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AN ANALYSIS OF THE
RECREATIONAL BEHAVIOR AND PERSONALITY CHARACTERISTICS
OF A SELECT GROUP OF COLLEGE WOMEN
WHO EXHIBITED ATYPICAL SOCIAL BEHAVIOR

by

Shirley Katherine Flynn

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
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1972

Approved by


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APPROVAL PAGE

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FLYNN, SHIRLEY KATHERINE. An Analysis of the Recreational Behavior and Personality Characteristics of a Select Group of College Women Who Exhibited Atypical Social Behavior. (1972) Directed by: Dr. Gail Hennis. 77 pp.

The purpose of this study was to analyze the recreational behavior and personality traits of a group of thirty-seven college women at the University of North Carolina at Greensboro. These women were known to have exhibited atypical social behavior as defined by campus social regulations, particularly those involving residence hall policies. The group was divided into four sub-groups consisting of drug, alcohol, residence hall security, and visitation procedure violators. All of the violations occurred during the 1970-71 academic year.

The above-mentioned women appeared before the student courts for hearing. As cases were tried, case transcripts were reviewed by the investigator. Each individual was invited for an interview and asked to become a subject for this study. Upon agreement to participate, an appointment was made to administer the Zeigler instrument, "How Do You Rate Yourself Recreationally?" and the California Psychological Inventory (CPI). The investigator then developed a revision of the Zeigler instrument which was mailed to the subjects. The mailing yielded a one hundred percent return.

A one-way analysis of variance, the Scheffé test, and correlation coefficients were used to analyze the data. On the basis of the available statistical evidence, it can be said that the Zeigler and Flynn instruments

do not demand the same answers. It is the belief of the investigator, on the basis of the item-by-item analysis of both instruments, that the revision allows for a clearer picture of recreational behavior. However, it can be concluded from either instrument that the group used for this study did not participate actively in physical recreation. When they did participate, the activities chosen were dual or individual in nature. As a group they were more interested in creative/aesthetic recreation.

The personality traits of the subjects differed significantly from the norms established by the CPI. There were differences statistically significant at the .05 level in thirteen of the eighteen CPI variables. In general, it can be said the subjects used for this study did not possess those qualities that would enable them to be socially mature and responsible individuals.

When making sub-group comparisons, it was evident the drug violators were less interested in physical recreation than all other groups. The alcohol violators indicated more interest in physical recreation than all other groups. There were sub-group differences for one CPI variable. The drug violators were significantly lower in the variable communality. This indicated the drug violators gave their responses randomly and in a less meaningful way than the other groups.

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CHAPTER I

INTRODUCTION

Educators have long been concerned with the recreational activity in which an individual participates during his leisure hours. This concern has been influenced by the prevailing educational philosophies and religious beliefs of the time. The emphasis on man's use of his leisure from primitive times to the present has been one of constructive or worthy use of that time. Grecian civilization thrived on leisure activity. During the period of the Renaissance, worthwhile use of leisure was considered to be learning. Unproductive personal enjoyment was sinful at the time of the Reformation. Gradually, concern for a balanced life - one of work, play, nourishment, and rest - became evident. More recently the concern has been for the kind of leisure that will allow man to function at his best mentally, physically, and emotionally no matter what he is doing.

Many factors influence an individual's choice of recreational or leisure activity. Some of these are: amount of leisure time available, availability of facilities, acquired recreational skills, needs and desires, and personality characteristics of the individual. Still other factors may be the influence of peer groups and associates or the fact that a given activity may be the thing to do at the time. While all of these factors are influential in making recreational choices, the most important may very well be personality.

A great many studies have investigated personality traits of certain groups of athletes (35,40,56,57,66,86); however, relatively few have investigated recreational choice and personality. Generally Kaplan (21), Cavanaugh (39), and Havighurst (47) conclude that there is some relationship between personality traits and the leisure activity sought by an individual. Ibrahim (49), on the other hand, did not find evidence strong enough to indicate differences between the personalities of those who were recreationally inclined and those who were not so inclined.

The author of this study had the opportunity to become involved, over a period of several years, with college women who had exhibited social behavior not typical of the college woman. Because of a commitment to the concept of the value of physical recreation, the author questioned these women in regard to their participation in physical recreation. On the basis of the knowledge thus gleaned, it was hypothesized that individuals who exhibit atypical social behavior do not participate in physical recreation. Subsequent interviews led the author to hypothesize further that, not only did individuals who exhibit atypical social behavior fail to participate in physical recreation, they were also somewhat different from other, more typical, college women when considering personality characteristics.

In order to investigate the above hypotheses, a pilot study was conducted. Ten women who had appeared before the student courts at the University of North Carolina at Greensboro during the academic year 1968-69 agreed to participate as subjects. The Zeigler Test, "How Do

You Rate Yourself Recreationally?" (88), and the California Psychological Inventory (15) were used to test the aforementioned hypotheses.

The Zeigler Test was scored using the Zeigler method of scoring, which requires receiving a score for only "yes" responses. While total scores were relatively high, only three of the ten subjects indicated active participation in physical recreation. It was interesting to note that eight of the subjects indicated active participation in the social and creative/aesthetic areas of recreation.

The California Psychological Inventory (CPI) scores were converted to standard scores and plotted on profile sheets. There was a pronounced pattern of scores below the norm for college women as established by the inventory.

It appeared, on the basis of empirical judgment, that the results tended to reinforce the stated hypotheses. They seemed also to suggest that individuals who exhibit different types of social behavior differ with respect to recreational behavior.

To test the hypotheses still further this present study was undertaken.

CHAPTER II
STATEMENT OF THE PURPOSE

The purposes of this study were to analyze the recreational behavior and personality traits of a group of college women who were known to have exhibited atypical social behavior. It was hypothesized that individuals who exhibit atypical social behavior (as defined by this study) do not participate regularly in any form of active physical recreation. It was further hypothesized that individuals who exhibit different types of atypical behavior differ with respect to their recreational behavior.

An additional hypothesis was that individuals who exhibit atypical social behavior, as defined by this study, differ from the normative group of college women with respect to personality characteristics as measured by the California Psychological Inventory (CPI).

In order to develop the study, it was necessary to assess recreational behavior on a broad basis; to determine what physical recreation (game or sport) appeared in an individual's recreational pattern; to determine the amount of available leisure time the subjects had; and to assess personality characteristics on the basis of norms already established for college women.

Definition of Terms

For purposes of this study, acceptable social behavior was considered to be that behavior which did not penetrate outside the standards or normative boundaries of the community. The community was considered to be the residence halls for women at the University of North Carolina at Greensboro. Standards for acceptable social behavior were established by student legislative action and administrative approval of that action. Atypical behavior, then, was defined as that behavior which deviated from the social standards as established for women's residence halls at the University of North Carolina at Greensboro and, as a result, caused the individual to appear before the student judicial system for consideration and action. The social violations (atypical behaviors) considered for this study were: (1) visitation violations, i.e., a member of the opposite sex in a room after closing hours, (2) drug use in violation of state and federal law, (3) alcohol use in violation of state and federal law, (4) other violations, mainly those concerned with residence hall security, i.e., exiting a building after closing hours and leaving a door in such a position that entry could easily be made. Recreational behavior was considered in terms of the five areas of recreational interest: physical, social, communicative, creative/aesthetic, and learning; and the four levels of participation: passive, emotional, active, and creative as defined and measured by Zeigler. (88) He designed his instrument on the basis of the following two principles:

1. People have basic needs which motivate them to participate in the following types of recreational activities:
 - a. Physical activity interests--tennis, golf, and other sports.
 - b. Social interests--social clubs, etc.
 - c. Communicative interests--writing, discussion, etc.
 - d. Creative and aesthetic interests--painting, music, etc.
 - e. Learning interest--educational hobbies.
2. There are roughly four levels of recreational "participation":
 - a. Passive (e.g., watching television with slight interest)
 - b. Emotional or vicarious (e.g., displaying marked identification with a team or an actor by showing increased interest)
 - c. Active (e.g., regular, active engagement in sport or other activity)
 - d. Creative (e.g., participation at high level of performance in any area of recreational interest). (88, p. 487)

Leisure time was considered as being "that portion of the day not used for meeting the exigencies of existence." (82, p. 1) For a college student, leisure time would be that time not spent in class, studying, eating, sleeping, or working at a job which served as a major source of support for her education.

Personality characteristics were considered in terms of the eighteen scales used in the California Psychological Inventory. (15) These scales were grouped into four broad classes bringing together scales having similar implications. Class I brings together the scales of dominance, capacity for status, sociability, social presence, self-acceptance and a sense of well-being which are measures of poise, ascendancy, self-assurance, and interpersonal adequacy. Class II brings together the scales of responsibility, socialization, self-control, tolerance, good impression, and communiality which are measures of socialization, maturity, responsibility, and intrapersonal structuring of values. Class III includes achievement via conformance, achievement via independence, and intellectual efficiency, all of which are measures

of achievement potential and intellectual efficiency. Class IV measures intellect and interest and brings together the scales of psychological-mindedness, flexibility, and femininity.

More specifically the intended purpose of each scale is stated as follows:

1. **Dominance:** Assesses factors of leadership ability, dominance, persistence, and social initiative.
2. **Capacity for status:** Serves as an index of an individual's capacity for status and attempts to measure the personal qualities and attributes which underlie and lead to status.
3. **Sociability:** Identifies persons of outgoing, sociable, perceptive temperament.
4. **Social presence:** Assesses factors such as poise, spontaneity and self-confidence in personal and social interaction.
5. **Self-acceptance:** Assesses factors such as sense of personal worth, self-acceptance and capacity for independent thinking and action.
6. **Sense of well-being:** Identifies persons who minimize their worries and complaints, and who are relatively free from self-doubt and disillusionment.
7. **Responsibility:** Identifies persons of conscientious, responsible and dependable disposition and temperament.
8. **Socialization:** Indicates the degree of social maturity, integrity and rectitude an individual has attained.
9. **Self-control:** Assesses the degree and adequacy of self-regulation and self-control and freedom from impulsivity and self-centeredness.
10. **Tolerance:** Identifies persons with permissive, accepting and non-judgmental social beliefs and attitudes.
11. **Good impression:** Identifies persons capable of creating a favorable impression and who are concerned about how others react to them.
12. **Communiality:** Indicates the degree to which an individual's reactions and responses correspond to the model pattern established for the inventory.

