped fashion, which would reflect a slightly greater tendency toward Existentiality.

Thus, although findings relating to high and low participators were below the .05 level of confidence, several trends were apparent. First, there was a tendency for personal adjustment to be negatively related to attitudes toward competitive recreation activities among low participators. This was especially evident on the POI subscales Inner Directed and Capacity for Intimate Contact. This finding suggests that consistency between attitude and behavior may relate positively to personal adjustment.

Second, there was a very slight tendency for personal adjustment, as measured by the POI subscales I, SAV, and C, to be positively related to attitudes toward competitive recreation activities among high participators. This would again suggest that there is a slight tendency for personal adjustment in these areas to be positively related to consistency between behavior and attitude.

Third, among high participators, Existentiality was found to relate negatively to attitudes toward competitive recreation activities. If athletes tend to be rigid in their views, as Ogilvie and Tutko (1968)

have suggested, this would provide a partial explanation as to why Existentiality might be lower among high competitors holding particularly favorable, perhaps even rigid, attitudes toward competitive recreation activities. It must be emphasized, however, that these interpretations relate only to trends rather than to patterns reflecting statistically high confidence levels.

#### Personal Adjustment among High and Low Participants

When high and low competitors were compared on personal adjustment, no significant differences were found, with the exception of the POI subscale of Existentiality. Significant only at the .10 level, low participants were found to score higher on this dimension of adjustment than high participants. To a lesser degree, low participants also showed slightly higher level of personal adjustment than high participants on the POI dimensions Inner Directed and Capacity for Intimate Contact. Group differences on the Self-Actualizing Value were negligible.

These findings, although indicative only of general trends, seem to support the viewpoint that competitiveness may act as a barrier to positive personal adjustment in certain areas. This would again lend some support to the previous research of Mead (1937), Deutsch (1949), Blau (1954), and Maslow (1973) who have each

reported findings reflecting this viewpoint. In addition, these findings were consistent with those of Kleiber (1972) who found no support for the idea that involvement in physical activities is positively related to personal adjustment, as measured by the Inner Directed and Self-Acceptance scales of the POI.

### Congruency Levels and Personal Adjustment

The findings relating to the effects of subjects' congruency between expressed evaluation of competitive recreation activities and self-reported identity as competitors or noncompetitors, were the clearest and the most easily interpreted. It is evident from the data that personal adjustment was not affected by congruency levels on any of the POI subscales. It was also apparent that subjects regarding themselves as competitors did not differ in personal adjustment from subjects who did not regard themselves as competitors. However, on the three subscales of Inner Directed, Existentiality, and Capacity for Intimate Contact, significant differences were found among the groups varying in favorableness toward competition in recreation, irrespective of subjects' congruency levels. In each case, subjects believing that competition in recreation is generally not good were higher in personal adjustment than subjects holding views to the contrary. Differences exceeded the .01 level of confidence when groups were compared on the Inner Directed scale, and were

significant at the .005 level on the subscales of Existentiality and Capacity for Intimate Contact.

Based on the strength of these findings, the data suggest that attitudes may relate more directly to personal adjustment than behavior, indirectly assessed by identifying high and low participators in competitive recreation activities. Although some trends were evident which suggested that certain significant relationships exist between behavior and personal adjustment, significance levels were considerably lower than those under present discussion.

It may be that this single expression of one's assessment of competition in recreation provides the most effective means by which to assess subjects' attitudes, in terms of the area under examination in the present study. Not only were findings stronger when compared to measures of behavior, but attitudinal responses expressed through a single response were more discriminating than scores obtained on the lengthier CRA scale.

There may be certain advantages to assessing degrees of competitiveness through the use of an attitude scale, such as the CRA scale. However, the strongest relationships between competitiveness and personal adjustment were found when subjects were grouped according to their responses to a clear, directly presented, dichotomy. Thus, in the present study, differences were highly significant

when subjects were not afforded the opportunity to express attitudes in varying degrees along a continuum.

These findings, which indicate that personal adjustment, as measured by the POI subscales Inner Directed, Existentiality, and Capacity for Intimate Contact, is higher among subjects who believe that competition in recreation is not good than subjects holding the opposite viewpoint, again support the previous research of Mead (1937), Deutsch (1949), Blau (1954), and Maslow (1973).

