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THE EFFECTS OF PARTICIPATION IN SELECTED
RISK COLLEGE PHYSICAL EDUCATION
CLASSES ON A STUDENT'S
SELF CONCEPT

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THE EFFECTS OF PARTICIPATION IN SELECTED
RISK COLLEGE PHYSICAL EDUCATION
CLASSES ON A STUDENT'S
SELF CONCEPT


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ABSTRACT

THE EFFECTS OF PARTICIPATION IN SELECTED RISK COLLEGE PHYSICAL EDUCATION CLASSES ON A STUDENT'S SELF CONCEPT

by Carole Ann Shawver

This study was concerned with the analysis of the self concept of a group of college students enrolled in risk physical education activity classes. The problem was to determine whether there would be any significant difference in the self concept of the three groups of students in selected risk physical education classes, non-risk physical education classes, and the control health class. Data for the study were collected from students enrolled in the health class and five physical education activity classes (Scuba Diving, Canoeing, Modern Dance, Bait Casting, and Bowling).

The statistical problem was to determine what differences might exist among the pretest scores and the differential gains of the groups on the scale scores of the Tennessee Self Concept Scale. The results of the testing were analyzed by means of a one-factor analysis of variance.

The three levels of the independent variable were the risk group, the non-risk group, and the control group.

The findings indicated there were no significant differences between the self concept scales of the three groups at the outset of the semester. It was also found that there were no significant differences among the differential scores of each group. A difference was found in the groups' scale scores on the Tennessee Self Concept Scale when compared with the national norms.

Demographic data were obtained to describe the subject sample more completely. Overall, the picture of the risk subject is one of a younger, white male student coming from a generally more highly educated, more affluent white family than the rest of the population defined within this study.

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Chapter 1

INTRODUCTION

In the past several decades, the major objectives of physical education programs for public schools as discussed in textbooks have been expanded to emphasize the total development of the whole person, especially in regard to psychological objectives and principles, i.e., the affective domain.¹ The understanding of self and continuing self-development are important objectives in general education, but, unfortunately, the affective domain is often overlooked by classroom teachers as a planned objective of the learning experience in physical education.² Bucher states "another aspect of the social objective of physical education that is being recognized is the need for each boy and girl to develop an appropriate self-concept."³

Some programs of learning in physical education have been designed specifically to promote the development of

¹Charles A. Bucher, Foundations of Physical Education (Saint Louis: C. V. Mosby Company, 1975), p. 54.

²Ibid., p. 75.

³Ibid., p. 59.

self concept. These physical education programs have been the topic of research with special groups of people, however, for instance, the mentally retarded, the overweight, the middle-aged, and the physically fit.⁴ Rarely have research studies been designed to measure the enhancement or change in a person's self concept in relationship to recreational physical activities. Rarer still are studies examining the role that risk recreational activities might play in the development of self concept. Knowledge of the part that physical risk activities play in the development of a person's self concept should be helpful in evaluating and designing current college physical education and recreation programs.

STATEMENT OF THE PROBLEM

The purpose of this study is to determine the selected effects of specific risk and non-risk college physical education classes on a student's self concept.

⁴W. R. Johnson, B. R. Frets, and Julia A. Johnson, "Changes in Self Concepts During a Physical Development Program," Research Quarterly, XXXIX (October, 1968), 560-565; Richard Rohrbacher, "Influence of a Special Camp Program for Obese Boys on Weight Loss, Self-Concept and Body Image," Research Quarterly, XLIV (May, 1973), 150-157; A. H. Ismail and L. E. Trachtman, "Jogging the Imagination," Psychology Today, VI (March, 1973), 78-82; and Daniel C. Neale, Robert J. Sonstroem, and Kenneth F. Metz, "Physical Fitness, Self-Esteem, and Attitudes Toward Physical Activity," Research Quarterly, LX (December, 1969), 743-749.

JUSTIFICATION OF THE STUDY

A school is a place where learners, whether they are children or adults, engage in activities which lead to the development or enhancement of their understandings and abilities.⁵ A teacher, in order to be effective, needs to be aware of the role that self concept plays in a person's receptiveness to learning. According to Vitro, the most important force influencing the failure or success of the adult learner in the educational setting is the relative adequacy or inadequacy of his self concept. In the educational process, the emergence of a health concept of one's ability is considered to be just as important as his actual performance level or measured skills. If we are to accept the assumption that perception of self is a significant variable in the educational process, it then seems reasonable to consider the maintenance and enhancement of self concept as primary objectives in the educational program for the adult.⁶ This viewpoint suggests that educators may want to consider all facets of the adult learner, including his self concept and other related

⁵Daniel U. Levine, "The City As School," NASSP Bulletin, LII (December, 1969), 1.

⁶Frank T. Vitro, "Implications of Self-Concept Theory for Education of the 'Total Adult'," Adult Leadership, XX (June, 1971), 46-46.

personality factors. During a conference in 1967 dealing with humanizing education, Arthur Combs stated:

The goal of education must be self-actualization, the production of persons willing and able to interact with the world in intelligent ways. To achieve this end, educators must concern themselves with both halves of the equation: the person and the world, the learner and the subject. Unbalanced concern with either half will destroy the very ends we seek. . . . We cannot afford to be made the victims of this imbalance. An educational system which dehumanizes its charges fails everyone, its students, its professional responsibilities and society itself.⁷

For many years physical educators and recreation educators have used the natural sciences as the basis of teacher preparation programs and curriculum development because they have perceived the students' physical training as the teachers' obligation. If there is a relationship between self concept and different types of physical activities, a shift in emphasis from the natural sciences to the social sciences may be in order. This orientation arises from the thesis that physical activity and physical education are psycho-social experiences for the participant, and that the main effects of involvement which can be broadly defined as educational in nature occur in the psycho-social domain and not in the physical.⁸

⁷A. W. Combs, Humanizing Education: The Person in the Process (Washington, D.C.: National Education Association, 1967), p. i.

⁸Andrew Yiannakis, "Toward a Theory of Sport Preference" (unpublished Doctoral dissertation, University of New Mexico, 1973), p. 7.

Student needs may be better met by a more complete understanding by the teacher of how and in what ways a particular physical activity potentially can change a student. Physical educators may not only be interested in improving physical skill and coordination but also as humanistic educators, they may want to know what they are doing psychologically for students. Through more complete course understanding, instructor/advisors possibly may be able to counsel and guide their students into activities having the potential for improving the students' mental health. Instructors may be better teachers by knowing and understanding the functions and effects of different activities for different individuals. The results can also be used in designing and evaluating current college physical education courses for specific physical as well as psychological objectives. It is possible that teacher preparation programs be reevaluated if psycho-social variables can be shown to be influenced by or associated with specific types of physical activities. Curriculum changes, curriculum developments, and administrative policies could be the vehicles to influence teacher education and in-service programs.

DEFINITIONS OF TERMS

Self concept--a person's view of himself.⁹

Risk recreation--an activity done during leisure time that has the potential of causing harm to the participant.

Self concept test--an instrument used to measure a person's view of himself.

Leisure--"is merely free time. It . . . includes the minutes and hours above the time needed for the day's routine and required activity."¹⁰

Recreation--"Recreation is any enjoyable leisure experience in which the participant voluntarily engages and from which he receives immediate satisfaction."¹¹

Pursuit of vertigo--"to feel the body's stability and equilibrium momentarily destroyed, to escape the tyranny of perception, and to overcome awareness."¹²

⁹Carl R. Rogers, "A Theory of Therapy, Personality, and Interpersonal Relationships, as Developed in the Client-Centered Framework," Psychology: The Study of a Science, Formulations of the Person and the Social Context, Vol. III, Sigmond Kock, ed. (New York: McGraw-Hill, 1959), p. 200.

¹⁰William C. Menninger, Enjoying Leisure Time (Chicago: Science Research Association, Inc., 1950), p. 48.

¹¹Reynold E. Carlson, Theodore R. Deppe, and Janet R. MacLean, Recreation in American Life (2d ed.; Belmont, California: Wadsworth, 1950), p. 48.

¹²Roger Caillois, "Structure and Classification of Games," in John W. Loy, Jr., and Gerald S. Kenyon, eds., Sport, Culture and Society (London: Macmillan, 1969), p. 55.

Risk physical activity class--For the purposes of this study, risk activity classes will be scuba diving and river canoeing at the college level.

Non-risk physical activity class--For the purposes of this study, non-risk activity classes will be bowling, bait casting, and modern dance at the college level.

Effective Living--"HPERS 310--two credits--a general health course designed to enable students to deal more effectively with personal, family and community health problems."¹³

Physical education--

An integral part of the total education process. It is a field of endeavor that has as its aim the development of physically, mentally, emotionally, and socially fit citizens through the medium of physical activities that have been selected with a view to realizing these outcomes.¹⁴

Stress-seeking--". . . arousal or excitement connected with fear and the subjection of the organism to disabilities."¹⁵

Committee of Experts--A five-member committee rating the degree of risk of the physical education activity classes offered that were included in the 1977-78 Catalog,

¹³Middle Tennessee State University, 1977-78 Catalog (Murfreesboro, Tennessee), p. 257.

¹⁴Bucher, p. 22.

¹⁵Samuel Z. Klausner, Why Man Takes Chances (Garden City, New York: Doubleday, 1968), p. 136.

Middle Tennessee State University. The committee consisted of selected members of the Health, Physical Education, Recreation and Safety faculty at Middle Tennessee State University, i.e., Department Chairman, Safety Curriculum Coordinator, Recreation Curriculum Coordinator, and two full-time professors.

Outward Bound--

A diversified program in a wilderness setting that consists of a series of physically and mentally challenging learning experiences (i.e., mountain climbing, whitewater canoeing, ocean sailing, etc.). Its basic purpose is to encourage the individual to discover his or her inner resources, strengths and limitations. In addition, it emphasizes close cooperation among students, who live and work together during the three-week course.¹⁶

Learning to deal with fear is theorized to have carry-over value to life's daily activities.

LIMITATIONS OF THE STUDY

This study is limited to Middle Tennessee State University students who were selected because of their enrollment in specific physical education classes during the fall semester of 1977. The sample is limited by the specific emotional state of the subjects at a place and time, as well as by variations in testing situations for each group. Analysis of the self concept is limited to the

¹⁶Charles C. Cole, "Instructional Implications of the Outward Bound Program," Liberal Education, LXII (December, 1976), 608.

reliability and validity of the Tennessee Self Concept Scale (TSCS), Appendix A. Since the activities of scuba diving and canoeing served as the risk sports under investigation in this study, the conclusions concerning self-concept change related to risk sport participation are limited to participants in these two sports.

HYPOTHESES

This research will test the following null hypotheses:

HO₁: There will be no statistically significant difference in the various self-concept level measures as measured by the Tennessee Self Concept Scale at the outset of the semester between those involved in risk and non-risk activity classes.

HO₂: There will be no statistically significant difference representing a change in the various levels of a student's self concept as measured by the Tennessee Self Concept Scale at the end of the semester of work involving risk and non-risk activities.

Chapter 2

REVIEW OF RELATED LITERATURE

The review of literature pertinent to the problem under investigation in this study (whether self concept can be changed by specific physical activity classes) has been divided into two major sections. The first section presents the literature in the area of recreation subdividing it into discussions of personality and risk recreation. The second major section describes the self concept, first, in general, and, second, in particular, as it is related to specific physical activities.

LEISURE ACTIVITIES AND PERSONALITY

Dividing one's days and years between work and leisure is an important consideration for most individuals. How and why people make decisions for the allocation of their time, specifically of their leisure time, has only recently come under investigation. One particular facet of this question is the influence of various personality traits as they relate to recreational preference and leisure-time activities. In the 1960's, Ibrahim concerned himself with two questions. First, would personality differences be

found between individuals who were recreationally inclined and those who were not? This first dimension dealt with the number and variety of recreational activities. Second, would there be personality differences among those who preferred social, physical, aesthetic, communicative, or learning activities? Here the concern was with the number of activities in a particular category. At the conclusion of the study, Ibrahim found several notable differences among the groups tested in personality traits, but the evidence was not conclusive enough to indicate that there actually are differences between the personalities of those who are recreationally inclined and those who are not.¹

More recently, personality has been found to be related to adult participation in physical fitness activities and also to leisure preferences. Adults who participated in physical fitness activities were found to have more extroverted personality traits than those who were not motivated for regular fitness participation.² Howard found that personality is significantly related to leisure activity preference. An individual's personality seems to have a substantial impact on his choice of leisure

¹Hilmi Ibrahim, "Recreational Preference and Personality," Research Quarterly, XL (March, 1969), 76-82.

²Burton C. Brunner, "Personality and Motivating Factors Influencing Adult Participation in Vigorous Physical Activity," Research Quarterly, LX (October, 1969), 464-469.

activities. Differing leisure activities seem to attract individuals with differing needs. It has been shown that there is a close relationship between leisure preferences and personality, but a fundamental question of cause and effect needs to be considered and remains unsolved. It will need to be determined whether a particular personality factor is the product of a certain leisure activity or cause of his involvement in the activity.³ An important finding of Howard's study is "that people with similar personalities have a tendency to make the same type of leisure activity choices."⁴ This fact is beginning to make it possible to predict group memberships of various individuals.

Martin and Myrick discovered a relationship between personality traits and active leisure time activity participation. By studying three groups of participants in active leisure activities, scuba divers, skydivers, and snow skiers, significant differences were found on two of seven personality traits measured--behavior and anxiety. The first characteristic, behavior, indicated that active sport participants (or those involved in risk recreation) are more inclined to describe themselves as being comparatively more offensive and cruder in social situations. The control

³Dennis R. Howard, "Multivariate Relationships Between Leisure Activities and Personality," Research Quarterly, LXVII (May, 1970), 226-237.

⁴Ibid., p. 236.

group rated itself more careful, better mannered, and socially more conventional in its behavior. The other personality trait, anxiety, shows the control group as more tense and irritable, while the risk recreation group exhibits a calmer and more confident emotional state. The skydivers, snow skiers, and scuba divers described themselves as calm, but socially more abrasive. The researchers stated that differences on all personality variables should not be looked for.⁵

Pyecha, one of the few to investigate the psychological effects of college physical education activity classes, studied the effects of several activity classes on measurable personality traits. Because of his interest in judo, he selected this activity hoping that it would foster the psycho-social objective of physical education. He found that handball, volleyball, badminton, and basketball (all very acceptable sport activities in physical education programs) had little effect in making personality trait changes. Judo, a somewhat controversial sport in the physical education curriculum, did produce changes in several measurable personality traits. The judo group became more warmhearted, easygoing, and participatory as measured by Cattell's Sixteen Personality Factor

⁵Warren S. Martin and Fred L. Myrick, "Personality and Leisure Time Activities," Research Quarterly, XLVII (May, 1976), 246-253.

Questionnaire than did those students engaged in the control group sports.⁶ Unfortunately, judo is not part of the Middle Tennessee State University curriculum. This fact caused its exclusion on the "Risk Recreation Form" rating activities by the Committee of Experts. Karate, which is taught at Middle Tennessee State University, might be a comparable activity. The Committee of Experts rated karate in the mid-range and rankings of risk and non-risk activities.

These studies strongly suggest a relationship between personality and leisure activity choice or preference. One must wonder what other factors might also affect one's choice of leisure activities.

RISK RECREATION

Risk recreation, stress seeking, sensation seeking, and "pursuit of vertigo" have all become prominent in the past fifteen years. The sensation seeking phenomenon or "pursuit of vertigo" was first given a detailed discussion when Caillois described the structure and classification of games. His classification includes:

Agon (competition)--boxing, football, checkers
 Alea (chance)--betting, roulette, lotteries

⁶John Pyecha, "Comparative Effects of Judo and Selected Physical Education Activities on Male University Freshman Personality Traits," Research Quarterly, XLI (October, 1970), 425-431.

