

University of Montana

ScholarWorks at University of Montana

Graduate Student Theses, Dissertations, &
Professional Papers

Graduate School

1974

The relationship between participation in a recreational program and self-concept of delinquent males

David Paul French

The University of Montana

Follow this and additional works at: <https://scholarworks.umt.edu/etd>

Let us know how access to this document benefits you.

Recommended Citation

French, David Paul, "The relationship between participation in a recreational program and self-concept of delinquent males" (1974). *Graduate Student Theses, Dissertations, & Professional Papers*. 9073.
<https://scholarworks.umt.edu/etd/9073>

This Thesis is brought to you for free and open access by the Graduate School at ScholarWorks at University of Montana. It has been accepted for inclusion in Graduate Student Theses, Dissertations, & Professional Papers by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact scholarworks@mso.umt.edu.

THE RELATIONSHIP BETWEEN PARTICIPATION IN A RECREATIONAL
PROGRAM AND SELF-CONCEPT OF DELINQUENT MALES

by

David P. French

B. A., University of Texas at Arlington, 1973

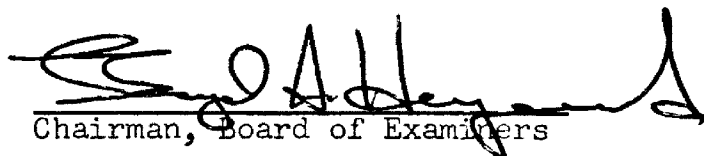
Presented in partial fulfillment of the requirements
for the degree of

Master of Science

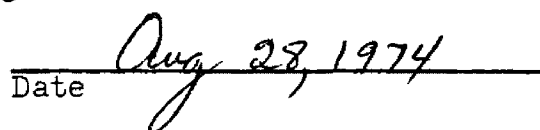
UNIVERSITY OF MONTANA

1974

Approved by:


Chairman, Board of Examiners


Dean, Graduate School


Date

UMI Number: EP39874

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI EP39874

Published by ProQuest LLC (2013). Copyright in the Dissertation held by the Author.

Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against unauthorized copying under Title 17, United States Code



ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

ACKNOWLEDGEMENTS

To my advisor, Dr. Lloyd Heywood, I express my deepest gratitude for the support offered during this period. His friendship as well as sincere concern were driving forces in the completion of this study.

My thanks also go out to Dr. John Dayries and Bob Deaton, who served on my committee and offered considerable advice during this project.

I would also like to extend my sincere appreciation to the twenty-two individuals at Swan River Youth Forest Camp for their cooperation throughout the study. The assistance provided by the counselors at the camp in collecting the data is also greatly appreciated.

Finally, to my very lovely wife, Anne, who gave up so much of her time to help me complete this thesis, and without who's constant faith and support I could not have finished the study, I offer my most endearing thanks.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
Statement of the Problem	
Hypotheses	
Significance of the Study	
Delimitations	
Limitations and Weaknesses	
Basic Assumptions	
Definitions	
II. RELATED LITERATURE	11
Self-Concept	
Definitions of Self-Concept	
Development of Self-Concept	
Self-Concept and Delinquency	
Self-Concept and Rehabilitation	
Recreation	
Definitions of Recreation	
Recreation and Self-Concept	
Recreation and Delinquency	
Recreation, Rehabilitation, and Delinquency	
Measurement of Self-Concept	
Tennessee Self Concept Scale	
Other Scales	
III. PROCEDURES	31
Subjects	
Recreational Program	
Tests and Measurements	
Information Needed	
Procedure for Collecting Data	
Organization and Treatment of Data	
IV. ANALYSIS OF DATA	38
Standardized Norm	
Hypothesis One	
Hypothesis Two	
Hypothesis Three	

Chapter	Page
V. CONCLUSIONS	52
Summary of Findings	
Discussion	
Conclusions	
Recommendations	
APPENDICES	59
A. TSCS SUB-SCALES	
B. PRE-TEST SCORES	
C. POST-TEST SCORES	
D. DIFFERENCES IN PRE- AND POST-TEST SCORES	
E. PARTICIPATION RECORDS	
F. STATISTICAL FORMULAS	
SELECTED BIBLIOGRAPHY	74

LIST OF TABLES

Table	Page
1. Comparison of TSCS Standardized Means and Pre- and Post-Test Means of SRYFC Subjects (N=22)	39
2. Pre-and Post-Test Means, Differences, and t -Tests of SRYFC Subjects (N=22)	41
3. Total Positive Score Means, Difference, and t -Score Between Initially High Self-Concept and Initially Low Self-Concept Groups	42
4. Analysis of Variance of Mean Differences in TSCS Total Positive Scores Among Low, Medium, and High Participation Groups. . . .	43
5. Analysis of Variance of Mean Differences in TSCS Physical Self Scores Among Low, Medium, and High Participation Groups. . . .	44
6. Analysis of Variance of Mean Differences in TSCS Moral-Ethical Self Scores Among Low, Medium, and High Participation Groups .	45
7. Analysis of Variance of Mean Differences in TSCS Personal Self Scores Among Low, Medium, and High Participation Groups. . . .	46
8. Analysis of Variance of Mean Differences in TSCS Family Self Scores Among Low, Medium, and High Participation Groups. . . .	47
9. Analysis of Variance of Differences in TSCS Social Self Scores Among Low, Medium, and High Participation Groups	48
10. Analysis of Variance of Mean Differences in TSCS Identity Scores Among Low, Medium, and High Participation Groups	49
11. Analysis of Variance of Mean Differences in TSCS Self Satisfaction Scores Among Low, Medium, and High Participation Groups. . . .	50
12. Analysis of Variance of Mean Differences in TSCS Behavior Scores Among Low, Medium, and High Participation Groups	51

CHAPTER I

INTRODUCTION

In social systems one finds unacceptable behavior as well as acceptable behavior. The actions which are approved are tolerated within the system, while the actions which are not considered acceptable are not allowed. When antisocial behavior exists to the degree that warrants punishment, the society determines the extent of correction necessary to prevent further antisocial actions. Usually rehabilitation is made possible through some type of correctional program. Usually this comes in the form of correctional programs designed to bring about the desired changes in the behavior.

Behavior is such a complex thing that it is unlikely that any theory has the complete answer to the causes of deviant actions. One school of thought has connected behavior with self-concept. Engle (19), Jacob (28), and Torrance (53) suggested that a person's behavior at any given time is determined by that person's own self-concept. However, this theory does not provide any suggestions or ideas for programs to redirect the deviant behavior unless it is understood how self-concept is developed.

The development of self-concept in itself is a mesh of interwoven variables that simply cannot be explained in simple terms, mainly because individuals react differently to various situations, which in turn affects

their self-concepts. Nevertheless, behavioral scientists have studied this area and have made some generalizations about this development. These authorities indicated that the formation of delinquent self-concept is dependent upon two equally influencing forces. In describing the labeling process, Arkava stated:

To be labeled as a deviant has important consequences for one's further social participation. The most important consequence is a drastic change in the individual's identity. Committing the improper act and being publicly labeled as a deviant places the person in a new status . . . People can be labeled . . . and are treated accordingly (1:110).

Kennedy (29:7) explained the differences in the self-image between delinquent and non-delinquent youth as being "developed from the social process of having been labeled and adjudicated delinquent."

Through formal labeling of the delinquent role the individual is forced into this new way of life. This is described as the self-fulfilling prophecy. Arkava (1) stated that if the individual is treated as a deviant, then he is restricted to association with other deviants and restricted from associating with non-deviants. This kind of treatment may ultimately reinforce deviant behaviors and allow social participation to be limited to other deviants. In other words, certain behaviors are expected of the delinquent by society, and because of the labeling process, the individual lives up to societies expectations.

The use of recreation in programs for rehabilitation has been employed in various types of treatment facilities, including correctional institutions. Unfortunately many of these programs have been looked on as simply time-fillers for the residents rather than an integral part of the total rehabilitative process. This approach to recreation is slowly changing, as is signified by the increasing amounts of organized

recreational programs offered in penal settings as well as the increased use of recreation specialists. Through these means, attempts are being made to utilize the valuable contributions that recreation can offer in these situations. Meyer and Brightbill (38:359) suggested that the methodology of such programs should follow five basic principles if recreation is desired to be a part of the rehabilitative process. The program should 1) help the individual adjust to the institutional life; 2) keep in mind that the individual will take his place in society, therefore a linkage with the outside world should be provided; 3) make institutional restrictions less visible; 4) provide new skills and interests; and 5) be used as neither a reward nor a punishment. They contended that if these criteria are met, then the true values of recreational participation can be obtained by the individual, which in turn will have an indirect effect in the total process of redirecting delinquent behavior toward a more socially acceptable one.

Studies have been conducted dealing specifically with delinquent self-concepts. From these studies generalizations have evolved. Dea (15), Frease (22), and Lefeber (37) stated that individuals with delinquent traits tend to have lower self-concepts than non-delinquent individuals. From the other side of the problem, isolated studies dealing with various phases of recreational participation have been conducted to determine the effect on self-concept of individuals. Samuelson (46), Sheppard (48), Hurley (27), and Wright (56) have shown that participation in physical activities have resulted in positive increases in self-concepts. Since physical activities--specifically those few activities used in the mentioned studies--make up only a small part of the scope of recreation, specific facts could

not be stated as to the effects of recreational participation on self-concept. Recreation specialists stated that these results support the theory that recreation does have the possibility of being beneficial in this area. As Kraus (31) pointed out however, recreation can not be assumed to be the means to an end in itself. It is only one variable in this total process and should not be thought of as the "be all and end all."

Self-concept investigation is an area open to much controversy. Behavioral scientists are divided in their beliefs that self-concept is a measurable phenomenon, partially because it is a relatively new area of study for this group. By incorporating two other variables--delinquency and recreation--the problem became an even more pioneer area of investigation. Therefore the results of the study were expected to be a perceptual overview of the interaction of delinquent, their self-concepts, and participation in a recreation program. This broad approach was supported by Kennedy (30), who suggested that by using a generic approach in studying the delinquent self-image, a comprehensive picture is obtained.

Statement of the Problem

Surveys have shown that many correctional institutions for social deviants incorporate recreational activities in their therapy. These surveys have pointed out the activities that exist as well as activities which the inmates would like to see exist. However, very little has been done on the relationship of participation in these activities on the self-concept of the individual. Self-concept is one specific area which is directly related to behavior (21, 28, 53). Therefore, when behavior is considered deviant, then the self-concept should be investigated. It was the purpose of this study to determine the self-concept changes of the

residents of the Swan River Youth Forest Camp in Montana during the period of an organized recreational program.

Hypotheses

The following hypotheses were tested:

Hypothesis I

There will be no significant difference in the changes of the Tennessee Self Concept Scale (TSCS) scores occurring during the three month organized recreation program. This hypothesis was divided into nine sub-hypotheses dealing with the categories measured by the TSCS:

1. Total Positive Scores
2. Column A - (Physical Self)
3. Column B - (Moral-Ethical Self)
4. Column C - (Personal Self)
5. Column D - (Family Self)
6. Column E - (Social Self)
7. Row 1 - (Identity)
8. Row 2 - (Self-Satisfaction)
9. Row 3 - (Behavior)

Hypothesis II

There will be no significant difference in the changes of the TSCS Total Positive scores occurring during the three month organized recreation program between the group with initially high self-concepts and the group with initially low self-concepts.

