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A STUDY OF THE EFFECTS OF PERSONALITY, SUBCULTURE,
AND PLACE OF RESIDENCE ON COLLEGE STUDENT
RECREATION PARTICIPATION

DISSERTATION

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By

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The problem of this investigation was to determine whether knowledge of student personality, subculture, or place of residence could predict university student recreation participation for men and women. Factors of age, marital status, class in college, and Greek affiliation were also examined for any relationship to recreation participation of university men and women.

The purposes of this study were (1) to survey actual participation by undergraduate men and women in university sponsored recreation, (2) to determine if recreation participation of men and women could be predicted from knowledge of a student's personality, subculture, or place of residence, and (3) to determine if factors of age, marital status, class in college, or Greek affiliation bore any relationship to recreation participation of men and women university students.

Subjects for this study were 108 men and 106 women who were enrolled in Secondary Education classes of the College of Education of North Texas State University. It was also necessary that they had been enrolled during the fall of 1973.

Four instruments were used in this study. They were (1) a self-report questionnaire, (2) the Guilford-Zimmerman Temperament Survey, (3) the Clark-Trow Typology of Student Subculture, and (4) a Survey of Recreation Participation on the North Texas State University campus.

The statistical procedure of multiple linear regression was used to analyze the data. The .05 level of significance was selected for all statistical analyses

The findings of this investigation indicated that for men the best predictor of Spectator Sports participation was student subculture. For women, the best predictor of Spectator Sports participation was residence. The best predictor of the recreation category of Modern Media was residence for both men and women. The Fine Arts recreation category for men was predicted by the Guilford-Zimmerman Temperament Survey, while residence was the best predictor for women. Marital Status was the best predictor for the recreation category of Modern Music for both men and women. Residence was the best predictor of participation in the recreation category of Social Recreation for both men and women. The Participant Sports recreation category was predicted by Greek membership for men and residence was the best predictor for women.

The conclusions drawn from this study were the following: (1) the Guilford-Zimmerman Temperament Survey would be of limited use in predicting recreation participation for men

and no use for women, (2) the Clark-Trow Typology of Student Subculture would be of limited use in predicting recreation participation for men and no use for women, (3) knowledge of place of student residence would be an important predictor of recreation participation for both men and women, and (4) predictions of student recreation participation would be strengthened by adding variables of marital status and Greek membership.

Based on the conclusions of this investigation, it was recommended that further studies in the prediction of student recreation participation be made using the significant predictors found in this study.

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CHAPTER I

INTRODUCTION

One of the sources of student dissatisfaction on college campuses across the nation is the lack of availability of leisure time activities or recreation. Student newspapers spend a considerable proportion of their space either advertising recreational opportunities or criticizing the existing ones.

College administrators express their concern for student recreation by allocating large sums of money to carry on recreational programs. They hire numerous people who have either full- or part-time responsibility for student recreation. Yet, relatively little research is done to assess the student body in such a manner that particular recreational needs may be systematically discovered and emphasis directed or re-directed accordingly.

The effectiveness of recreational programs is almost universally judged by the number of people from the total student body who are in attendance on any particular occasion. Very little thought is devoted to attempts to determine whether particular types of students attend particular types of activities. Moreover, little evaluation is based on the possible size of a particular group within the total student body.

This study investigated the possibility that recreational participation can be differentiated by knowledge of student personality, subculture, or place of residence. This study, while particularly examining the three previously listed factors, recognizes that recreation participation may, in part, be a function of other overlapping variables. These other factors which were examined for relationship to student recreation participation were age, marital status, university class, and Greek affiliation.

Statement of the Problem

The problem of the study was to determine whether knowledge of student personality, subculture, and place of residence could predict university student recreation participation of men and women.

Purposes of the Study

The purposes of the study were (1) to determine if university sponsored recreation participation of men and women could be predicted from knowledge of a student's personality, subculture, or place of residence and (2) to determine if age, marital status, university class, or Greek affiliation could predict university sponsored recreation participation of men and women.

Hypotheses

To carry out the purposes of this study, the following hypotheses were formulated:

1. Scores of men on the Guilford-Zimmerman Temperament Survey will be significant predictors of scores on a Recreation Survey Instrument.
2. Scores of women on the Guilford-Zimmerman Temperament Survey will be significant predictors of scores on a Recreation Survey Instrument.
3. Student subculture as determined by the Clark-Trow Typology of Student Subcultures will be a significant predictor of scores of men on the Recreation Survey Instrument.
4. Student subculture as determined by the Clark-Trow Typology of Student Subcultures will be a significant predictor of scores of women on the Recreation Survey Instrument.
5. The place of residence of men will be a significant predictor of scores on a Recreation Survey Instrument.
6. The place of residence of women will be a significant predictor of scores on a Recreation Survey Instrument.