Mimicry (pretense)--childish, imitation, theater
 Ilinx (vertigo)--swings, teeter-totter, waltz,
 skiing, mountain climbing.

This last classification is described by Caillois as modern man's only game invention, even though people throughout the ages have sought out activities of whirling and twirling that produce giddiness and confusion. Machines of modern man are needed to produce sensations of sufficient intentistly to cause giddiness and confusion in adults. This giddiness is induced by high speed, i.e., motorcycle riding, riding in an open car, skiing, carnival rides, and the like. When people search for pleasure and vertigo, its object is play which is isolated from reality. The circumstances of this play must be precise and fixed with the participant free to accept or refuse the challenge of the activity.⁷

Vertigo is also included in Kenyon's characterization of physical activity:

. . . physical activity as the pursuit of vertigo is considered to be those physical experiences providing, at some risk to the participant, an element of thrill through the medium of speed, acceleration, sudden change of direction, or exposure to dangerous situations with the participant usually remaining in control. In that he usually approaches vertigo without actually achieving it, the experience becomes the pursuit of vertigo.⁸

⁷Roger Caillois, "The Structure and Classification of Games," in John W. Loy, Jr., and Gerald S. Kenyon, eds., Sport, Culture and Society (London: Macmillan, 1969), pp. 53-55.

⁸Gerald S. Kenyon, "A Conceptual Model for Characterizing Physical Activity," Research Quarterly, XXXIX (March, 1968), 100.

This "pursuit of vertigo" may be unnoticeable to the participant of the physical activity:

The participant may not recognize vertigo as the common element, but rather views sports such as skiing, diving from a high platform, heavy weather sailing, mountain climbing, sky diving, and the like, as apparently unrelated."⁹

Efforts are in the beginning stages "to produce a framework for characterizing physical activity as some type of social-psycho-physical phenomenon."¹⁰ Physical activity values can be reduced to specific components. One of the components is the "possibility of a common motivation to participate in activities that may be classified as EUSTRESS-SEEKING."¹¹ Excitement, adventure, and challenge are associated with a pleasant kind of stress that Bernard calls eustress. Eustress enhances vital sensation, "turns people on" and releases energy. One of the reasons for studying stress-seeking is to find the key it may supply for unlocking reservoirs of motivation. "If we can learn how to make activities eustressful, we may find ways to motivate at least some people to engage in them."¹² This study has more

⁹ Ibid.

¹⁰ Dorothy V. Harris, "On the Brink of Catastrophe," Quest, XII (January, 1970), 34.

¹¹ Ibid.

¹² Jessie Bernard, "The Eudaemonists," Why Man Takes Chances, ed. Samuel Z. Klausner (Garden City, New York: Doubleday, 1968), p. 8.

than purely theoretical justification to the extent that properly directed physical activity might be substituted for the current efforts to "turn on" through alcohol, drugs, or religious cults. Stress-seeking is defined by Harris as a behavior that is structured to amplify an individual's level of involvement.¹³

Klausner notes that seeking a physical challenge motivates the participant to become actively involved in stress-seeking. The stress-seeker has some identifiable characteristics such as rationality, egocentricity and repetitiveness. People seek stress-seeking by behaving in carefully planned ways, by tending to be more responsive to internal rather than external direction, and by returning time after time to the stressful situation.¹⁴

Selye reports another kind of stress, dys-stress, that can also be voluntary, but it is the painful, unpleasant type of stress. This type has a detrimental and damaging effect on the body.¹⁵

An explanation for the choice of risk recreation activities has been offered by Petrie. By investigating individuality in pain, it was found that there are

¹³Harris, pp. 34-35.

¹⁴Samuel Z. Klausner, Why Man Takes Chances (Garden City, New York: Doubleday, 1968), pp. 135-168.

¹⁵Hans Selye, "Stress: It's a G.A.S.," Psychology Today, III (September, 1969), 25-26.

individuals who consistently reduce the intensity of their perceptions, while others augment their perceptions. "The reducer is tolerant of pain; the augments is intolerant of it."¹⁶ Sensory lack may result in a kind of distress and suffering for the reducer because he appears to inherently diminish the effect on himself of any external stimuli, while the augments suffers from sensory excess, i.e., bombardment of light and sound and, therefore, retreats from intense experiences.

The reducer desires physical activity so as to derive sensory input from his body movements. Such a person is extroverted and less tolerant of sensory deprivation. The reducer seems greedy for sensations. The inactive augments tends to excel at school work and relies on verbal behavior to relate to his environment for his sensory homeostasis.¹⁷

Ryan and Kovacic study reducers and augments as related to pain and physical activity. Perception is involved in pain tolerance. While finding no significant differences between groups, i.e., contact athletes, non-contact athletes, and non-athletes, in pain threshold, they discover highly significant differences between groups on

¹⁶Asenath Petrie, Individuality in Pain and Suffering (Chicago: University of Chicago Press, 1967), p. 2.

¹⁷Ibid., pp. 1-4, 36-38, 98-105.

pain tolerance. The contact athlete could tolerate more pain than the non-contact athlete, and the non-contact athlete tolerated more pain than the non-athlete. The important point here is how these perceptual differences influence a person's choice of activities and in turn his performance in activities. Perhaps the general perceptual characteristics of the reducer and augments explain the relationship between the type of athletic activity and pain.¹⁸

All of the characteristics associated with the reducer, i.e., tolerance of pain, intolerance of sensory deprivation, and extroversion, are actually common to groups of athletes.¹⁹

Ryan and Kovacic go on to state:

If, indeed, the reducers suffer from lack of stimulation, as suggested by Petrie, then they would need change, movement, speed, and possibly body contact, rather than more sedentary pursuits. Athletics could be the child's answer to sensory deprivation, with the ability to tolerate pain, an added incentive to participate in contact sports.²⁰

SELF CONCEPT

All of us behave, act, and react in terms of how we feel about and see ourselves. Our self concept determines the things we see and the things we hear. It acts as a

¹⁸E. Dean Ryan and Charles R. Kovacic, "Pain Tolerance and Athletic Participation," Perceptual and Motor Skills, XXII (April, 1966), 383-390.

¹⁹Ibid., p. 389.

²⁰Ibid.

selective filter on our experiences, whether they are past, present or future. Probably the most important determining factor in a person's ability to succeed depends on how he feels about himself. Recently, the concept of the self has commanded a great deal of attention from students of both personal and social development. This is as it should be since a person's concept of who and what he is certainly colors much of his thinking, his personality, and his social behavior.²¹

Diggory finds that a person with a low estimate of himself is strongly motivated to avoid failure and tends to set goals so low that he does not need to prove himself. Also, the expectation of failure will cause him to quit before he actually does fail. Conversely, people high in self-acceptance are willing to prove themselves and will work diligently toward a goal.²² Combs and Snygg relate that the perceptions we have at a given time are dependent upon the concepts we hold about our abilities and about ourselves.

Self is a basic variable affecting and controlling behavior. How we act in any given situation will be dependent upon how we perceive ourselves and how we

²¹J. G. Wallace, Concept Growth and the Education of the Child (New York: New York University Press, 1967), p. 74.

²²James C. Diggory, Self-Evaluation: Concepts and Studies (New York: John Wiley, 1966), p. 74.

perceive the situations in which we are involved.²³

Every individual is striving constantly to maintain, protect, and enhance the self. Everything is comprehended using the self as a reference point; only what an individual is conscious of in the world exists for him.

For the purpose of this study, Roger's definition of self concept, "A person's view of himself," is being used.²⁴ A person who sees himself as ineffective is likely to be easily threatened and have a relatively poor opinion of himself due to a chronic feeling of insecurity. This does not necessarily mean the individual is actually ineffective, he merely thinks of himself as never reaching his own personal expectations. Persons with high regard for themselves tend to be expressive, happy, and relatively free of anxiety.²⁵

The self image, or self concept, is learned by each person through a lifetime of experiences with himself, with other people, and with the realities of the external world.

²³Arthur W. Combs and Donald Snygg, Individual Behavior (New York: Harper, 1959), p. 20.

²⁴Carl R. Rogers, "A Theory of Therapy, Personality, and Interpersonal Relationships, as Developed in the Client-Centered Framework," Psychology: The Study of a Science, Formulations of the Person and the Social Context, Vol. III, Sigmond Kock, ed. (New York: McGraw-Hill, 1959), p. 200.

²⁵S. Coppersmith, The Antecedents of Self-Esteem (San Francisco: W. H. Freeman, 1967), p. 136.

The importance of the self concept is illustrated by the fact that not only is the self the most prominent aspect of the individual's phenomenal world but it also tends to be the most stable feature. The person's environment is continually shifting and changing, but the self concept is relatively fixed and stable. The self concept is the frame of reference through which the individual interacts with his world. Therefore, the self concept has a powerful influence on individual behavior.²⁶

Many dimensions of the phenomenal self are available for assessment: physical self, social self, personal self, moral-ethical self, and family self which are included in the scope of self perception. Self-report measures are used to assess significant changes in an individual's perception of himself. A self-report measure is dependent on the subject's responses to a variety of statements describing how he sees himself. A strong advocate of the self-report method as a valid measure of self concept is Patterson.²⁷ He believes an individual's perception is seen as the only meaningful measure of self concept. By definition, it is only the individual who is able to describe or report on his own self concept.

²⁶William H. Fitts, The Self Concept and Self Actualization (Nashville: Dede Wallace Center, 1971), p. 3.

²⁷C. H. Patterson, "The Self in Recent Rogerian Theory," Journal of Individual Psychology, XVII (May, 1961), 5-11.

Bonner explains the "perceptual self" of a person as the individual's attempt to transform other people's views of himself into concepts or attitudes agreeable to his own personal perceptions. He considers the view of others as only a minor factor in influencing the perception of the self. The major emphasis and factor of the self is the person's own perceptions. The self then develops and emerges as a set of attitudes a person holds toward his own behavior patterns.²⁸

Rogers theorizes that a person is continually seeking methods for self-improvement in an ever-changing world of experiences. All experiences, consciously perceived or not, fit into this frame of reference and are used to develop the self concept. He believes that all motivation for behavior lies within the individual's self concept. As a person moves through experiences and interacts with the environment, a basis for self-evaluation is formed.²⁹

Under certain conditions, people change their self-evaluation or self concept after success or failure. These changes are most likely to involve self-ratings on the task itself or on a particular characteristic and are least

²⁸Hubert Bonner, Psychology of Personality (New York: Ronald Press, 1961), pp. 467-468.

²⁹Carl R. Rogers, On Becoming a Person (Boston: Houghton Mifflin, 1961), pp. 284-285.

likely to involve reports on global self-regard. The latter seems to be affected very little, if any, by a single failure or evaluation. There is some evidence that a self concept changes upward more frequently after success than downward after failure.³⁰

The following points are implicit in considering the self concept: (1) the individual's self concept is based on his perception of the way others are responding to him; (2) the individual's self concept functions to direct his behavior; and (3) the individual's perception of the responses of others toward him reflects the actual responses of others toward him. Consequently, the individual's self concept guides or influences behavior, while simultaneously the self concept also emerges.³¹

While the self concept is affected by the experiences one has had, the concept of one's self also influences the manner in which one approaches and utilizes new experiences. It has been found that people with high self-esteem tend to report having more life experiences that were pleasurable than people with low self concepts. Individuals with high self-esteem are more apt to report that negative experiences have led to positive growth. In

³⁰Ruth C. Wylie, The Self Concept (Lincoln: University of Nebraska Press, 1961), p. 198.

³¹Fitts, p. 13.

another study, it was found that subjects with a high self concept described their childhood experiences more positively than subjects with a low self concept. Both of these studies demonstrate the central importance of interpersonal relationships to the self concept.³²

The growth of self-esteem through risk-taking activities might raise the women's vocational determination and self concept. Self concept has been found to be important for young women in the area of vocational maturity, according to Putnam and Hansen. Without work tradition and with few role models, a young woman must learn her functions in society. She somehow must develop a self concept that allows her to express a realistic vocational preference. Researchers have found that the higher a woman's self concept is, the higher her level of vocational maturity will be. Also, girls tend to be somewhat vocationally immature in comparison with their male classmates and have a lower self concept than the male individual. Therefore, vocational development is synonymous with the development of the self concept. A girl's occupational choice will be an implementation of her self concept.³³

³²Ibid., p. 36.

³³Barbara A. Putnam and James C. Hansen, "Relationship of Self Concept and Feminine Role Concept to Vocational Role Concept to Vocational Maturity in Young Women," Journal of Counseling Psychology, XIX (May, 1972), 437.

A study done by Frankel examines the conflicts resulting between feminine sex-role behavior which requires dependence and achievement motivation which relies on independence. She found a significant relationship between a positive self concept and achievement-oriented behavior.³⁴

Self Concept and Physical Activities

Almost all of the research dealing with self concept has been conducted in the areas of education (formal, academic) and in counseling situations. Occasionally, physical education research has dealt with the self concept of individuals who are learning a new skill.

Lay studied swimming to determine the effects of learning to swim on college students' self concepts. The Tennessee Self Concept Scale shows significant differences between the pretest and posttest scores of the group that learned to swim compared to those who did not learn to swim.³⁵

The self-acceptance of nonswimming junior high school girls was assessed by the Burger Self Acceptance Scale. The experimental group had swimming lessons for six

³⁴Phyllis M. Frankel, "Sex-Role Attitudes and the Development of Achievement Need in Women," Journal of College Student Personnel, XV (March, 1974), 114-119.

³⁵Nancy E. Lay, "The Effect of Learning to Swim on the Self Concept of Men and Women" (unpublished Doctoral dissertation, Florida State University, 1970).

weeks while the control group played a volleyball tournament. A significant difference appeared between the pretest and posttest scores indicating an increase after acquiring the swimming skills.³⁶

Research involving female college swimmers and non-swimmers before and after a ten week basic swimming instruction program contradicts the above two studies. The results of the Tennessee Self Concept Scale did not indicate a change in the total self concept of the subjects as a result of the swimming instruction.³⁷

The effects of a postural training program for college women was researched by Reiter, using the Tennessee Self Concept Scale for pretesting and posttesting. Two different instructors were used for the experimental groups and the results found an increase in their self concepts.³⁸

The relationship of physical fitness to general self-esteem and attitudes toward participation in voluntary physical activities was studied in adolescent boys. High

³⁶G. Gourley, "Self-acceptance in Relation to the Acquisition of Swimming Skill," Completed Research in Health, Physical Education and Recreation (Washington, D.C.: American Association of Health, Physical Education and Recreation, 1970), p. 221.

³⁷Maryl F. Hurley, "The Effects of Basic Swimming Instruction Upon Self Concept" (unpublished Master's thesis, University of Montana, 1971).

³⁸M. J. Reiter, "The Effects of Postural Training on the Self Concept of Selected College Women" (unpublished Doctoral dissertation, University of Utah, 1972).

levels of fitness were compared to low levels of fitness, but no significant difference in general self-esteem was found using the Guttman Scale.³⁹

Sorensen researched the effects of strength training on the self concept of seventh grade boys. Using the Tennessee Self Concept Scale, positive changes were found and attributed to the special strength training program.⁴⁰

Self concept has also been researched comparing and contrasting particular skills. The open skills of wrestling and fencing and the closed skills of swimming and gymnastics were used to compare the participants' levels of self concept. No significant difference was found in the self concept level between these open and closed skills using the Butler-Haigh Self-Ideal Q Sort Scale.⁴¹

Modern dance was found to have positive effects on a student's concept when it was compared to the traditional required physical education curriculum. The special modern dance program was implemented for a semester and the

³⁹Daniel C. Neale, Robert J. Sonstroem, and Kenneth E. Metz, "Physical Fitness, Self-Esteem, and Attitudes Toward Physical Activity," Research Quarterly, LX (December, 1969), 743-749.