Hypothesis III

There will be no significant difference in the changes of the TSCS scores occurring during the three month organized recreation program among high, medium, and low participation groups. This hypothesis was divided into nine sub-hypotheses dealing with the categories measured by the TSCS:

1. Total Positive Scores
2. Column A - (Physical Self)
3. Column B - (Moral-Ethical Self)
4. Column C - (Personal Self)
5. Column D - (Family Self)
6. Column E - (Social Self)
7. Row 1 - (Identity)
8. Row 2 - (Self-Satisfaction)
9. Row 3 - (Behavior)

Significance of the Study

The Swan River Youth Forest Camp was faced with the task of providing an environment suitable for correcting and redirecting the delinquent behaviors of those males assigned to it by the courts. In its search for effective correction methodology, this camp decided to combine an organized recreational program with its already existing programs in an attempt to provide this setting. Its effectiveness in the rehabilitative process could be evaluated in a number of ways, but this study concentrated on one component--self-concept. This study can provide Swan River with both justification for its program as well as suggestions for implementing different methods and forms of recreational programs. The results and recommendations of this particular study can be beneficial in planning future recreational activities for residents in similar institutions as well.

Correctional institutions combining recreation programs with other methods as a means of therapy for their residents are attempting to help the individuals learn to help themselves in their rehabilitation. The knowledge of the effectiveness of recreational participation relating to self-concept can help in this self-rehabilitation concept by providing more opportunities for the individual to improve his self-concept through recreation.

The literature revealed very little concerning the actual relationship of participation in recreational activities upon the self-concept of residents of a correctional institution. To date the research has been performed concerning only elements of this problem. The component parts needed to be studied as a whole to get results which can justify installation of these desired programs. Correctional institutions can provide better and more worthwhile programs if they have definite objectives to pursue. The results of this particular research can provide an idea of what these objectives need to be, or improve on already existing objectives.

The nature of a pioneer study suggests that it is just an initial look at the total picture. It should be looked upon as a perceptual overview and then expanded in future research. From the results, discussions, and recommendations, further research can branch off in many directions.

Delimitations

The subjects used were the residents of the Swan River Youth Forest Camp who were present for the duration of the organized recreation program. This program lasted from the first of February 1974 to the end of April 1974.

Limitations and Weaknesses

1. The selection of the sample group was determined by the residents present for the duration of the program. Therefore, it was an incidental sample rather than a random sample.
2. Other than the recreational program being used for this study, all

other activities were not controlled, thus it was possible for other factors to influence or bring about self-concept changes. For this reason all conclusions and recommendations were made from a generalized point of view.

3. It was recognized that the self-report is vulnerable to such factors as emotional blocks, defenses, and test situations. If these factors contaminated the self-report, then the self-concept obtained could have been inaccurate.(34:118).

Basic Assumptions

1. It was assumed that the subjects would comply with the directions of the test being used and that the responses given would be honest ones.

2. Since the recreational program being offered was strictly on a voluntary basis, it was assumed that there would be various degrees of participation among the residents.

3. According to many authorities, self-concept is not capable of being measured. Behavioral scientists vary in their beliefs. However, for this study the opposite stand was taken and it was assumed that the self-concept is a measurable phenomenon, and that the TSCS is capable of measuring it.

4. It was assumed that an experimental group, isolated from a normal routine of the rehabilitative process at the camp, would not present an accurate picture or overview of the results of all the variables involved. As Danford (14) pointed out, man is a whole--mind and body--the two of which are not separable completely. Therefore, the total effect can not leave out the other variables.

Definitions

1. Participation Groups - The participation groups were made up according to the number of activities the subject participated in. Group I consisted of the seven subjects who participated in either zero, one, or two activities. Group II was made up of the ten subjects who participated in three or four activities. The remaining five subjects participated in five or six activities and thus formed Group III.

2. Recreational Program - The organized program referred to in this study was set up by the staff at the Swan River Youth Forest Camp with aid from University of Montana Recreation Curriculum faculty members. The subjects were allowed to voluntarily take part in the program during their free time. The activities which formed this particular recreational program were:

- a. Pool (eight-ball)
- b. Cards (spades)
- c. Basketball free throws
- d. Table tennis
- e. Volleyball
- f. Sledding (circle race and straight race)

3. Self-Concept - Fitts' definition of self-concept was used for this study:

The individual's concept of himself has been demonstrated to be highly influential in much of his behavior and also to be directly related to his general personality and state of mental health. Those people who see themselves as undesirable, worthless, or 'bad' tend to act accordingly. Those who have a highly unrealistic concept of self tend to approach life and other people in unrealistic ways. Those who have very deviant self-concepts tend to behave in deviant ways (21:2).

4. Swan River Youth Forest Camp (SRYFC) - A penal institution in Montana for juvenile delinquent males and some minor criminals with special court orders to serve their sentence there.

5. Tennessee Self Concept Scale (TSCS) - An instrument intended to measure phenomenological self. The scale measures five aspects of self concept, namely--self-esteem, self-criticism, variability, certainty, and conflict. The five sub-scales measured under self-esteem are family self, personal self, moral-ethical self, physical self, and social self. (Refer to Appendix A for detailed definitions of each sub-scale).

CHAPTER II

RELATED LITERATURE

Self-Concept

Each person likes to consider himself an individual, with his own distinctive mannerisms and characteristics. Yet, if one examines the forces which shape these things into what is referred to as his individuality, it can be seen that he takes on the characteristics and behaviors of others more so than creating them himself. Significant others classify one's individuality as such by the way they perceive him. More importantly, one is set apart from all others by the way he perceives his own self, which is his self-concept.

In order to understand self-concept, one must first realize that it is not an observable thing. Behavioral scientists are even split in their beliefs that self-concept is even capable of being measured, but for the purpose of this study, that side of the issue which concurs with the measurability of the self-concept was taken. Through an understanding of self-concept one is able to explain the behavior exhibited from the results of the measure taken (34).

Definitions of Self-Concept

Various definitions have been suggested for self-concept by authorities in the field. Most of them contained similarities in that

they linked self-concept to behavior. Carlton and Moore (10) contended that the way an individual sees himself means what that person thinks he can and can not do and also whether he likes himself or not. Snygg and Combs (49) referred to self-concept as those elements that most potently and frequently affect behavior. This refers to those parts which the individual has established as being definite and fairly stable concepts of himself. Jershild (29) supported these definitions by stating that the self is a combination of thoughts and feelings which in turn makes the person aware of who and what he is. These definitions dealt with self-concept in terms of individual existence.

A somewhat different approach was used to define self-concept in relation to behavior and the surroundings of the individual. Jershild (29) expanded on his last statement by saying that even though the self is individual, it still has a social origin. LaBenne and Greene agreed with this statement in addition to the other ideas mentioned:

. . . self-concept is the person's total appraisal of his appearance, background and origins, abilities and resources, attitudes and feelings which culminate as a directing force in behavior. We here hold that a person's conscious awareness, what he thinks and feels, is that which primarily guides, controls, and regulates his performance and action (34:10).

Fitts (21:2) also defined self-concept in broad terms by stating that the self-concept of the individual "has been demonstrated to be highly influential in much of his behavior and . . . directly related to his general personality and state of mental health." He also stated that an individual will act accordingly with the way he perceives himself.

Development of Self-Concept

Most of the theories on the development of the self-concept converged on the idea of social experiences as the prime factor in this development. Torrance (53) explained that the individual derives many of the anchors that help him keep in touch with reality from others. From this he inferred that since the person is so dependent on social experiences, without them he will have no behavioral guidelines. LaBenne and Greene (34) saw the formation of the self-concept as dependent on two factors: 1) how a person thinks he is judged by others, and 2) a comparison of the perceptions against how he thinks he should behave. Lecky (36) explained the self-concept development as an internalizing process. The self looks at the world from a very secure position, rejecting any values that seem to threaten it. Only those values which offer security are internalized to form part of the self. Jerschild (29) supported the theory that self-concept is an externalizing process. Instead of bringing outside values into the individual's beliefs, he externalizes his own self-concept to the way he sees others and to the ways he thinks others see him. The individual receives appraisals from others if these are derogatory, the attitudes toward his self are also derogatory. Likewise, if he respects his self then he will respect others. According to Sullivan (52), the self-system develops out of interpersonal experiences and he is always searching for clues from others about himself. He contended that the self-concept is determined by the way others define that individual.

In one study, Sheerer (47) came up with findings of a definite and substantial correlation between attitudes of acceptance of self and acceptance of others. There was also the same correlation between

attitudes of respect for self and for others. In a similar study, Stock (50) reported results which indicated a relationship between the way the person feels about himself and the way he feels about others.

As mentioned previously, a person will behave in ways that are consistent with his self-concept. If the social influences are of a negative nature to the individual, the resulting behavior will be negative. Everyone experiences failures during some portion of their existence. Those who are unable to accept these failures end up with this negative self-concept. They interpret these failures to mean "I am a failure" rather than the fact that they have failed in a task. LaBenne and Greene (34) cited the example of the youth who was retained in school for one year in hopes of improvement in his behavior. However, a problem resulted when the child could not cope with this and began to think of himself as a failure.

To be able to function socially and to be able to accept failures, it is necessary for a positive self-concept to exist. If a negative self-concept is present, changes can occur to bring about the desired positive concept. According to the literature, when this change takes place it is much healthier for the individual. Engel (19) examined the stability of the self-concept over two years in adolescents. The results verified that those subjects who had initially negative self-concepts were less stable than those subjects with initially positive self-concepts. The author also concluded that those with the negative self-concepts became progressively more maladjusted than those with positive self-concepts. Stock (50) investigated the interrelations between self-concept and feelings toward others. The findings showed that if a person held a negative attitude toward himself, the same negative attitude will be found toward

others. As the feelings about himself became positive, likewise, so did the feelings toward others become positive.

Self-Concept and Delinquency

In terms of self-concept and the theories of its development, the literature has provided facts that delinquent behavior is almost always linked with low self-concepts. The findings differed occasionally to the level at which delinquent self-concept begins but in the majority of cases there was agreement that delinquent self-concept is lower than non-delinquent self-concept. Dea (15) compared the self-concepts of sixty delinquent males to the self-concepts of thirty non-delinquent males. Results showed that the delinquents had a positive self-concept but it was lower than the non-delinquents. A more extensive study was made by Lefebber (37) in which 410 non-delinquents, 206 who were delinquents institutionalized for the first time, and 231 institutionalized delinquent recidivists were the subjects. The study looked at the self-concepts of delinquent males. The TSCS was given to determine the self-concepts of the subjects involved in the study. The results showed that the non-delinquent subjects ranked highest in all cases, those that were incarcerated for the first time ranked second, and the recidivists ranked lowest on all scores.