## CHAPTER V

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The focus of this study involved the exploration of certain aspects of attitudes and behavior associated with competition in recreation as they relate to selected measures of personal adjustment. Although competitive activities have been used extensively in a variety of recreation programs, the literature has shown that very little research emphasis has been directed toward gaining insight into the effects of such activities. Competitive recreation programs have frequently been regarded as successful, but generally in quantitative terms, determined by participation rates.

Some writers, however, such as Slusher (1967), Maslow (1968), and Neal (1972), have suggested that competition may negatively influence personal adjustment if the orientation among participants is predominantly external in focus. Others, who have studied competition from varying perspectives, have concluded that competitiveness may act as a barrier to optimal personal adjustment (Mead, 1937; Deutsch, 1949; Blau, 1954; Maslow, 1973). Research efforts, however, have generally been directed toward aspects of competition outside the realm of recreation. Thus, many questions have



remained unanswered concerning the extent to which involvement in, or favorableness toward, competitive recreation activities enhance or inhibit personality development or adjustment. The present study was directed toward an exploration of these relationships.

Four null hypotheses were formulated and tested in this investigation. These included the following:

1. There is no relationship between attitudes toward competitive recreation activities and selected measures of personal adjustment.

2. There is no relationship between attitudes toward competitive recreation activities and selected measures of personal adjustment among subjects reporting (1) high and (2) low levels of involvement in competitive recreation activities as determined by self-reported behavior patterns.

3. There is no difference in personal adjustment between (1) high and (2) low participators in competitive recreation activities.

4. The level of congruency between subjects' self-reported identity as competitors or noncompetitors and expressed evaluation of competition in recreation is unrelated to personal adjustment.

In order to assess attitudes toward competitive recreation activities, a Likert-type scale was developed in accordance with the procedures developed originally by Likert (1932). The final scale, consisting of 44 items, was found to have a corrected split-half

reliability coefficient of .97. The completed instrument was identified as the Competitive Recreation Activities (CRA) scale.

Four subscales of Shostrom's (1972) Personal Orientation Inventory (POI) were utilized to assess various aspects of personal adjustment which were of specific interest to the researcher. The selected measures of the POI included: (1) Inner Directed (I), (2) Self-Actualizing Value (SAV), (3) Existentiality (Ex), and (4) Capacity for Intimate Contact (C).

The sample studied consisted of Oregon State University undergraduate students enrolled in the classes Man and Leisure, Leisure Ecology, Wilderness and Leisure, and Camp Leadership. Although these courses were offered by the Department of Resource Recreation Management, a diverse sample was obtained in terms of academic major, age, sex, and year in college.

Eight separate classes of students were tested since the classes Leisure Ecology and Camp Leadership were composed of multiple sections. All subjects were tested during the Spring 1974 academic term. The CRA and POI scales were simultaneously administered to subjects at each testing within a 50-minute period. The total sample consisted of 178 students.

The questionnaires were hand-scored by the writer. All statistical comparisons were performed by computer through the use of the Oregon State University Statistical Interactive Programming

System (SIPS). The .05 level of significance was adopted as the confidence level required to justify a rejection of the null hypotheses.

### Conclusions

The following conclusions were reached based on the results of this investigation:

1. Selected measures of personal adjustment were significantly related to certain attitudinal measures associated with competitiveness in recreation.

2. Scores on the POI subscale Existentiality significantly related to scores obtained on the CRA scale. The negative correlation indicated that as subjects demonstrated more favorable attitudes toward competitive recreation activities, Existentiality scores decreased.

3. Based upon self-reports, independent of the CRA scale, subjects who believed that competition in recreation is good scored significantly lower on the POI subscales Inner Directed, Existentiality, and Capacity for Intimate Contact, than subjects who believed that competition in recreation is not good.

4. Based upon self-reports, independent of the CRA scale, subjects' congruency levels between assessed evaluation of competition in recreation and self-reported identity as competitors or non-competitors, did not relate to any of the selected dimensions of personal adjustment.

5. No statistically significant evidence was found which suggested that competitive attitudes or behavior relate positively to any of the selected measures of personal adjustment.