13. Achievement via conformance: Identifies those factors of interest and motivation which facilitate achievement in any setting where conformance is a positive behavior.
14. Achievement via independence: Identifies those factors of interest and motivation which facilitate achievement in any setting where autonomy and independence are positive behaviors.
15. Intellectual efficiency: Indicates the degree of personal and intellectual efficiency which the individual has attained.
16. Psychological-mindedness: Measures the degree to which the individual is interested in, and responsive to, the inner needs, motives, and experiences of others.
17. Flexibility: Indicates the degree of flexibility and adaptability of a person's thinking and social behavior.
18. Femininity: Assesses the masculinity or femininity of interests. (15)

CHAPTER III
REVIEW OF THE LITERATURE

The Concept of Leisure

The concern for man's use of leisure is not a new concept. The Egyptian concept of play for play's sake and the cultivation of the art of leisure by the leisure classes in ancient Greece and by the British during the Elizabethan period are evidences of early concern. (48,61,75, 65,19,6) Concern for worthy use of leisure time is not new to educators. "It has been proclaimed by philosophers from the time of Greek scholars to John Dewey." (78, p. 32) Socratic philosophy proposed that leisure was one of man's most precious possessions; and it was John Dewey who said that "the quality of living has intrinsic value and, as such, is the business of education." (62, p. 39)

Many authors have commonly defined leisure as free time, unstructured time, discretionary time, or spare time. (61,7) Weiss (82, p. 1) referred to leisure as "that time not used for meeting the exigencies of existence." More specifically, Kaplan (21, p. 4) said, "Leisure, no matter how it is characterized, deals with hours and ways of behavior in which we are freest to be ourselves. Thus what we do, whether on the noblest of levels and aspirations or the lowest of tastes, is a clue or indication of what we are, who we are, where we want to go." His definition seems to place some responsibility on the individual involved. This concept was broadened by Merry (62, p. 71) in her statement that "leisure is not the means to an end: it is an end in itself, a

positive concept, a way of life. It's one of man's most challenging responsibilities." Still others advocate that leisure "is an opportunity to enrich our lives, develop personalities and learn the healthy way to escape the tensions and compulsions of life." (7, p. 1) Martin said that leisure is "a state or condition of mind and being--more specifically, an actively receptive condition of the whole personality." (61, p. 28)

J. B. Nash (64, p. 7) proclaimed "Education for leisure--a must." In 1961 the Educational Policies Commission of the National Education Association, in the document The Central Purpose of American Education, stated:

The worthy use of leisure is related to the individual's knowledge, understanding, and capacity to choose, from among all the activities to which his time can be devoted, those which contribute to the achievement of his purposes, and to the satisfaction of his needs. On this basis, the individual can become aware of the external pressures which compete for his attention, moderate the influence of these pressures, and make wise choices for himself. (76, p. 32)

More recently the literature emphasizes the necessity of educating man to live in the world he has helped to create. (60,48,45) The drastic and rapid technical and cultural changes affecting man's way of life place a great deal more emphasis on the need for leisure and the wise use of that leisure. Evidence of this concern is quite clear in the document Charter for Leisure. (50)

In June, 1970, after two years of work, the International Recreation Association completed a "Charter for Leisure" to be made available in four languages. The preface of the charter stated:

Leisure time is that period of time at the complete disposal of an individual, after he has completed his work and fulfilled

his other obligations. The uses of this time are of vital importance.

Leisure and recreation create a basis for compensating for many of the demands placed upon man by today's way of life. More important, they present a possibility of enriching life through participation in physical relaxation and sports, through an enjoyment of art, science and nature. Leisure is important in all spheres of life, both urban and rural. Leisure pursuits offer man the chance of activating his essential gifts (a free development of the will, intelligence, sense of responsibility, and creative faculty). Leisure hours are a period of freedom, when man is able to enhance his value as a human being and as a productive member of his society.

Recreation and leisure activities play an important part in establishing good relations between peoples and nations of the world. (JOHFER, February, 1971, pp. 28-29)

The readings generally agree that leisure is actually a period of time or a "block of time." (6, p. 21) It is during this time that play or recreation takes place. Nash, (65) Ulrich, (31) Huizinga, (20) Sessoms (28) and others believe that play is a necessary and essential function. Ulrich's (31, p. 99) statement that "Man looks to work for maintenance, but it is from play that he finds sustenance" is supportive of Nash's notion that "recreation and work together, make for fullness." (65, p. 51) Both imply that activity is a necessary ingredient for a full life. Long ago John Dewey (11, pp. 232-238) gave education the serious responsibility of "making adequate provision for enjoyment of recreative leisure not only for the sake of immediate health, but still more if possible for the sake of its lasting effect upon the habits of the mind."

It is possible to be freed from the pressure of daily life and still not have leisure time. This occurs when one has no interest in leisure, no ability to make use of free time, is subject to conditions which are not propitious, or lacks the facilities which enable him to express his interests, make use of his abilities, and take advantage of the conditions. (82, p. 3)

Recreation and Personality

For centuries psychologists, sociologists, and educators have devoted themselves to the study of the influence of the group, the culture, and basic needs upon man's personality. (1,2,5,17,24,25) It was not the intent of this study to dwell on personality development. However, one of the factors influencing an individual's choice of recreational activity may very well be personality characteristics. In a study of how leisure choices are made, Havighurst (46, p. 396) stated that "the significance of leisure activity is more closely related to personality than to social variables of age, sex, and social class." Havighurst and Feiganbaum (47, p. 403), in a study relating leisure activity to role, concluded that "... in the selection of activities, the personality, more than the situation, determines the life style." Pullias (70, p. 22) made the statement that "... little of significance can be said about personality and recreation that does not relate closely to needs and need satisfaction."

A number of studies have investigated personality traits of certain groups of athletes (35,40,56,57,66,86). Others have compared personality traits of athletes and non-athletes (71,75), of swimmers and non-swimmers (36), of women in team sports vs. women in individual sports (69), and of majors and non-majors in physical education (81). Some have studied the relationship of personality characteristics and fitness (80) and motor ability (52). Generally, these writings concluded that the athlete is more aggressive, dominant, emotionally stable, outgoing, and adjusts socially more easily than his non-athletic counterpart.

Some authors have investigated the relationship between recreational choice and personality. Cavanaugh (39) concluded that the emotionally well-adjusted individual tends to participate in recreational activities. Evidence in the Ibrahim study (49) was not conclusive enough to indicate that there were differences between the personality traits of those who were recreationally inclined and those who were not recreationally inclined. Nor was there evidence to suggest significant differences in the personalities of those inclined toward sport, social, communicative, aesthetic, or educational recreational interests. Kaplan, on the other hand, suggested that there is a relationship between personality and the primary leisure experience sought by an individual. (21, p. 26) He further stated "... in leisure we stand exposed. Through our leisure we provide the elements for diagnosing our culture to the observer." (21, p. 5)

Social Behavior

Modern sociologists maintain "... that social behavior, whether moral or immoral, legal or illegal, can be understood only in the light of the values that give it meaning and the institutions that provide the channels for achievement of these values." (26, p. 4) Social responses that depart from the expectations of the social system or the established norms of the group, become problem behavior in the eyes of the social system or the social group. This behavior is referred to as deviant, aberrant, non-conforming, or atypical behavior. These terms are frequently used interchangeably. They all imply deviant behavior. The differences in them are partially explained by Merton. "Two major

varieties of deviant behavior can be distinguished on the basis of their structure and their consequences for social systems." (26, p. 808) The non-conformist makes his dissent known and aims to change the norm. He is often acknowledged by society. The aberrant individual for the most part acknowledges the norms but finds it to his liking to violate them without announcing it. He will attempt to justify his behavior but will not acknowledge that what he did was right. Atypical behavior is not characteristic or typical of the behavior of the group and it may be abnormal for the person exhibiting it.

It is difficult to discuss social behavior and not devote some time to a discussion of norms. Social norms or group norms are the standards by which behavior is judged in a given social group. "They are prescriptions for behavior." (5, p. 156) Behavior that is difficult to monitor is likely to be subjected to normative control. The standards are not always ready-made and are sometimes decided upon in the course of experience--as in the case of a college campus.

Behavioral scientists have long been concerned with explanations for deviant behavior. Silberberg and Silberberg (76), in a study concerned with school achievement and behavior have said "... there are probably many reasons why a person commits--and gets caught committing an anti-social act." (76, p. 17) The educational experience may be partially or wholly responsible, they added. Sessoms claimed that "... delinquency and deviant behavior are not a willingness to or willful neglect on the part of the individual but a response to the organization of a socialization structure which determines how rewards, encouragement and support are distributed. The current system may be inadequate." (28, pp. 44-45)

Or, in the case of the college student, "There are all kinds of role conflict possibilities because of simultaneous role membership and the expectations of the occupants of those roles. Parent-son, college freshman-upper classmen, home community-college community, are just a few of the obvious possible conflicts." (5, p. 155) Trying to fulfill these various roles and the standards or norms established by the "... principle role definers--administrators, teachers, parents and peers" (55, p. 173) can bring about considerable anxiety. According to Roger Brown, "... roles in society permit a certain amount of creative interpretation." (5, p. 153) However, those norms or standards such as course requirements, major requirements, graduation requirements, and social regulations are usually printed and considered to be a contract between the institution and the student and are the expected behaviors. "Disruptions in the prescriptions for these norms cause problems for the role player." (5, p. 156) The expected behaviors and the deviations from those expectations ("creative interpretations") are the behaviors with which this study is concerned.

CHAPTER IV

PROCEDURE

On the basis of a number of unstructured interviews conducted over a period of several years with college women who had displayed atypical social behavior as defined by university social standards, the following hypotheses were developed. First, individuals who displayed atypical social behavior did not participate regularly in active physical recreation. Second, these individuals differed significantly from the norms for college women as prescribed by an assessment of personality traits.

PILOT STUDY

In order to provide insight into the problem, a pilot study was conducted. The purposes of the pilot study were to determine recreational participation and to assess personality traits of a selected group of college women who had displayed atypical social behavior.

Subjects

Ten women who had appeared before the student courts at the University of North Carolina at Greensboro during the academic year 1968-69 agreed to participate in the study.