⁴⁰Wayne J. Sorensen, "The Effects of a Special Strength Training Program and Peer Approval of Seventh Grade Boys" (unpublished Master's thesis, Brigham Young University, 1974).

⁴¹Jerald B. Hoffstein, "The Difference in Self Concept Between Open and Closed Skilled Participants" (unpublished Master's thesis, Springfield College, 1974).

Tennessee Self Concept Scale was used for the pretesting and posttesting.⁴²

When Hatha yoga and judo were offered as elective physical education activities, Dreher found female students enrolling in these classes to be representative of the general student population in terms of personality and self concept. However, male students enrolled in these activities were somewhat different from the general student population in these same respects. Using the Tennessee Self Concept Scale, both male and female students in the control classes had no significant differences in their self concepts when compared with the control groups.⁴³

As was mentioned in Chapter 1, Pyecha investigated the psychological effects of judo when taken as a college physical education activity class. He found there were changes in personality traits as a result of taking a judo class.⁴⁴

⁴²Susan Puretz, "A Comparison of the Effects of Dance and Physical Education on the Self Concept of Selected Disadvantaged Girls" (unpublished Doctoral dissertation, New York University, 1973).

⁴³Edward Dreher, "The Effects of Hatha Yoga and Judo on Personality and Self Concept Profiles of College Men and Women" (unpublished Doctoral dissertation, University of Utah, 1973).

⁴⁴Pyecha, pp. 426-431.

Self Concept and Outward Bound

The belief that we acquire self-knowledge through challenge is the basis of the Outward Bound program. Organized around a risk activity suitable to the geographic location (i.e., mountain climbing, canoeing, ocean sailing), the course offered by each school provides adventure in an outdoor setting which imparts a sense of thrill through danger. This adventure is the working through and progression of various stages of danger--from danger to confidence, control, exhilaration and self-satisfaction. The participant stretches his capacity to learn and finds there are no limits to his efforts, unless he limits himself. These learning experiences are then theorized to have carry-over value to life's daily activities.

Koepke researched the effects of an Outward Bound program and assessed the impact of its physically and psychologically stressful experiences on the anxiety and self concept of forty-five participants. A twenty-three day Colorado Outward Bound experience was used to determine what changes had taken place at the conclusion of the course. The research determined that the participants viewed themselves more positively and considered their

participation as narrowing the gap between real and ideal perceptions of themselves.⁴⁵

⁴⁵Sharon M. Koepke, "The Effects of Outward Bound Participation Upon Anxiety and Self Concept" (unpublished Master's thesis, Pennsylvania State University, 1973).

Chapter 3

METHODS AND PROCEDURES

SURVEY SAMPLE

The data for this study were collected during the fall semester, 1977, at Middle Tennessee State University. The collection of pretest data was accomplished during the first and second class meetings of the semester. The post-test data were obtained during the last week of the semester. The Tennessee Self Concept Scale was used for pretesting and posttesting. The subjects for this study were 140 students enrolled at Middle Tennessee State University. The subjects were selected on the basis of their enrollment in Scuba Diving, Canoeing, Bowling, Bait Casting, Modern Dance, and Effective Living. These particular classes were selected for inclusion in this study on the basis of rankings given by the Committee of Experts.

This committee was made up of the following people from the Department of Health, Physical Education, Recreation and Safety: Department Chairman, Safety Curriculum Coordinator, Recreation Curriculum Coordinator,

and two full-time professors. Using the Risk Recreation Form found in Appendix B, ratings were made by these committee members to determine the degree of risk associated with each of the physical education activity classes. Each activity was rated using a Likert-type scale¹ (a continuum from one to five), with a lower score denoting low risk and a higher number indicating a higher perceived risk for the activity. The five scores were then totaled and the totals were ranked for all the activities. A high total score indicated an activity with a high degree of risk as rated by the committee; a low score noted a low risk activity. The rankings, total point score, mean scores, and standard deviations of perceived risk for each activity are found in Table 1. The means for the two risk activities chosen for this study were 4.6 for Scuba Diving and 4.3 for Canoeing. Bait Casting received a mean score of 1.8, Modern Dance 1.6, and Bowling 1.6, causing their inclusion in this study as low risk activities. Table 2 shows a histogram of the judges' ratings of the risk and non-risk activities chosen for this study. It should be noted that there is only one score overlapping the risk and non-risk categories, with the average variability being less than one point for each activity. The Effective Living course was selected as the

¹Anne Anastasi, Psychological Testing (New York: Macmillan, 1959), p. 588.

Table 1
 Risk Ranking for Physical Education Activity Classes
 Taught at Middle Tennessee State University

Ranking	Class	Total Score	Mean	S.D.
1	Tumbling & Trampoline	23.5	4.7	.45
*2	Skin & Scuba Diving	23	4.6	.55
3	Springboard Diving	22.5	4.5	.50
4	Gymnastics	22	4.4	.89
*5	Basic River Canoeing	21.5	4.3	.97
6	Basic Horsemanship	20	4.0	1.0
7	Modern Gymnastics	20	4.0	1.22
8	Wrestling	17.5	3.5	1.22
9	Life Saving & Water Safety	17.5	3.5	.87
10	Karate	15.5	3.0	.74
11	Swimming	15	3.0	.71
12	Racquetball	15	3.0	.71
13	Synchronized Swimming	15	3.0	.71
14	Bicycling	15	3.0	1.00
15	Backpacking & Hiking	15	2.4	.55
16	Intermediate Swimming	14	2.8	.45
17	Track & Field Events	13.5	2.7	1.20
18	Archery & Badminton	13	2.6	.05
19	Team Games & Conditioning	12	2.4	.89
20	Intermediate Tennis	11	2.2	.84
21	Tennis	10	2.0	.71
22	Circuit Training	10	2.0	.71
23	Golf	10	2.0	.71
24	Intermediate Modern Dance	10	2.0	1.00
25	Ballet--Intermediate	10	2.0	.71
26	Tap Dance	10	2.0	1.00
*27	Bait Casting	9	1.8	.84

Table 1 (continued)

Ranking	Class	Total Score	Mean	S.D.
28	Jazz Dance	9	1.8	.84
29	Ballet--Primary	9	1.8	.84
30	Adaptive P.E.	8.5	1.7	.84
*31	Modern Dance	8	1.6	.89
*32	Bowling	8	1.6	.89
33	Social Dance	6	1.2	.05
34	Folk & Square Dance	6	1.2	.05

*Included in this experimental study

Table 2
Histogram of Risk Score Ratings for
the Selected Activities

6	X X X X X	5		
2	X X	4		
1	X	3.5		
	X	3	X X X	3
1		2	X X X	3
		1	X X X X X X X X X	9
<hr style="width: 20px; margin: 0 auto;"/> 10				<hr style="width: 20px; margin: 0 auto;"/> 15
	Risk Activities		Non-risk Activities	
	(Scuba & Canoeing)		(Bowling, Modern Dance, Bait Casting)	

control group to measure whatever effect one semester of college teaching might have on a student's self concept. Effective Living is a class offered within the Health, Physical Education, Recreation and Safety Department, yet it draws students from the entire school population.

SELECTION OF THE INSTRUMENT

The Tennessee Self Concept Scale was used as the pretest and posttest for the groups. This instrument was selected after reviewing the literature² and talking with several respected psychologists from this geographical area. One of the main problems in trying to measure one's self concept is that by definition a self concept is unique and a different entity for each person.³ Nevertheless, the Tennessee Self Concept Scale seems to be applicable to a broad range of people in that it yields a number of scores and measures, and it is highly correlated with other scales of this type.

The Tennessee Self Concept Scale is made up of 100 self-descriptive statements that the subject responds to on a five-point response scale ranging from "completely true"

²Oscar K. Burros, ed., The Seventh Mental Measurement Yearbook, Vol. I (Highland Park: Gryphon Press, 1972), pp. 364-370.

³William H. Fitts, The Self Concept and Self-Actualization (Nashville: Dede Wallace Center, 1971), p. 40.

to "completely false." Ninety of the items were taken from a large collection of self-descriptive statements. The other ten came from the Minnesota Multiphasic Personality Inventory and constitute the Self Criticism score which is a measure of overt defensiveness.⁴ The classification system involves a three-stage process of assigning each statement on the basis of the following considerations:

1. The positive or negative position of the statement relative to self-regard (self-esteem or social desirability).
2. The position of the statement within the following set of three categories constituting an internal frame of reference:
 - a. Row 1 or Identity--items pertaining to what the individual is, his Identity Self.
 - b. Row 2 or Self Satisfaction--items describing how a person feels about himself, the Judging Self.
 - c. Row 3 or Behavior--items describing what an individual does or how he acts, the Behavioral Self.
3. The position of the statement within a set of five categories of the external frame of reference:
 - a. Column A or Physical Self--items pertaining to physical attributes or functioning, sexuality, state of health, and appearance.
 - b. Column B or Moral-Ethical Self--items dealing with moral, ethical, and religious aspects of the self.

⁴Ibid., p. 43.

- c. Column C or Personal Self--items describing personal worth or adequacy, self-respect, and self-confidence.
- d. Column D or Family Self--items describing the nature of an individual's relationship with his primary group (family and close friends) and his sense of adequacy or worth in relationships with people in general.
- e. Column E or Social Self--items describing perceived sense of adequacy and relationship to others in general social interactions.⁵

There is little interpretation by an observer or scorer to arrive at scores for individuals (taking the Tennessee Self Concept Scale). Thus, interpretation of test results can be made with some confidence as long as the standardized testing procedures are followed when the test is administered.⁶

The following definitions refer to the various subscales on the Tennessee Self Concept Scale.

Total Positive Score. This is the single most important score on the Tennessee Self Concept Scale. "It reflects the overall level of self esteem." Persons with high scores tend to like themselves, feel that they are people of value and worth, have confidence in themselves, and act accordingly. People with low scores are doubtful about their own worth; see themselves as undesirable; often

⁵Ibid., p. 63.

⁶William H. Fitts, Tennessee Self Concept Scale Manual (Nashville: Counselor Recordings and Tests, 1965), p. 2.

feel anxious; depressed, and unhappy; and have little faith in themselves.⁷

Physical Self. "Here the individual is presenting his view of his body, his state of health, his physical appearance, skills, and sexuality."⁸

Moral-Ethical Self. This score describes the self from a moral-ethical frame of reference--moral worth, relationship to God, feelings of being a "good" or "bad" person, and satisfaction with one's religion or lack of it.⁹

Personal Self. This score reflects the individual's sense of personal worth, his feeling of adequacy as a person and his evaluation of his personality apart from his body or his relationships to others.¹⁰

Family Self. This score reflects one's feelings of adequacy, worth, and value as a family member. It refers to the individual's perception of self in reference to his closest and most immediate circle of associates.¹¹

Social Self. This is another "self as perceived in relation to others" category but pertains to "others" in a

⁷Ibid., p. 2.

⁸Ibid., p. 3.

⁹Ibid.

¹⁰Ibid.

¹¹Ibid.

more general way. It reflects the person's sense of adequacy and worth in his social interaction with other people in general.¹²

TEST ADMINISTRATION

The Tennessee Self Concept Scale and the Personal Data Form (Appendix C) were administered to the various groups of students enrolled in the risk, non-risk, and control class by a physical education doctoral student, Danny Davis, enrolled at Middle Tennessee State University. The pretest was administered during the second class meeting of the fall semester, 1977. The posttest was administered during the last week of classes for the fall semester. Standardized directions were read to each group before the administration of the test.

The testing took place in the various places the classes met. The time of the testing was determined by the usual class meeting times. Honest answers were encouraged by coding the Tennessee Self Concept Scale and the Personal Data Form with numbers rather than the students' names.

Objectivity and standardization were insured in the administration of the inventories by having these instructions read to the subjects from prepared cards:

¹²Ibid.

This questionnaire and inventories are both voluntary and anonymous. The numbers on your forms are to identify those students dropping or adding this class after today. You are participating in a study to investigate why individuals choose to enroll in certain college physical education classes. Hopefully, this information will help to structure physical education activity classes to meet more effectively student needs.

The entire set of instructions for the test administration is found in Appendix E.

PROCEDURES FOR TREATING DATA

The scale scores of the Tennessee Self Concept Scale were analyzed by means of a one-factor analysis of variance. The three levels of the independent variable are the risk group, the non-risk group, and the control group.

Chapter 4

ANALYSIS OF DATA

This study was concerned with the analysis of the self concept of a group of college students enrolled in risk physical education activity classes. The problem was to determine whether there would be any significant difference in the self concept of the three groups of students in selected risk physical education classes, non-risk physical education classes, and the control health class. The three groups dealt with were: (1) subjects enrolled in scuba diving and river canoeing making up the risk group, N=37, (2) subjects enrolled in modern dance, bait casting, and bowling making up the non-risk group, N=74, and (3) college students enrolled in a basic health class as the control group, N=29, for a total of 140 subjects.

Demographic information was obtained from the Personal Data Form (Appendix C) which each participant completed during the various group administrations of the pretest. The information is presented in Table 3 to describe more precisely the risk and control groups. In the risk category, 70 percent of the participants were male,

Table 3
Selected Demographic Data as Collected
on Personal Data Form

Question Number	Risk N=37	Non-risk N=74	Control N=29	All Groups N=140
1. Sex				
Male	26	29	12	68
Female	11	45	17	72
2. Age				
17-19	22	62	15	99
20-22	7	10	10	27
23-30	7	1	4	12
31-40	1	1	0	2
3. Full-time Student				
Yes	33	71	26	130
No	4	3	3	10
4. Marital Status				
Married	5	4	8	17
Cohabiting	1	0	0	1
Divorced	1	3	0	4
Single	30	67	21	118
5. Year in School				
Freshman	13	52	7	72
Sophomore	11	12	11	34
Junior	8	6	6	20
Senior	3	4	5	12
Graduate	2	0	0	2
6. Oldest Child in Family				
Yes	12	29	9	50
No	25	45	20	90
11. Father's Occupation				
None: Deceased, Disabled, Retired	5	5	4	14
Professional, Technical Managers, Officials, Proprietors	8	20	4	32
Clerical, Sales, and Kindred Workers	11	12	6	29
Craftsman, Foreman, and Kindred Workers	6	5	1	12
	3	7	8	18

Table 3 (continued)

Question Number	Risk N=37	Non-risk N=74	Control N=29	All Groups N=140
Operatives and Kindred Workers	0	7	2	9
Service Worker	0	2	1	3
Laborer	0	5	1	6
Farmer	0	5	2	7
Unable to Rank	4	5	0	10
12. Ethnic Background				
White	37	65	22	124
Black	0	8	6	14
Oriental	0	0	1	1
Other	0	1	0	1
13. Highest Educational Level Completed by Mother				
Less than High School Diploma	1	14	8	23
High School Diploma	15	33	10	58
Some College Work	12	10	4	26
College Degree	8	7	4	19
Graduate Work	0	5	1	6
Graduate Degree	1	4	2	7
No Answer	0	1	0	1
14. Highest Educational Level Completed by Father				
No High School Diploma	0	17	6	23
High School Diploma	7	18	9	34
Some College Work	9	12	5	26
College Degree	13	16	4	33
Graduate Work	0	4	2	6
Graduate Degree	8	7	1	16
No Answer	0	0	1	1
Military Service	0	0	1	1
15. Physical Education Major				
Yes	2	3	0	5
No	35	71	29	135

Table 3 (continued)

Question Number	Risk N=37	Non-risk N=74	Control N=29	All Groups N=14
22. Mother's Participation in Sports Activity				
Yes	11	16	6	33
Risk Activities--1	(1)	(0)	(0)	(1)
Non-risk Activities--1	(7)	(11)	(5)	(23)
Non-risk Activities--2	(3)	(5)	(1)	(9)
No	26	58	23	107
23. Father's Participation in Sports Activity				
Yes	19	26	10	55
Risk Activities--1	(4)	(3)	(0)	(7)
Non-risk Activities--1	(9)	(11)	(8)	(28)
Non-risk Activities--2	(6)	(12)	(2)	(20)
No	18	48	19	85
25. Enrollment in Class Due to:				
Only Activity Class Open*	0	4	0	4
Required for Your Major	1	0	11	12
A Friend is Also Taking it	1	3	0	4
Specific Interest in Activity	32	51	3	86
Suitable Time for Your Schedule	0	9	9	18
Other	0	7	6	13

*Middle Tennessee State University, 1977-78 Catalog (Murfreesboro, Tennessee), p. 26. Requirements for graduation: Area V: Health, Physical Education and Recreation--4 semester hours. This requirement is to be met by either: (1) Four semesters of physical activity courses (only one activity course may be taken per semester for General Education credit) or (2) Two semesters of physical activity courses plus Health 310 (Effective Living).