Arkava (1) stated that apprehension for one deviant act exposes a person to the likelihood that he will be regarded as deviant or undesirable in other respects. Thus begins the social process of labeling that person as delinquent. When people are labeled, they are treated accordingly.

Jershild (29), pointed out that if a person is constantly rejected rather than welcomed, then he feels the need to either find ways of protecting himself or go to great lengths to deny to himself that others reject

him. One method of doing this is to become surrounded in an environment similar to his own. By enveloping himself in this setting, the delinquent is not reminded of his failures. Lecky (36) pointed out that it is necessary to accept and maintain definitions of ourselves as members of groups as well as isolated individuals. However, if a person does not accept these definitions, he will not maintain them. Frease (22) studied some self-concept trends and habits of 1227 male high school students. The students were administered a questionnaire in their sophomore year and again in their senior year. Frease hypothesized that students with low self-concepts would have a high number of deviant friends and that students with a high number of deviant friends would have high deviant rates. Both were found to be significantly true.

The social process has a lot to do with the development of self-concept in delinquents. Society often applies pressures on individuals which are impossible to cope with. Therefore the only alternatives are defensive measures which often become delinquent behavior. As Powell (43) pointed out, the society in which a person is raised has a major influence on the development of a healthy positive self-concept.

Nash (41) said that without achieving mastery of something, no man can have self-respect. He can not get a sense of belonging unless he is recognized as significant by others. Also if he does not get the opportunity to develop any talents which he has, then he either wastes away or becomes bitter toward society. Without the opportunity to pursue a socially-approved objective, he may turn to delinquency. Hall (24) supported these theories in his study of the relationship between self-concept and delinquent behavior. The results showed that the delinquent's

self-concept is influenced by alienation from a dominant community and with identification with the delinquent peer group. This goes back to what Arkava (1) defined as the self-fulfilling prophecy, where a person is labeled as delinquent and therefore society expects him to behave deviantly. The individual feels obligated to comply with society's expectations, which includes association strictly with other deviants.

Self-Concept and Rehabilitation

When delinquent behavior is severe enough to warrant corrective action, special professional aid is utilized. In many instances this particular professional aid comes in the form of corrective institutions. In most cases these institutions contain the facilities and personnel to give the resident therapy to change his unacceptable behavior to socially acceptable behavior. To implement a program such as this two things must be known by the personnel offering the therapy: 1) the causes of the delinquent behavior of the individual and, 2) effective methods of rehabilitating the person's behaviors without disintegrating the individuality of that person.

Snygg and Combs (49) defined the self-concept as those parts which the individual has differentiated as definite and fairly stable characteristics of himself. From this definition they inferred that therapy to improve self-concept is actually a redefinition of the integral parts. Benjamins (3) took a more precise look at the process of psychotherapy and described the goals of therapy as either one or both of these aspects of adjustment: 1) the individual revises his concept of himself in relation to his environment, and 2) the individual alters his behavior to conform to society's expectations.

Several investigations have been made which look at the effects of incarceration and the rehabilitative process upon the self-concept of delinquents. Dea (15), in comparing delinquent self-concepts to non-delinquent self-concepts, investigated the correctional treatment programs at institutions and showed that incarceration suppressed the positive self-concepts that existed in the delinquents. In Lambert's (35) study, 84 boys who were appearing in juvenile courts for the first time were used as subjects for the purpose of determining the relationship of changes of self-concept as a result of adjudication. The findings suggested that adjudication was followed by a negative change in certain aspects of self-concept.

Zabriskie (57) sampled adjudicated male delinquents between the ages of fifteen and seventeen to determine if self-concept and social attitude would change as a result of participation in specialized short term projects. The results showed no significant changes in the 96 subjects, which were consistent with other findings in the literature. Zabriskie concluded that the rehabilitative methods are questionable and could be the cause for the lack of changes. He also inferred that the same changes in self-concept and social attitude could take place in the delinquent's home environment. Rubin (45) conducted a similar study to determine if there were any significant positive changes in self-concept while in training school for delinquents. However, the results were in contrast to those of Zabriskie. The findings showed that those undergoing treatment also underwent a change toward positive self-concept. The shorter the stay, however, the greater the positive change. This last part is similar to the other findings in the literature. The contrasting findings might be explained by the rehabilitative methods Zabriskie stated.

Fichtler, Zimmerman, and Moore (20) compared the self-esteem of prison and non-prison groups. The prison groups used were newly arrived prisoners and maximum security inmates. The non-prisoner groups were college students and rural church members. The Butler-Haigh self-referent items inventory was used to measure the self-esteem of the groups. The results showed that the maximum security group had the lowest scores while the church group had the highest. It was also concluded that there was a positive correlation between the length of stay in prison and self-esteem. The longer the period in prison, the lower the self-esteem which coincides with the findings in Rubin's study.

Recreation

Recreation is much like the study of self-concept in that it means many things to many different people. Among recreation authorities there are wide differences of opinion as to what the term means and what the immediate and long term values of participating in recreation actually are. For this particular study, there was no specific focal point of recreation, but instead the total gamut was viewed.

Definitions of Recreation

In defining the term recreation, Kraus (30:261) observed that generally modern definitions fall into one of three categories: "1) an activity carried on under certain conditions or with certain motivations; 2) a process or state of being--something that happens within the person while engaging in certain kinds of activity with given sets of expectations or; 3) a social institution, a body of knowledge, or a professional field."

Kraus pointed out that most definitions of recreation fall into the first category. Many definitions, however, encompass more than one area or theory and are not restricted to just one category.

The Neumeyers (42) pointed out that recreation used to be associated with children's play, which is not the case today. Now recreation is applied to all ages, with the differentiation coming from the needs of the age group involved. DeGrazia (17) stated that recreation is the activity that rests men from work, often by giving them a change (distraction, diversion), and restores (re-creates) them for work. This definition implies, however, that man does not recreate without work, which is not the case at all. Retired persons also recreate, but they are not restoring themselves for work.

Butler (8) stressed that recreation is the activities engaged in voluntarily and as a result of participation in them, they bring direct and immediate satisfactions. The Neumeyers (42) also stated that engagement in an activity is not impelled by a delayed reward nor any immediate result.

Carlson (9) listed some characteristics of recreation agreed on by most recreation professionals.

1. Recreation is activity as opposed to idleness.
2. It occurs in leisure time.
3. The choice of the activity is voluntary.
4. It provides enjoyment.
5. The satisfactions are immediate and inherent in the activity.
6. It is recreative--it provides a positive contribution to the physical, mental, and moral welfare of the participant.
7. Provides a change of pace.

8. It is broad in concept.

9. It is wholesome, constructive, and socially acceptable.

To understand the entire nature of recreation, the values which recreation offers in meeting basic human needs should be pointed out, for this is where its importance is found. Man has certain basic needs that he is motivated to meet, and recreation is one of them. Butler (8) stated that at an early age, child's growing and experience come from playing. At an older age, these same urges are still present, but in a suppressed state caused by work and demands. Miller and Robinson (39) discussed the basic needs of youth in three categories. Physiologically, youth need large muscle activity for their growing bodies. Psychologically, they are going through a transitional period, between childhood and adulthood. Society does not allow them to have adult responsibilities, but still they have the needs for independence and opportunities to express this freedom. Socially, youth desire to be socially recognized, therefore they feel the urges to join groups.

Man also has some other basic needs which recreation can aid in meeting. Meyer and Brightbill (38) pointed out that man has the urge to be happy, and that recreational participation can help bring about this happiness. Man also strives for satisfactions, which can be met through recreation's many satisfying experiences. Other essential needs which can be served include a balanced growth, creativeness, competition, character building, and physical and social conditioning. Butler (8) explained recreational experience as a counterbalance to other aspects of living. It gives direct benefits and at the same time offers longer range benefits. Most of all, it enriches people's lives. But it must be remembered that

recreation only contributes to these major human forces and it is not a means to an end. Miller and Robinson (39:164) saw recreation as having two functions: "1) a balancing, compensatory, or corrective function, operating against work, and in a therapeutic way to tensions and strains of life; and 2) as an integrating and enriching function."

Unfortunately the literature does not provide many studies to support the theories of recreational values. Only one attempt has been made to scientifically measure these values. Heywood (25) examined the effects of recreative experience compared to non-recreative experience upon subjects under stress. The findings showed that stress was relieved to a greater extent by perceived recreative experience than by non-recreative experience.

Recreation and Self-Concept

Jacob states:

. . . so much of one's sense of autonomy is developed out of the spontaneous integrated use of one's own body, especially if the activity is pleasurable and not an 'ought to.'

One of the best ways to prevent negative identity is to have a sense of self-direction and positive control built up in connection with the core of self-concept. A continuous program of physical education and recreation (meaning fun) is one of the best ways to guarantee this fundamental facet of emotional health (28:32-33).

Cohen (11) discussed the fact that every person can choose from a host of alternative means for satisfying our recreational needs. He inferred that since there is a voluntary choice, that choice represents something about the individual. The implications are that by satisfying the recreational needs the individual raises his positive self-concept.

The area of study dealing with the relationship of recreation and the individual's self-concept is relatively new, and therefore the literature does not have much to offer. The only studies related to this deal with subjects participating in physical activities which are generally popularly regarded as recreational. The literature revealed nothing on the relationship of passive recreational experiences on self-concept.

An investigation into the changes in body concept and self-concept among 50 male and 50 female college students who learned to swim was made by Sheppard (48). Half of the subjects from each group made up the experimental group which was given formal swimming instruction. The results of a self-concept test showed the only significant positive change occurred upon self-description. Hurley (27) investigated a period of basic swimming instruction and its relationship on self-concept. The TSCS was given before initiation of the course and also at its termination. The only significant change that occurred appeared in the Family Self subscale. There was no significant change in the total self-concept score during the period of swimming instruction.

Biles (6) conducted a somewhat different type of experiment in which she used three groups of 34 subjects each. The first group was instructed in a basic physical education course in a traditional method. The second group was instructed by television. The third group was not involved in the basic course. All three groups were given a self-referent test before and after the investigation to determine the self-concept

changes during a physical education course taught by two methods. The results showed that the changes between groups was not significant. Regardless of method, however, the changes were greater for those in the activity course than for those not in the activity.

Recreation and Delinquency

Authorities in the fields of sociology, social work, psychology, and criminology continuously search for the causes of delinquent behavior and effective methods of either eliminating or changing these criminal actions. Berger (5) explained that conflicts and tensions arise from the teenage transition, which stems from an accelerated physical growth but a refusal to be able to take on adult standards and privileges. The sexual drives are the strongest for some individuals when the opportunities may be the least. Obedience and submission is demanded at a time when energy is at a peak. Berger pointed out that some major factors which help to reduce this behavior are community centers, dances, sports, and special clubs, partially because outlets for these frustrations are available. Beck (2) cited a number of surveys have been conducted which examined the delinquency rates before and after boys clubs have been established in an area. In almost all cases there was a decline in the recorded delinquency rates.