Measuring Instruments

The Zeigler Instrument. The Zeigler instrument, "How Do You Rate Yourself Recreationally?" (88), was selected for use in this study because

of the philosophy upon which it was based, because of its format, and because it allowed the subject to rate herself on the basis of actual present recreational pursuit, rather than on possible ideal recreational pursuit. When Zeigler constructed his instrument, he accepted the principles suggested in the 1952 National Recreational Workshop report, "Recreation for Community Living."

The format of Zeigler's instrument was such that the questions were arranged into the five recreational interest areas. The four questions in each area were directed toward the four levels of participation. Each question had a possible yes or no answer; the respondent scored a point(s) if she answered "yes" and no points if she answered "no." The first question in each interest area indicated passive participation and scored one point if answered in the affirmative. The second question indicated emotional participation, if answered affirmatively, and scored two points. The third question was indicative of active participation if answered affirmatively and scored three points. The fourth question indicated creative participation and scored four points if answered in the affirmative. Within each area of recreational interest the subject could have scored as many as ten points by answering "yes" to all four questions. The highest possible total score for the entire test was fifty points.

The Zeigler instrument was developed at the University of Michigan using undergraduate male physical education majors as subjects. The mean scores for this group, as one might expect they would, indicated a high rate of physical recreational interest. (88, p. 488) The

instrument went through a two-year period of refinement. Several pilot studies were conducted and the opinions of experts were solicited.

The California Psychological Inventory. The California Psychological Inventory was selected because "the inventory is intended primarily for use with 'normal' (non-psychiatrically disturbed) subjects." (15, p. 5) The inventory has most often been used with socially functioning individuals. The scales are addressed primarily to personality characteristics important for social living and social interaction. According to Cronbach (9), this inventory covered all of the phases of personality more broadly than did other profiles. The eighteen scales were grouped into four broad categories or classes which brought together scales having similar implications.

Scales in Class I emphasized feelings of interpersonal and intrapersonal adequacy. The Class II scales were concerned with social norms and values and disposition to observe or reject such values. The scales in Class III did not "constitute a psychometric dimension" (15, p. 7), but were useful in an academic setting. The Class IV scales varied independently of each other and of the previous fifteen scales. They were "believed to reflect attitudes toward life of a broad and far-reaching significance." (15, p. 7)

The California Psychological Inventory did not have to be administered under rigorous testing conditions and, if necessary, could have been mailed to the subjects or administered on a take-home basis. These factors were considered in the selection of the inventory since the schedules of college students do not always lend themselves to mass testing.

Collection of Data

In a conference with each subject, personal data were gathered, the instruments to be used in collecting data were explained, and confidentiality of information was assured. The Zeigler instrument and the California Psychological Inventory were administered to each individual at the conclusion of the conference.

Results

The Zeigler instrument was scored by the administratrix rather than having the respondee score as Zeigler had suggested. CPI scores were plotted on profile sheets for comparative purposes. The results of this procedure, without benefit of statistical analysis, tended to support the original hypotheses. Seven of the ten subjects did not participate actively in physical recreation, yet eight of them indicated active participation in the social and creative/aesthetic areas of recreational pursuit. The frequency of low scores on the CPI was pronounced. Scores below the norms established for college women were particularly evident in the Class II items which are measures of socialization, maturity, responsibility, and "... are primarily concerned with social norms and values, and disposition to observe or reject such values." (15, p. 7)

It seemed, when considering the results of the instruments used, that not only were the original hypotheses supported, but another had presented itself. It appeared that there were differences between violation groups insofar as their recreational choices were concerned.

THE STUDY

Selection of Subjects

The forty-two women interviewed for this study were resident undergraduate students who had appeared before the student courts for violations of residence social regulations. As cases were heard and dispositions rendered by the courts, transcripts of each case were forwarded to the author. After examination of the transcripts, selected individuals were invited for an interview. The study was explained, confidentiality of information supplied was ensured, and the individual was invited to participate in the study. Two of those interviewed declined to participate. Upon agreement to participate, an appointment for test administration was made.

Initially, the women who agreed to be subjects were considered as one group. For a more comprehensive analysis, they were placed into sub-groups which were formulated on the basis of type of atypical behavior (social violation).

Measuring Instruments

Zeigler Instrument. Although the investigator had some reservations about the Zeigler instrument, previous research (49) in addition to the author's own pilot study had indicated that it would provide the data desired for this study. In an attempt to check the validity of the items with respect to area of recreational interest and level of participation, it was decided to submit the items to a jury for classification. The jury consisted of four staff members of the School of Health, Physical Education and Recreation at the University of North Carolina at Greensboro,

an academic dean (who was also a clinical psychologist and the varsity tennis coach), and five laymen (adults outside the field of education). The latter group consisted of four housewives and one businessman. Zeigler's twenty items were submitted to the jury in random order (See Appendix, p.68) so that a pattern for response would not be obvious. The random pattern was determined by drawing Zeigler's questions from a hat, one at a time. The jury was asked to respond to the random list by indicating (1) into which area of recreational interest the item best fit, and (2) the level of participation with which they considered the question to be associated. The jury (i.e., at least six of the ten members) was in agreement with the area of recreational interest in all but one of the twenty statements; however, they agreed with Zeigler on only thirteen of the twenty statements in regard to level of participation. At least five jurors agreed with Zeigler's classification on three additional statements. There was marked discrepancy on only four of the statements. The Zeigler designation of area and level of participation for each item and the expert and layman jury responses to each item are indicated in the Appendix, page 70.

Since recreational interest, rather than the levels of participation, was the primary concern of this investigation, the decision was made to use the instrument in spite of the fact that there was lack of agreement among the jurors with respect to level of participation. This seemed to have even less bearing on the study when it was considered that the discrepancies were primarily in the emotional and creative levels, since the author was interested in the active level of physical recreation.

Zeigler Revised - Flynn Revision. Although the author accepted the premise upon which the Zeigler instrument was constructed, an obvious unanswered question existed: was the "yes" answer a "yes-regularly" or a "yes-seldom" answer? To discover this, the author modified the instrument (See Appendix, p.74) by increasing the number of possible responses. The response choices were changed from the Zeigler "yes"- "no" to "regularly," "often," "sometimes," "seldom," and "never." The assigned point values were five, four, three, two, and one, respectively, for each item. In order to do this, some of the original Zeigler statements were revised. The intent of the statements was not changed. The revision simply eliminated the descriptive phrases such as "regularly," "two or three times," and "faithful follower." In order to make statement number three in the social area of recreation more meaningful to the subjects used in this study, the wording was changed from "Do you invite friends for dinner (or invite someone out) at least once a month?" to "How often do you go out for a coke or to a party?" This was done because all subjects were resident students who had paid board and, therefore, seldom made a practice of going out to eat nor could they conveniently invite someone in.

Since the inventory did not provide information with respect to the kinds of activity in which an individual participated and the amount of leisure time she had, three questions requiring short answers were included. They were "If you participate in a sport or game at all, what is it?," "If you have a hobby, what is it?," and "Defining leisure time as that time not used for such activities as class, classwork, eating,

sleeping, and part-time work, how much weekly leisure time did you have as a student?"

Administration of Instruments

Each subject took the Zeigler instrument and the CPI within two weeks of her initial interview. Prior to the testing session, each subject was told the purpose of each instrument and was given instructions for completion of the tests. One and one-half hours were allotted for taking the tests. After completing the tests, each subject was given the opportunity to react to the instruments. At that time each individual was assigned a number and told it would be necessary to do some further testing.

Because of the approaching examination period, during which time subject time was at a premium, the author's revised version of the Zeigler instrument was mailed to the students. Included in the mailing was a cover letter (see Appendix, p. 73) and a stamped, self-addressed envelope. The mailing yielded a one hundred percent return.

Treatment of Data

To determine whether there were differences in the types of recreational interest of subjects as measured by the Zeigler instrument and by Flynn's revision of the instrument, the one-way analysis of variance statistic was utilized. The .05 level of confidence was accepted as the point for rejecting the null hypothesis. Where significant F values were obtained, the Scheffé test was used to determine where the actual differences existed.

The product-moment correlation technique (raw score formula) was used in determining the degree of relationship between scores on the Zeigler and Flynn revision inventories.

In comparing the scores of the subjects in this study with those of college women comprising the normative group for the CPI, the t-test for differences between means of independent samples was used. Again the .05 level was established as the critical level.

The one-way analysis of variance, followed by a Scheffé test when appropriate, was also used when comparisons between sub-groups, established on the basis of type of social violation, were made with respect to recreational interests and personality variables.

CHAPTER V
PRESENTATION AND INTERPRETATION OF DATA

Presentation

The forty-two students, interviewed as potential subjects for this study, were resident undergraduate women at the University of North Carolina at Greensboro. Each had appeared before the student courts during the 1970-71 academic year for having violated major social regulations. After individual conferences with each potential subject, during which time the study was explained, all but two women indicated a willingness to cooperate in the study. Three of the remaining forty were eventually eliminated from the study because they withdrew from the university prior to the completion of the academic year and before all testing could be completed.

The Zeigler instrument, "How Do You Rate Yourself Recreationally?" (88) was used as a basis for studying recreational behavior.

The instrument was constructed with four questions within each of the five areas of recreational interest (physical, social, communicative, creative/aesthetic, and learning). The questions were placed in a similar order with respect to level of participation. (See Appendix, p. 71)

The first question in each recreational area involved passive participation; all second questions were concerned with emotional participation; all questions numbered three indicated active participation; and all number four questions dealt with creative participation or participation (when it did occur) at a high level of performance. A

subject responded to each question by checking a "yes" or "no" answer. Only "yes" responses received points commensurate with the number of the question. Thus, within each area of recreational interest, there was the possibility, if a subject responded with a "yes" to all four questions, of a top score of ten. It was possible, therefore, to obtain a total score varying anywhere between zero and fifty.

An adaptation of this instrument, devised by the author in order to more accurately determine the meaning of the Zeigler yes-no responses, was also administered.

The Flynn revision (See Appendix, p. 74) of Zeigler's instrument followed the same format and statements (with minor revisions) as the Zeigler instrument, but provided the opportunity for five choices for responses (as opposed to two choices for the Zeigler instrument). Any responses given received a score. Scores ranged from five to one, depending upon whether the choice made was "regularly," "often," "sometimes," "seldom," or "never." Thus a possible total score could have been between twenty and one hundred, and the top score in any one of the five areas of recreational interest could have been twenty.