NOTE: Two semester hours of Military Science or Marching Band may be substituted for 2 hours of physical activity credit.

while only 41 percent were male in the control group. When looking at all the subjects a nearly equal percentage was in the 17-19 year old age category. The senior student status showed up as 9 percent higher in the control group when compared with the risk group. Being the oldest child in the family did not seem to have a significant effect on the activity class chosen with 32 percent in the risk group and 31 percent in the control group. The "professional" occupational category assigned to parents was 30 percent higher in the risk group when compared with the control subjects. The ethnic background indicates 100 percent white for the risk group with this percentage dropping to 76 for the control subjects. Educational levels of both mother and father were found to be much higher in the risk group, 57 percent for mothers and 81 percent for fathers, when grouping the categories "some college work" through "graduate degree." Subjects' mothers' participation in

Table 4

Summary of College Attendance Levels for
Subjects' Mothers and Fathers

	Risk	Control
Mother	57%	38%
Father	81%	41%

sports and physical activity shows 30 percent for the risk group and 2 percent for the control group. Subjects with

fathers participating in sports and physical activity show an even greater difference between the two groups, risk with 51 percent and control with 34 percent.

The statistical problem was to determine what differences might exist among the pretest scores and the differential gains of the groups on the sub-scale scores of the Tennessee Self Concept Scale: Physical Self, Moral-Ethical Self, Personal Self, Family Self, and Social Self, with the Total Positive score representing a measure of cumulative total self concept.

The data are presented in three types of tables: (1) means and standard deviations, (2) analysis of variance, and (3) in a basic histogram distribution called a "stem and leaf" plot, given for selected illustrative cases.

Table 5 gives the means and standard deviations for the five sub-scales and total positive, for each dimension (group and pre-, post-, or difference score). The difference score is computed by subtracting the posttest score from the pretest score to obtain a number representing a gain or loss score from pretesting to the posttesting. When comparing the groups, the most obvious impression derived from an inspection of this table is the remarkable closeness of the sub-scale means, total means, and standard deviations.

The risk group had a mean total positive pretest score of 265.00, while the non-risk group had a mean total

Table 5

Group Means and Standard Deviations for Pre-, Post-, and Difference Scores

Physical Self			Moral-Ethical Self			Personal Self			Family Self			Social Self			Total Positive		
Pre	Post	Dif	Pre	Post	Dif	Pre	Post	Dif	Pre	Post	Dif	Pre	Post	Dif	Pre	Post	Dif
Risk N=37																	
52.57	52.11	-.46	48.24	49.24	1.00	53.11	52.62	-.49	55.57	55.24	-.32	55.51	54.32	-1.19	265.00	263.54	-1.46
3.26	3.42	4.29	3.24	4.32	5.81	4.00	4.72	5.81	3.86	3.74	3.83	3.89	3.33	3.41	7.54	6.66	9.72
Non-risk N=74																	
51.69	52.23	.54	50.08	50.50	.41	54.73	53.24	-1.49	54.65	55.24	.60	56.05	56.20	.14	267.20	267.41	.22
3.20	3.17	3.60	4.29	4.04	4.11	4.90	5.11	5.24	4.31	3.55	4.71	3.40	3.59	4.04	8.94	7.51	10.25
Control N=29																	
51.45	51.83	.37	50.07	48.28	-.79	53.76	54.34	.58	54.52	54.31	-.21	55.14	55.66	.52	264.93	265.41	.48
2.86	3.58	3.68	4.95	4.42	5.23	4.00	4.56	3.28	3.41	4.75	5.98	3.42	3.36	3.67	10.52	9.01	10.21

positive pretest score of 267.20, and the control group had a mean total positive pretest score of 264.93. Thus, slight variations in mean pretest scores did appear.

Another way of viewing the scores is to look at the raw data in the form of a histogram called a "stem and leaf plot." For clarity, a detailed discussion of a "stem and leaf plot" is necessary. In Table 6, each individual risk group's Physical Self score is represented, with pretesting scores on the left and posttesting scores on the right. Each one-half decade score interval is given in the center column, and the last unit digit of each score is shown in the appropriate row. In each plot, the total number (N) of observations are summed. For each side, the mean, median, and first and third quartiles are given. Clearly, the pre- and post-distributions are near normal with means and median balanced as are the Q_{25} and Q_{75} quartiles.

The basic analysis scheme used is the analysis of variance (ANOVA). An excellent description of the model can be found in Dixon and Massey's, Introduction to Statistical Analysis.¹ The first testing model consisted of six sets of scores: a group of five sub-scales and the total positive; a second dimension consisted of three groups: risk, non-risk, and control. In this model, the appropriate Tennessee

¹Wilfrid J. Dixon and Frank Massey, Introduction to Statistical Analysis (New York: McGraw-Hill, 1969), pp. 150-192.

Table 6
Stem and Leaf Plots, Physical Self Scale

OBS	PRE		POST	OBS
1		48		
8		45 55700000		8
19	*****000011111000	50 00001122200000000000		23
9		55 55777		5
1		58 2		1
N=37		52.57 Mean	52.11	N=37
	53.00	Median	53.00	
	Q25	Q75	Q25	Q75
	50	55	50	54
	NON-RISK--46			
OBS	PRE		POST	OBS
20		48 9		1
		45 657000000000		12
40	*****00000000000000000000	50 00000000001111111122223333444455556666777788889999		46
13		55 5555566670000		14
1		58 1		1
N=74		51.69 Mean	52.23	N=74
	51.00	Median	53.00	
	Q25	Q75	Q25	Q75
	49	54	50	54
	CONTROL--6			
OBS	PRE		POST	OBS
1		48 0		1
3		48 550000		6
21	*****00001111100000	50 0000112220000000		17
4		55 5566		4
		58 0		1
N=29		51.45 Mean	51.83	N=29
	51.00	Median	52.00	
	Q25	Q75	Q25	Q75
	50	53	49.25	54

Self Concept Scale (five sub-scales and one total positive) score is the primary variable to be tested against group divisions for the pretest. These measures were subjected to a one-way analysis of variance for the various scale scores. These results are shown in Table 7.

The pretest means for the six scales were examined for systematic differences, among the three groups, and for within group differences. No differences were found indicating that the first hypothesis of activity group differences at the outset of the semester could not be rejected.

The ANOVA model was again used to explore the difference score for the various scales. This testing model consisted of six sets of scores; a second dimension consisted of three groups, while the third dimension consisted of the pretesting and posttesting. In this model, the appropriate Tennessee Self Concept Scale score is the primary variable to be tested against group or pre-/post-divisions. Table 8 presents these ANOVA results. No differences were found indicating that the second hypothesis of activity group differences at the end of the semester can not be rejected. The dependent variables, scale scores, did not show significant changes after the independent variable, a physical activity with a degree of risk, was applied.

An examination was conducted on the total positive score to discover what variations might exist in the data.

Table 7
ANOVA of Pretest Tennessee Self Concept Scale Scores

	Source	DF	Mean Square	F	PR > F
Physical Self	Among Groups	2	12.79	1.29	.28
	Error	137	9.94		
Moral-Ethical Self	Among Groups	2	45.80	2.61	.08
	Error	137	17.56		
Personal Self	Among Groups	2	34.56	1.70	.19
	Error	137	20.30		
Family Self	Among Groups	2	12.62	.78	.46
	Error	137	16.20		
Social Self	Among Groups	2	9.83	.78	.46
	Error	137	12.53		
Total Positive	Among Groups	2	87.01	1.09	.34
	Error	137	80.17		

Table 8
ANOVA Tennessee Self Concept Scale
Difference Scores

	Source	DF	Mean Square	F	PR > F
Physical Self	Among Groups	2	12.67	.87	.42
	Error	137	14.50		
Moral-Ethical Self	Among Groups	2	26.88	1.48	.23
	Error	137	18.20		
Personal Self	Among Groups	2	47.11	1.83	.16
	Error	137	22.98		
Family Self	Among Groups	2	13.23	.58	.56
	Error	137	22.98		
Social Self	Among Groups	2	29.70	2.04	.13
	Error	137	14.56		
Total Positive	Among Groups	2	42.46	.42	.66
	Error	137	102.11		

Table 9 presents "stem and leaf plots" for the three groups for pretesting and posttesting. Simple calculations show combined means for risk, non-risk and control are 264.25, 267.30, and 265.17, respectively. Note, particularly, how the risk group has a total positive mean score 3.05 lower than the non-risk group. The pre-/post-stratification becomes increasingly more obvious by inspecting risk, non-risk, and finally control. The shift to higher scores is particularly noticeable in the control group's distribution. Although the "stem and leaf plots" show some interesting indications, when the means are examined by analysis of variance they are not statistically significant.

To examine this point further, the multiple testing aspect was de-emphasized by computing a posttesting minus pretesting score. This total positive difference score was examined for the three groups as illustrated in "stem and leaf plots" in Table 10. Notice, again, the risk group distribution has shifted significantly lower than the other two vectors, indicating that this group apparently has a lower total self concept, but this difference does not reach significance.

When both null hypotheses failed to be rejected, the national norms for the Tennessee Self Concept Scale were compared with the means and standard deviation scores derived from this study. A presentation of these comparisons is found in Appendix D. All of the national

Table 9

Stem and Leaf Plot

(Total Positive--Risk)

OBS	PRE		POST	OBS
			230	
			235	
1		3	240	
0			245	
1		0	250	1,1,2,4
5		9,8,8,7,5	255	6,6,6,7,8,9
10		3,1,1,1,1,1,1,1,1,0	260	0,0,1,1,3,3,3,4,4,4
7		9,9,7,7,6,6,5	265	5,5,6,6,7,7,7,7,8
9		3,2,2,1,1,1,1,0,0	270	2,2,2,4,4,4,4
4		8,6,5,5	275	
			280	
<u>N=37</u>		265.0	Mean	263.5
		265.0	Median	264.0
	Q25	Q75		Q25
	271	261		265.7
				258.5
				<u>N=37</u>

Table 9 (continued)

(Total Positive--Non-risk)

OBS	PRE		POST	OBS
			230	
			235	
			240	
			245 9	
6	4,3,3,2,1,0	250	2,3	1
5	9,8,7,6,5	255	5,5,6,6,7,7,8,9,9	9
18	4,4,4,4,3,3,2,2,2,1,1,1,1,1,0,0,0,0,	260	0,1,1,2,2,2,2,2,2,2,3,3,4,4	14
17	9,9,9,9,9,8,8,7,7,7,6,6,6,5,5,5,5	265	5,5,5,5,5,6,6,7,7,8,9,9	12
16	4,4,4,4,3,3,2,1,1,1,1,1,0,0,0,0	270	0,0,0,0,0,1,1,1,1,1,1,1,2,2,2,2,2,3,3,3,3,3,4,4,4,4	26
7	7,6,5,5,5,5,5	275	5,5,6,7,9,9	6
2	4,4	280	0,1,2,4	4
1	9	285		
1	2	290		
1	6	295		
<u>N=74</u>	267.2	Mean	267.4	<u>N=74</u>
		Median		
	267.0		269.0	
	Q25 Q75		Q25 Q75	
	261.0 272.5		262.0 273	

Table 9 (continued)

(Total Positive--Control)

OBS	PRE		POST	OBS
1		4 230		0
1		4 240		0
0		245 6		1
1		3 250 0,3,3,4		4
3		7,7,6 255 5,5,7		3
10	4 4,4,4,3,2,2,2,1,0	260 1,4		2
3		8,7,6 265 1,4		2
4		4,1,1,0 270 0,0,1,2,2,2,3		7
4		9,9,5,5 275 5,6,7		3
2		1,0 280 2		1
<hr/>				
<u>N=29</u>		264.93	Mean	265.41
		264.00	Median	267.00
	Q27	Q75	Q25	Q75
	271	261	265.7	258.5

Table 10

Stem and Leaf Plot for Total Positive Difference Score

<u>Risk</u>		OBS
-30		
-20		
-10	0,0,0,0,3,7,9,9	8
- 0	2,2,2,2,3,3,4,6,6,8,9,9	12
+ 0	0,1,1,2,2,2,3,3,4,5,5,6,8	13
+10	1,3,5	3
+20	9	1
+30		
Mean	-1.46	N=37
Median	-2.00	
Q25	-9.00	
Q75	+3.75	
<u>Non-risk</u>		OBS
-30	3	1
-20	0	1
-10	9,9,5,4,3,2,2,2,1,1,0	11
- 0	9,9,8,7,7,6,5,5,5,5,4,4,4,4,3,3,1,3,1,0,0	21
+ 0	9,9,8,8,8,7,6,6,6,5,5,5,5,5,4,4,4,2,2,1,1,1,1,0,0,0	27
+10	9,7,3,3,2,2,1,0,0,0,0	11
+20	6,0	2
+30		
		N=74
<u>Control</u>		OBS
-30		
-20	0	1
-10	1,2,7,8	4
- 0	2,3,3,4,8,9,9	7
+ 0	1,2,2,3,4,6,6,6,8,8,8,9,9	13
+10	1,2,5	3
+20	0	1
		N=29
Mean	+0.48	
Median	+2.00	
Q25	-9.00	
Q75	+8.00	

norm scores are much higher than the corresponding scores of this study's experimental groups.

In analyzing the self concept of a group of college students enrolled in risk physical education activity classes, no differences could be detected initially among the three activity groups. Furthermore, no changes were found among the groups after enrollment in the activity classes. The demographic data showed the risk group to be predominately male students generally from more highly educated, more affluent white families.

Chapter 5

SUMMARY, DISCUSSION, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The problem in this study was to investigate the effects of specific risk and non-risk college physical education classes with respect to a student's self concept. The various categories of self concept were the focus of the study. The design of the investigation required the testing of two null hypotheses:

1. Statistically, there will be no significant difference in the various self concept level measures as determined by the Tennessee Self Concept Scale at the outset of the semester between those involved in risk and non-risk activity classes and the control class.

2. There will be no significant statistical difference representing a change in the various levels of a student's self concept as measured by the Tennessee Self Concept Scale at the end of the semester of work involving risk and non-risk activities and the control class.

Data for the study were collected from students enrolled in five physical education activity classes (Scuba

Diving, Canoeing, Modern Dance, Bait Casting, and Bowling) and one health class (Effective Living) at Middle Tennessee State University during the fall semester, 1977. Specifically, the subjects used in the study were scuba diving students (N=23) and canoe students (N=14) representing the risk group (N=37). These activities were selected to typify high risk in physical activity pursuits as based on the literature, the probability of severe injury through error of the participant, and by the Committee of Experts. The non-risk category was represented by students of modern dance (N=32), bait casting (N=36), and bowling (N=26) for a total of 74. The control group, Effective Living (N=29), was used as the non-physical activity group to determine the effects of physical activity classes on the various self concept scores.