In addition to these conclusions, which were based on findings which exceeded the .05 level of significance, several trends, significant at the .10 level, were also evident. Thus, within the limits of a lower confidence level, the following additional conclusions were reached:

1. Among low participators in competitive recreation activities, CRA scores significantly related to scores on the POI subscales Inner Directed and Capacity for Intimate Contact. The correlations in both instances were of an inverse nature. Personal adjustment was higher among low participators who were less favorable toward competitive recreation activities which suggests that within this group, subjects who were consistent in attitude (CRA scores) and behavior (participation levels) reflected higher levels of personal adjustment on these two subscales of the POI.

2. Low participators in competitive recreation activities scored significantly higher on Existentiality than high participators. It was concluded that on this measure of personal adjustment, low participators in competitive recreation activities reflected higher adjustment levels than high participators.

### Recommendations

Based on the findings of this investigation, several recommendations can be suggested. First, since findings relating to each of the selected dimensions of the POI were not consistent, it is recommended that behavior and attitudinal dimensions relating to competition in recreation be examined in relation to other measures of personal adjustment. Other scales may be capable of identifying possible relationships in a more discriminating manner.

Second, since no support was obtained for the viewpoint that personal adjustment is enhanced through involvement in, or affinity for, competitive recreation activities, it is suggested that practitioners in the field should consider re-evaluating competition and the way in which it is used in recreation. Since the only significant relationships obtained in this study indicate that competitiveness and personal adjustment are inversely related, consideration for a re-evaluation is encouraged. The need for such a re-evaluation has also been advocated by recreators Gray and Greben (1973) who have expressed the view that all programs should be evaluated in humanistic, rather than quantitative terms. It is possible that individuals emerging from competitions as failures, or "losers," may be negatively affected by the experience to the extent that, for these persons, such activities are no longer recreational, in the true sense of the

term. Thus, if a major goal of recreation programs is to positively enhance personality development and adjustment, as is so frequently expressed, this end may not be facilitated through the sponsorship of competitive recreation activities in the traditional manner.

In all probability, other variables, not examined in this investigation, influence the relationship between competitiveness and personal adjustment. Such variables might include athletic ability, family situations, extent of involvement in noncompetitive activities, successful accomplishments in both competitive and noncompetitive endeavors, and such psychological considerations as level of self-concept, personal identity, and self-confidence. Therefore, a third recommendation is for additional research to be conducted which would explore the relative importance of these and other variables in relation to competition in recreation and personal adjustment.

Although the CRA scale included some references to values associated with competitive recreation activities, greater depth of understanding in this area is needed. It is suggested that the further exploration of values related to the competitive experience in recreation would provide added insight into the substance underlying various attitudinal positions. For example, values to be fully explored might relate to fairness, trust, friendship, winning and losing, awards, allowing only the better players to participate, and the development of basic skills in various activities. A study of the relative importance

of each of these areas, and the extent to which they are facilitated or inhibited through competition in recreation, would provide considerable insight into the nature of competition, particularly if these and other values are examined in relation to personal adjustment.

Fourth, it is recommended that this study be replicated in another setting, perhaps with the addition of other controls, such as those previously described. In addition to testing other college groups, it would be appropriate to test for relationships among other populations, such as adults, high school students, various groups of athletes, recreation leaders, and recreation administrators. Considerable insight could be obtained through inter-group comparisons, in addition to comparisons explored within various populations.

Finally, since the CRA scale is a multi-dimensional scale, it is recommended that the various dimensions within the scale be identified and utilized as subscales in further research undertakings. For example, scale items may be re-grouped to measure specific dimensions of competition in recreation. Such a re-grouping might permit a more refined measure of certain dimensions associated with competitive recreation activities, such as: (1) competition as it relates directly to the individual completing the scale; (2) competition as it relates to others in society; and (3) competition as it relates to specific values. Although the internal consistency and split-half

reliability indices were quite high for the scale, further refinement may increase the discriminatory capabilities of the instrument.