The Gluecks (23) found some common tendencies among delinquents regarding their free time. The families of delinquents move around often, thus lessening the chance for stabilizing influences that are in attachment and loyalty to a community. These families engage in less group activities than do non-delinquents' families, making it more difficult for the social influences necessary in the development of positive self-concepts. Family

recreation which does take place is not constructive in nature, therefore the delinquent never gets any exposure on how to use his leisure time. The Gluecks found that compared to law-abiding boys the delinquents had less recreational involvement. When the delinquent does engage in recreational pursuits, the preferences are for risky activities.

Authorities in the field of recreation supported the theory that recreation can aid in the prevention and changing of delinquent behavior. Berger (5) pointed out that the purpose of recreation for delinquency is to change the emphasis from antisocial behavior to constructive activities. As Kraus (31) pointed out, delinquents enjoy destructive activities and doing things just for kicks. Therefore the role of recreation is to design programs which provide these outlets in an acceptable manner. Beck (3) explained that in order to provide these activities a recreational system should not try to induce foreign behavior on the delinquent. The system can go about this in two ways: 1) seek to substitute socially sanctioned play for criminal play or, 2) place something in the play experiences that would deter criminality. Meyer and Brightbill (38) stated that a recreation program should be geared naturally and not to the delinquent to gain the wholesome benefits recreation can offer.

The effects of participation in sports activities were theorized by Kraus:

. . . sports may provide a useful means of harnessing the energies and loyalties of young people by giving them the opportunity to identify with a cause, accept rules and discipline, and do battles against a common enemy. It may well be that the excitement, the physical risk and the use of athletics as an exercise of skill, strength, and masculine competitiveness drain off many of the impulses that among non-athletic teen-agers are channeled into delinquent activity (31:382-383).

Two studies were found which dealt directly with comparing participation in an activity upon the attitudes of delinquent subjects. Van Dinter (55) studied the relationship between sports participation, attitudes toward sports, socio-economic status, and the self-concepts of male problem youth. With regards to the relevant findings of the study, a significant relationship between sports participation and self-concept was not found. Another study by Samuelson (46) investigated the effects of a specially structured seven week physical education class upon the self-concept of low self-esteem tenth-grade girls. The experimental group was in a special physical education class which allowed them to experience success through experiencing self-confidence, self-direction, and improved social behavior. The results showed significantly higher scores from the experimental group. From the findings Samuelson inferred that physical education can serve as a medium in which low self-esteem girls have opportunity to experience degrees of success and feelings of self-worth. LaBenne and Greene (34) gave a possible reason for the differences in findings concerning this problem. They stated that the quality of the individual's experiences distinguishes between those with good and bad self-concepts. Therefore, the quality of the recreational program engaged in has a great deal to do with its effectiveness in changing delinquent behavior, whether it be a sports program or a less active pursuit.

Kraus summed up this particular area of recreation and delinquency:

It is almost impossible to prove that recreational experience helps to achieve desirable social, personal, and psychological outcomes because recreation is only part of the total life experience of the child. Its effects cannot readily be disassociated from those of other experiences or activities. Nonetheless, certain findings suggest that recreational involvement is positively related to constructive social behavior and effective emotional adjustment, whether or not it is a cause of these (32:274).

Recreation, Rehabilitation, and Delinquency

To combine these three categories in an institutional setting requires an understanding of what self-concept, delinquency, and recreation mean as well as how they develop. It is imperative for those in charge of the rehabilitative program to understand all these factors if an effective program is to occur. "It is critical that the corrective institution make every attempt to really rehabilitate the prisoner--to give him self-respect, new personal and social understandings, skills and attitudes (32:325-326)." For this to happen, Moustakas (40) pointed out that the setting must be such that the person feels and experiences a sense of personal well-being. The atmosphere should allow the individual to be free to explore his capacities and discover meanings and values of life consistent with his self.

A correctional institution has a setting that is usually not capable of providing this free atmosphere. Effective rehabilitative practices can compensate for this. One such rehabilitative practice being incorporated into institutional settings is that of recreational programs. Robbins (44) explained that the literature has supported the fact that well-conceived and implemented recreation programs have aided in developing proper social attitudes.

Many authorities have theorized on the values recreation has on the rehabilitation of delinquents. Through these theoretical values they have supplied justification for recreational implementation. Corbin and Tait (12) stated that if recreation contributes to the satisfaction of basic human needs, it has a place in rehabilitation of those suffering from some form of abnormality. According to Decker, prison is an artificial life which can contribute to a loss of identity. Recreation is a part of normal

life and if the inmate is to be rehabilitated, he must maintain a link with the outside world, such as recreation. Recreation has justification in correctional institutions because it provides outlets for needs which must be met. "Recreation is not a cure-all. It does not prevent, control, or cure unacceptable behavior. But it does have an important role in the total rehabilitation process (16:154)." The Hormacheas (26) stated the recreational values of rehabilitation are that they give the prisoner a more balanced life by combining work and play under circumstances of social settings. It also allows for release of frustration. Kraus (33) stated that recreation may help the individual gain a more favorable self-concept and a feeling of personal worth. He feels that he is using his free time in a productive and acceptable way. "The inmates, through such activities, can recapture their lost identity. The search for identity in the correctional setting is very real (26:116)."

Measurement of Self-Concept

Tennessee Self Concept Scale (TSCS)

Seven clinical psychologists were used to determine the construct validity of the scale. Each item was analyzed by the judges and then voted upon to determine if it was to be included in the scale. Each item in the present scale had to be unanimously agreed on to be placed into the scale, therefore the content is assumed to be valid.

Fitts (21) stated that studies have been completed which show considerable evidence that people's concepts of self change as a result of significant experiences. The TSCS reflects these changes in predicted ways, thus adding to the validity of the scale. Also, studies have been

completed which show that the TSCS predicts changes of various patient and non-patient groups, adding support to the validity.

Reliability data was based on a test-retest with 60 college students over a two-week period. The Total Positive scores and the eight sub-scales used in the present study reported reliability coefficients ranging from .80 to .92 (21).

Several authorities have reviewed the TSCS searching to verify the validity of the test as claimed by Fitts. Bentler's (4) review found two major defects in the manual as well as the scale. One is the absence of information regarding the internal structure. The other is the high degree of overinterpretation, relative to the data base, that is made regarding various aspects of data involving the scale. There are a lot of things that can be interpreted from the data compared to the small number of questions in the test.

Crites (13) took a critical look at the TSCS in his review. The results showed that among other things it correlates with other inventories which make it a useful tool. However, Crites pointed out that the TSCS does not allow the subject to use his own words, so it might not be an accurate measurement. It was concluded that the scale's psychometric attributes indicate that it measures up by traditional criteria rather well. There was also agreement with Fitts that the test is simple for the subject, widely applicable, well standardized, and multi-dimensional in its description of self-concept.

Suinn (51) critiqued the TSCS and concluded that more information should have been given on the samples used to determine the norms, for example, how the random sample was taken. He felt that when Fitts stated

a conclusion, he should have supported it with references and statistics. Suinn felt that a future test manual will summarize the more important results related to test interpretation and validation.

Vacchiano (54) administered the TSCS to subjects to determine the construct validity of the scale. A factor analysis was used to determine the validity and the results showed that the test does provide the five measurements of the self (physical, moral-ethical, personal, family, and social) when the factors are considered together.

Other Scales

Piers-Harris Children's Self-Concept Scale--This is an inventory designed to measure "The way I feel about myself." It is appropriate for grades 3-12. The individual answers "yes" or "no" to 80 first-person declarative questions. Half of the questions are worded to indicate a positive self-concept and the other half a negative one (7).

Thomas Self-Concept Values Test--This instrument is designed for ages 3-9. The individual responds in a self-report manner to a series of bipolar adjectival items four different times, each time from a different point of view. The four viewpoints are his own, his mother's, his teacher's, and his peers' perception of himself. The perceptions which the test measures are his happiness, size, sociability, sharing, male acceptance, fear of things, fear of people, strength, cleanliness, and health (7).

Self-Perception Inventory--This test is appropriate for 12 years and older. The instrument measures the person's general adjustment, which includes consistency, self-actualization, and supervision, and his general maladjustment, which includes uncommon responses, rigidity and dogmatism, authoritarianism, anxiety, depression, and paranoia (7).

CHAPTER III

PROCEDURES

Subjects

The twenty-two subjects in this study were the residents of the Swan River Youth Forest Camp (SRYFC) in Montana during the three month period of February, through April of 1974. The residents were males, all between the ages of sixteen and twenty-one. The majority of the residents were classified as juvenile offenders, sent to the camp for a period ranging from six to twelve months. A few residents were sent to SRYFC from the Montana State Prison at Deer Lodge by special court order and were considered adult offenders.

For this study, only those residents who were present for the duration of the three month period were used as subjects. Because of the short sentences and the high turnover rate, a few exceptions were made. Those residents who took the pre-test, were present at the camp for the first six activities in the recreation program, but left the camp prior to the post-test were still used in the sample. Post-tests were sent to these subjects through the mail and out of the ten tests sent out, eight tests were returned, bringing the sample size to twenty-two.

Recreational Program

This study was designed to look at the interaction of a recreation program with the self-concepts of subjects who had been labeled delinquents.

The staff at the SRYFC worked with faculty members from the University of Montana in planning, designing, organizing, and implementing the recreational program. The present study was not concerned with the theory or reasoning behind the development of the program, but instead with the total impact on the participants in the program as far as self-concept was concerned.

The recreational program incorporated into this study involved six activities. These activities were:

1. Pool (Eight-Ball) - A double elimination tournament was developed for those who wished to participate. To be eliminated from the tournament each person had to lose twice.

2. Cards (Spades) - Two-man teams competed in this tournament, also a double-elimination event. The players chose their own partners for this contest. The team which first reached 500 points in a game advanced in the tournament.

3. Basketball free throws - This activity was an individual event, with each person allowed twenty-five free throws with a basketball. The winner was determined by the highest number of free throws made. This activity lasted only one day.

4. Table tennis (Ping-Pong) - This tournament was similar in structure to the pool tournament. To advance in the tournament, the participant had to win two of three games. The competition itself was individual rather than group.

5. Volleyball - A double round robin tournament was set up for this activity, in which each team played every other team twice. At the end of the tournament, the team with the best record was determined the winner. Each wing in the dormitory at SRYFC was allowed to have one team. Everyone

had the opportunity to participate voluntarily, but they were not obligated. Each team had to win two games out of three to advance.

6. Sledding - This activity was completed in one day. It was divided into two parts: 1) Circle race - a circular road surrounding the facilities at SRYFC was used for this race. The road was approximately one-fourth of a mile long. The participants were divided into two-man teams. The object of the race was to be the first team to circle the track once. The method used was to have one person lay on the sled while the other person pushed the sled around the track. 2) Straight race - The method for this race was the same as the circular race except that the race was a straight 100 yard course.