All groups were administered the Tennessee Self Concept Scale during the first and final weeks of the fall semester, 1977. During the pretest administration, a Personal Data Form was also administered to all the groups. This form provided the researcher with demographic data for each of the groups.

The Tennessee Self Concept Scale was computer scored with several tests hand-scored to double check for the accuracy of the computerized scoring program. The scoring program was found to be accurate. In analyzing the data, the acceptance level criterion was set at the .05 level.

Two ANOVA models were used to analyze the data--pretest and difference scores. Histograms in the form of "stem and leaf" plots were also used to aid in studying the data.

DISCUSSION

Self concept changes were looked for among participants involved in selected physical education classes. When high risk participants were studied in regard to self concept at the end of a semester, the particular physical activity class did not seem to make a change in a student's self concept. The risk group's lower total positive score may be viewed with more insight by looking at a detailed description of the risk group. If "professional" status assigned to parents generally equates with greater earning power, the risk group would not only be more likely to have the income to continue the risk activities of scuba diving and canoeing in the future but would also have had swimming lessons as children, enabling them to pass the demanding swimming requirements for admission into both of the risk activity classes. Overall, the picture of the risk subject is one of a younger male student coming from a generally more highly educated, more affluent white family than the rest of the population defined within this study.

Two other issues need to be considered in regard to this research. First, the testing instrument itself might not be sufficiently sophisticated to measure the anticipated

changes. The second concern is the instructors themselves. What can be said at this time is that the instructors were not influential in bringing about self concept changes. In effect, then, these instructors had no measured effect upon the experimental subjects.

An additional testing factor needs to be considered. It may well be true for this study that the posttest data would be significant at a later date; however, this is speculation and there is no available evidence to warrant this conclusion.

Since there have been no investigations such as this study, it is rather difficult to draw parallels between results of this study and other studies. Also, due to the exploratory nature of this research, it would be difficult to pursue the discussion further. Any further discussion would be highly speculative because of the lack of research in this area.

FINDINGS

The results of the study indicated the following:

1. There were no significant differences between the self concept scales of the three groups at the outset of the semester.
2. There were no significant differences among the difference scores of each group.

3. A difference was found in the groups' scale scores on the Tennessee Self Concept Scale when compared with the national norms formulated by Fitts.¹ Therefore, the two null hypotheses could not be rejected.

CONCLUSIONS

All of us behave, act, and react in terms of how we feel about and see ourselves. No evidence was found in this study indicating a change, after one semester, in a college student's self concept when engaged in risk, non-risk, or non-physical activity courses. That one semester is too short a time span for changes to show up on a paper-pencil type test is a definite possibility. The findings of the investigation lead to the conclusion that, despite some minor variations, these college students did not differ in a statistically significant way among themselves on the various scales of the Tennessee Self Concept Scale, either initially or after one semester. A minor variation appearing when comparing the groups shows a slight decline of self concept which may be related to the socioeconomic background of the risk subjects. The demographic data showed the risk group to be predominately male students generally from more highly educated, more

¹William H. Fitts, Tennessee Self Concept Scale Manual (Nashville: Counselor Recordings and Tests, 1965), p. 14.

affluent white families. Another interesting aspect identified the total group as having lower mean self concept scores than the national norms.

RECOMMENDATIONS

The following recommendations were made as a result of the investigation and review of related literature.

1. Future research is indicated with emphasis on longitudinal studies for risk physical activities and self concept.
2. A personality assessment instrument should also be used on a similar sample of subjects to provide profiles of personality in addition to the self concept measures. In addition, the perceptual characteristics of risk recreation participants should be investigated.
3. Repetition of the study in different demographic regions would allow expansion of the risk recreation category to include such activities as surfing, mountain climbing, ski jumping, and sky diving.
4. Further research into the demographic characteristics of the risk participant is necessary.

Other varied possibilities exist in the area of assessing factors within the students' affective domain. The above mentioned topics as well as many others are in need of research to provide answers in relation to physical education activities and their effects upon students. This

kind of information will lead to greater sophistication in curriculum constructions.

APPENDIXES

APPENDIX A

TENNESSEE SELF CONCEPT SCALE*

*Permission granted to use in this dissertation.

DIRECTIONS: Fill in your name and other information on the separate answer sheet.

The statements in this inventory are to help you describe yourself as you see yourself. Please answer them as if you were describing yourself to yourself. Read each item carefully; then select one of the five responses below and fill in the answer space on the separate answer sheet.

Don't skip any items. Answer each one. Use a soft lead pencil. Pens won't work. If you change an answer, you must erase the old answer completely and enter the new one.

RESPONSES

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
C	M		M	C
F	F	PF-PT	T	T
1	2	3	4	5

TENNESSEE SELF CONCEPT SCALE

1.	I have a healthy body	1
2.	I am an attractive person	2
3.	I consider myself a sloppy person	3
4.	I am a decent sort of person	4
5.	I am an honest person	5
6.	I am a bad person	6
7.	I am a cheerful person	7
8.	I am a calm and easy going person	8
9.	I am a nobody	9
10.	I have a family that would always help me in any kind of trouble	10
11.	I am a member of a happy family	11
12.	My friends have no confidence in me	12
13.	I am a friendly person	13
14.	I am popular with men	14
15.	I am not interested in what other people do	15
16.	I do not always tell the truth	16
17.	I get angry sometimes	17
18.	I like to look nice and neat all the time	18
19.	I am full of aches and pains	19
20.	I am a sick person	20

21.	I am a religious person	21
22.	I am a moral failure	22
23.	I am a morally weak person	23
24.	I have a lot of self-control	24
25.	I am a hateful person	25
26.	I am losing my mind	26
27.	I am an important person to my friends and family	27
28.	I am not loved by my family	28
29.	I feel that my family doesn't trust me	29
30.	I am popular with women	30
31.	I am mad at the whole world	31
32.	I am hard to be friendly with	32
33.	Once in a while I think of things too bad to talk about	33
34.	Sometimes when I am not feeling well, I am cross	34
35.	I am neither too fat nor too thin	35
36.	I like my looks just the way they are	36
37.	I would like to change some parts of my body	37
38.	I am satisfied with my moral behavior	38
39.	I am satisfied with my relationship to God	39
40.	I ought to go to church more	40
41.	I am satisfied to be just what I am	41
42.	I am just as nice as I should be	42
43.	I despise myself	43
44.	I am satisfied with my family relationships	44
45.	I understand my family as well as I should	45
46.	I should trust my family more	46
47.	I am as sociable as I want to be	47
48.	I try to please others, but I don't overdo it	48
49.	I am no good at all from a social standpoint	49
50.	I do not like everyone I know	50
51.	Once in a while, I laugh at a dirty joke	51
52.	I am neither too tall nor too short	52
53.	I don't feel as well as I should	53
54.	I should have more sex appeal	54
55.	I am as religious as I want to be	55
56.	I wish I could be more trustworthy	56
57.	I shouldn't tell so many lies	57
58.	I am as smart as I want to be	58
59.	I am not the person I would like to be	59
60.	I wish I didn't give us as easily as I do	60
61.	I treat my parents as well as I should (Use past tense if parents are not living)	61
62.	I am too sensitive to things my family say	62
63.	I should love my family more	63
64.	I am satisfied with the way I treat other people	64
65.	I should be more polite to others	65
66.	I ought to get along better with other people	66
67.	I gossip a little at times	67
68.	At times I feel like swearing	68
69.	I take good care of myself physically	69

70.	I try to be careful about my appearance	70
71.	I often act like I am "all thumbs"	71
72.	I am true to my religion in my everyday life	72
73.	I try to change when I know I'm doing things that are wrong	73
74.	I sometimes do very bad things	74
75.	I can always take care of myself in any situation	75
76.	I take the blame for things without getting mad	76
77.	I do things without thinking about them first	77
78.	I try to play fair with my friends and family	78
79.	I take a real interest in my family	79
80.	I give in to my parents (Use past tense if parents are not living)	80
81.	I try to understand the other fellow's point of view	81
82.	I get along well with other people	82
83.	I do not forgive others easily	83
84.	I would rather win than lose in a game	84
85.	I feel good most of the time	85
86.	I do poorly in sports and games	86
87.	I am a poor sleeper	87
88.	I do what is right most of the time	88
89.	I sometimes use unfair means to get ahead	89
90.	I have trouble doing the things that are right	90
91.	I solve my problems quite easily	91
92.	I change my mind a lot	92
93.	I try to run away from my problems	93
94.	I do my share of work at home	94
95.	I quarrel with my family	95
96.	I do not act like my family thinks I should	96
97.	I see good points in all the people I meet	97
98.	I do not feel at ease with other people	98
99.	I find it hard to talk with strangers	99
100.	Once in a while I put off until tomorrow what I ought to do today	100

APPENDIX B
RISK RECREATION FORM

A NEW CONCEPT IN PHYSICAL EDUCATION AND RECREATION DEALS WITH CURRICULUM ACTIVITIES CALLED "RISK RECREATION."

If you were dividing the Middle Tennessee State University service program into several divisions of activities, which would you include in the risk category and which would be included in the non-risk category?

Please rank each activity with a number from 1 to 5.

1	2	3	4	5
NON-RISK			RISK	

Risk--"the possibility of suffering harm or loss; danger."*

- | | |
|---------------------------------|----------------------------------|
| TEAM GAMES AND CONDITIONING ___ | MODERN DANCE ___ |
| FOLK AND SQUARE DANCE ___ | GOLF ___ |
| ARCHERY AND BADMINTON ___ | SWIMMING ___ |
| SOCIAL DANCE ___ | INTERMEDIATE SWIMMING ___ |
| TENNIS ___ | INTERMEDIATE MODERN DANCE ___ |
| CIRCUIT TRAINING ___ | INTERMEDIATE TENNIS ___ |
| BOWLING ___ | BASIC HORSEMANSHIP ___ |
| TRACK AND FIELD EVENTS ___ | SKIN AND SCUBA DIVING ___ |
| KARATE ___ | BASIC RIVER CANOEING ___ |
| BAIT CASTING ___ | LIFE SAVING AND WATER SAFETY ___ |

*Peter Davies, ed., The American Heritage Dictionary of the English Language (New York: Dell, 1973), p. 608.

BICYCLING ____
BACKPACKING AND HIKING ____
GYMNASTICS ____
RACQUETBALL ____
WRESTLING ____
MODERN GYMNASTICS ____
SPRINGBOARD DIVING ____

SYNCHRONIZED SWIMMING ____
BALLET--PRIMARY ____
BALLET--INTERMEDIATE ____
JAZZ DANCE ____
TAP DANCE ____
ADAPTIVE PHYSICAL
EDUCATION ____
TUMBLING AND TRAMPOLING ____

APPENDIX C

PERSONAL DATA FORM

This questionnaire is to be used to investigate why individuals choose to enroll in certain college physical education classes.

1. Sex: Male Female
2. Age: 17-19 20-22 23-30 31-40
 Over 40
3. Are you a full-time student at MTSU? Yes No
4. Marital status: Married Single
 Cohabiting Separated
 Divorced Widowed
5. Year in school: Freshman Senior
 Sophomore Graduate
 Junior
6. Are you the oldest child in your family? Yes No
7. Are you an only child? Yes No
8. Including yourself, how many children are in your family?
 1 4 7 or more
 2 5
 3 6
9. Which child were you?
 1st child 4th child 7th or later
 2nd child 5th child
 3rd child 6th child
10. What religious faith were you brought up in? _____
11. Father's occupation: _____
12. Ethnic background:
 White Spanish surname
 Black American Indian
 Oriental Other: _____

13. What is the highest educational level completed by your mother?

- | | |
|--|--|
| <input type="checkbox"/> Less than high school diploma | <input type="checkbox"/> College degree |
| <input type="checkbox"/> High school diploma | <input type="checkbox"/> Graduate work |
| <input type="checkbox"/> Some college work | <input type="checkbox"/> Graduate degree |

14. What is the highest educational level completed by your father?

- | | |
|--|--|
| <input type="checkbox"/> Less than high school diploma | <input type="checkbox"/> College degree |
| <input type="checkbox"/> High school diploma | <input type="checkbox"/> Graduate work |
| <input type="checkbox"/> Some college work | <input type="checkbox"/> Graduate degree |

15. a. Is your major Physical Education? Yes No

b. If you are not a Physical Education major, what is your major? _____

16. Estimate your overall grade point average in the classes you have completed at the college level.

- | | |
|----------------------------------|---|
| <input type="checkbox"/> 4.0-3.5 | <input type="checkbox"/> 2.4-2.0 |
| <input type="checkbox"/> 3.4-3.0 | <input type="checkbox"/> Below 2.0 |
| <input type="checkbox"/> 2.9-2.5 | <input type="checkbox"/> Unable to estimate |

17. Name the sport or physical activity in which you are most skilled. _____

18. What is your favorite sport or physical activity in which you participate? _____

19. Do you have a favorite spectator sport? Yes No
If you do, what is it? _____

20. On the average, how often do you participate in your favorite sport or physical activity?

- | | |
|---|---|
| <input type="checkbox"/> 4 or more times per week | <input type="checkbox"/> Once a month |
| <input type="checkbox"/> 1-3 times per week | <input type="checkbox"/> Less than once a month |
| <input type="checkbox"/> Every other week | |

21. List other physical activities or sports you participate in.

22. Does your mother participate in any sport or physical activity?

Yes No
If so, please list. _____

23. Does your father participate in any sport or physical activity?

Yes No
If so, please list. _____

24. This class is:

<input type="checkbox"/> Scuba Diving	<input type="checkbox"/> Bait Casting
<input type="checkbox"/> Canoeing	<input type="checkbox"/> Modern Dance
<input type="checkbox"/> Bowling	<input type="checkbox"/> Effective Living

25. Why did you enroll in this subject?

Only activity class open
 Required for your major
 A friend is also taking it
 Specific interest in the activity
 Suitable time for your schedule
 Other (what?) _____

26. List other college level Physical Education activity classes you have taken. _____

27. Given the opportunity, time, money, and skill, on the average, how often would you actually participate in the following activities?

1. 4 or more times per week	4. Once a month
2. 1-3 times per week	5. Less than once a month
3. Every other week	6. Never

<input type="checkbox"/> Tennis	<input type="checkbox"/> Volleyball	<input type="checkbox"/> Ski jumping
<input type="checkbox"/> Swimming	<input type="checkbox"/> Track events	<input type="checkbox"/> Canoeing
<input type="checkbox"/> Cave Exploring	<input type="checkbox"/> Water polo	<input type="checkbox"/> Horseshoes
<input type="checkbox"/> Wrestling	<input type="checkbox"/> Baseball	<input type="checkbox"/> Weight lifting
<input type="checkbox"/> Golf	<input type="checkbox"/> Water skiing	<input type="checkbox"/> Car racing
<input type="checkbox"/> Cycling (Bicycle)	<input type="checkbox"/> Soccer	<input type="checkbox"/> Dance
<input type="checkbox"/> Handball	<input type="checkbox"/> Sky diving	<input type="checkbox"/> Kayaking
<input type="checkbox"/> Ping pong	<input type="checkbox"/> Football	<input type="checkbox"/> Badminton
<input type="checkbox"/> Field events	<input type="checkbox"/> Gymnastics	<input type="checkbox"/> Judo
<input type="checkbox"/> Boxing	<input type="checkbox"/> Sailing	<input type="checkbox"/> Archery
<input type="checkbox"/> Fencing	<input type="checkbox"/> Bowling	<input type="checkbox"/> Scuba diving
<input type="checkbox"/> Surfing	<input type="checkbox"/> Karate	<input type="checkbox"/> Basketball
<input type="checkbox"/> Jogging	<input type="checkbox"/> Rock climbing	<input type="checkbox"/> Flying

28. Of the preceding activities, which of the following is the primary reason you have not previously engaged in the activities you were mainly interested in?