## BIBLIOGRAPHY

- American Association for Health, Physical Education, and Recreation. 1964. Goals for American Recreation. Washington, D. C.: AAHPER.
- Allard, Ronald J. 1972. Sport: tyranny of the mind. Unpublished Master's thesis. Boston: University of Massachusetts.
- Allport, Gordon W. 1961. Pattern and growth in personality. New York: Holt, Rinehart and Winston.
- Anderson, Robert B. 1965. A study of personal adjustment and social status measures of nonparticipants and athletic groups of boys ten to fifteen years of age. Unpublished Doctoral dissertation. Eugene: University of Oregon.
- Berger, Richard A. and Donald H. Littlefield. 1969. A comparison between football athletes and nonathletes on personality. Research Quarterly 40:663-5.
- Biddoulph, L. G. 1954. Athletic adjustment and the personal and social adjustment of high school boys. Research Quarterly 25:1-7.
- Biehler, Robert F. 1971. Psychology applied to teaching. Boston: Houghton Mifflin Company.
- Blau, Peter M. 1954. Cooperation and competition in a bureaucracy. The American Journal of Sociology 59:530-5.
- Braun, J. R. and Patricia Asta. 1969. A comparison of "real" versus "ideal" self with a self-actualization inventory. The Journal of Psychology 72:159-64.
- \_\_\_\_\_ and Dolores La Faro. 1969. A further study of fakability of the Personal Orientation Inventory. Journal of Clinical Psychology 25:269-9.
- Brennecke, John H. and Robert G. Amick. 1971. The struggle for significance. Beverly Hills, California: Glencoe Press.
- Brightbill, Charles K. 1960. The challenge of leisure. Englewood-Cliffs, New Jersey: Prentice-Hall, Inc.

- Buber, Martin. 1953. I and thou. (R. G. Smith, Trans. ).  
Edinburgh: T. T. T. Clark.
- Buros, Oscar K. (ed. ). 1972. The seventh mental measurement  
yearbook. Highland Park, New Jersey: The Gryphon Press.
- Carlson, R. E. , T. R. Deppe, and J. R. MacLean. 1972. Recreation  
in American life. Belmont, California: Wadsworth Publishing  
Company, Inc.
- Carmen, L. R. , J. L. Zerman, and G. B. Blaine, Jr. 1970. Use of  
Harvard psychiatric service by athletes and non-athletes. In:  
William P. Morgan (ed.). Contemporary readings in sport  
psychology. Springfield, Illinois: Charles C. Thomas  
Publisher.
- Commager, Henry S. 1961. Give the game back to the students.  
New York Times Magazine, April 16.
- Cooper, Lowell. 1969. Athletics, activity and personality: a  
review of the literature. Research Quarterly 40:17-22.
- de Grazia, Sebastian. 1964. Of time, work, and leisure. Garden  
City, New York: Doubleday and Company, Inc.
- Deutsch, Morton. 1949. An experimental study of the effect of  
cooperation and competition upon group processes. Human  
Relations 2:199-231.
- Edwards, A. L. 1957. Techniques of attitude scale construction.  
New York: Appleton.
- \_\_\_\_\_ and K. C. Kenney. 1946. A comparison of the  
Thurstone and Likert techniques of attitude scale construction.  
Journal of Applied Psychology 30:72-83.
- Edwards, Harry. 1973. Sociology of sport. Homewood, Delaware:  
The Dorsey Press.
- Fain, Richard L. 1959. Attitudes of male inmates at Washington  
State Penitentiary toward the recreation program, Seattle,  
1959. Unpublished Master's thesis. Seattle: University of  
Washington.

- Farina, Alfred J. 1965. A study of the relationship between personality factors and patterns of free time behavior. Unpublished Doctoral dissertation. Pullman: Washington State University.
- Foulds, M. L. and R. G. Warehime. 1971. Effects of a "fake good" response on a measure of self-actualization. *Journal of Counseling Psychology* 18:279-80.
- Gottheil, E. 1955. Changes in social perceptions contingent upon competing or cooperating. *Sociometry* 18:132-7.
- Graff, R. W., H. E. Bradshaw, S. J. Danish, and M. Alterkusé. 1970. The POI: a validity check. *Educational and Psychological Measurement* 30:429-32.
- Gray, David and Seymour Greben. 1973. Position paper submitted to the National Recreation and Park Association, October. (Draft copy)
- \_\_\_\_\_ and Donald Pelegrino (eds.). 1973. Reflections on the recreation and park movement.
- Grossack, M. M. 1949. Some effects of cooperation and competition upon group processes. *Human Relations* 2:199-232.
- Heath, E. H. 1966. A semantic differential study of attitudes relating to recreation as applied to a bicultural setting. Unpublished Doctoral dissertation. Urbana: University of Illinois.
- Hoch, Paul. 1972. *Rip off the big game*. Garden City, New York: Doubleday and Company, Inc.
- Holt, John. 1972. *Freedom and beyond*. New York: E. P. Dutton and Co., Inc.
- Howard, Dennis R. 1973. Multivariate relationships between leisure activities and personality. Unpublished Doctoral dissertation. Corvallis: Oregon State University.
- Ibrahim, Hilmi. 1969. Recreational preference and personality. *Research Quarterly* 40:76-83.
- Ilardi, R. L. and W. T. May. 1968. A reliability study of Shostrom's Personal Orientation Inventory. *Journal of Humanistic Psychology* 14:68-72.