In order to fully develop this study, it was necessary to secure some information in regard to recreation which was not available on either the Zeigler instrument or the Flynn revision. To get the information, three short answer questions (see Appendix, p. 75) were included in the revision. These questions asked (1) if there was participation in a sport or game, what it was, (2) if one had a hobby, what it was, and (3) how much available leisure time one had in a week.

The California Psychological Inventory, considered a valid and reliable tool, was used to assess personality characteristics because it was designed for use with "normal" (15, p. 5) people, and because it did not have to be administered under rigid testing conditions. Norms for college women are also available for comparison purposes (15, p. 35).

The data gathered were initially considered in terms of the total group of thirty-seven subjects. In order to further analyze the data, the group was divided into four sub-groups according to social violations which had taken them to the student courts. These groups consisted of individuals assigned to them on the following bases: (1) visitation violations, (2) drug violations, (3) alcoholic beverage violations, and (4) other residence hall violations, primarily those concerned with residence hall security policies. The sub-groups were made up of eleven, seven, eleven, and eight subjects, respectively.

The Zeigler Instrument and the Flynn Revision

Based upon observation of the raw data (see Appendix, p. 76) subjects' total scores on both instruments appear to be relatively high. Table I shows a wide range of scores for all variables. The greatest ranges occurred for the physical area on both instruments and for the creative/aesthetic area and the learning/hobby area on the Zeigler instrument. In each case, the range was from the lowest possible score to the highest possible score. It appeared also that mean scores differed considerably between variables on both tests. The mean scores for the creative/aesthetic area on both tests were higher than all

TABLE I
 MEANS, STANDARD DEVIATIONS AND RANGE OF SCORES
 ON THE ZEIGLER SCALE AND THE FLYNN REVISION
 OF THE ZEIGLER SCALE

N = 37

Variable	Test	Mean	S.D.	Range of Scores
Physical	Zeigler	6.14	3.47	0 to 10
	Flynn	13.00	4.21	4 to 20
Social	Zeigler	6.11	2.54	3 to 10
	Flynn	13.81	2.61	8 to 19
Communicative	Zeigler	4.86	2.50	1 to 10
	Flynn	12.95	2.68	7 to 18
Creative/Aesthetic	Zeigler	6.37	3.44	0 to 10
	Flynn	14.24	3.39	6 to 20
Learning/Hobbies	Zeigler	4.22	3.32	0 to 10
	Flynn	11.57	3.00	6 to 20
Total	Zeigler	20.08	8.27	12 to 44
	Flynn	65.27	10.78	42 to 92

other area mean scores. The lowest mean scores for both tests were in the communicative and learning/hobby areas of recreational interest.

In order to determine whether the apparent mean score differences on each instrument were statistically significant, the analysis of variance statistic was used. The results, as given in Table II, indicated there were differences statistically significant at the .05 level of confidence.

Since the analysis of variance showed significant F's, the Scheffé test was utilized to determine where the differences were. These data appear in Table III, p. 31. The S values indicated differences between means in all comparisons. The data obtained from the Zeigler scale indicated that the subjects scored significantly higher in physical recreation interests than in the social, communicative and learning/hobby categories. These subjects also indicated a preference for activities in the social category over those in the communicative and learning/hobby categories. Only in the area of creative/aesthetic activities was the interest more pronounced than any of the others.

Data from the Flynn revision followed much the same pattern as that of the Zeigler scale with the exception of a preference for social recreational activities over physical recreation categories.

In order to determine the relationship, if any, between scores on the Zeigler instrument and the Flynn revision, the raw scores were submitted to a product moment correlation. Although five of the six correlation coefficients were found to be statistically significant at

TABLE II
 ANALYSIS OF VARIANCE OF ZEIGLER AND FLYNN
 VARIABLE SCORES

Test	Source	df	Sum of Squares	Mean Squares	F
Zeigler	Between	4	158.1946	39.5487	4.1587*
	Within	180	1711.7838	9.5099	
Flynn	Between	4	155.1568	38.7892	3.7189*
	Within	180	1877.5495	10.4303	
F .05 = 2.42					

*Significant at the .01 level of confidence

TABLE III
 SCHEFFÉ COMPARISONS OF RECREATIONAL CATEGORIES
 FOR ZEIGLER AND FLYNN INVENTORIES

Variables	Zeigler Scale		Flynn Scale	
	S	M Diff.	S	M Diff.
Physical:				
Social	0.012	< 0.027	0.347	< -0.811
Communicative	0.570	< 1.270	0.023	< 0.054
Creative/Aesthetic	0.267	< -0.595	0.533	< -1.243
Learning/Hobbies	0.861	< 1.919	0.614	< 1.432
Social:				
Communicative	0.558	< 1.243	0.370	< 0.865
Creative/Aesthetic	0.279	< -0.622	0.185	< -0.432
Learning/Hobbies	0.849	< 1.892	0.961	< 2.243
Communicative:				
Creative/Aesthetic	0.837	< -1.865	0.556	< -1.297
Learning/Hobbies	0.291	< 0.649	0.590	< 1.378
Creative/Aesthetic:				
Learning/Hobbies	1.128	< 2.514	1.146	< 2.676

the .05 level of confidence, none were sufficiently high to be used for predictive purposes. Table IV shows the relationship between total scores and scores in the recreational areas of physical, communicative, creative/aesthetic, and learning/hobbies to be statistically significant. The scores for the area of social recreational interest were not significantly related.

In view of the indicated relatively low correlation coefficients between the Flynn and Zeigler instruments, the investigator decided to look at item-by-item responses for both tests. Table V, p. 34, presents a record of responses and the percent responding to the Zeigler choices. It also presents similar data for the five choices on the Flynn revision. The percentages for the Flynn choices were determined on the basis of the "regularly" response in comparison to the remaining four choices and the "never" response compared to the previous four choices. It appeared, when comparing these data, that the opportunity for more responses on the Flynn revision had caused a shift in the Zeigler "yes"- "no" responses.

According to the data presented for the Zeigler scale, "yes" responses do appear more frequently than "no" responses. For thirteen of the twenty items, over fifty percent of the responses to each item are "yes." These percentages are evident at all levels of participation for the area of physical recreation; the passive, emotional, and active levels of the social area; the passive and emotional levels of the communicative area; and the passive level of the learning/hobby area of recreational interest. The highest percentage of "yes"

TABLE IV
CORRELATION COEFFICIENTS BETWEEN THE
ZEIGLER AND FLYNN INVENTORIES

Variable	r	Sig. @
Physical	.68	.01
Social	.29	
Communicative	.39	.05
Creative/ Aesthetic	.61	.01
Learning/ Hobbies	.50	.01
Total	.51	.01

TABLE V
ITEM-BY-ITEM GROUP RESPONSES - ZEIGLER - FLYNN

Recreational Area	Item No.	ZEIGLER				FLYNN										Level of Participation
		Y	%	N	%	*	No. Responding				Percent Responding				1	
							5	4	3	2	1	5	4,3,2,1	5,4,3,2,1		
Physical Game or Sport	1	23	62.0	14	38.0	5	8	11	8	5	14	86	86	14	Passive	
	2	19	51.3	18	48.7	7	11	7	8	4	19	81	88	12	Emotional	
	3	19	51.3	18	48.7	11	9	11	4	2	29	71	95	5	Active	
	4	25	67.5	12	32.5	8	8	8	7	6	22	78	84	16	Creative	
Social	1	32	94.6	2	5.4	11	17	4	5	0	29	71	100	0	Passive	
	2	21	56.7	16	43.3	3	10	12	7	5	8	92	86	14	Emotional	
	3	30	81.0	7	19.0	15	16	4	2	0	40	60	100	0	Active	
	4	14	37.8	23	62.6	3	5	10	17	2	8	92	95	5	Creative	
Communicative	1	33	89.0	4	11.0	8	17	11	1	0	22	78	100	0	Passive	
	2	35	94.6	2	5.4	18	13	5	1	0	48	52	100	0	Emotional	
	3	13	35.0	24	65.0	3	4	11	13	6	8	92	84	16	Active	
	4	10	27.0	27	73.0	2	3	8	15	9	5	95	76	24	Creative	
Creative/Aesthetic	1	33	89.0	4	11.0	11	17	7	2	0	29	71	100	0	Passive	
	2	32	86.0	5	14.0	9	14	10	3	0	24	76	100	0	Emotional	
	3	30	81.0	7	19.0	16	8	7	5	1	43	67	97	3	Active	
	4	17	46.0	20	54.0	2	5	6	15	9	5	95	76	24	Creative	
Learning/Hobbies	1	34	91.8	3	8.2	2	4	13	13	1	5	95	97	3	Passive	
	2	16	43.2	21	56.8	1	14	20	2	0	3	97	100	0	Emotional	
	3	18	49.0	19	51.0	7	12	9	7	2	19	81	95	0	Active	
	4	9	24.0	28	76.0	2	1	8	12	14	5	95	63	37	Creative	

*-regularly, 4-often, 3-sometimes, 2-seldom, 1-never

responses was made to the passive, emotional, and active levels of the creative/aesthetic area.

It was apparent from the data received for the Flynn revision that the opportunity for more choices caused the Zeigler "yes" response to scatter to the point where there were few instances of a large number of responses. In only one instance was the number of responses greater than fifty percent. This occurred in the response choice "sometimes" at the emotional level of the learning/hobby area of recreational interest. The greatest number of regular responses occurred at the active level in the area of social recreation, the emotional level of the communicative area, and the active level of the creative/aesthetic area of recreational interest. These responses seemed to indicate that the group, as a whole, was not regularly active in any area of recreational interest. On the other hand, the relatively low frequency of "never" responses seemed to indicate the group generally participated at some level in some recreational activity.

If it can be assumed that the Flynn "regularly" response means the same as the Zeigler "yes" response, none of the items received fifty percent of the responses. If, however, "regularly," "often," "sometimes," and "seldom" are all considered to be "yes" responses, there was well over a fifty percent response to all items and in seven instances the response was one hundred percent. All of the group indicated some participation in the passive and emotional levels of the communicative area; the passive and emotional levels of the creative/aesthetic area of recreation; and in the emotional level of the learning/hobby area.