- | | | | |
|--------------------------|--------------------------|--------------------------|------------------|
| <input type="checkbox"/> | Lack of money | <input type="checkbox"/> | Lack of courage |
| <input type="checkbox"/> | Lack of opportunity | <input type="checkbox"/> | Lack of interest |
| <input type="checkbox"/> | Lack of parental consent | <input type="checkbox"/> | Lack of time |
| <input type="checkbox"/> | Other _____ | | |

29. What, if any, specific physical recreational activities do you plan to engage in within the near future?

- | | | |
|--|--|---|
| <input type="checkbox"/> Tennis | <input type="checkbox"/> Volleyball | <input type="checkbox"/> Ski jumping |
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Track events | <input type="checkbox"/> Canoeing |
| <input type="checkbox"/> Cave exploring | <input type="checkbox"/> Water polo | <input type="checkbox"/> Horseshoes |
| <input type="checkbox"/> Wrestling | <input type="checkbox"/> Baseball | <input type="checkbox"/> Weight lifting |
| <input type="checkbox"/> Golf | <input type="checkbox"/> Water skiing | <input type="checkbox"/> Car racing |
| <input type="checkbox"/> Cycling (Bicycle) | <input type="checkbox"/> Soccer | <input type="checkbox"/> Dance |
| <input type="checkbox"/> Handball | <input type="checkbox"/> Sky diving | <input type="checkbox"/> Kayaking |
| <input type="checkbox"/> Ping pong | <input type="checkbox"/> Football | <input type="checkbox"/> Badminton |
| <input type="checkbox"/> Field events | <input type="checkbox"/> Gymnastics | <input type="checkbox"/> Judo |
| <input type="checkbox"/> Boxing | <input type="checkbox"/> Sailing | <input type="checkbox"/> Archery |
| <input type="checkbox"/> Fencing | <input type="checkbox"/> Bowling | <input type="checkbox"/> Scuba diving |
| <input type="checkbox"/> Surfing | <input type="checkbox"/> Karate | <input type="checkbox"/> Basketball |
| <input type="checkbox"/> Jogging | <input type="checkbox"/> Rock climbing | <input type="checkbox"/> Flying |

APPENDIX D

COMPARISON OF MEAN, STANDARD DEVIATION, AND
VARIANCE SCORES OF STUDY GROUP TO
NATIONAL NORMS

Tennessee Self Concept Scales		Experimental Groups	Standardized Norms	Reliability*
Physical Self	Mean	51.98	71.78	.87
	SD	3.22	7.67	
	Variance	10.39	58.83	
Moral-Ethical Self	Mean	49.57	70.33	.80
	SD	4.21	8.70	
	Variance	17.75	75.69	
Personal Self	Mean	53.63	64.55	.85
	SD	4.72	7.41	
	Variance	22.27	54.91	
Family Self	Mean	54.92	70.83	.89
	SD	3.93	8.43	
	Variance	15.43	71.06	
Social Self	Mean	55.48	68.14	.90
	SD	3.53	7.86	
	Variance	12.44	61.78	
Total Positive	Mean	265.58	345.57	.67
	SD	8.37	12.42	
	Variance	70.02	942.49	

*"Reliability data based on test-retest with 60 college students over a two week period." William H. Fitts, Tennessee Self Concept Scale Manual (Nashville: Counselor Recordings and Tests, 1965), p. 14.

APPENDIX E

TEST ADMINISTRATION INSTRUCTIONS

Several days before the pretest, obtain the class roll sheet and put a student number beside each name. The student numbers should come from those listed on the front of each folder for each class.

PRE-TESTING

Pass out testing forms reading the names from the roll sheet--be sure to have a code number beside each student's name--be sure code numbers from the roll sheet correspond with the test form you give to each student. "THIS QUESTIONNAIRE AND INVENTORIES ARE BOTH VOLUNTARY AND ANONYMOUS. THE NUMBERS ON YOUR FORMS ARE TO IDENTIFY THOSE STUDENTS DROPPING OR ADDING THIS CLASS AFTER TODAY. YOU ARE PARTICIPATING IN A STUDY TO INVESTIGATE WHY INDIVIDUALS CHOOSE TO ENROLL IN CERTAIN COLLEGE PHYSICAL EDUCATION CLASSES. HOPEFULLY, THIS INFORMATION WILL HELP TO STRUCTURE PHYSICAL EDUCATION ACTIVITY CLASSES TO MORE EFFECTIVELY MEET STUDENT NEEDS. BEGIN WITH THE PERSONAL DATA FORM (Hold one up for them to see). ANSWER EVERY QUESTION PLEASE. (Pass out #2 pencils. Only #2 pencils can be used.) HERE ARE THE PENCILS TO BE USED. (They then fill out the Personal Data form.) HAS EVERYONE FINISHED?"

(Collect the Personal Data forms from them when they have finished.) "EVERYONE TAKE THE TENNESSEE SELF CONCEPT SCALE. THE STATEMENTS IN THIS INVENTORY ARE TO HELP YOU DESCRIBE YOURSELF AS YOU SEE YOURSELF. PLEASE ANSWER THEM

AS IF YOU WERE DESCRIBING YOURSELF TO YOURSELF. READ EACH ITEM CAREFULLY: THEN SELECT ONE OF THE FIVE RESPONSES BELOW AND FILL IN THE ANSWER SPACE ON THE SEPARATE ANSWER SHEET. DO NOT SKIP ANY ITEMS. ANSWER EACH ONE. USE A SOFT LEAD PENCIL. PENS WILL NOT WORK. IF YOU CHANGE AN ANSWER, YOU MUST ERASE THE OLD ANSWER COMPLETELY AND ENTER THE NEW ONE. YOU MAY CAREFULLY TEAR THE SHEETS APART TO FACILITATE THE ANSWERING OF THE QUESTIONS. ANSWER ON THE LARGE GREEN ANSWER SHEET THAT YOU JUST DETACHED FROM THE STATEMENTS. BE SURE TO USE A #2 PENCIL. (Be sure that they are answering on the Self Concept Scale answer sheet.) HAS EVERYONE FINISHED?" (When they finish, collect these separately. The statements in one stack--these can then be disposed of somewhere where students are not likely to find them--the answer sheets collected in another stack--don't even consider throwing these away. This concludes the testing.)

For Canoeing, Scuba, and Bowling:

"YOU MAY STAND AND STRETCH FOR A FEW MOMENTS. CHAT OR WALK AROUND." (Pass out the I and P Inventory. Purple mark in the corner.) "DO NOT MARK ON THIS INTEREST AND PREFERENCE TEST: MARK ONLY ON THE 3M ANSWER SHEET WITH THE PURPLE MARK IN THE CORNER. EACH OF THE ITEMS BELOW CONTAINS TWO CHOICES, A AND B. PLEASE INDICATE ON YOUR ANSWER SHEET WHICH OF THE CHOICES MOST DESCRIBES YOUR LIKES OR THE WAY YOU FEEL. IN SOME CASES, YOU MAY FIND ITEMS IN WHICH BOTH CHOICES DESCRIBE YOUR LIKES OR FEELINGS. PLEASE CHOOSE THE ONE WHICH BETTER DESCRIBES YOUR LIKES OR FEELINGS. IN SOME CASES, YOU MAY FIND ITEMS IN WHICH YOU DO NOT LIKE EITHER CHOICE. IN THESE CASES MARK THE CHOICE YOU DISLIKE LEAST. DO NOT LEAVE ANY ITEMS BLANK. DO NOT PUT YOUR NAME ON THE ANSWER SHEET. IT IS IMPORTANT THAT YOU RESPOND TO ALL ITEMS WITH ONLY ONE CHOICE, A OR B. WE ARE INTERESTED ONLY IN YOUR LIKES OR FEELINGS, NOT IN HOW OTHERS FEEL ABOUT THESE THINGS OR HOW ONE IS SUPPOSED TO FEEL. THERE ARE NO RIGHT OR WRONG ANSWERS AS IN OTHER KINDS OF TESTS. BE FRANK AND GIVE YOUR HONEST APPRAISAL OF YOURSELF. . . . HAS EVERYONE FINISHED?" (When they have finished, collect the tests and then in another stack the answer sheets. Now pass out the L/C with the green mark in the corner.) "DO NOT MARK ON THIS INVENTORY, MARK ONLY ON THE 3M ANSWER SHEET WITH THE GREEN MARK IN THE CORNER. FOR EACH OF THE FOLLOWING ITEMS, READ THROUGH BOTH SENTENCES. THEN DECIDE WHICH STATEMENT IS

MORE TRUE FOR YOU, AS FAR AS YOUR OWN EXPERIENCE IS CONCERNED. IF YOU THINK STATEMENT 'A' IS MORE TRUE FOR YOU, FILL IN SPACE 'A' ON THE ANSWER SHEET ON THE APPROPRIATE LINE. IF YOU THINK STATEMENT 'B' IS MORE TRUE, FILL IN SPACE 'B' ON THE ANSWER SHEET. . . . HAS EVERYONE HAD TIME TO FINISH?" (Collect the answer sheets and then the question forms.) "THIS CONCLUDES OUR TESTING, THANK YOU AND THANK YOU, (teacher's name), FOR THE HELP YOU HAVE BEEN ON THIS STUDY."

APPENDIX F

PERSONAL DATA FORM INFORMATION

RISK

<u>Column Number</u>	<u>Question Number</u>		
1	1. Sex	1 = Male	27
		2 = Female	11
2	2. Age	1 = 17-19	23
		2 = 20-22	7
		3 = 23-30	7
		4 = 31-40	1
		5 = Over 40	0
3	3. Full-time MTSU Student?	0 = No Answer	
		1 = Yes	34
		2 = No	4
4	4. Marital Status	1 = Married	5
		2 = Cohabiting	1
		3 = Divorced	1
		4 = Single	31
		5 = Separated	
		6 = Widowed	
		7 = No Answer	
5	5. Year in School	1 = Freshman	13
		2 = Sophomore	11
		3 = Junior	8
		4 = Senior	3
		5 = Graduate	3
6	6. Oldest Child in the Family	1 = Yes	12
		2 = No	26
7	7. Only Child	1 = Yes	12
		2 = No	35
8	8. Number of Children in Family	1 = 1	3
		2 = 2	10
		3 = 3	10
		4 = 4	6
		5 = 5	2
		6 = 6	4
		7 = 7 or more	3

<u>Column Number</u>	<u>Question Number</u>		
9	9.	Which Child are You?	
		1 = 1st	12
		2 = 2nd	10
		3 = 3rd	9
		4 = 4th	4
		5 = 5th	1
		6 = 6th	1
		7 = 7th or later	2
10	10.	Religious Faith	
		0 = None or No Answer	
		1 = Baptist	8
		2 = Methodist	8
		3 = Church of Christ	2
		4 = Assembly of God	
		5 = Pentecostal	
		6 = Presbyterian	6
		7 = Other Christian	14
		8 = Non-Christian	
11	11.	Father's Occupation	
		0 = None--deceased, disabled, retired	5
		1 = Professional, technical	8
		2 = Managers, officials, proprietors	11
		3 = Clerical, sales and kindred	6
		4 = Craftsman, foreman and kindred	3
		5 = Operatives and kindred workers	
		6 = Service worker	
		7 = Laborer	
		8 = Farmer	
		9 = Unable to rank	5
12	12.	Ethnic Background	
		1 = White	38
		2 = Black	
		3 = Oriental	
		4 = Spanish surname	
		5 = American Indian	
		6 = Other	
13	13.	Highest Educational level completed by your mother?	
		1 = less than high school diploma	1
		2 = High school diploma	15
		3 = Some college work	12
		4 = College degree	8
		5 = Graduate work	

<u>Column Number</u>	<u>Question Number</u>		
		6 = Graduate degree	8
		7 = No answer	
14	14.	Highest educational level completed by your father?	
		1 = Less than high school diploma	
		2 = High school diploma	8
		3 = Some college work	9
		4 = College degree	13
		5 = Graduate work	0
		6 = Graduate degree	8
		7 = No answer	
		8 = Service (Military)	
15 & 16	15.	a. Is your major P.E.?	
		01 = Yes	
		02 = No	
		b. If you are not a P.E. major, what is your major?	
		00 = Undecided	5
		01 = P.E.	2
		03 = Accounting & Information Systems	2
		04 = Aerospace	2
		05 = Agriculture	2
		06 = Art	2
		07 = Biology	4
		08 = Business Education, Distributive Education and Office Administration	3
		09 = Chemistry & Physics	
		10 = Community, Regional, and Resource Development	2
		11 = Criminal Justice Administration	2
		12 = Economics and Finance	
		13 = Education and Library Service	
		14 = English	
		15 = Foreign Languages	1
		16 = Geography and Earth Sciences	3
		17 = Health	
		18 = Safety	
		19 = History	
		20 = Home Economics	
		21 = Industrial Studies	
		22 = Management and Marketing	3

Column Question
Number Number

		23 = Mass Communications	1
		24 = Mathematics and Computer Science	
		25 = Music	
		26 = Political Science	1
		27 = Philosophy	
		28 = Phsychology	
		29 = Sociology-Anthropology	
		30 = Speech and Theatre	
		31 = Physical Therapy	
		32 = Pre-professional	3
17	16. Overall Grade Point	1 = 4.0-3.5	1
		2 = 3.4-3.0	6
		3 = 2.9-3.0	17
		4 = 2.4-2.0	5
		5 = Below 2.0	
		6 = Unable to estimate	9
18 & 19	17. Sport or physical activity in which you are most skilled:		
	00 None	1	
	01 Archery		
	02 Badminton		
	03 Baseball & Softball	4	
	04 Basketball	4	
	05 Bowling		
	06 Boxing		
	07 Canoeing		
	08 Car Racing		
	09 Cave Exploring		
	10 Cycling (or bicycling)	2	
	11 Dance		
	12 Fencing		
	13 Field Events		
	14 Football	2	
	15 Flying	1	
	16 Golf		
	17 Gymnastics		
	18 Handball		
	19 Horseshoes		
	20 Jogging	1	
	21 Judo		
	22 Karate		
	23 Kayaking		
	24 Ping Pong		1
	25 Racquetball		
	26 Rock Climbing		
	27 Sailing		
	28 Scuba Diving		2
	29 Sky Diving		
	30 Soccer		
	31 Ski Jumping		
	32 Surfing		
	33 Swimming		8
	34 Tennis		1
	35 Track Events		1
	36 Water Polo		
	37 Water Skiing		5
	38 Weight Lifting		
	39 Wrestling		1
	40 Volleyball		
	41 Frisbee		
	42 Skiing		

<u>Column Number</u>	<u>Question Number</u>			
	43	Horseback Riding/ Equitation	1	54 Massage
	45	Cheerleading		55 Motocross Racing 1
	46	Ice Skating		56 Polo
	47	Yoga		57 Billards
	48	Horse Racing		58 Orienteering
	49	Fishing		59 Hiking
	50	Exercising		60 Many, Varies 1
	51	Ice Hockey		61 Surfing
	52	Shooting & Hunting		62 Hockey
	53	Boating	1	64 Cock Fighting
				65 Hiking
20 & 21	18.	Favorite Sport		
	00	None		33 Swimming 9
	01	Archery		34 Tennis 1
	02	Badminton		35 Track Events 1
	03	Baseball & Softball	3	36 Water Polo
	04	Basketball	3	37 Water Skiing 5
	05	Bowling		38 Weight Lifting
	06	Boxing		39 Wrestling
	07	Canoeing	2	40 Volleyball
	08	Car Racing		41 Frisbee 2
	09	Cave Exploring		42 Skiing
	10	Cycling (or bicycling)	1	43 Horseback Riding/ Equitation 1
	11	Dance		45 Cheerleading
	12	Fencing		46 Ice Skating
	13	Field Events		47 Yoga
	14	Football		48 Horse Racing
	15	Flying	1	49 Fishing
	16	Golf		50 Exercising
	17	Gymnastics		51 Ice Hockey
	18	Handball		52 Shooting & Hunting 1
	19	Horshoes		53 Boating 2
	20	Jogging	1	54 Massage
	21	Judo		55 Motocross Racing 1
	22	Karate		56 Polo
	23	Kayaking		57 Billards
	24	Ping Pong		58 Orienteering
	25	Racquetball	1	59 Hiking
	26	Rock Climbing		60 Many, Varies 1
	27	Sailing		61 Surfing
	28	Scuba Diving	2	62 Hockey
	29	Sky Diving		64 Cock Fighting
	30	Soccer		65 Hiking
	31	Ski Jumping		
	32	Surfing		