- Jackson, Royal G. 1973. A preliminary bicultural study of value orientations and leisure attitudes. *Journal of Leisure Research* 5(4):10-22.
- Johnson, Marion L. 1968. Construction of sportsmanship attitude scales. Unpublished Doctoral dissertation. Austin: University of Texas.
- Johnson, William. 1968. Triumph in obscurity. *Sports Illustrated* 28:68-80. April.
- Klavetter, R. E. and R. E. Mogar. 1967. Stability and internal consistency of a measure of self-actualization. *Psychological Reports* 21:422-4.
- Kleiber, D. A. 1972. Free time activity and sense of competence in college students. Unpublished Doctoral dissertation. Austin: University of Texas.
- Knapp, R. R. 1971. The measurement of self-actualization and its theoretical implications. San Diego: Educational Testing Service.
- Knopp, T. B. and J. D. Tyger. 1973. A study of conflict in recreational land use: snowmobiling vs. ski-touring. *Journal of Leisure Research* 5(3):6-17.
- Lakie, William L. 1964. Expressed attitudes of various groups of athletes toward competition. *Research Quarterly* 35:497-503.
- Larsen, Knud S. 1973. Assistant Professor of Psychology, Department of Psychology, Oregon State University. Professor in charge of the class, Attitude and Opinion Methodology, fall term, 1973. Corvallis.
- Leuba, C. 1933. An experimental study of rivalry in young children. *Journal of Comparative Psychology* 16:367-78.
- Likert, Rensis. 1932. A technique for the measurement of attitudes. *Archives of Psychology* 21:44-53.
- \_\_\_\_\_. 1967. The method of constructing an attitude scale. In: M. Fishbein (ed.). *Readings in attitude theory and measurement*. New York: John Wiley and Sons, Inc.

- Loy, John W. and G.W. Kenyon (eds.). 1969. Sport, culture and society: a reader on the sociology of sport. New York: The Macmillan Company.
- Mahesh, M. Y. 1968. The science of being and the art of living. New York: The New American Library, Inc.
- \_\_\_\_\_. 1969. Maharishi Mahesh Yogi on the Bhagavad-Gita: a new translation and commentary. Baltimore: Penguin Books.
- Maller, Julius B. 1929. Cooperation and competition. New York: Teacher's College, Columbia University.
- Maloney, Lawrence T. and Brian M. Petrie. 1972. Professionalization of attitude toward play among Canadian school pupils as a function of sex, grade and athletic participation. *Journal of Leisure Research* 4(3):184-95.
- Maslow, Abraham. 1954. Motivation and personality. New York: Harper and Row.
- \_\_\_\_\_. 1968. Toward a psychology of being. New York: D. Van Nostrand Company.
- \_\_\_\_\_. 1973. The farther reaches of human nature. New York: The Viking Press.
- Maul, Terry L. 1970. An investigation of the relationship between self-actualization and creative thinking processes. Unpublished Doctoral dissertation. Berkeley: University of California.
- McClain, E. W. 1970. Further validation of the Personal Orientation Inventory. *Journal of Consulting and Clinical Psychology* 35: 21-2.
- \_\_\_\_\_ and H. B. Andrews. 1969. Some personality correlates of peak experiences--a study in self-actualization. *Journal of Clinical Psychology* 25:36-8.
- McCue, B. 1950. Constructing an instrument for evaluating attitudes toward intensive competition in team games. Unpublished study. Iowa City: State University of Iowa.