To more completely analyze the recreational behavior of the group used for this study, frequency of responses to the three questions included with the Flynn revision of the Zeigler scale are recorded in Tables VI, VII, and VIII. Responses to the first question (Table VI) indicated that twenty-seven of the subjects indicated participation in more than one physical activity. Ten indicated that they do nothing at all. It was apparent that, when there was participation in a sport or game, the choice of activity was not generally that involving group participation. All but seven of the activities given were either individual or dual in nature.

Responses to the second question (Table VII) indicated that all subjects had a hobby of some kind. The kinds of hobbies indicated fell most generally into the creative/aesthetic area of activity rather than any other area of recreational interest. The majority tended to be artistically inclined, rather than musically inclined.

The data in Table VIII points out that thirty-two of the group had anywhere from twenty-one to sixty hours per week available to them for leisure purposes. More than one-third had from twenty-one to thirty hours. Only one indicated she had no leisure time.

The California Psychological Inventory

Raw scores for the sample group on the CPI can be found in the Appendix, page 77. After plotting a CPI profile for the sample group and comparing it to the norm profile for college women, as established by the CPI, it appeared (on the basis of empirical observation) that

TABLE VI
 FREQUENCY OF RESPONSE TO
 "IN WHAT SPORT OR GAME DO YOU PARTICIPATE?"
 N = 37*

Activity	f
Tennis	19
Swimming	16
Nothing	10
Riding	7
Softball	5
Bicycle Riding	3
Other team sports	2
Individual sports	1

*Twenty-seven of the subjects indicated one or more than one activity.

TABLE VII
 FREQUENCY OF RESPONSE TO
 "IF YOU HAVE A HOBBY, WHAT IS IT?"
 N = 37

Hobby	f
Arts & Crafts	10
Needle work of various sorts	12
Piano	8
Guitar	4
Other music forms	3

TABLE VIII
 FREQUENCY OF RESPONSE TO
 "HOW MUCH LEISURE TIME DO YOU HAVE DURING A WEEK?"
 N = 37

Leisure Time	f
21 - 30 hours	14
10 - 20 hours	6
31 - 40 hours	5
41 - 50 hours	3
51 - 60 hours	3
No response	3
None	1
Not much	1
Too much	1

there were differences between the sample group and the normative group (see Figure 1 below).

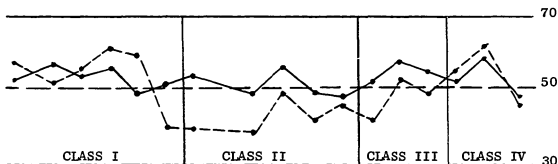


Fig. 1. Comparison of CPI Profiles

— College Female Norms N = 2,120
 ---- Experimental Group N = 37

To determine what differences, if any, actually existed between the two groups, the t test for differences between means of independent samples was utilized. As is evident from reviewing the data presented in Table IX, thirteen of the eighteen differences were statistically significant at the .05 level or better. The subjects in this study were only similar to the normative group with respect to the dominance, communality, psychological-mindedness, and femininity variables. The sample had significantly lower scores with respect to capacity for status, sense of well-being, good impression, and achievement whether via conformance or independence. Only in the cases of social presence and self-acceptance did the subjects in this study score significantly higher than the normative group.

TABLE IX
 COMPARISON OF NORMATIVE GROUP AND SAMPLE (ATYPICAL) GROUP
 WITH RESPECT TO CPI VARIABLES

CPI	Variable	Group	Means	S.D.	t
Do	Dominance	Sample	29.7	6.4	1.200
		Norm	28.5	5.9	
Cs	Capacity for Status	Sample	20.9	3.2	-2.195*
		Norm	22.2	3.6	
Sy	Sociability	Sample	26.2	5.0	.204
		Norm	26.0	4.8	
Sp	Social Presence	Sample	40.0	5.2	3.072*
		Norm	37.0	5.9	
Sa	Self Acceptance	Sample	23.6	3.4	3.049*
		Norm	19.5	8.1	
Wb	Sense of Well- Being	Sample	33.7	6.5	-5.116*
		Norm	37.5	4.4	
Re	Responsibility	Sample	27.1	5.4	-9.013*
		Norm	33.3	4.1	
So	Socialization	Sample	33.3	7.0	-7.390*
		Norm	39.5	5.0	
Sc	Self-Control	Sample	23.7	7.4	-5.784*
		Norm	30.8	7.4	
To	Tolerance	Sample	22.0	4.7	-4.260*
		Norm	25.0	4.2	
Gi	Good Impression	Sample	15.2	4.5	-3.766*
		Norm	19.1	6.2	
Cm	Communality	Sample	25.0	2.8	-1.577
		Norm	25.5	2.0	
Ac	Achievement via Conformance	Sample	24.1	5.1	-6.353*
		Norm	28.8	4.4	

TABLE IX (Continued)

CPI	Variable	Group	Means	S.D.	t
Ai	Achievement via Independence	Sample	20.4	3.7	-2.313*
		Norm	21.9	3.9	
Ie	Intellectual Efficiency	Sample	38.7	5.0	-3.386*
		Norm	41.4	4.8	
Py	Psychological- mindedness	Sample	12.2	2.8	1.699
		Norm	11.4	2.9	
Fx	Flexibility	Sample	12.9	3.8	2.193*
Fe	Femininity	Sample	22.7	4.0	-0.177
		Norm	22.8	3.3	

Sample N = 37

Norm N = 2,120

*Significant at .05

Comparison of Sub-Groups

The thirty-seven subjects were divided into four groups on the basis of type of social violation. This was done to determine whether there were recreational pattern differences and personality trait differences among the sub-groups. The four sub-groups consisted of those guilty of (1) visitation violations, (2) drug violations, (3) alcoholic beverage violations, and (4) other residence hall violations, primarily those concerned with residence hall security policies.

An analysis of variance was used to determine the between-group differences, if any, for data obtained on the three instruments. Table X shows a difference between groups, significant at the .05 level of confidence, in the area of physical recreation on both the Zeigler and Flynn inventories. The Scheffé technique was used to determine where the differences were. These data appear in Table XI, page 43. Because the S value was smaller than the difference between means in all sub-group comparisons, it can be concluded that the differences between the means for all groups were significantly different.

According to the comparisons of the Zeigler variable, the alcohol and other violations sub-groups had greater interest in physical recreation than did either the visitation or drug sub-groups. It was evident that the drug violators had far less interest in physical recreation than the remainder of the subjects.

The comparisons of the Flynn revision variable follow much the same pattern as the Zeigler comparisons. The exception indicated that

TABLE X
ANALYSIS OF VARIANCE OF DATA FROM THE FOUR SUB-GROUPS ON
VARIABLES OF THE ZEIGLER AND FLYNN INVENTORIES

Z Variables	Sources	Sum of Squares	df	Mean Square	F
ZP	Between	90.5384	3	30.1195	2.8896*
	Within	343.9659	33	10.4232	
ZS	Between	27.1990	3	9.0664	1.4639
	Within	204.3685	33	6.1930	
ZC	Between	45.0857	3	15.0286	2.7669
	Within	179.2386	33	5.4315	
ZCA	Between	17.2778	3	5.7593	0.4658
	Within	408.0195	33	12.3642	
ZL	Between	41.4212	3	13.8071	1.2840
	Within	354.8490	33	10.7530	
ZT	Between	35.3493	3	11.7831	0.1603
	Within	2425.4075	33	73.4972	
F Variables					
FP	Between	132.5455	3	44.1818	2.8845*
	Within	505.4545	33	15.3168	
FS	Between	24.1254	3	8.0418	1.978
	Within	221.5503	33	6.7136	
FC	Between	43.1711	3	14.3904	2.2116
	Within	214.2708	33	6.5067	
FCA	Between	2.9731	3	0.9910	0.0798
	Within	409.8377	33	12.4193	
FL	Between	21.0616	3	7.0205	0.7671
	Within	302.0195	33	9.1521	
FT	Between	165.8898	3	55.2966	0.4540
	Within	4019.4075	33	121.8002	

*Significant at the .05 level.

TABLE XI
SCHEFFÉ COMPARISONS OF THE PHYSICAL VARIABLE
FOR SUB-GROUPS ON THE ZEIGLER
AND FLYNN INVENTORIES

Sub-Groups	S		Mean Scores
Zeigler Scale			
Visitation-Drugs	0.732	<	6.36 - 3.00
Visitation-Alcohol	0.247	<	6.36 - 7.36
Visitation-Other	0.116	<	6.36 - 6.87
Drugs-Alcohol	0.950	<	3.00 - 7.36
Drugs-Other	0.788	<	3.00 - 6.87
Alcohol-Other	0.111	<	7.36 - 6.87
Flynn Revision			
Visitation-Drugs	0.441	<	12.45 - 10.00
Visitation-Alcohol	0.611	<	12.45 - 15.45
Visitation-Other	0.102	<	12.45 - 13.00
Drugs-Alcohol	0.972	<	10.00 - 15.45
Drugs-Other	0.503	<	10.00 - 13.00
Alcohol-Other	0.458	<	15.45 - 13.00

the alcohol violators were more interested in physical activity than were all other groups.

The data from the analysis of variance for the CPI, presented in Table XII, indicated a difference significant at the .05 level of confidence only for the variable Cm (Communality). This variable is composed of twenty-eight items in the inventory. "Each such item represents a sort of modal point of agreement and the total set of items a 'common denominator' of belief and attitude." (15, p. 19) Relatively high scores indicate that the test has been approached with care and conscientiousness. Low scores indicate that responses "have been given in some random and unmeaningful way." (15, p. 16)

The Scheffé Test was used to determine where the differences were. These data appear in Table XIII, page 47. In one instance there was no difference between means. The groups composed of those with visitation and alcoholic beverage violations were not significantly different with respect to the communality category of items. The S value is smaller than the difference between means for the remaining five comparisons; therefore, it can be concluded that the differences between these means were statistically significant.

Although previous data indicated communality to be one of the variables in which the normative and sample groups were alike, the Scheffé test indicated the drug violators approached their responses in a more "random and unmeaningful way" (15, p. 16) than did the other three sub-groups.