Each hypothesis was designed to test the independent variable for relationship to each of the six areas of recreation participation and for relationship to a total score of all recreation participation. Each of the ten scores on the Guilford-Zimmerman Temperament Survey was to be tested for relationship to each of the six areas of recreation participation and the total recreation score.

Background and Significance of the Study

A survey of the literature indicates that investigation of the relationship between recreation participation and the factors of personality, subculture, and place of residence will be useful in prediction of recreational patterns of university students.

Personality

Neulinger and Breit found that leisure attitudes are closely related to the core of an individual's personality (10, p. 255). Kraus writes that the individual has a set of personality traits which in effect propels him toward his selection of leisure patterns and recreation interests (5, p. 295). Johnson, in a study of leisure participation among college male sophomores, found that there appeared to be systematic individual differences in leisure behavior (4). Merritt found that personality differences appear to exist between individuals liking or disliking certain types of recreational activities when these interests are evaluated as a whole by program areas (9, p. 221).

Subculture

While personality may be one avenue to the prediction of recreation participation, environment also offers another productive line of research. White wrote that leisure uses are partly decided by recognizing that obligations arising in the individual's subculture must be met (15, p. 145).

Clarke found that research seemed to focus on the role of leisure as a part of the life style of individuals (3, p. 301). Stancil suggested that environment is a factor in recreation participation (14, p. 89).

Pace and Stern wrote that prediction studies should be concerned with performance in the environment as a whole. The press of a college environment represents what must be faced and dealt with by the student (12, p. 276). Press has been defined as an aspect of the environment which tends to encourage or reward a particular type of behavior (8, p. 26).

LeVine believes that college life can be characterized by the development of an independent undergraduate culture which forms the environment of the student. He believes that this environment may have the most influence on the behavior of the undergraduate student (11, p. 118).

Astin and Holland write that behavior may be predicted when both the environment and the person are assessed. Moreover, they suggest that a major portion of the environment is dependent upon the nature of its members (1, p. 308).

Coleman, while writing about peer culture, said, "A student subculture is, at its strongest, nearly a society in itself" (11, p. 245). The members of a subculture look to one another for social rewards which indicates that it has the power to shape the directions a student's energy will take (11, p. 247). Maw wrote that ". . . students do

participate in activities they perceive as relevant to their future. . . . Yet, this is dependent in some measure upon subculture reference" (7, p. 65).

Place of Residence

A third factor which has been found to be significant for recreation participation is place of residence.

In 1933, the University of Minnesota undertook a study to ". . . analyze the social needs of students and to make suggestions as to how these needs may be met" (2, p. 258). Williamson, reporting on the Minnesota study, wrote that there were fairly consistent differences among groups chosen primarily on the basis of social adjustment, such as fraternity or sorority members (16, p. 242).

In 1949, the University of Minnesota repeated the study of participation in college activities with the additional purpose of evaluating the effectiveness of the early attempts to improve social programs. A majority of items from the 1933 study were included in the 1949 questionnaires. The 1949 Minnesota study found that only one factor correlated markedly with participation for both men and women and that factor was housing (17, p. 72).

Newcomb, in a later study, reported that peer groups are more likely to be found wherever local arrangements of living, dining, studying, and engaging in very frequent associations among a given group of students are also found

(11, p. 8). Further, Newcomb believes that while not all individuals will be affected by these living norms, a large proportion of those affected can be discovered by studying residence (11, p. 8). Coleman also wrote that two of the factors which affect students are association with a roommate and pledging a fraternity (11, p. 248). Finally, in a very recent study, Martens found that participation motivation is significantly affected by success and residential affiliation (6, p. 58).

In summary, it would seem that personality, subculture, and place of residence are believed to have an influence on behavior patterns of students and could support additional research to determine the effect of these factors on university students and their recreation patterns.

Definition of Terms

Recreation Participation is defined as those activities sponsored by the university or by university approved organizations which the student actually attended or took part in, for reasons of personal satisfaction and not as a class assignment.

Personality is defined in terms of the measures obtained by the Guilford-Zimmerman Temperament Survey. These measures are designed to evaluate general activity, restraint, ascendance, sociability, emotional stability, objectivity, friendliness, thoughtfulness, personal relations, and masculinity.

Subculture is defined in terms of the four student subcultures identified by Clark and Trow as vocational, academic, collegiate, and nonconformist (11, p. 19).

Place of Residence is defined as the place where the student actually resided while attending North Texas State University in the fall semester of 1972.

Limitations

This study was limited to those students who were (1) in attendance at North Texas State University for the fall semester of 1972, (2) had taken the Guilford-Zimmerman Temperament Survey in the teacher education program, and (3) enrolled in EDSE 343 and 345 during the spring semester, 1973.

This study was limited to students in the teacher education program. As a result, findings may not characterize recreation participation patterns for the entire university student body.