- Mead, Margaret. 1937. Cooperation and competition among primitive peoples. New York: McGraw-Hill.
- Meggyesy, Dave. 1970. Out of their league. Berkeley: Ramparts.
- Murray, M. E. 1966. An exploration of the relationship of self-actualization to teacher success. Unpublished Master's thesis. University Park: Pennsylvania State University.
- Myers, Albert. 1962. Team competition, success, and the adjustment of group members. *Journal of Abnormal Psychology* 65: 325-32.
- Neal, Patsy. 1972. Sport and identity. Philadelphia: Dorrance and Company.
- Neulinger, John. 1971. Leisure and mental health. *Pacific Sociological Review* 14:288-300.
- \_\_\_\_\_ and Miranda Breit. 1969. Attitude dimensions of leisure. *Journal of Leisure Research* 1(3):255-61.
- \_\_\_\_\_ and Charles S. Raps. 1972. Leisure attitudes of an intellectual elite. *Journal of Leisure Research* 4(3):196-207.
- Oates, Bob. 1973. Do sports idols set poor examples for kids? *Los Angeles Times*, February 25.
- Ogilvie, Bruce C. and Thomas A. Tutko. 1971. Sports: if you want to build character, try something else. *Psychology Today*, October.
- Peterson, S. L., J. C. Weber, and W. W. Trousdale. 1967. Personality traits of women in team sports vs. women in individual sports. *Research Quarterly* 38:686-9.
- Piaget, Jean. 1932. The moral judgement of the child. New York: Harcourt, Brace and Company.
- Pieper, Josef. 1963. Leisure the basis of culture. New York: The New American Library.
- Riesman, David. 1950. The lonely crowd. New York: Yale University Press.

- Schafer, W.E. 1969. Some social sources and consequences of interscholastic athletics. In: John W. Loy and G.S. Kenyon (eds.). The sociology of sport. Athletic Institute.
- Scott, Jack. 1972. Sport: Scott's radical ethic. Intellectual Digest, July.
- Scott, Phebe M. 1953. Attitudes toward athletic competition in elementary schools. Research Quarterly 24:352-61.
- Seeman, W., S. Nidich, and T. Banta. 1972. Influence of Transcendental Meditation on a measure of self-actualization. Journal of Counseling Psychology 19:184-7.
- Selltiz, Claire, Marie Jahoda, Morton Deutsch, and Stuart W. Cook. 1959. Research methods in social relations. New York: Holt, Rinehart and Winston.
- Senters, Jo M. 1971. A function of uncertainty and stakes in recreation. Pacific Sociological Review 14:249-69.
- Shelly, Maynard (summarized by Garland Landrith III). Undated. A theory of happiness as it relates to Transcendental Meditation. Unpublished article. Department of Psychology, University of Kansas. 6p.
- Sherif, M., J.O. Harvey, B.J. White, and R. Hood. 1954. Theoretical and experimental studies in interpersonal and group relations. Norman, Oklahoma: University of Oklahoma Press.
- Shostrom, E.L. 1964. An inventory for the measurement of self-actualization. Educational and Psychological Measurement 24:207-18.
- \_\_\_\_\_. 1972. Personal Orientation Inventory Manual. San Diego: Educational and Industrial Testing Service.
- \_\_\_\_\_ and R.R. Knapp. 1966. The relationship of a measure of self-actualization (POI) to a measure of pathology (MMPI) and to therapeutic growth. American Journal of Psychotherapy 20:193-202.

- Skinner, B. F. 1968. The technology of teaching. New York: Meridith Corporation.
- Slusher, Howard S. 1967. Man, sport and existence: a critical analysis. Philadelphia: Lea and Febiger.
- Sperling, A. P. 1942. Relationship between personality adjustment and achievement in physical education activities. Research Quarterly 13:351-63.
- Staley, E. J. and N. P. Miller (eds. ). 1972. Leisure and the quality of life. Washington, D. C.: American Association for Health, Physical Education, and Recreation.
- Thompson, M. K. 1959. Motivation in school learning. In: Charles E. Skinner (ed. ). Educational psychology. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Webb, Harry. 1969. Professionalization of attitudes toward play among adolescents. In: Gerald S. Kenyon (ed. ). Sociology of sport. Chicago: The Athletic Institute.
- Werner, Alfred C. and Edward Gottheil. 1966. Personality development and participation in college athletics. Research Quarterly 37:126-31.
- Winter, David G. 1973. The power motive. New York: The Free Press.