TABLE XII
ANALYSIS OF VARIANCE OF DATA FROM THE
FOUR SUB-GROUPS ON CPI VARIABLES

CPI Variables	Sources of Variations	Sum of Squares	df	Mean Square	F
Dominance	Between	14.285	3	4.7617	0.1090
	Within	1441.108	33	43.6916	
Capacity for Status	Between	22.069	3	7.3564	0.6946
	Within	349.498	33	10.5909	
Sociability	Between	78.996	3	26.3321	1.065
	Within	816.031	33	24.7282	
Social Presence	Between	40.398	3	13.4659	0.4843
	Within	917.602	33	27.8061	
Self Acceptance	Between	4.562	3	1.5205	0.1193
	Within	420.520	33	12.7430	
Sense of Well-Being	Between	35.111	3	11.7035	0.2578
	Within	1498.187	33	45.3996	
Responsibility	Between	154.558	3	51.5194	1.9194
	Within	885.776	33	26.8414	
Socialization	Between	201.985	3	67.3282	1.4333
	Within	1550.123	33	46.9734	
Self-Control	Between	158.868	3	52.9559	0.9791
	Within	1784.862	33	54.0867	
Tolerance	Between	88.980	3	29.6598	1.3864
	Within	705.994	33	21.3937	
Good Impression	Between	124.235	3	41.4115	2.2309
	Within	612.576	33	18.5629	
Communality	Between	61.441	3	20.4802	3.1357*
	Within	215.533	33	6.5313	
Achievement via Conformance	Between	53.229	3	17.7428	0.4966
	Within	1179.096	33	35.7302	

TABLE XII (Continued)

CPI Variables	Sources of Variations	Sum of Squares	df	Mean Square	F
Achievement via Independence	Between	10.614	3	3.5379	0.2441
	Within	478.305	33	14.4914	
Intellectual Efficiency	Between	3.347	3	1.1155	0.0406
	Within	906.383	33	27.4662	
Psychological-Mindedness	Between	19.239	3	6.4131	0.8298
	Within	255.031	33	7.7282	
Flexibility	Between	60.463	3	20.1544	1.4733
	Within	451.429	33	13.6797	
Femininity	Between	58.231	3	19.4105	1.2052
	Within	531.498	33	16.1060	

*Significant at the .05 level.

TABLE XIII
 SCHEFFE COMPARISONS OF THE CPI VARIABLE
 COMMUNALITY

Sub-Groups	S	Mean Scores
Visitation-Drugs	0.918 <	25.91 - 22.57
Visitation-Alcohol		25.91 - 25.91
Visitation-Other	0.403 <	25.91 - 24.50
Drugs-Alcohol	0.917 <	22.57 - 25.91
Drugs-Other	0.495 <	22.57 - 24.50
Alcohol-Other	0.403 <	25.91 - 24.50

Interpretation

The Zeigler instrument was designed "to determine the breadth and depth of recreational interest and pursuit." (88, p. 486) The Flynn revision provided the opportunity for more varied responses so that a more accurate interpretation of the Zeigler yes-no responses could be made. The raw data for both instruments seemed to indicate generally high scores, yet a wide range of scores. From the table (p. 28) of mean scores, standard deviations and range of scores, it was evident that the range of scores for all variables was wide. The greatest spread of scores for the Zeigler instrument occurred in physical, creative/aesthetic and the learning/hobbies areas of recreation. For the revision, the greatest spread of scores occurred in the physical area of recreation. In all cases these scores ranged from the lowest possible score to the highest possible score, which meant there were some "no" responses to the Zeigler scale and some "never" responses to the Flynn revision. Since there were scores slightly above the lowest possible scores in the social and communicative areas of recreation on the Zeigler scale and in the social, communicative, creative/aesthetic, and learning/hobbies on the Flynn revision, it is clear there was some participation at some level in these recreational areas.

Analysis of the mean scores indicated that there were differences statistically significant at the .05 level of confidence. Further analysis proved that there were significant differences between all mean score comparisons. It was apparent that the group used for this study was more interested in the creative/aesthetic area of recreation

than any other kind of recreation. They were more interested, according to the Zeigler data, in physical recreation than in social, communicative, or the learning/hobby area; and, according to the data for the revision, they were more interested in the social area of recreation than the areas of physical, communicative, or learning/hobby activities.

It would appear from the foregoing statements that there was some relationship between the scores made on the Zeigler scale and the revision. The product moment correlation verified that there was a relationship statistically significant at the .05 level in four of the five areas of recreation and between the total scores. Only the relationship between the scores in the social area of recreation were not statistically significant; however, none of the correlation coefficients were sufficiently high to be used for predictive purposes. The item-by-item responses tend to support the relatively low correlation coefficients between the two instruments. It is evident that the opportunity for more varied responses on the revision caused the answers given previously to the Zeigler scale to scatter considerably. This is particularly true when comparing the Zeigler "no" responses to the Flynn "never" responses. There are fewer "never" responses than "no" responses. This was also true when comparing the Zeigler "yes" responses and the Flynn "yes" (which could be a combination of "regularly," "often," "sometimes," and "seldom" responses). The latter four choices together show consistently higher percentages than do the "yes" responses on the Zeigler. This seems to imply a breadth and depth of recreational interest and participation. If it is assumed that the

Flynn "regularly" response means "yes," then no single area of recreational interest was pursued in depth, nor was there a breadth of interest indicated in any area of recreational activity.

Responses to the three open-ended questions asked indicated that, generally, when there was participation in a game or sport, it was either a dual or individual activity. The tendency toward group or organized activity was negligible. This one might expect, since these subjects tended to care little about others and were highly concerned with their own personal pleasure and diversion, were self-centered and had little concern for the needs and wants of others. Curiously enough, the activities given most often (tennis and swimming) were activities easily accessible in the setting in which the study was conducted. If a hobby was pursued, it was an activity that could be considered to be in the area of creative/aesthetic recreation. Perhaps this was to be expected since the group was generally active in that area of recreation.

Thirty-two of the subjects had generous amounts of leisure time available to them in a given week. It was apparent, according to the responses given to the recreation scales used, that they spent relatively little of that time in recreational activity. Some of it they spent in unacceptable ways. One cannot help but wonder how much of it was spent in these ways prior to the occurrence of the kind of atypical social behavior that took them before the student courts.

The CPI includes eighteen standard scales, each covering an important aspect of interpersonal psychology. Scales having similar implications are brought together into four broad categories or classes

for purposes of interpretation. Generally it can be said, when looking at an over-all profile of scores, that if nearly all of them are above the mean standard scores, there exists effective social and intellectual functioning. If, however, nearly all of the scores fall below the mean standard norms, significant difficulty in the interpersonal adjustment can be expected. (15, p. 12) Table IX indicates that, for the sample group, twelve of the eighteen scale means were lower than the mean standard norms. Ten of these were significantly lower.

The sample group was similar to the normative group only in the variables of dominance, sociability, communality, psychological mindedness, and femininity. Probably the group was generally persistent, playful, persuasive, and did have some leadership potential. They may also have been out-going, enterprising, and ingenious; spontaneous, resourceful, and changeable; and rebellious toward rules, restrictions, and constraints.

Scores were significantly lower for the variables capacity for status, sense of well-being, responsibility, socialization, self-control, tolerance, good impression, achievement via conformance, and achievement via independence. These low scores indicated that the sample group tended to be apathetic, shy, stereotyped in thinking, restricted in outlook and interests, and awkward and uneasy in new or unfamiliar situations. It was interesting to note that five of these low scores fell together in Class II which consists of measures of socialization, maturity, responsibility, and intrapersonal structuring of values. It might be expected that individuals who cannot live within the standards

for behavior society has imposed upon them are lacking in these qualities. Low scores in Class II suggest that the individual tends to be immature, moody, changeable, and disbelieving; influenced by personal bias and under-controlled and impulsive in behavior. They also tend to be defensive, demanding, opinionated, headstrong, rebellious, and undependable; deceitful in dealing with others, and given to exhibition in behavior. They also tend to be suspicious, wary, and distrustful; cool and distant in their relationships with others and are little concerned with the needs and wants of others. Perhaps these last several adjectives explain why twenty-seven of the sample group selected dual or individual sports; and perhaps that was why the recreational interests of the group tended toward the individualistic pursuit of creative/aesthetic activities.

In only the variables of social presence and self-acceptance did the subjects score significantly higher than the normative group. High scores indicated that the individual tended to be clever, enthusiastic, imaginative, quick, spontaneous, and talkative; active and vigorous; intelligent, outspoken, sharp-witted, demanding, self-centered, and self-confident. It may be that these qualities make it easier, for an individual who resents having social standards imposed upon him, to figure out the way to circumvent the rule.

Differences between sub-groups (visitation violations, drug violations, alcohol violations, and other violations) were significant at the .05 level of confidence in the physical recreation area on both the Zeigler and Flynn instruments and in the communality variable on

the CPI. Scheffé comparisons made for the Zeigler and Flynn instruments indicated that the greatest differences occurred between drug violators and alcohol violators with the drug violators being the least interested in physical recreation. The Scheffé comparisons for the CPI variable, communality, indicated the drug violators had given their responses to the CPI in a more "random and unmeaningful way" (15, p. 16) than all other groups. This same approach seems often to be the way of life for drug users.

CHAPTER VI
SUMMARY AND CONCLUSIONS

The intent of this study was to analyze the recreational behavior and personality traits of a group of college women who were known to have exhibited atypical social behavior as set within the limits of this study. Social behavior was defined within the limits of campus social regulations in regard to residence hall visitation policies, state and federal laws involving the use of drugs and alcohol, and other residence hall regulations, mainly those involving residence hall security.

The subjects selected were women at the University of North Carolina at Greensboro who had violated social regulations during the 1970-71 academic year. As a result, they appeared before the student courts for hearing. As cases were tried, case transcripts were reviewed by the investigator. Each individual was invited for an interview and asked to become a subject for this study. Upon agreement to participate, an appointment was made to administer the tests.

The tests used for this study were the Zeigler instrument, "How Do You Rate Yourself Recreationally," a revision of the Zeigler instrument as devised by the investigator, and the California Psychological Inventory (CPI). The Zeigler instrument was used because it was intended to assess the depth and breadth of recreational pursuit, and because it was directed toward present recreational participation rather than intended participation in recreation. The investigator developed a revision of the Zeigler instrument in an attempt to realize more

accurate responses to the Zeigler "yes"- "no" responses by providing more choices for response. The CPI was selected because it was devised to be used with normally functioning people, and because it gave scores in areas of particular concern to this study.