With the exception of the sledding and free throw tournaments, which were one-day events, each tournament lasted from three to four weeks. Each resident had certain responsibilities at the camp, therefore the tournaments were structured loosely to allow the participants to engage in the activities whenever they had free time. In addition to the organized recreational program, several recreational opportunities were available to the residents if they so desired. However, for this particular study only participation in the six organized activities previously mentioned was considered in the changes in self-concept.

A point system was devised to create a sense of competition among the dormitory wings. Each wing was made up of eight boys. Each boy received a participation point for each activity he participated in. One additional point was given for each game won to each individual. In the tournaments, five points were given to the overall first place wing, three points to the second, and one to the third. Each week the points were

tallied and the wing with the highest total of points received a night away from the camp at a movie.

Tests and Measurements

The Tennessee Self-Concept Scale was used for testing purposes in this study. This test consists of 100 self-descriptive questions to be answered on a five-point Likert-type scale. The test takes from ten to twenty minutes for completion, with the mean time being about thirteen minutes. Ninety of the one-hundred statements are grouped on a two-dimensional, three-by-five scheme. The first dimension consists of three measures of an internal frame of reference: identity, self-satisfaction, and behavior. The second dimension is five measures of the external frame of reference: physical self, moral-ethical self, personal self, family self, and social self. The remaining ten items are taken from the L scale of the Minnesota Multiphasic Personality Inventory. This group of ten items make up the Self-Criticism Scale (21:2).

The reasons for utilizing this scale were:

1. It was simple for the subject to understand and take.
2. It was widely applicable, including all those from the healthy, well adjusted person to psychotic patients.
3. It was well standardized.
4. It was multi-dimensional in its description of self-concept.

Information Needed

To meet the criteria established in the hypotheses to be tested, the following items were needed:

1. Total self-concept change which occurred between the pre-test date and the post-test date, which was a duration of three months.
2. Sub-scale concept changes:
 - a. Rows: Identity, Self-satisfaction; behavior
 - b. Columns: Physical self, moral-ethical self, personal self, family self, social self.
3. Rank order of the subjects on the basis of their total positive score on the pre-test in order to test the second hypothesis.
4. The participation records of each subject for categorization of the participant groups for the third hypothesis.

Procedure for Collecting Data

A TSCS pre-test was given to the subjects prior to initiation of the recreational program to determine initial self-concepts. The recreational program began and continued for three months at which time a TSCS post-test was given to determine the final self-concept. Because of the design of the test, it was administered to the entire group of subjects at one sitting for the pre-test and a similar one for the post-test. The answers for each subject were marked on each respective answer sheet supplied with the test. As mentioned previously, eight of the subjects were not actually present for the post-test sitting because they were released from the camp. Since these eight had been at the camp long enough to be given an opportunity to participate in the six recreational activities, it was decided to send the post-test to them and include them in the sample.

Organization and Treatment of Data

The TSCS were hand-scored and the results marked on a score sheet provided with the answer sheet. Only the positive scores were necessary for the purpose of this study. The hypotheses were tested in the following manner:

Individual Differences in Positive TSCS Scores

The pre-test scores under each category were subtracted from their respective post-test scores to find the differences in scores which occurred in each category during the recreational program period (These scores are given in Appendices B, C, and D). A t-test of correlated mean differences was made on each category to determine the significance of these differences (Appendix F). The hypothesis was rejected upon attainment at the .05 level of confidence.

High-Low Initial Self-Concept Group Differences in Positive TSCS Scores

The subjects were placed in rank order according to their pre-test scores, with the highest score ranked first and the lowest score ranked twenty-second. The highest eleven subjects were placed in one group and the remaining eleven were placed in another group. The total positive changes were determined for the two groups and a t-test of uncorrelated mean differences was made on the data to determine if any significant differences occurred between the two groups during the recreational program period (Appendix F). The hypothesis was rejected upon attainment at the .05 level of confidence.

High, Medium, & Low Participation Group
Differences in Positive TSCS Scores

The subjects were divided into three groups on the basis of their participation (Appendix E). Group I consisted of seven subjects who participated in zero, one, or two activities, Group II was made up of ten subjects who participated in three or four activities, and Group III consisted of the remaining seven subjects who participated in five or all six of the activities offered. The differences in scores for each subject was tested by an analysis of variance of difference to determine if any significant changes occurred among the three groups. The hypothesis was rejected upon attainment at the .05 level of confidence.

CHAPTER IV

ANALYSIS OF DATA

The results of the present study are presented in this chapter. The analysis of the data is organized into three sections dealing with the three hypotheses tested in the present study.

Fitts (21) was referred to as stating that deviant self-concepts can be detected from the scores on the TSCS. He has also suggested that even though an individual's concept of himself is fairly stable, a significant event can result in changes in a short period of time. Thus, the data in this study was compared to the normative group to get a comprehensive picture of the sample.

Pre-test data revealed that the subjects in the present study scored two standard deviations lower than the standardized group on Row 1--Identity. The subjects also scored one standard deviation below the standardized mean on four categories: Total Positive Scores, Columns B--Moral-Ethical Self, D--Family Self, and E--Social Self. On the remaining four categories, the present study subjects scored lower than the standardized group.

A comparison of the post-test results to the normative data showed that the sample still scored lower than the standardized group on all nine categories. Four means were one standard deviation lower than

the standard means: Total Positive Scores, Columns B--Moral-Ethical Self, D--Family Self, and Row 1--Identity. This data is presented in Table 1.

TABLE 1
COMPARISON OF TSCS STANDARDIZED MEANS AND PRE- AND
POST-TEST MEANS OF SRYFC SUBJECTS (N=22)

Category	Fitts' Norm	α	Pre-Test	Post-Test
Total Positive	345.57	30.70	294.59	307.68
Columns:				
A--Physical Self	71.78	7.67	65.09	66.95
B--Moral-Ethical Self	70.33	8.70	57.00	59.27
C--Personal Self	64.55	7.41	58.45	60.77
D--Family Self	70.83	8.43	55.59	58.91
E--Social Self	68.14	7.86	58.45	61.77
Rows:				
1--Identity	127.10	9.96	103.18	110.14
2--Self-Satisfaction	103.67	13.79	96.64	100.27
3--Behavior	115.01	11.22	94.77	97.27

Individual Differences in Positive TSCS Scores

The first hypothesis stated that there would be no significant difference in TSCS positive scores during the three month recreation program. This hypothesis was divided into nine sub-hypotheses. The first sub-hypothesis stated there would be no significant difference in the total positive scores of each individual. The remaining eight sub-hypotheses stated there would be no significant difference in each of the

respective sub-scale score of each individual.

Results indicated that there was a significant change on three of the nine sub-hypotheses of self-concept sub-scales as measured by the t-test of correlated mean differences. A t-score of 3.15 on the total positive scores was significant at the .01 level of confidence. Therefore the null sub-hypothesis of no difference was rejected. Column E--Social Self--indicated a difference significant at the .05 level of confidence with a t-score of 2.58 and Row 1--Identity--showed a difference significant at the .01 confidence level with a t-score of 3.78. Therefore these two sub-hypotheses were rejected.

The remaining six null sub-hypotheses showed no significant differences, therefore these were not rejected. However, each of the six categories revealed positive self-concept changes, with Columns B--Moral-Ethical Self, C--Personal Self, and D--Family Self showing changes significant at the .1 confidence level. This data is presented in Table 2.

High-Low Initial Self-Concept Group Differences in Positive TSCS Scores

The second hypothesis stated that there would be no significant changes in the pre- and post-test total positive scores between the group with the initially high self-concepts and the group with the group with the initially low self-concepts. Results indicated a t-score of -.45, which was not significant at the .05 level of confidence. Therefore, the null hypothesis of no difference between the groups was not rejected. This data is presented in Table 3.

TABLE 2
PRE- AND POST-TEST MEANS, DIFFERENCES, AND t-TESTS
OF SRYFC SUBJECTS (N=22)

Category	Pre-Test	Post-Test	Difference	t	Hypothesis
Total Positive	294.59	307.68	13.09	3.15*	Rejected
Columns:					Not
A--Physical Self	65.09	66.95	1.86	1.42	Rejected Not
B--Moral-Ethical Self	57.00	59.27	2.27	1.80***	Rejected Not
C--Personal Self	58.45	60.77	2.32	1.74***	Rejected Not
D--Family Self	55.59	58.91	3.32	1.83***	Rejected
E--Social Self	58.45	61.77	3.32	2.58**	Rejected
Rows:					
1--Identity	103.18	110.14	6.96	3.78*	Rejected Not
2--Self-Satisfaction	96.64	100.27	3.63	1.58	Rejected Not
3--Behavior	94.77	97.27	2.50	1.03	Rejected
*Significant at .01 level = 2.831 **Significant at .05 level = 2.080 ***Significant at .10 level = 1.721					

High, Medium, & Low Participation Group
Differences in Positive TSCS Scores

The third hypothesis stated that there would be no significant differences among three participation groups. This hypothesis was divided into nine sub-hypotheses. The first sub-hypothesis stated that there would be no significant changes in the total positive scores among the three groups. The remaining eight sub-hypotheses stated that there

TABLE 3

TOTAL POSITIVE SCORE MEANS, DIFFERENCES AND t -SCORE BETWEEN
INITIALLY HIGH AND LOW SELF-CONCEPT GROUPS

Group I (High Self-Concept) \bar{X} (N=11)	Group II (Low Self-Concept) \bar{X} (N=11)	Difference	t	Hypothesis
31.09	34.82	-3.73	-.45	Not Rejected
*Significant at .01 level = 2.831 **Significant at .05 level = 2.080 ***Significant at .10 level = 1.721				

would be no significant changes in each of the respective sub-scale scores among the groups of participants.

Total Positive Scores.—Mean Differences for the three participation groups were 36.71 for the low group, 31.00 for the medium group, and 32.20 for the high group. The F-ratio obtained was .17, indicating that the difference among the groups was not significant at the .05 level of confidence. Therefore, the null sub-hypothesis of no difference was not rejected. This data is presented in Table 4.

TABLE 4

ANALYSIS OF VARIANCE OF MEAN DIFFERENCES IN TSCS TOTAL POSITIVE SCORES
AMONG LOW, MEDIUM, AND HIGH PARTICIPATION GROUPS

	Treatment		
	Low	Medium	High
N	7	10	5
\bar{D}	36.71	31.00	32.20
$\sum D$	257	310	161
$\sum D^2$	13471	12146	6455
$(\sum D)^2$	66049	96100	25921
Source	df	Sum of squares	Mean square
Between groups	2	139.59	69.80
Within groups	19	7842.23	412.75
Total	21	7981.82	
F-ratio obtained	.17		
F-ratio required for .05 level of significance ^a		19.44	

^aDownie and Heath, Statistical Methods, p. 313.

Column A (Physical Self).--Mean differences for the three participation groups were 1.28 for the low group, 1.90 for the medium group, and 2.60 for the high group. The F-ratio obtained was .06, indicating that the difference among the groups was not significant at the .05 level of confidence. Therefore, the null sub-hypothesis of no difference was not rejected. This data is presented in Table 5.