## APPENDICES

## APPENDIX A

## INFORMAL CRITERIA FOR ATTITUDINAL STATEMENTS

1. Avoid statements that refer to the past rather than the present.
2. Avoid statements that are factual or capable of being interpreted as such.
3. Avoid statements that may be interpreted in more than one way.
4. Avoid statements that are irrelevant to the psychological object under consideration.
5. Avoid statements that are likely to be endorsed by almost everyone or by almost no one.
6. Select statements that are believed to cover the entire range of the affective scale of interest.
7. Keep the language of the statements simple, clear, and direct.
8. Statements should be short, rarely exceeding 20 words.
9. Each statement should contain only one complete thought.
10. Statements containing universals such as all, always, none, and never often introduce ambiguity and should be avoided.
11. Words such as only, just, merely, and others of a similar nature should be used with care and moderation.
12. Whenever possible, statements should be in the form of simple sentences rather than in the form of compound or complex sentences.
13. Avoid the use of words that may not be understood by those who are to be given the completed scale.
14. Avoid the use of double negatives.

## APPENDIX B

## COMPETITIVE RECREATION ACTIVITIES

**DEFINITION:** COMPETITIVE RECREATION ACTIVITIES include all games, events, sports, and other similar activities in which rivalry is included, sponsored by municipal recreation departments, schools, and private organizations. Activities promoting either team or individual competition are included; professional sports, however, are not.

**DIRECTIONS:** The following statements relate to various aspects of COMPETITIVE RECREATION ACTIVITIES. Please indicate the extent to which you agree or disagree with each statement by circling the appropriate number to the left of each item. Your choices should be made as follows:

If you strongly agree (SA)	Circle 1
If you agree (A)	Circle 2
If you are undecided (U)	Circle 3
If you disagree (D)	Circle 4
If you strongly disagree (SD)	Circle 5

Academic Major: \_\_\_\_\_ Class: Fr. Soph. Jr. Sr. Grad.

Age: \_\_\_\_\_ Sex: \_\_\_\_\_

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SA A U D SD

1	2	3	4	5	I enjoy recreation best when it is competitive.
1	2	3	4	5	Competitive recreational activities place the wrong emphasis on recreation.
1	2	3	4	5	Positive personality adjustment is enhanced through involvement in competitive recreation activities.
1	2	3	4	5	As a parent I would object to having my children involved in competitive recreational activities.
1	2	3	4	5	The greatest pleasure in a recreation program is the competitive experience.

---

 SA A U D SD
 

---

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | Competitive recreational activities help young people to formulate their self-identity.           |
| 1 | 2 | 3 | 4 | 5 | I hate competitive recreational activities.   |
| 1 | 2 | 3 | 4 | 5 | Competitors in recreational activities develop into more courageous persons than non-competitors. |
| 1 | 2 | 3 | 4 | 5 | There is very little benefit to be derived from participation in competitive recreation programs. |
| 1 | 2 | 3 | 4 | 5 | Competitive recreation fosters excellence in achievement.   |
| 1 | 2 | 3 | 4 | 5 | I find competitive recreational programs personally rewarding.                                    |
| 1 | 2 | 3 | 4 | 5 | Competitive recreation activities place too much emphasis on winning.                             |
| 1 | 2 | 3 | 4 | 5 | I am hesitant to be supportive of competitive recreation programs.                                |
| 1 | 2 | 3 | 4 | 5 | Competitive recreational programs spoil the fun of the activity itself.                           |
| 1 | 2 | 3 | 4 | 5 | I dislike competing against others in recreational programs.                                      |
| 1 | 2 | 3 | 4 | 5 | The essence of play is best found in activities that are not competitive in nature.               |
| 1 | 2 | 3 | 4 | 5 | The values associated with competitive recreational programs are highly worthwhile.               |
| 1 | 2 | 3 | 4 | 5 | True recreation does not include competition with others.   |
| 1 | 2 | 3 | 4 | 5 | Competitive recreational activities are highly enjoyable to me.                                   |
| 1 | 2 | 3 | 4 | 5 | The worst aspect of recreation is the competitiveness of activities.                              |
| 1 | 2 | 3 | 4 | 5 | The value of competition is overrated.  |
| 1 | 2 | 3 | 4 | 5 | Competitive recreation produces poor sportsmanship.   |
| 1 | 2 | 3 | 4 | 5 | Competitive recreation sets people against each other.  |