The Zeigler instrument and the CPI were administered within a month of the initial interview. At the time of this administration, the subjects were informed of the necessity to administer a revision of the Zeigler instrument. The Flynn revision was mailed to each subject to be completed and returned. The returns yielded a one hundred percent return.

Included with the Flynn revision was a set of three open-ended questions. The purpose of the questions was to make it possible to more fully evaluate the recreational behavior. The questions asked the subject to list kinds of physical recreation, if any; the kind of hobby, if any; and the amount of leisure time available in a given week.

The data were considered on the bases of total group data and sub-group comparisons. Sub-groups were formulated according to the four social regulations previously described.

In order to determine whether there were differences in the kinds of recreational interests of the subjects as measured by the Zeigler instrument and the Flynn revision, the one-way analysis of variance was used. The results indicated there were differences statistically significant at the .05 level of confidence. The Scheffé test was utilized to determine where the differences existed.

To determine the relationship between scores on the Zeigler instrument and the Flynn revision, the raw scores were submitted to the

product-moment correlation. In order to more fully understand any relationships between the two instruments and relationships between scores for both instruments, the responses were recorded item-by-item and percentages were figured. These percentages were figured for the "yes"- "no" responses on the Zeigler instrument, for the Flynn "regular" response and all other responses combined, and for the Flynn "never" response and all other responses combined.

The investigator was interested in information that was not available on either the Zeigler instrument or the Flynn revision. The frequency of response to these open-ended questions regarding kind of physical activity, type of hobby, and amount of available leisure time in a given week were recorded in table form.

A group profile for the CPI was superimposed on the profile for the normative group. It appeared there were differences between the two groups. To determine whether there were differences, the t-test for differences between means of independent samples was used.

Comparisons of sub-groups in regard to recreational interests and personality variables were made using the one-way analysis of variance. Where there were significant F values, the Scheffé test was used.

The analysis of variance to determine differences in kinds of recreational interest as indicated by the Zeigler scale and the Flynn revision indicated significant F values. The Scheffé test indicated differences between means in all comparisons.

While the relationships between the Zeigler and Flynn instruments were found to be significant at the .05 level of confidence, for four of five variables, none of the correlation coefficients was high enough to be used for predictive purposes. The scores for the area of social recreation were not statistically significant.

When comparing the item-by-item responses for the Zeigler instrument and the Flynn instrument, it was obvious that the opportunity for more choices on the Flynn revision had caused the Zeigler "yes"- "no" responses to shift. There were no cases where the number of responses to recreational activity at any level of participation was high. According to responses to the revision, there were fewer cases of non-participation than had been indicated on the Zeigler instrument.

On the basis of available statistical evidence, it can be said that, while there is a relationship between the Zeigler instrument and the Flynn revision, they do not demand the same answers. It is the belief of the investigator, on the basis of the item-by-item analysis of both instruments, that the revision allows for a clearer picture of recreational behavior. However, it can be concluded from either instrument that the group of women used for this study did not participate actively in physical recreation. When they did participate, the activities chosen were dual or individual in nature and were activities easily available in the setting in which this study was conducted.

The personality traits of the women used in this study did differ significantly from the norms established by the CPI. There were statistically significant differences in thirteen of the eighteen CPI

variables at the .05 level. According to the CPI Manual (15, p. 12), if nearly all scores fall below the mean standard norms, it can be expected that the individual will have significant difficulty in interpersonal adjustment. Of importance to this study is the fact that the sample group mean scores were lower than the norm means for all scales in Class II. These low scores indicated the sample group to be immature, impulsive in behavior, opinionated, self-centered and uninhibited, aggressive and assertive, and little concerned for the wants and needs of others. They were probably changeable, disbelieving, distrustful, and had internal problems and conflicts. The group also fell below the norm in Class III scales which indicated they were likely to be disorganized under pressure to conform and were submissive and compliant before authority.

For scales in Class IV, the sample group means fell above the norm means which would seem to indicate that they were generally less formal, adventurous, rebellious, idealistic, assertive, egotistical, sarcastic, and cynical.

When making between-group comparisons, it was evident that the drug violators were different than all other groups in their physical recreation preferences and in one CPI scale. The difference on the CPI scale indicated that this group of drug users gave their responses in a "random and unmeaningful way." (15, p. 16)

According to the data obtained and analyzed within the limits of this study, the following conclusions can be drawn:

1. The group used for this study was more interested in creative/aesthetic recreation than in the physical, communicative, and learning/hobby areas of recreation. Those subjects that did participate actively in physical recreation were more inclined toward individual and dual sports as opposed to group efforts.
2. The creative/aesthetic area of recreational activity was pursued in both depth and breadth even to the point where this sort of activity was considered to be a hobby by all members of the group.
3. The sample group differed significantly from the normative group in thirteen of the eighteen CPI personality variables. Generally it can be said that they were lacking in those qualities that would enable them to be socially mature and responsible individuals.
4. Of the sub-groups, the alcohol violators indicated the greatest interest in physical recreation. The drug violators were the least interested in physical recreation and, as a group, gave their responses to the CPI in a "random and unmeaningful way."
(15, p. 16)
5. It appeared that the sample group could be described as creative individuals when considering their personality characteristics, their most pronounced recreational pursuit, and their choice of hobbies.

Further study in this area might compare the physical recreation patterns of subjects exhibiting atypical social behavior with a group randomly selected from the population on this campus.

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APPENDIX

JURY INSTRUCTIONS

The attached is an attempt to develop a rating scale based on the Zeigler device, "How Do You Rate Yourself Recreationally." Your judgment as to the intent of the statements would be appreciated. As you read each statement would you decide:

1. Into which of the following areas of recreational interest it falls:
 - A. Sport (tennis, golf, hiking, etc.)
 - B. Social (social clubs, groups, etc.)
 - C. Communicative (writing, discussions, etc.)
 - D. Aesthetic/Creative (art, music, drama)
 - E. Hobbies (educational-astronomy, rock collecting, bird watching, etc.)

Record your response in column I.

2. Into which of the following levels of participation it falls:
 - I. Passive (reading about or watching)
 - II. Emotional (vicarious display of identification by showing increased interest)
 - III. Active (regular active engagement)
 - IV. Creative (participation at a high level of performance in any area of recreational interest)

Record your response in column II.

JURY RESPONSE SHEET

Respond to the statement as if it were preceded with "do you"
or "have you" (within the past nine months)

	I	II
1. Invite friends out for a coke or to a party	___	___
2. Attend concerts, plays or art exhibits	___	___
3. Attend a social organization or club	___	___
4. Express an opinion (in writing) to a newspaper, school official or civic leader	___	___
5. If you participate in a sport or active game, do so with a well-skilled opponent	___	___
6. Stick up for a point of view even if it differs from others	___	___
7. Given a talk to or led a discussion in any campus group	___	___
8. Listen to a concert on the radio, watch a play on television	___	___
9. Enter (entered) your creative talents in a contest or competition	___	___
10. Take part in some sport or active game	___	___
11. Spend time pursuing a hobby	___	___
12. Phone or drop in on a friend just to pass the time of day	___	___
13. Have enough interest in a hobby that you could discuss it with others who may be experts though you may not take an active part in it	___	___
14. Make nodding acquaintances with a number of people	___	___
15. Follow one athlete or athletic team to the point of being happy over a win or sad over a loss	___	___
16. Paint, sketch, play an instrument or sing	___	___

	I	II
17. Read the sport section of the newspaper	—	—
18. Function in the capacity of an elected officer or committee chairman of a social organization	—	—
19. Received recognition in a hobby by winning an award	—	—
20. Like to read about hobbies of others	—	—

JURY RESPONSES

Item	Zeigler		No. of Experts in Agreement		No. of Laymen in Agreement		Total No. of Jurors in Agreement	
	Area	Level	Area	Level	Area	Level	Area	Level
1	B	III	5	3	5	3	10	6
2	D	II	5	1	5	4	10	5
3	B	II	5	1	5	3	10	4
4	C	III	5	0	5	4	10	4
5	A	III	5	2	5	4	10	6
6	C	II	5	5	5	5	10	10
7	C	IV	5	0	5	2	10	2
8	D	I	5	5	5	5	10	10
9	D	IV	4	4	5	5	9	9
10	A	III	5	4	5	5	10	9
11	E	III	5	4	5	5	10	9
12	C	I	2	0	3	1	5	1
13	E	II	4	4	4	4	8	8
14	B	I	5	2	5	3	10	5
15	A	II	4	4	5	4	9	8
16	D	III	5	2	5	5	10	7
17	A	I	3	3	5	5	8	8
18	B	IV	5	0	5	5	10	5
19	E	IV	5	4	5	5	10	9
20	E	I	4	4	5	5	9	9

Rec. Area

- A. Sport
- B. Social
- C. Communicative
- D. Creative/Aesthetic
- E. Hobbies-Educational

Level of Participation

- I. Passive
- II. Emotional
- III. Active
- IV. Creative

HOW DO YOU RATE YOURSELF RECREATIONALLY?
(A Test for Self-Evaluation)

I. SPORTS (e.g., tennis, golf, or other sports)

1. Do you regularly glance through the sports section of your local newspaper? Check Yes () or No () Score _____
2. Are you a faithful follower of at least one team or athlete rejoicing in victory and fretting in defeat? Check Yes () or No () Score _____
3. Do you take part two or three times a week throughout the entire year in one or more active games or sports? Check Yes () or No () Score _____
4. Are you considered one of the better players in any active game or sport among opponents of your own age? Check Yes () or No () Score _____

II. SOCIAL (e.g., social club, family recreation, etc.)

1. Do you make nodding acquaintances with a number of people? Check Yes () or No () Score _____
2. Do you take an interest in and attend at least one social organization or club? Check Yes () or No () Score _____
3. Do you invite friends in for dinner (or invite someone out) at least once a month? Check Yes () or No () Score _____
4. In the past year have you been elected an officer or named as a committee chairman of a club or social organization? Check Yes () or No () Score _____

III. COMMUNICATIVE (writing or speaking) (e.g., discussion group, article writing, etc.)

1. Do you phone or drop in on a friend regularly just to pass the time of day? Check Yes () or No () Score _____
2. Do you stick up for a point of view even though it may mean a difference of opinion with a close friend? Check Yes () or No () Score _____
3. Have you in the past six months written one or more letters strongly expressing your opinion to an editor, school principal, or civic official? Check Yes () or No () Score _____

4. In the past six months have you given a talk or led a discussion at your PTA, church, or any other local group?
 Check Yes () or No () Score _____

IV. AESTHETIC AND CREATIVE ("Cultural") (e.g., oil painting, music, sculpturing, etc.)

1. Do you like to listen to a musical concert on the radio or watch a dramatic play on television?
 Check Yes () or No () Score _____
2. Have you attended at least three or four concerts, plays or art exhibits in the past year?
 Check Yes () or No () Score _____
3. Do you paint, sketch, play an instrument, or sing, etc., regularly?
 Check Yes () or No () Score _____
4. If your answer to #3 was "yes," do you rate yourself high enough to enter a contest or competition?
 Check Yes () or No () Score _____

V. HOBBIES (Educational) (e.g., astronomy, coin collecting, bird watching, etc.)

1. Do you like to read or hear about the hobbies of others?
 Check Yes () or No () Score _____
2. Are you so interested and knowledgeable in any educational hobby (not necessarily one in which you actively take part yourself) that you could discuss it intelligently with an expert on that subject? Check Yes () or No () Score _____
3. Do you have an educational hobby of your own?
 Check Yes () or No () Score _____
4. Are you considered an expert on your hobby, possibly having won an award in the past year or two?
 Check Yes () or No () Score _____

LETTER TO SUBJECTS

Dear

First of all, I would like to thank you for agreeing to help with my dissertation. Many doctoral students do not have the kind of cooperation you have given me. I do appreciate it.