<u>Column Number</u>	<u>Question Number</u>				
22 & 23	19.	Favorite Spectator Sport			
	00	None	8	32	Surfing
	01	Archery		33	Swimming
	02	Badminton		34	Tennis
	03	Baseball & Softball	2	35	Track Events
	04	Basketball	3	36	Water Polo
	05	Bowling		37	Water Skiing
	06	Boxing		38	Weight Lifting
	07	Canoeing		39	Wrestling
	08	Car Racing	2	40	Volleyball
	09	Cave Exploring		41	Frisbee
	10	Cycling (or bicycling)		42	Skiing
	11	Dance		43	Horseback Riding/ Equitation
	12	Fencing		45	Cheerleading
	13	Field Events		46	Ice Skating
	14	Football	19	47	Yoga
	15	Flying		48	Horse Racing
	16	Golf		49	Fishing
	17	Gymnastics	1	50	Exercising
	18	Handball		51	Ice Hockey
	19	Horseshoes		52	Shooting & Hunting
	20	Jogging		53	Boating
	21	Judo		54	Massage
	22	Karate		55	Motocross Racing
	23	Kayaking		56	Polo
	24	Ping Pong		57	Billiards
	25	Racquetball		58	Orienteering
	26	Rock Climbing		59	Hiking
	27	Sailing		60	Many, Varies
	28	Scuba Diving		61	Surfing
	29	Sky Diving		62	Hockey
	30	Soccer		64	Cock Fighting
	31	Ski Jumping		65	Hiking
24	20.	Favorite Sport Participation			
			0 =	No Answer	1
			1 =	4 or more times per week	8
			2 =	1-3 times per week	17
			3 =	Every other week	6
			4 =	Once a month	4
			5 =	Less than once a month	2

<u>Column Number</u>	<u>Question Number</u>		
25 & 26	21.	Other physical activities or sports participated in:	
		Column 25 = number of risk activities	0 = 24
		Column 26 = number of non-risk activities	1 = 10 2 = 3 3 = 1
27	22.	Does your mother participate in any sport or physical activity?	
		0 = Deceased	
		1 = Yes	11
		2 = No	27
28	22.	Number of risk activities listed.	0 = 37 1 = 1
29	22.	Number of non-risk activities listed.	0 = 28 1 = 7 2 = 2 3 = 1
30	23.	Does your father participate in any sport or physical activity?	
		0 = Deceased	1
		1 = Yes	19
		2 = No	18
31	23.	Number of risk activities listed.	0 = 34 1 = 3 2 = 1
32	23.	Number of non-risk activities listed.	0 = 22 1 = 10 2 = 6
33	24.	This class is:	
		1 = Scuba Diving	22
		2 = Canoeing	16
		3 = Bowling	
		4 = Bait Casting	
		5 = Modern Dance	
		6 = Effective Living	

<u>Column Number</u>	<u>Question Number</u>		
34	25.	Class enrollment due to:	
		1 = Only activity class open	
		2 = Required for major	1
		3 = A friend is also taking it	1
		4 = Specific interest in activity	32
		5 = Suitable time for your schedule	
		6 = Other	2
		7 = No answer	2
35	26.	List other P.E. classes you have taken.	
		Number of risk activities.	
		0 = 34	
		1 = 4	
36	27.	Number of non-risk activities listed.	
		0 = 17	
		1 = 8	
		2 = 8	
		3 = 3	
		4 = 1	
		5 = 1	
37 & 38	28.	Number of risk activities to hopefully engage in:	
		Number = Number of risk activities to participate in 4 or more times per week and every other week.	
		0 = 0	
		1 = 5	
		2 = 3	
		3 = 5	
		4 = 2	
		5 = 5	
		6 = 5	
		7 = 4	
		8 = 2	
		9 = 3	
		10 = 2	

<u>Column Number</u>	<u>Question Number</u>	
39 & 40	27.	Number = Number of risk activities to participate in once a month and never.
		0 = 0
		1 = 2
		2 = 2
		3 = 3
		4 = 4
		5 = 5
		6 = 6
		7 = 2
		8 = 5
		9 = 3
		10 = 5
		11 = 2
41	28.	Of the preceding activities, which of the following is the primary reason you have not previously engaged in the activities you were mainly interested in?
		1 = Lack of money 2
		2 = Lack of opportunity 9
		3 = Lack of parental consent
		4 = Lack of courage
		5 = Lack of interest
		6 = Lack of time 15
		7 = Other 1
		8 = More than 1 answer 11
		9 = All of the above
42 & 43	29.	Specific physical recreational activities to be engaged in within the near future.
		Number = Number of risk activities
		1 = 4
		2 = 11
		3 = 10
		4 = 5
		5 = 5
		6 = 1
		7 = 0
		8 = 1
		9 = 1

Column Question
Number Number

44 29. Number = Number of non-risk activities.

&
45

0 = 1
1 = 1
2 = 6
3 = 5
4 = 3
5 = 5
6 = 1
7 = 5
8 = 4
9 = 3
10 = 2
11 = 0
12 = 0
13 = 0
14 = 0
15 = 1
16 = 0
17 = 1

Student Code Number

76 1 = Risk
 2 = Non-risk
 3 = Control

77 1 = Canoeing
 2 = Scuba
 3 = Bowling
 4 = Bait Casting
 5 = Modern Dance
 1 = Effective Living

78 Student Number (1st digit)

79 Student Number (2nd digit)

80 Student Number (3rd digit)

NON-RISK

<u>Column Number</u>	<u>Question Number</u>		
1	1.	Sex	1 = Male 29
			2 = Female 45
2	2.	Age	1 = 17-19 62
			2 = 20-22 10
			3 = 23-30 1
			4 = 31-40 1
			5 = Over 40
3	3.	Full-time MTSU Student?	0 = No Answer
			1 = Yes 71
			2 = No 3
4	4.	Marital Status	1 = Married 4
			2 = Cohabiting
			3 = Divorced 3
			4 = Single 67
			5 = Separated
			6 = Widowed
			7 = No Answer
5	5.	Year in School	1 = Freshman 52
			2 = Sophomore 12
			3 = Junior 6
			4 = Senior 4
			5 = Graduate
6	6.	Oldest Child in the Family	1 = Yes 29
			2 = No 45
7	7.	Only Child	1 = Yes 10
			2 = No 64
8	8.	Number of Children in Family	1 = 1 9
			2 = 2 13
			3 = 3 25
			4 = 4 11
			5 = 5 7
			6 = 6 4
			7 = 7 or more 5

<u>Column Number</u>	<u>Question Number</u>		
9	9. Which Child are You?	1 = 1st	30
		2 = 2nd	16
		3 = 3rd	17
		4 = 4th	6
		5 = 5th	3
		6 = 6th	2
		7 = 7th or later	
10	10. Religious Faith	0 = None or No Answer	2
		1 = Baptist	26
		2 = Methodist	16
		3 = Church of Christ	9
		4 = Assembly of God	1
		5 = Pentecostal	
		6 = Presbyterian	5
		7 = Other Christian	13
8 = Non-Christian	2		
11	11. Father's Occupation	0 = None--deceased, disabled, retired	5
		1 = Professional, technical	20
		2 = Managers, officials, proprietors	12
		3 = Clerical, sales and kindred	5
		4 = Craftsman, foreman and kindred	7
		5 = Operatives and kindred workers	7
		6 = Service worker	2
		7 = Laborer	5
		8 = Farmer	5
		9 = Unable to rank	5
12	12. Ethnic Background	1 = White	65
		2 = Black	8
		3 = Oriental	
		4 = Spanish surname	
		5 = American Indian	
		6 = Other	1
13	13. Highest educational level completed by your mother?	1 = Less than high school diploma	14
		2 = High school diploma	33
		3 = Some college work	10
		4 = College degree	7
		5 = Graduate work	5

<u>Column Number</u>	<u>Question Number</u>		
		6 = Graduate degree	4
		7 = No answer	
14	14.	Highest educational level completed by your father?	
		1 = Less than high school diploma	17
		2 = High school diploma	18
		3 = Some college work	12
		4 = College degree	16
		5 = Graduate work	4
		6 = Graduate degree	7
		7 = No answer	
		8 = Service (Military)	
15 & 16	15.	a. Is your major P.E.?	
		01 = Yes	
		02 = No	
		b. If you are not a P.E. major, what is your major?	
		00 = Undecided	8
		01 = P.E.	3
		03 = Accounting & Information Systems	5
		04 = Aerospace	1
		05 = Agriculture	4
		06 = Art	6
		07 = Biology	
		08 = Business Education, Distributive Education and Office Administration	2
		09 = Chemistry & Physics	
		10 = Community, Regional, and Resource Development	
		11 = Criminal Justice Administration	1
		12 = Economics and Finance	1
		13 = Education and Library Service	5
		14 = English	1
		15 = Foreign Languages	
		16 = Geography and Earth Sciences	2
		17 = Health	1
		18 = Safety	
		19 = History	1
		20 = Home Economics	2
		21 = Industrial Studies	
		22 = Management and Marketing	3

Column Question
Number Number

		23 = Mass Communications	5
		24 = Mathematics and Computer Science	1
		25 = Music	1
		26 = Political Science	1
		27 = Philosophy	
		28 = Psychology	1
		29 = Sociology-Anthropology	3
		30 = Speech and Theatre	2
		31 = Physical Therapy	1
		32 = Pre-professional	13
17	16. Overall Grade Point	1 = 4.0-3.5	3
		2 = 3.4-3.0	11
		3 = 2.9-2.5	12
		4 = 2.4-2.0	4
		5 = Below 2.0	
		6 = Unable to estimate	44
18 & 19	17. Sport or physical activity in which you are most skilled:		
	00 None	1	
	01 Archery		
	02 Badminton	2	
	03 Baseball & Softball	7	
	04 Basketball	12	
	05 Bowling	1	
	06 Boxing		
	07 Canoeing		
	08 Car Racing	1	
	09 Cave Exploring		
	10 Cycling (or bicycling)	1	
	11 Dance	12	
	12 Fencing		
	13 Field Events		
	14 Football	2	
	15 Flying		
	16 Golf		
	17 Gymnastics		
	18 Handball		
	19 Horseshoes		
	20 Jogging	1	
	21 Judo		
	22 Karate		
	23 Kayaking		
	24 Ping Pong		
	25 Racquetball		
	26 Rock Climbing		
	27 Sailing		
	28 Scuba Diving		
	29 Sky Diving		
	30 Soccer		
	31 Ski Jumping		
	32 Surfing		
	33 Swimming		10
	34 Tennis		2
	35 Track Events		1
	36 Water Polo		
	37 Water Skiing		
	38 Weight Lifting		
	39 Wrestling		
	40 Volleyball		3
	41 Frisbee		1
	42 Skiing		1

<u>Column Number</u>	<u>Question Number</u>			
	43	Horseback Riding/ Equitation	7	54 Massage
	45	Cheerleading	3	55 Motocross Racing
	46	Ice Skating	1	56 Polo
	47	Yoga		57 Billards 1
	48	Horse Racing		58 Orienteering
	49	Fishing	1	59 Hiking
	50	Exercising		60 Many, Varies
	51	Ice Hockey		61 Surfing
	52	Shooting & Hunting	1	62 Hockey
	53	Boating		64 Cock Fighting
				65 Hiking
20 & 21	18.	Favorite Sport		
	00	None	2	33 Swimming 11
	01	Archery		34 Tennis 9
	02	Badminton	2	35 Track Events 1
	03	Baseball & Softball	4	36 Water Polo
	04	Basketball	9	37 Water Skiing 2
	05	Bowling	3	38 Weight Lifting
	06	Boxing		39 Wrestling
	07	Canoeing		40 Volleyball 2
	08	Car Racing		41 Frisbee 1
	09	Cave Exploring		42 Skiing 1
	10	Cycling (or bicycling)		43 Horseback Riding/ Equitation 7
	11	Dance	13	45 Cheerleading 1
	12	Fencing		46 Ice Skating 1
	13	Field Events		47 Yoga
	14	Football		48 Horse Racing
	15	Flying		49 Fishing 2
	16	Golf		50 Exercising
	17	Gymnastics		51 Ice Hockey
	18	Handball		52 Shooting & Hunting 2
	19	Horseshoes		53 Boating
	20	Jogging		54 Massage
	21	Judo		55 Motocross Racing
	22	Karate		56 Polo
	23	Kayaking		57 Billards
	24	Ping Pong		58 Orienteering
	25	Racquetball		59 Hiking
	26	Rock Climbing		60 Many, Varies
	27	Sailing		61 Surfing
	28	Scuba Diving		62 Hockey
	29	Sky Diving		64 Cock Fighting
	30	Soccer		65 Hiking 1
	31	Ski Jumping		
	32	Surfing		

<u>Column Number</u>	<u>Question Number</u>				
22 & 23	19.	Favorite Spectator Sport			
	00	None	22	32	Surfing
	01	Archery		33	Swimming
	02	Badminton		34	Tennis
	03	Baseball & Softball	2	35	Track Events
	04	Basketball	7	36	Water Polo
	05	Bowling		37	Water Skiing
	06	Boxing		38	Weight Lifting
	07	Canoeing		39	Wrestling
	08	Car Racing		40	Volleyball
	09	Cave Exploring		41	Frisbee
	10	Cycling (or bicycling)		42	Skiing
	11	Dance		43	Horseback Riding/ Equitation
	12	Fencing		45	Cheerleading
	13	Field Events		46	Ice Skating
	14	Football	34	47	Yoga
	15	Flying		48	Horse Racing
	16	Golf	1	49	Fishing
	17	Gymnastics	1	50	Exercising
	18	Handball		51	Ice Hockey
	19	Horseshoes	1	52	Shooting & Hunting
	20	Jogging		53	Boating
	21	Judo		54	Massage
	22	Karate		55	Motocross Racing
	23	Kayaking		56	Polo
	24	Ping Pong		57	Billards
	25	Racquetball		58	Orienteering
	26	Rock Climbing		59	Hiking
	27	Sailing		60	Many, Varies
	28	Scuba Diving		61	Surfing
	29	Sky Diving		62	Hockey
	30	Soccer		64	Cock Fighting
	31	Ski Jumping		65	Hiking
24	20.	Favorite Sport Participation		0 = No Answer	4
				1 = 4 or more times per week	9
				2 = 1-3 times per week	28
				3 = Every other week	12
				4 = Once a month	9
				5 = Less than once a month	11

<u>Column Number</u>	<u>Question Number</u>		
25 & 26	21.	Other physical activities or sports participated in:	
		Column 25 = number of risk activities	0 = 63 1 = 10
		Column 26 = number of non-risk activities	0 = 13 1 = 13 2 = 11 3 = 16 4 = 19 5 = 1 6 = 1
27	22.	Does your mother participate in any sport or physical activity?	
		0 = Deceased	
		1 = Yes	16
		2 = No	58
28	22.	Number of risk activities listed.	0 = 74
29	22.	Number of non-risk activities listed.	0 = 58 1 = 11 2 = 5
30	23.	Does your father participate in any sport or physical activity?	
		0 = Deceased	1
		1 = Yes	26
		2 = No	47
31	23.	Number of risk activities listed.	0 = 71 1 = 3
32	23.	Number of non-risk activities listed.	0 = 47 1 = 12 2 = 10 3 = 2
33	24.	This class is:	
		1 = Scuba Diving	
		2 = Canoeing	
		3 = Bowling	16
		4 = Bait Casting	16
		5 = Modern Dance	32
		6 = Effective Living	