TABLE 5

ANALYSIS OF VARIANCE OF MEAN DIFFERENCES IN TSCS PHYSICAL SELF SCORES
AMONG LOW, MEDIUM, AND HIGH PARTICIPATION GROUPS

	Treatment		
	Low	Medium	High
N	7	10	5
\bar{D}	1.28	1.90	2.60
$\sum D$	9	19	13
$\sum D^2$	207	387	279
$(\sum D)^2$	81	361	169
Source	df	Sum of squares	Mean Square
Between groups	2	5.21	2.60
Within groups	19	791.38	41.65
Total	21	796.59	
F-ratio obtained	.06		
F-ratio required for .05 level of significance ^a		19.44	

^aDownie and Heath, Statistical Methods, p. 313.

Column B (Moral-Ethical Self).--Mean differences for the three participation groups were 5.00 for the low group, .70 for the medium group, and 1.60 for the high group. The F-ratio obtained was 1.16, indicating that the difference among the groups was not significant at the .05 level of confidence. Therefore, the null sub-hypothesis of no difference was not rejected. This data is presented in Table 6.

TABLE 6

ANALYSIS OF VARIANCE OF MEAN DIFFERENCES IN TSCS MORAL-ETHICAL SELF SCORES
AMONG LOW, MEDIUM, AND HIGH PARTICIPATION GROUPS

	Treatment		
	Low	Medium	High
N	7	10	5
\bar{D}	5.00	.70	1.60
$\sum D$	35	7	8
$\sum D^2$	421	242	182
$(\sum D)^2$	1225	49	64
Source	df	Sum of squares	Mean square
Between groups	2	79.61	39.84
Within groups	19	651.75	34.30
Total	21	731.36	
F-ratio obtained	1.16		
F-ratio required for .05 level of significance ^a	3.52		

^aDownie and Heath, Statistical Methods, p. 314.

Column C (Personal Self).--Mean differences for the three participant groups were 3.28 for the low group, .90 for the medium group, and 3.80 for the high group. The F-ratio obtained was .49, indicating that the differences among the groups was not significant at the .05 level of confidence. Therefore, the null sub-hypothesis of no difference was not rejected. This data is presented in Table 7.

TABLE 7

ANALYSIS OF VARIANCE OF MEAN DIFFERENCES IN TSCS PERSONAL SELF SCORES
AMONG LOW, MEDIUM, AND HIGH PARTICIPATION GROUPS

	Treatment		
	Low	Medium	High
N	7	10	5
\bar{D}	3.28	.90	3.80
$\sum D$	23	9	19
$\sum D^2$	419	415	101
$(\sum D)^2$	529	81	361
Source	df	Sum of squares	Mean Square
Between groups	2	40.16	20.08
Within groups	19	776.60	40.87
Total	21	816.77	
F-ratio obtained	.49		
F-ratio required for .05 level of significance ^a	19.44		

^aDownie and Heath, Statistical Methods, p. 313.

Column D (Family Self).--Mean differences for the three participation groups were 2.00 for the low group, 4.60 for the medium group, and 2.60 for the high group. The F-ratio obtained was .21, indicating that the difference among the groups was not significant at the .05 level of confidence. Therefore, the null sub-hypothesis of no difference was not rejected. This data is presented in Table 8.

TABLE 8

ANALYSIS OF VARIANCE OF MEAN DIFFERENCES IN TSCS FAMILY SELF SCORES
AMONG LOW, MEDIUM, AND HIGH PARTICIPATION GROUPS

	Treatment		
	Low	Medium	High
N	7	10	5
\bar{D}	2.00	4.60	2.60
$\sum D$	14	46	13
$\sum D^2$	662	594	507
$(\sum D)^2$	196	2116	169
Source	df	Sum of squares	Mean square
Between groups	2	32.53	16.27
Within groups	19	1488.24	78.33
Total	21	1520.77	
F-ratio obtained	.21		
F-ratio required for .05 level of significance ^a		19.44	

^aDownie and Heath, Statistical Methods, p. 313.

Column E (Social Self).--Mean differences for the three participation groups were 5.14 for the low group, 2.90 for the medium group, and 1.60 for the high group. The F-ratio obtained was .52, indicating that the difference among the groups was not significant at the .05 level of significance. Therefore, the null sub-hypothesis of no difference was not rejected. This data is presented in Table 9.

TABLE 9

ANALYSIS OF VARIANCE OF MEAN DIFFERENCES IN TSCS SOCIAL SELF SCORES
AMONG LOW, MEDIUM, AND HIGH PARTICIPATION GROUPS

	Treatment Participation Groups		
	Low	Medium	High
N	7	10	5
\bar{D}	5.14	2.90	1.60
$\sum D$	36	29	8
$\sum D^2$	662	291	54
$(\sum D)^2$	1296	841	64
Source	df	Sum of squares	Mean square
Between groups	2	40.00	20.00
Within groups	19	724.77	38.14
Total	21	764.77	
F-ratio obtained	.52		
F-ratio required for .05 level of significance ^a		19.44	

^aDownie and Heath, Statistical Methods, p. 313.

Row 1 (Identity).--Mean differences for the three participation groups were 11.28 for the low group, 4.20 for the medium group, and 6.40 for the high group. The F-ratio obtained was 1.98, indicating that the difference among the groups was not significant at the .05 level of confidence. Therefore, the null sub-hypothesis of no difference was not rejected. This data is presented in Table 10.

TABLE 10

ANALYSIS OF VARIANCE OF MEAN DIFFERENCES IN TSCS IDENTITY SCORES
AMONG LOW, MEDIUM, AND HIGH PARTICIPATION GROUPS

	Treatment		
	Low	Medium	High
N	7	10	5
\bar{D}	11.28	4.2	6.4
$\sum D$	79	42	32
$\sum D^2$	1237	592	794
$(\sum D)^2$	6241	1764	1024
Source	df	Sum of squares	Mean square
Between groups	2	325.99	163.00
Within groups	19	1233.96	82.10
Total	21	1559.95	
F-ratio obtained	1.98		
F-ratio required for .05 level of significance ^a		3.52	

^aDownie and Heath, Statistical Methods, p. 313.

Row 2 (Self Satisfaction).--Mean differences for the three participation groups were -1.28 for the low group, 6.40 for the medium group, and 5.00 for the high group. The F-ratio obtained was 1.11, indicating that the difference among the groups was not significant at the .05 level of confidence. Therefore, the null sub-hypothesis of no difference was not rejected. This data is presented in Table 11.

TABLE 11

ANALYSIS OF VARIANCE OF MEAN DIFFERENCES IN TSCS SELF-SATISFACTION SCORES
AMONG LOW, MEDIUM, AND HIGH PARTICIPATION GROUPS

	Treatment Participation Groups		
	Low	Medium	High
N	7	10	5
\bar{D}	-1.28	6.40	5.00
$\sum D$	-9	64	25
$\sum D^2$	643	1688	417
$(\sum D)^2$	81	4096	625
Source	df	Sum of squares	Mean square
Between groups	2	256.45	128.22
Within groups	19	2200.64	115.82
Total	21	2457.09	
F-ratio obtained	1.11		
F-ratio required for .05 level of significance ^a		3.52	

^aDownie and Heath, Statistical Methods, p.314

Row 3 (Behavior).--Mean differences for the three participation groups were 6.71 for the low group, .40 for the medium group, and .80 for the high group. The F-ratio obtained was .70, indicating that the difference among the groups was not significant at the .05 level of confidence. Therefore, the null sub-hypothesis of no difference was not rejected. This data is presented in Table 12.

TABLE 12

ANALYSIS OF VARIANCE OF MEAN DIFFERENCES IN TSCS BEHAVIOR SCORES
AMONG LOW, MEDIUM, AND HIGH PARTICIPATION GROUPS

	Treatment		
	Low	Medium	High
N	7	10	5
\bar{D}	6.71	.40	.80
$\sum D$	47	4	4
$\sum D^2$	1869	556	442
$(\sum D)^2$	2209	16	16
Source	df	Sum of squares	Mean square
Between groups	2	186.16	93.08
Within groups	19	2543.34	133.86
Total	21	2729.50	
F-ratio obtained	.70		
F-ratio required for .05 level of significance ^a		19.44	

^aDownie and Heath, Statistical Methods, p. 313.

CHAPTER V

CONCLUSIONS

Summary of Findings

The purpose of this study was to determine the self-concept changes of the residents of the Swan River Youth Forest Camp in Montana during the period of an organized recreational program.

Twenty-two residents of the SRYFC were used for the sample. To qualify for the sample each individual had to be present for the pre-test at the beginning of February 1974, remain at the camp for the duration of six activities in the recreational program, and be present for the post-test at the end of April 1974.

The following hypotheses were tested:

1. There will be no significant difference in the changes of the Tennessee Self Concept Scale (TSCS) scores occurring during the three month organized recreation program.
2. There will be no significant difference in the changes of the TSCS Total Positive scores occurring during the three month organized recreation program between the group with initially high self-concepts and the group with initially low self-concepts.
3. There will be no significant difference in the changes of the TSCS scores occurring during the three month organized recreation program among high, medium, and low participation groups.

The Tennessee Self-Concept Scale was utilized as the measuring instrument for this study. A pre-test was given, then the subjects were

allowed to voluntarily participate in the planned program, which included the following six activities:

1. Pool (eight-ball)
2. Cards (spades)
3. Basketball free throws
4. Table tennis
5. Volleyball
6. Sledding

After the three month period, a post-test was given and the data hand-scored and tested statistically. The differences in the pre- and post-test scores were tested by use of the t-test and analysis of variance at the .05 level of confidence.

A series of t-tests revealed scores that indicated positive self-concept changes of the subjects during the three month period. A t-score of 3.15 on the Total Positive scores showed a significance at the .01 confidence level for this period. Row 1 (Identity) and Column E (Social Self) also showed statistically significant differences in scores. All categories examined and tested revealed positive changes, though significant change was in existence only for the above three scores.

A test to determine if there was any significant difference in changes between the group with initially high self-concepts and the group with initially low self-concepts produced a t-score of -.45. This score was far below the 2.080 score which is the .05 confidence level.

Low, middle, and high participation groups were analyzed to determine any significant differences in the TSCS score changes among the three. All nine tests showed the same findings of no significant differences at the .05 level of confidence.

Discussion

The discussion is presented in three parts. Each part is relevant to one of the three hypotheses in the study and to corresponding analysis of data.

Individual Differences in Positive TSCS Scores

The results of comparing the pre- and post-test scores to the standardized norms supported the various theories about delinquents' self-concepts found in the literature. The subjects in the present study had positive self-concepts, yet their scores were lower than the standardized group. Even after the three month period was completed and the tests revealed significant changes toward an overall total positive self-concept, the scores obtained were still lower than the norm.

One probable explanation for this is that these youth had been formally labeled delinquents, and despite the efforts made to correct their delinquency, they were still categorized as such. The setting of a correctional institution constantly remained a factor in continuing this labeling process. The subjects were forced to associate with other delinquents within the institutional setting, which was another reminder of their delinquency. Another explanation was found in the literature, which has shown that incarceration does not increase a positive self-concept but instead has an adverse effect on it. These findings were supported by the pre-test scores of the present study which clearly showed low self-concepts.