I told you it might be necessary to do further testing. The enclosed is a revision of the recreational test you took earlier. Will you take ten or fifteen minutes right now and complete this? Use the enclosed envelope and return it to me as soon as you possibly can. Time is extremely important as is a one hundred percent return.

My thanks in advance. If you are interested, stop in the office in September and I will have some data available for you to look at. I do hope you will have a good and restful summer.

Sincerely,

Shirley K. Flynn
Dean of Women

Enclosure

THE FLYNN REVISION
OF THE
ZEIGLER INSTRUMENT

Name _____

Please respond to the following according to the frequency with which you participate in each. Read the statement as if it were preceded by "how often do you ..." Check (✓) your response.

	Regularly	Often	Sometimes	Seldom	Never
	5	4	3	2	1
1. Read the sport section of the newspaper?	-	-	-	-	-
2. Follow an athlete or athletic team to the point of being happy over a win or sad over a loss?	-	-	-	-	-
3. Take part in some sport or active game?	-	-	-	-	-
4. If you participate in a sport or active game, do so with a highly skilled opponent?	-	-	-	-	-
5. Go out of your way to become acquainted with people?	-	-	-	-	-
6. Attend a social organization or club?	-	-	-	-	-
7. Go out for a coke or to a party?	-	-	-	-	-
8. Function in the capacity of an elected officer or committee chairman of a social organization?	-	-	-	-	-
9. Phone or drop in on a friend just to pass the time of day?	-	-	-	-	-
10. Stick up for a point of view even if it differs from others'?	-	-	-	-	-
11. Express an opinion in writing to a newspaper, school paper, or civic leader?	-	-	-	-	-
12. Give a talk or lead a discussion in any group on campus?	-	-	-	-	-
13. Listen to a concert on the radio and/or on records or watch a play on television?	-	-	-	-	-
14. Attend concerts, plays, and/or art exhibits?	-	-	-	-	-
15. Paint, sketch, play an instrument, or sing?	-	-	-	-	-
16. Enter your talents in a contest or competition?	-	-	-	-	-
17. Read about hobbies of others?	-	-	-	-	-
18. Discuss hobbies with others even though the hobby is not one of your own?	-	-	-	-	-
19. Spend time pursuing a hobby?	-	-	-	-	-
20. Receive recognition in a hobby winning an award?	-	-	-	-	-

If you participate in sport or game at all, what is it?

If you have a hobby, what is it?

Defining leisure time as that time not used for such as class, class-work, eating, sleeping, part-time work, how much weekly leisure time did you have as a student?

ZEIGLER-FLYNN RAW SCORES

Subject	ZEIGLER						FLYNN					
	Physical	Social	Communicative	Creative/ Aesthetic	Learning	Total	Physical	Social	Communicative	Creative/ Aesthetic	Learning	Total
1	0	10	3	10	1	24	4	8	10	16	7	45
2	5	3	10	6	6	30	13	14	14	12	9	62
3	7	4	3	10	1	25	9	14	11	12	10	56
4	10	7	6	10	1	34	12	9	16	17	13	67
5	1	4	3	3	3	14	9	13	8	6	6	42
6	10	10	6	5	1	32	17	16	16	14	11	74
7	7	6	6	6	3	28	16	15	18	18	10	77
8	7	4	3	6	1	21	17	13	12	13	10	65
9	7	3	3	3	4	20	16	15	13	13	9	66
10	7	4	6	10	6	33	10	12	12	14	13	61
11	10	10	3	0	4	27	19	19	17	12	12	79
12	10	4	2	10	1	27	7	11	10	16	9	53
13	10	6	3	0	0	19	18	15	12	17	12	74
14	8	8	10	10	6	41	14	13	10	12	12	61
15	10	10	7	10	7	44	18	19	16	19	20	92
16	7	4	6	10	10	37	11	13	10	13	14	61
17	8	10	3	10	10	41	15	14	11	19	15	74
18	10	7	7	5	6	35	19	15	13	13	14	74
19	8	10	3	10	10	41	15	13	12	19	11	70
20	2	4	7	6	4	24	11	13	12	14	7	57
21	2	4	3	6	1	16	9	10	9	10	10	48
22	0	4	7	10	4	25	8	13	18	15	12	66
23	2	8	7	6	10	35	11	12	14	13	11	51
24	0	6	3	3	1	12	7	14	15	10	7	53
25	5	6	3	10	1	25	17	15	13	15	10	70
26	3	6	3	10	5	27	13	16	12	18	12	71
27	7	7	3	10	4	31	17	16	13	18	13	77
28	10	10	6	6	1	33	20	17	13	14	13	77
29	10	3	1	1	3	18	16	10	7	7	13	53
30	7	4	3	4	10	28	9	15	15	13	12	64
31	7	6	3	6	4	26	11	17	12	13	12	64
32	3	8	6	1	1	19	15	14	11	9	8	57
33	8	3	3	10	1	25	16	18	14	17	12	77
34	8	4	6	10	8	36	13	13	15	20	16	77
35	0	3	10	10	10	33	4	9	17	19	19	68
36	9	10	10	3	6	38	14	15	14	13	11	67
37	2	6	3	3	1	15	11	13	14	14	13	65

CALIFORNIA PSYCHOLOGICAL INVENTORY
RAW SCORES

Subject	Poise, Ascendancy Self-Assurance						Socialization, Maturity Responsibility						Achieve. Pot., Intell. Eff.			Intell. & Int. Modes		
	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Ac	Ai	Ie	Py	Fy	Fe
1	26	22	24	36	22	33	29	40	24	23	13	25	20	21	38	8	15	17
2	35	23	29	44	27	35	27	31	21	23	18	25	24	19	40	15	15	23
3	34	19	29	47	22	38	28	41	21	20	15	28	23	24	42	15	15	21
4	34	22	29	45	26	35	23	27	21	20	16	24	26	19	43	14	10	19
5	25	22	28	41	25	32	33	40	27	24	10	27	26	22	36	12	14	28
6	34	23	25	42	24	33	24	26	10	15	10	26	18	16	39	10	14	21
7	36	22	30	40	26	39	36	38	32	27	22	26	31	24	53	15	9	25
8	33	26	30	43	27	36	36	40	31	29	18	26	33	27	43	13	16	24
9	33	19	29	38	26	40	35	35	29	26	17	27	28	18	43	10	4	17
10	32	20	27	46	25	39	22	34	24	21	13	24	26	24	44	14	19	28
11	25	22	24	36	24	29	30	34	16	18	13	26	16	20	42	15	15	24
12	22	17	13	32	21	20	20	25	17	15	9	22	16	19	27	8	15	22
13	29	16	28	34	24	36	29	42	30	27	15	26	23	23	38	14	13	22
14	25	17	24	31	20	33	22	31	30	24	15	25	22	17	36	12	14	21
15	31	27	32	44	29	40	32	41	33	27	28	27	34	16	38	13	8	25
16	29	22	30	41	27	36	29	39	28	28	16	27	31	24	41	10	11	24
17	29	25	30	45	23	41	31	37	34	29	24	27	35	23	44	14	12	20
18	39	22	29	41	22	38	33	35	30	24	19	28	31	20	40	14	13	22
19	25	22	20	46	19	39	26	35	33	25	19	23	19	23	45	11	16	25
20	33	22	23	42	25	31	31	36	23	20	12	24	23	23	42	14	16	24
21	18	17	16	32	15	35	29	46	29	20	11	28	22	23	36	6	15	28
22	35	23	26	49	24	41	23	32	26	28	20	23	25	23	40	14	20	21
23	33	23	25	38	20	37	26	30	24	26	15	25	18	20	38	15	19	30
24	24	17	22	36	21	21	23	22	18	20	15	18	19	18	31	8	18	28
25	23	17	28	38	24	33	28	33	15	15	10	26	22	16	38	8	11	27
26	21	23	25	38	22	32	24	33	14	18	12	26	26	19	39	13	13	28
27	42	26	27	41	27	42	31	40	35	27	24	26	31	32	38	17	10	22
28	39	19	29	43	27	24	21	19	9	18	10	24	18	19	33	15	13	14
29	12	12	12	25	14	23	23	24	25	17	14	21	15	13	29	7	11	18
30	25	19	28	34	23	40	31	41	31	25	16	27	27	18	40	11	6	17
31	32	20	32	42	24	35	33	34	21	21	12	27	31	15	35	10	5	27
32	32	26	30	38	24	39	26	38	30	23	18	27	31	22	36	10	7	19
33	33	20	33	40	28	37	34	33	26	23	18	26	29	21	41	12	12	26
34	26	22	27	45	23	26	21	29	18	18	10	24	18	21	35	13	15	24
35	24	20	18	39	18	14	12	14	9	8	11	14	14	16	28	16	15	21
36	38	21	27	42	28	34	22	26	19	23	16	24	18	17	41	13	13	14
37	32	18	30	46	26	32	21	32	14	20	10	25	24	20	40	13	12	24