<u>Column Number</u>	<u>Question Number</u>		
34	25.	Class enrollment due to:	
		1 = Only activity class open	4
		2 = Required for major	
		3 = A friend is also taking it	3
		4 = Specific interest in the activity	51
		5 = Suitable time for your schedule	9
		6 = Other	4
		7 = No Answer	
35	26.	List other P.E. classes you have taken.	
		Number of risk activities.	0
36	26.	Number of non-risk activities listed.	
		0 = 50	
		1 = 4	
		2 = 10	
		3 = 4	
		4 = 6	
37 & 38	27.	Number of risk activities to hopefully engage in:	
		Number = Number of risk activities to participate in 4 or more times per week and every other week.	
		0 = 1	
		1 = 4	
		2 = 0	
		3 = 6	
		4 = 7	
		5 = 1	
		6 = 6	
		7 = 2	
		8 = 9	
		9 = 13	
		10 = 11	
		11 = 14	

<u>Column Number</u>	<u>Question Number</u>		
39 & 40	27.	Number = Number of risk activities to participate in once a month and never.	
		0 = 16	
		1 = 11	
		2 = 14	
		3 = 8	
		4 = 2	
		5 = 6	
		6 = 2	
		7 = 6	
		8 = 6	
		9 = 0	
		10 = 3	
41	28.	Of the preceding activities, which of the following is the primary reason you have not previously engaged in the activities you were mainly interested in?	
		0 = 1	
		1 = Lack of money	4
		2 = Lack of opportunity	18
		3 = Lack of parental consent	
		4 = Lack of courage	2
		5 = Lack of interest	3
		6 = Lack of time	33
		7 = Other	1
		8 = More than 1 answer	11
		9 = All of the above	1
42 & 43	29.	Specific physical recreational activities to be engaged in within the near future.	
		Number = Number of risk activities	
		0 = 34	
		1 = 25	
		2 = 6	
		3 = 3	
		4 = 1	
		5 = 4	
		8 = 1	

<u>Column Number</u>	<u>Question Number</u>
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44 & 45	29. Number = Number of non-risk activities.
	0 = 2
	1 = 4
	2 = 4
	3 = 8
	4 = 13
	5 = 7
	6 = 11
	7 = 8
	8 = 2
	9 = 3
	10 = 2
	11 = 3
	12 = 4
	14 = 1
	16 = 1
	17 = 1

Student Code Number

76	1 = Risk 2 = Non-risk 3 = Control
77	1 = Canoeing 2 = Scuba 3 = Bowling 4 = Bait Casting 5 = Modern Dance 1 = Effective Living
78	Student Number (1st digit)
79	Student Number (2nd digit)
80	Student Number (3rd digit)

CONTROL

<u>Column Number</u>	<u>Question Number</u>		
1	1. Sex	1 = Male	12
		2 = Female	17
2	2. Age	1 = 17-19	15
		2 = 20-22	10
		3 = 25-30	4
		4 = 31-40	
		5 = Over 40	
3	3. Full-time MTSU Student?	0 = No Answer	2
		1 = Yes	24
		2 = No	3
4	4. Marital Status	1 = Married	8
		2 = Cohabiting	
		3 = Divorced	
		4 = Single	21
		5 = Separated	
		6 = Widowed	
		7 = No Answer	
5	5. Year in School	1 = Freshman	7
		2 = Sophomore	11
		3 = Junior	6
		4 = Senior	5
		5 = Graduate	
6	6. Oldest Child in the Family	1 = Yes	9
		2 = No	20
7	7. Only Child	1 = Yes	4
		2 = No	25
8	8. Number of Children in Family	1 = 1	4
		2 = 2	8
		3 = 3	6
		4 = 4	5
		5 = 5	3
		6 = 6	3
		7 = 7 or more	3

<u>Column Number</u>	<u>Question Number</u>		
9	9. Which Child are You?	1 = 1st	9
		2 = 2nd	9
		3 = 3rd	7
		4 = 4th	1
		5 = 5th	1
		6 = 6th	
		7 = 7th or later	2
10	10. Religious Faith	0 = None or No Answer	2
		1 = Baptist	9
		2 = Methodist	7
		3 = Church of Christ	6
		4 = Assembly of God	
		5 = Pentecostal	
		6 = Presbyterian	2
		7 = Other Christian	3
8 = Non-Christian			
11	11. Father's Occupation	0 = None--deceased, disabled, retired	4
		1 = Professional, technical	4
		2 = Managers, officials, proprietors	6
		3 = Clerical, sales and kindred	1
		4 = Craftsman, foreman and kindred	8
		5 = Operatives and kindred workers	2
		6 = Service worker	1
		7 = Laborer	1
		8 = Farmer	2
9 = Unable to rank			
12	12. Ethnic Background	1 = White	22
		2 = Black	6
		3 = Oriental	1
		4 = Spanish surname	
		5 = American Indian	
		6 = Other	
13	13. Highest educational level completed by your mother?	1 = Less than high school diploma	8
		2 = High school diploma	10
		3 = Some college work	4
		4 = College degree	4
		5 = Graduate work	1

<u>Column Number</u>	<u>Question Number</u>		
		6 = Graduate degree	2
		7 = No answer	
14	14.	Highest educational level completed by your father?	
		1 = Less than high school diploma	6
		2 = High school diploma	9
		3 = Some college work	5
		4 = College degree	4
		5 = Graduate work	2
		6 = Graduate degree	1
		7 = No answer	1
		8 = Service (Military)	1
15 & 16	15.	a. Is your major P.E.?	
		01 = Yes	
		02 = No	
		b. If you are not a P.E. major, what is your major?	
		00 = Undecided	3
		01 = P.E.	
		03 = Accounting & Information Systems	1
		04 = Aerospace	2
		05 = Agriculture	2
		06 = Art	
		07 = Biology	1
		08 = Business Education, Distributive Education and Office Administration	3
		09 = Chemistry and Physics	
		10 = Community, Regional, and Resource Development	
		11 = Criminal Justice Administration	
		12 = Economics and Finance	
		13 = Education and Library Service	7
		14 = English	
		15 = Foreign languages	
		16 = Geography and Earth Sciences	
		17 = Health	
		18 = Safety	
		19 = History	
		20 = Home Economics	
		21 = Industrial Studies	
		22 = Management and Marketing	

Column Question
Number Number

		23 = Mass Communications	5
		24 = Mathematics and Computer Science	
		25 = Music	
		26 = Political Science	
		27 = Philosophy	
		28 = Psychology	3
		29 = Sociology-Anthropology	1
		30 = Speech and Theatre	1
		31 = Physical Therapy	
		32 = Pre-professional	
17	16. Overall Grade Point	1 = 4.0-3.5	2
		2 = 3.4-3.0	8
		3 = 2.9-2.5	8
		4 = 2.4-2.0	6
		5 = Below 2.0	
		6 = Unable to estimate	5
18 & 19	17. Sport or physical activity in which you are most skilled:		
	00 None	21 Judo	
	01 Archery	22 Karate	
	02 Badminton	23 Kyaking	
	03 Baseball & Softball	24 Ping Pong	1
	04 Basketball	25 Racquetball	
	05 Bowling	26 Rock Climbing	
	06 Boxing	27 Sailing	
	07 Canoeing	28 Scuba Diving	
	08 Car Racing	29 Sky Diving	
	09 Cave Exploring	30 Soccer	
	10 Cycling (or bicycling)	31 Ski Jumping	
	11 Dance	32 Surfing	
	12 Fencing	33 Swimming	4
	13 Field Events	34 Tennis	3
	14 Football	35 Track Events	
	15 Flying	36 Water Polo	
	16 Golf	37 Water Skiing	2
	17 Gymnastics	38 Weight lifting	
	18 Handball	39 Wrestling	
	19 Horseshoes	40 Volleyball	3
	20 Jogging	41 Frisbee	1
		42 Skiing	

<u>Column Number</u>	<u>Question Number</u>			
	43	Horseback Racing/ Equitation		
	45	Cheerleading		
	46	Ice Skating		
	47	Yoga		
	48	Horse Racing		
	49	Fishing		
	50	Exercising		
	51	Ice Hockey		
	52	Shooting & Hunting		
	53	Boating		
	54	Massage		
	55	Motocross Racing		
	56	Polo		
	57	Billards		
	58	Orienteering		
	59	Hiking		
	60	Many, Varies		
	61	Surfing		
	62	Hockey		
	64	Cock Fighting		
	65	Hiking		
20 & 21	18.	Favorite Sport		
	00	None		
	01	Archery		
	02	Badminton		
	03	Baseball & Softball	2	
	04	Basketball		
	05	Bowling		
	06	Boxing		
	07	Canceing		
	08	Car Racing		
	09	Cave Exploring		
	10	Bicycling (or bicycling)	1	
	11	Dance		
	12	Fencing		
	13	Field Events	2	
	14	Football		
	15	Flying	1	
	16	Golf		
	17	Gymnastics		
	18	Handball		
	19	Horseshoes		
	20	Jogging	1	
	21	Judo		
	22	Karate		
	23	Kayaking		
	24	Ping Pong		
	25	Racquetball		
	26	Rock Climbing		
	27	Sailing		
	28	Scuba Diving		
	29	Sky Diving		
	30	Soccer		
	31	Ski Jumping		
	32	Surfing		
	33	Swimming		3
	34	Tennis		3
	35	Track Events		
	36	Water Polo		
	37	Water Skiing		2
	38	Weight Lifting		
	39	Wrestling		
	40	Volleyball		3
	41	Frisbee		
	42	Skiing		1
	43	Horseback Riding/ Equitation		
	45	Cheerleading		
	46	Ice Skating		
	47	Yoga		1
	48	Horse Racing		
	49	Fishing		1
	50	Exercising		1
	51	Ice Hockey		
	52	Shooting & Hunting		
	53	Boating		
	54	Massage		
	55	Motocross Racing		
	56	Polo		
	57	Billards		
	58	Orienteering		
	59	Hiking		
	60	Many, Varies		
	61	Surfing		
	62	Hockey		
	64	Cock Fighting		
	65	Hiking		

<u>Column Number</u>	<u>Question Number</u>					
22 & 23	19.	Favorite Spectator Sport				
	00	None	2	32	Surfing	
	01	Archery		33	Swimming	
	02	Badminton		34	Tennis	1
	03	Baseball & Softball	1	35	Track Events	
	04	Basketball	11	36	Water Polo	
	05	Bowling		37	Water Skiing	
	06	Boxing		38	Weight Lifting	
	07	Canoeing		39	Wrestling	
	08	Car Racing		40	Volleyball	
	09	Cave Exploring		41	Frisbee	
	10	Cycling (or bicycling)		42	Skiing	
	11	Dance		43	Horseback/Riding Equitation	
	12	Fencing		45	Cheerleading	
	13	Field Events		46	Ice Skating	
	14	Football	13	47	Yoga	
	15	Flying		48	Horse Racing	1
	16	Golf		49	Fishing	
	17	Gymnastics		50	Exercising	
	18	Handball		51	Ice Hockey	
	19	Horseshoes		52	Shooting & Hunting	
	20	Jogging		53	Boating	
	21	Judo		54	Massage	
	22	Karate		55	Motocross Racing	
	23	Kayaking		56	Polo	
	24	Ping Pong		57	Billards	
	25	Racquetball		58	Orienteering	
	26	Rock Climbing		59	Hiking	
	27	Sailing		60	Many, Varies	
	28	Scuba Diving		61	Surfing	
	29	Sky Diving		62	Hockey	
	30	Soccer		64	Cock Fighting	
	31	Ski Jumping		65	Hiking	
24	20.	Favorite Sport Participation	0 = No Answer			
			1 = 4 or more times per week		3	
			2 = 1-3 times per week		7	
			3 = Every other week		8	
			4 = Once a month			
			5 = Less than once a month		10	
			6 = 1			

<u>Column Number</u>	<u>Question Number</u>		
25 & 26	21.	Other physical activities or sports participated in:	
		Column 25 = number of risk activities	0 = 27 1 = 2
		Column 26 = number of non-risk activities	0 = 2 1 = 2 2 = 4 3 = 8 4 = 12 5 = 1
27	22.	Does your mother participate in any sport or physical activity?	
		0 = Deceased	
		1 = Yes	6
		2 = No	23
28	22.	Number of risk activities listed.	0 = 29
29	22.	Number of non-risk activities listed.	0 = 23 1 = 5 2 = 1
30	23.	Does your father participate in any sport or physical activity?	
		0 = Deceased	
		1 = Yes	10
		2 = No	19
31	23.	Number of risk activities listed.	0
32	23.	Number of non-risk activities listed.	0 = 19 1 = 8 2 = 2
33	24.	This class is:	
		1 = Scuba Diving	
		2 = Canoeing	
		3 = Bowling	
		4 = Bait Casting	
		5 = Modern Dance	
		6 = Effective Living	29

<u>Column Number</u>	<u>Question Number</u>		
34	25.	Class enrollment due to:	
		1 = Only activity class open	
		2 = Required for major	11
		3 = A friend is also taking it	
		4 = Specific interest in the activity	4
		5 = Suitable time for your schedule	8
		6 = Other	6
35	26.	List other P.E. classes you have taken. Number of risk activities.	
		0 = 28	
		1 = 1	
36	26.	Number of non-risk activities listed	
		0 = 6	
		1 = 3	
		2 = 13	
		3 = 3	
		4 = 2	
		5 = 2	
37 & 38	27.	Number of risk activities to hopefully engage in: Number = Number of risk activities to participate in 4 or more times per week and every other week.	
		1 = 3	
		2 = 0	
		3 = 0	
		4 = 0	
		5 = 1	
		6 = 2	
		7 = 2	
		8 = 3	
		9 = 5	
		10 = 5	
		11 = 8	

<u>Column Number</u>	<u>Question Number</u>	
39 & 40	27.	Number = Number of risk activities to participate in once a month and never.
		0 = 8
		1 = 4
		2 = 6
		3 = 3
		4 = 2
		5 = 2
		6 = 1
		7 = 0
		8 = 0
		9 = 0
		10 = 3
41	28.	Of the preceding activities, which of the following is the primary reason you have not previously engaged in the activities you were mainly interested in?
		1 = Lack of money 2
		2 = Lack of opportunity 4
		3 = Lack of parental consent
		4 = Lack of courage 1
		5 = Lack of interest 2
		6 = Lack of time 11
		7 = Other 3
		8 = More than 1 answer 6
		9 = All of the above
42 & 43	29.	Specific physical recreational activities to be engaged in within the near future.
		Number = Number of risk activities.
		0 = 18
		1 = 7
		2 = 0
		3 = 1
		4 = 0
		5 = 2
		6 = 0
		7 = 1

<u>Column Number</u>	<u>Question Number</u>
44 & 45	29. Number = Number of non-risk activities. 0 = 0 1 = 0 2 = 3 3 = 2 4 = 5 5 = 4 6 = 3 7 = 5 8 = 3 9 = 0 10 = 0 11 = 0 12 = 2
	Student Code Number
76	1 = Risk 2 = Non-risk 3 = Control
77	1 = Canoeing 2 = Scuba 3 = Bowling 4 = Bait Casting 5 = Modern Dance 1 = Effective Living
78	Student Number (1st digit)
79	Student Number (2nd digit)
80	Student Number (3rd digit)

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