Three significant differences were found in testing the nine sub-hypotheses. The first sub-hypothesis tested revealed a difference in the TSCS Total Positive scores that was significant at the .01 confidence level. Row 1 - (Identity) was also significant at the .01 level. Column E was found to be significant at the .05 level. The remaining six categories, while not significant, showed positive changes.

Fitts (21:28) stated that even though the self-concept is fairly stable and usually will change only over a long period of time, "there is considerable evidence that people's concepts of self do change as a result of significant experiences." Evidently, during the three month period observed, a significant experience occurred which resulted in these changes. Since strict measures were not taken intentionally to isolate the effect of recreational participation on the individual, only generalizations could be made concerning this variable. It is very possible that without participation in the recreation program these changes in self-concept would not have occurred. It is just as possible that these same subjects could have participated in identical recreational activities outside of the penal setting, and these changes would not have occurred. The extent that participation in the recreational program had in creating this significance is unknown and was not within the scope of this study to find a cause and effect, but the fact remains that under the variables at SRYFC during this period, positive self-concept changes did occur.

The results also showed that all nine categories had positive increases. This indicated that the entire process was well balanced, aiding all aspects of self-concept equally.

High-Low Initial Self-Concept Group
Differences in Positive TSCS Scores

A test of significance at the .05 level was applied to test the null hypothesis of no significant difference between means. The result was far below the confidence level, which indicated that the changes in self-concepts were not any greater for the group with the initially high self-concepts than for the initially low self-concept group. The findings of the second hypothesis indicated a well balanced rehabilitative process which took place at the SRYFC during the three months because the changes which occurred were the same for both groups.

High, Medium, & Low Participation Group
Differences in Positive TSCS Scores

Analysis of variance for differences of pre- and post-test scores was used to determine if the amount of participation in the recreation program had a significant effect on self-concept changes of the subjects. A test of significance at the .05 level was applied to test the null hypothesis of no difference among the groups. Each category of the TSCS was treated as a separate sub-hypothesis. In all cases, scores obtained were not significant at the .05 level, therefore the null hypothesis of no difference was accepted.

These findings indicated that the amount of participation was not a major factor in changing the self-concepts of the subjects. For this reason, the findings tended to suggest that the existence of the entire recreational program in itself was not as great a factor in these changes as perhaps other variables such as leadership, other types of programs degree of satisfaction with the program, success (winning, etc.), inter-personal variables, or counseling.

Conclusions

1. The findings rejected three sub-hypotheses that there is no significant difference in changes in TSCS positive scores which occurred during the three month organized recreation program. These categories-- Total Positive, Social Self, and Identity--showed significant differences. The remaining six categories failed to reject the sub-hypotheses.

2. The findings supported the second hypothesis of no difference between the group with initially high self-concepts and the group with initially low self-concepts.

3. The findings supported the third hypothesis of no difference between the means among the low, middle, and high participation groups.

Recommendations

The following recommendations were drawn from the study:

1. The results arrived at in this study involved many variables. Future research should attempt to determine the effects of the same variables in isolated situations such as control groups in order to designate the significant events. Such variables should include success and failure, winning and losing, styles of organizing the program, leadership techniques, and rewards.
2. Future investigations should attempt to determine long range effects of these same variables on the individual, both inside the institutional setting as well as following release from the institution.
3. Since this study dealt only with delinquent youth, further research could examine the same variables on adult offenders in an institutional setting.

4. The present study marked the first time an organized recreation program was instigated at SRYFC. As a result of the significant findings of the study, it is recommended that the camp continue with its program and try to expand on the quality of the recreation program. It is suggested that various types of recreation programs be started which involve a variety of activities. A qualified full-time leader can be very beneficial in organizing these programs as well as taking this responsibility off the shoulders of the already overworked staff at SRYFC.

APPENDIXES

APPENDIX A

TSCS SUB-SCALES

TSCS SUB-SCALES

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

Column B--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.

Column C--Personal Self. This score reflects one's feelings of adequacy as a person and his evaluation of his personality apart from his body or his relationships to others.

Column D--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 association.

Column E--Social Self. This is another self as perceived in relation to others category but pertains to "others" in a more general way. It reflects the person's sense of adequacy and worth in his social interaction with other people in general.

Row 1--Identity. These are the "What I am" items. Here the individual is describing his basic identity--what he is as he sees himself.

Row 2--Self-Satisfaction. This score comes from those items where the individual describes how he feels about the self he perceives. In general this score reflects the level of self-satisfaction or self acceptance. An individual may have very high scores on Row 1 and Row 3 yet still score low on Row 2 because of very high standards and expectations for himself.

Or vice versa, he may have a low opinion of himself as indicated by the Row 1 and Row 3 Scores yet still have a high Self-Satisfaction Score on Row 2. The sub-scores are therefore best interpreted in comparison with each other and with Total P Score.

Row 3--Behavior. This score comes from those items that say "this is what I do, or this is the way I act." Thus this score measures the individual's perception of his own behavior or the way he functions.

APPENDIX B

PRE-TEST SCORES

PRE-TEST SCORES

Subject	T	A	B	C	D	E	1	2	3
1	381	84	79	75	70	73	137	111	133
2	266	51	54	48	56	57	98	82	86
3	330	70	69	67	61	63	122	98	110
4	282	71	45	52	58	56	80	120	82
5	310	68	50	69	66	57	116	110	84
6	272	58	51	58	58	47	85	90	97
7	283	62	52	59	55	55	105	82	96
8	304	66	62	71	42	63	108	95	101
9	318	67	64	65	60	62	107	105	106
10	249	55	45	49	56	44	83	79	87
11	313	61	57	62	59	74	123	97	93
12	288	64	62	56	53	53	96	96	96
13	266	67	44	49	52	54	98	91	77
14	298	67	60	57	62	52	92	107	99
15	339	69	63	70	65	72	131	100	108
16	331	71	74	61	56	69	121	108	102
17	252	66	49	48	40	49	76	101	75
18	285	73	51	55	45	61	100	86	99
19	259	55	54	47	51	52	94	73	92
20	258	60	59	42	49	48	84	104	70
21	263	59	50	52	46	56	89	93	81
22	334	68	60	74	63	69	125	98	111
$\Sigma X =$	6481	1432	1254	1286	1223	1286	2270	2126	2085
$\bar{X} =$	294.59	65.09	57.00	58.45	55.59	58.45	103.18	96.64	94.77

APPENDIX C

POST-TEST SCORES

POST-TEST SCORES

Subject	T	A	B	C	D	E	1	2	3
1	390	80	81	81	72	76	139	125	126
2	268	53	54	52	56	53	97	85	86
3	317	62	66	61	63	65	114	95	108
4	308	68	57	57	67	59	107	114	87
5	339	73	59	69	68	70	130	106	103
6	280	57	66	52	45	60	94	84	102
7	282	57	56	60	51	58	106	82	94
8	298	64	60	60	54	60	114	83	101
9	345	74	64	70	70	67	117	115	113
10	289	60	55	62	56	56	90	104	95
11	338	75	55	64	74	70	127	107	104
12	294	70	55	57	54	58	105	109	80
13	332	71	53	64	74	70	125	107	100
14	281	62	57	59	48	55	89	107	85
15	366	79	70	67	71	79	131	120	115
16	350	79	70	60	73	68	137	102	111
17	243	56	49	52	42	44	81	110	52
18	275	73	48	50	46	58	109	72	94
19	267	55	51	55	52	54	92	89	86
20	273	64	59	48	49	53	94	97	82
21	281	66	55	61	46	53	94	90	97
22	353	75	64	76	65	73	131	103	119
Σ	6769	1473	1304	1337	1296	1359	2423	2206	2104
\bar{X}	307.68	66.95	59.27	60.77	58.91	61.77	110.14	100.27	97.27

APPENDIX D

DIFFERENCES IN PRE- AND POST-TEST SCORES

DIFFERENCES IN PRE- & POST-TEST SCORES

Subject	T	A	B	C	D	E	1	2	3
1	9	-4	2	6	2	3	2	14	-7
2	2	2	0	4	0	-4	-1	3	0
3	-13	-8	-3	-6	2	2	-8	-3	-2
4	26	-3	12	5	9	3	27	-6	5
5	29	5	9	0	2	13	14	-4	19
6	8	-1	15	-6	-13	13	9	-6	5
7	-1	-5	4	1	-4	3	1	0	-2
8	-6	-2	-2	-11	12	-3	6	-12	0
9	27	7	0	5	10	5	10	10	7
10	40	5	10	13	0	12	7	25	8
11	25	14	-2	2	15	-4	4	10	11
12	6	6	-7	1	1	5	9	13	-16
13	66	4	9	15	22	16	27	16	23
14	-17	-5	-3	2	-14	3	-3	0	-14
15	27	10	7	-3	6	7	0	20	7
16	19	8	-4	-1	17	-1	16	-6	9
17	-9	-10	0	4	2	-5	5	9	-23
18	-10	0	-3	-5	1	-3	9	-14	-5
19	8	0	-3	8	1	2	-2	16	-6
20	15	4	0	6	0	5	10	-7	12
21	18	7	5	9	0	-3	5	-3	16
22	19	7	4	2	2	4	6	5	8

APPENDIX E

PARTICIPATION RECORDS

PARTICIPATION RECORDS

Subject	Pool	Spades	Sledding	Free Throws	Volley- ball	Table Tennis
1	*	*			*	*
2	*	*			*	*
3			*		*	*
4	*	*	*		*	*
5					*	*
6		*				*
7	*	*	*		*	
8	*	*		*	*	
9	*	*			*	*
10	*	*	*			
11	*	*	*	*	*	*
12	*	*			*	*
13						
14	*	*	*	*		*
15	*	*				*
16	*	*			*	*
17		*				
18						
19	*	*	*	*	*	*
20		*				
21						
22	*	*		*	*	*

* Signifies participation in the activity

APPENDIX F
STATISTICAL FORMULAS

STATISTICAL FORMULAS

1. t-test for Correlated Mean Difference:

- a. Compute the sum of squares for D:

$$\sum d^2 = \sum D^2 - \frac{(\sum D)^2}{N}$$

- b. Find the standard deviation for these differences:

$$s_x = \sqrt{\frac{\sum d^2}{N}}$$

- c. Find the standard error of the mean difference:

$$s_{D\bar{x}} = \frac{s_x}{\sqrt{N-1}}$$

- d. Compute the usual t score:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_{D\bar{x}}}$$

2. t-test for Uncorrelated Mean Difference:

- a. Compute the sum of squares for each distribution:

$$\sum x^2 = \sum X^2 - \frac{(\sum X)^2}{N}$$

- b. Find the standard error of the difference for pooled variance:

$$s_{D\bar{x}} = \sqrt{\frac{\sum x_1^2 + \sum x_2^2}{N(N-1)}}$$

3. Arithmetic Mean:

$$\bar{X} = \frac{\sum N}{N}$$

4. Analysis of Variance of the Difference:

- a. Solve for the difference:

$$D = Y - X$$

- b. Solve for the total sum of squares:

$$\sum d_t^2 = \sum D^2 - \frac{(\sum D)^2}{N}$$

- c. Solve for between sum of squares:

$$d_b^2 = \left[\sum \frac{(\sum D)^2}{n} \right] - \frac{(\sum D_t)^2}{N}$$

- d. Solve for within sum of squares:

$$\sum d_w^2 = \sum d_t^2 - \sum d_b^2$$

- e. Solve for
- F
- Score:

$$F = \frac{\text{Mean square between groups}}{\text{Mean square within groups}}$$

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Arkava, Morton L. A Sociology of Impoverished Life Styles. A published report under a grant from the U.S. Office of Education, Department of Health, Education, and Welfare, 1970.
2. Beck, Bertram M., "Recreation and Delinquency," in Recreation in Leisure Services for the Disadvantaged, John A. Nesbitt, Paul D. Brown, and James F. Murphy, (Philadelphia: Lea and Febiger, 1970), pp. 49-72.
3. Benjamins, James, "Changes in Performance in Relation to Influences Upon Self-Conceptualization," Journal of Abnormal and Social Psychology, Vol. 45, 1950, pp. 473-480.
4. Bentler, Peter M., "Test Review of the Tennessee Self Concept Scale," ed. Oscar Krisen Buros, (Highland Park, New Jersey: The Gryphon Press, 1972), Vol. I, pp. 150-151.
5. Berger, Bennett M., "Teen Agers Are an American Invention," The New York Times Magazine, June 13, 1965, p. 12.
6. Biles, Fay Reifsnnyder, "Self-Concept Changes in College Freshmen Women in a Basic Physical Education Course using Two Methods of Instruction," Dissertation Abstracts, Vol. 29-A, No. 9, March 1969, pp. 2979-2980.
7. Buros, Oscar Krisen, ed. The Seventh Mental Measurements Yearbook, Volume I. Highland Park, New Jersey: The Gryphon Press, 1972.
8. Butler, George D. Introduction to Community Recreation. 4th ed. New York: McGraw-Hill Book Company, 1967.
9. Carlson, Reynold Edgar; Deppe, Theodore R; MacLean, Janet R. Recreation in American Life. 2nd ed. Belmont, California: Wadsworth Publishing Company, Inc., 1972.
10. Carlton, Lessie and Robert H. Moore. Reading, Self-Directive Dramatization and Self-Concept. Columbus, Ohio: Charles E. Merrill Publishing Company, 1968.
11. Cohen, Albert K. Delinquent Boys, The Culture of the Gang. New York: The Free Press, 1971.
12. Corbin, H. Dan and William J. Tait. Education for Leisure. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1973.
13. Crites, John O., "Test Reviews," Journal of Counseling Psychology, Vol. 12, No. 3, Fall 1965, pp. 328-331.

14. Danford, Howard G. Creative Leadership in Recreation. Boston: Allyn and Bacon, Inc., 1966.
15. Dea, Kay Lyman, "Concept of Self in Interpersonal Relationships as Perceived by Delinquent and Non-Delinquent Youth," Dissertation Abstracts, Vol. 31-A, No. 9, March 1971, p. 4893.
16. Decker, Larry E., "Recreation in Correctional Institutions," Reflections of the Recreation Park Movement: A Book of Readings, David Gray and Donald A. Pelegrino, ed. (Dubuque, Iowa: William C. Brown Co., 1973), pp. 153-156.
17. DeGrazia, Sebastian. Of Time, Work, and Leisure. Garden City, N.Y.: Doubleday and Company, Inc., 1964.
18. Downie, N. M. and R. W. Heath. Basic Statistical Methods. 3rd ed. New York: Harper and Row, Publishers, 1970.
19. Engel, Mary, "The Stability of the Self-Concept in Adolescence," Journal of Abnormal and Social Psychology, Vol. 58, No. 2, March 1959, pp. 211-215.
20. Fichtler, Helmuth; Zimmerman, Robert R.; and Moore, Ray T., "Comparison of Self-Esteem of Prison and Non-Prison Groups," Professional paper, University of Montana, Missoula, 1973.
21. Fitts, William H. Tennessee Self Concept Scale Manual. Nashville, Tennessee, 1965.
22. Frease, Dean Ellis, "The Schools, Self-Concept and Delinquency," Dissertation Abstracts, Vol. 30-A, No. 11, May 1970, pp. 5090-5091.
23. Glueck, Sheldon and Eleanor Glueck. Delinquents in the Making. New York: Harper and Brothers Publishers, 1952.
24. Hall, Peter Mandel, "The Self-Conception of Juvenile Delinquents: A Symbolic Interactionist Approach," Dissertation Abstracts, Vol. 25-A, No. 4, October 1964, p. 2650.
25. Heywood, Lloyd A., "Some Physiological Accompaniments of Recreative Experience." Unpublished Doctoral Dissertation: University of Wisconsin, Madison, 1973.
26. Hormachea, Marion and Carroll Hormachea, "Recreation and Youthful and Adult Offenders," Recreation and Special Populations, ed. Thomas A. Stein and H. Douglas Sessoms. Boston: Holbrook Press, Inc., 1973.
27. Hurley, Maryl F., "The Effects of Basic Swimming Instruction Upon Self-Concept." Unpublished Master's Thesis, University of Montana, Missoula, 1972.

28. Jacob, Joseph S., "Psychiatry, the Body Image and Identity." Values in Sports: A Joint National Conference of the Division for Girls and Women's Sports and the Division of Men's Athletics. Washington, D.C.: AAHPER, 1963, pp. 28-33.
29. Jerschild, Arthur T. In Search of Self. New York: Teachers College, Columbia University, 1952.
30. Kennedy, Sharon Ray, "Delinquent Self-Image, Part II: The Self-Image of the Juvenile Delinquent at the Utah State Industrial School, 1964 (Part II--Stability)," Unpublished Master's Thesis from University of Utah, 1964.
31. Kraus, Richard. Recreation and Leisure in Modern Society. New York: Appleton-Century-Crofts, 1971.
32. _____. Recreation Today: Program Planning and Leadership. New York: Appleton-Century-Crofts, 1966.
33. _____. Therapeutic Recreation Service Principles and Practices. Philadelphia: W. B. Saunders Co., 1973.
34. LaBenne, Wallace D. and Bert I. Greene. Educational Implications of Self-Concept Theory. Pacific Palisades, California: Goodyear Publishing Co., Inc., 1962.
35. Lambert, Virginia May, "An Investigation of the Relationship of Delinquent Self-Conception to Adjudication for Delinquency," Dissertation Abstracts, Vol. 30-A, No. 12, June 1970, p. 5539.
36. Lecky, Prescott. "The Personality." The Self, Explorations in Personal Growth: Selected Readings. Clark E. Moustakas, ed. New York: Harper and Brothers Publishers, 1956, pp. 86-97.
37. Lefeber, James Arthur, "The Delinquent's Self-Concept," Dissertation Abstracts, Vol. 26-A, No. 4, October 1965, pp. 2052-2053.
38. Meyer, Harold D. and Charles K. Brightbill. Community Recreation: A Guide to Its Organization. 3rd ed. Englewood Cliffs, N. J.: Prentice Hall, Inc., 1964.
39. Miller, Norman P. and Duane M. Robinson. The Leisure Age: Its Challenge to Recreation. Belmont, California: Wadsworth Publishing Company, Inc., 1963.
40. Moustakas, Clark E., "True Experience and the Self." THE SELF: Explorations in Personal Growth: Selected Readings. Clark E. Moustakas, ed. New York: Harper and Brothers Publishers, 1965.
41. Nash, Jay B. "Recreation and Delinquency." Recreation: Pertinent Readings. Dubuque, Iowa: William C. Brown Co., 1965, pp 180-181.

42. Neumeyer, Martin H. and Ester S. Neumeyer. Leisure and Recreation: A Study of Leisure and Recreation in Their Sociological Aspects. 3rd ed. New York: The Ronald Press Company, 1958.
43. Powell, Marvin. The Psychology of Adolescence. New York: The Bobb-Merrill Company, Inc., 1963.
44. Robbins, Florence Greenhoe. The Sociology of Play, Recreation, and Leisure Time. Dubuque, Iowa: William C. Brown, Co., 1955.
45. Rubin, Jerome. "Change in Self-Concept During Institutional Confinement," Crime and Delinquency Abstracts, Vol. 8, No. 6, Nov. 1972, pp. 555-556.
46. Samuelson, Genelle Faye. "The Effects of a Specially Structured Seven Week Physical Education Class Upon the Self-Concept of Low-Esteem Tenth Grade Girls." Unpublished Master's Thesis: The University of North Carolina at Greensboro.
47. Sheerer, Elizabeth T. "An Analysis of the Relationship Between Acceptance of and Respect for Self and Acceptance of and Respect for Others in Ten Counseling Cases," Journal of Consulting Psychology, Vol. 13, No. 1, Feb. 1949, pp. 169-175.
48. Sheppard, Samona. "Changes in Body Concept and Self-Concept Among College Students Who Learn to Swim," Dissertation Abstracts, Vol. 32-A, No. 10, April 1972, p. 5599.
49. Snygg, Donald and Arthur W. Combs. Individual Behavior. New York: Harper and Brothers Publishers, 1949.
50. Stock, Dorothy. "An Investigation into the Interrelations Between the Self-Concept and Feelings Directed Toward Other Persons and Groups," Journal of Consulting Psychology, Vol. 13, No. 1, February 1949, pp. 176-180.
51. Suinn, Richard M. "Test Review of the Tennessee Self-Concept Scale." The Seventh Mental Measurements Yearbook. Oscar Krisen Buros, ed. Vol. I. Highland Park, New Jersey: The Gryphon Press, 1972.
52. Sullivan, Harry Stack. The Interpersonal Theory of Psychiatry. New York: W. W. Norton and Company, Inc., 1953.
53. Torrance, E. Paul. Mental Health and Constructive Behavior. Belmont, California: Wadsworth Publishing Company, Inc., 1965.
54. Vacchiano, Ralph B. and Paul S. Strauss. "The Construct Validity of the Tennessee Self Concept Scale," Journal of Clinical Psychology, Vol. 24, No. 3, July 1968, pp. 323-326.

55. VanDinter, Norbert Robert. "The Relationship Between Sports Participation, Attitudes Toward Sports, Social Economic Status, and the Self-Concepts of Male Problem Youth," Dissertation Abstracts, Vol. 31-A, No. 8, February 1971, p. 3943.
56. Wright, Richard A. "Self-Concept and Interpersonal Perception Change in Basketball Teams." Unpublished Master's Thesis: University of Montana, Missoula, 1971.
57. Zabriskie, Joseph William. "An Evaluation of Self-Concept and Social Attitude of Adjudicated Delinquent Males in Specialized Short Term Treatment Programs," Dissertation Abstracts, Vol. 34, No. 6, December 1973, p. 3078.