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 SA A U D SD
 

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- 1 2 3 4 5 Some form of competition in recreational activities is important for everyone.
- 1 2 3 4 5 I love competitive recreational programs.
- 1 2 3 4 5 People place too much emphasis on competition in recreation programs.
- 1 2 3 4 5 It is hard for me to understand all the importance some people put into competitive recreational activities.
- 1 2 3 4 5 The value, winning at any cost, is one reason I dislike competitive recreational activities.
- 1 2 3 4 5 Competitive recreation activities bring out the worst in people.
- 1 2 3 4 5 It is important to compete in recreation activities.
- 1 2 3 4 5 Learning to compete in a recreational setting helps to prepare participants for later life.
- 1 2 3 4 5 I would rather not compete in recreation activities.
- 1 2 3 4 5 Competition in recreation fulfills a natural need in people.
- 1 2 3 4 5 Values associated with competition in recreation are distorted.
- 1 2 3 4 5 Recreation gets spoiled by competitive activities.
- 1 2 3 4 5 Competition should be a low priority in recreation programming.
- 1 2 3 4 5 Competitive recreation builds character.
- 1 2 3 4 5 Noncompetitive recreation activities played just for the fun of it aren't very enjoyable.
- 1 2 3 4 5 I dislike the values associated with competitive recreation.
- 1 2 3 4 5 Competitive recreational activities are a healthy aspect of American life,
- 1 2 3 4 5 I prefer non-competitive recreational activities over those which are competitive in nature.

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 SA A U D SD
 

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- |   |   |   |   |   |  |
|---|---|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 | Everyone benefits from competition in recreation programs.                     |
| 1 | 2 | 3 | 4 | 5 | Competition is one of the most important aspects of the recreation experience. |
| 1 | 2 | 3 | 4 | 5 | Competition in recreation programs builds positive character.                  |

Please keep in mind the following definition: **COMPETITIVE RECREATION ACTIVITIES** include all games, events, sports, and other similar activities in which rivalry is included, sponsored by municipal recreation departments, schools, and private organizations. Activities promoting either team or individual competition are included; professional sports, however, are not.

Using this definition as a frame of reference, about how many hours **PER WEEK**, over the past year, have you spent participating in recreation activities which include the element of competition? Attempt to estimate an average based upon the entire year.

Approximate hours per week: \_\_\_\_\_

Which of the following statements do you consider to be the most accurate description of yourself:

- A. I think that competition in recreation is generally good, and I regard myself as a competitor.
- B. I think that competition in recreation is generally good, but I do not regard myself as a competitor.
- C. I do not think that competition in recreation is generally good, but I regard myself as a competitor.
- D. I do not think that competition in recreation is generally good, and I do not regard myself as a competitor.

## APPENDIX C

## GENERAL INSTRUCTIONS

1. Very little is known about the effects of competition in our society. This study is part of a doctoral dissertation directed toward increasing our knowledge and understanding of the nature of competition in the area of recreation. The results of this project will be accessible to you since the final document will be on file in the library.
2. The materials which have been passed out to you include questionnaires encompassing two areas. The first is directed toward the area of competition in recreation activities (blue form). You are asked to agree or disagree with each of the statements listed. There are no "right" or "wrong" answers. Responses should be made on the survey form itself.

The second portion of the survey is found in the booklet titled POL. Each item consists of a pair of statements and you should select the statement which best applies to you. Again, there are no "right" or "wrong" answers. The purpose of this instrument is to obtain a measure of self-actualization, or personal adjustment.

3. This survey is totally anonymous and all questionnaire information will be grouped together, rather than studied separately. Information of a personal nature is not asked. You should only indicate your age, sex, year in college, and academic major on the blue form.
4. Your involvement is totally voluntary. No one should feel that they are required to participate. I think that you will find the surveys interesting and easy to complete, however, and that you will enjoy being a part of a study concerned with an aspect of recreation which is common to programs throughout the country. If you have any questions, I will be happy to answer them for you.

Thank you very much, Your help is greatly appreciated.