Basic Assumptions

It is assumed that the subjects responded honestly to the Recreation Participation Survey and to the self-selecting subculture instruments. It is further assumed that if the instruments could predict recreation participation for education students, then they would also predict recreation participation for other students.

Instruments

Four instruments were used for this study. The first was a self-report questionnaire to gather information about each subject in six areas: (1) sex, (2) age, (3) college class, (4) marital status, (5) place of residence, and (6) Greek affiliation, if any. (See Appendix A.)

The second instrument utilized was the Guilford-Zimmerman Temperament Survey. This instrument has ten scales which reportedly measure General Activity, Restraint, Ascendance, Sociability, Emotional Stability, Objectivity, Friendliness, Thoughtfulness, Personal Relations, and Masculinity. It was published in 1949.

The third instrument used in this study is the Clark-Trow Typology of College Students. (See Appendix B.) Sociologists Clark and Trow have suggested a typology of four college student subcultures. These student subcultures have been identified as vocational, academic, collegiate, and nonconformist. Clark and Trow defined student subcultures as "group norms, shared notions of what constitutes right action, and attitude toward a range of issues and experiences confronted in college" (13, p. 7). Further, Clark and Trow explain,

We can distinguish four broad patterns of orientation toward college which give content and meaning to the informal relations of students. When these patterns of orientation define patterns of behavior, sentiment, and relationships, we can usefully think of them as subcultures (13, p. 7).

The fourth instrument was a Survey of Recreation Participation of the North Texas State University campus during the fall semester of the 1972-73 year. The recreation events were drawn from these sources: (1) the North Texas Daily, (2) from published lists of events of the Student Activities Union, (3) from activity lists obtained from the Office of the Dean of Students, and (5) from monthly bulletins of the Public Information Office. Only those events or clubs sponsored by the university were included. Participation was divided into six categories--participant sports, social recreation, fine arts, modern media, modern music, and spectator sports. In addition, a total score for all participation was recorded. A survey for men and for women was constructed. The survey constructed for the North Texas campus for the fall semester of 1972 is included in Appendix C. The Recreation Survey for Men has 148 items while the Survey for Women has 142 items.

Procedures for Collecting Data

The Recreation Participation Survey, the Personal Data Instrument, and the Clark-Trow Typology of Student Subculture were administered in six EDSE 343 classes and in seven EDSE 345 classes during the spring semester of the 1972-73 school year. Those classes selected were chosen from those scheduled throughout the day and from classes meeting Monday-Wednesday-Friday and Tuesday-Thursday. Thus,

regardless of registration time, a cross section of all undergraduate education students would be tested. Only those students who were enrolled during the fall semester of 1972-73 were tested. The Guilford-Zimmerman Temperament Survey scores were taken from the records of the students as it is required of students desiring education certification at North Texas State University.

The thirteen classes enrolled 304 students and 214 were found to meet the criterion of Fall enrollment, completion of the Guilford-Zimmerman Temperament Survey, and present the day the tests were administered.

Procedures for Analysis of Data

At the conclusion of testing, raw scores for each subject were tallied and the scores were punched into cards for automatic data processing. Multiple regression procedures were used to determine the predictive possibilities of the independent variables for recreation participation.

Summary

This chapter set forth the problem of the study, the purposes and limitations of the study, the hypotheses to be tested, and the procedures to be used. It also gave a brief review of the background and significance of the study. The chapter entitled Survey of Related Literature will contain a survey of the literature related to subculture, residence, and personality and its effect upon recreation participation.

CHAPTER BIBLIOGRAPHY

1. Astin, Alexander, W. and John L. Holland, "The Environmental Assessment Technique: A Way to Measure College Environments," Journal of Educational Psychology, LII, No. 6 (May, 1970), 308-316.
2. Brown, Clara A., "A Social-Activities Survey," Journal of Higher Education, VIII (May, 1937), 257-264.
3. Clarke, Alfred C., "Leisure and Occupational Prestige," American Sociological Review, XXI, No. 3 (June, 1956), 301-308.
4. Johnson, Charles Enger, "An Exploratory Study of Individual Patterns of Leisure Time Activities," unpublished doctoral dissertation, University of Minnesota, Minneapolis, Minnesota, 1964.
5. Kraus, Richard, Recreation and Leisure in Modern Society, New York, Appleton-Century-Crofts, 1971.
6. Martens, Rainer, "The Influence of Success and Residential Affiliation on Participation Motivation," Journal of Leisure Research, III, No. 1 (Winter, 1971), 53-58.
7. Maw, Ian E. L., "Student Subcultures and Activity Involvement," Journal of College Student Personnel, XII, No. 1 (January, 1971), 62-66.
8. McFee, Anne, "The Relation of Student's Needs to Their Perceptions of a College Environment," Journal of Educational Psychology, LII, No. 1 (1961), 25-29.
9. Merritt, Myrtle Agnes, "The Relationship of Selected Physical, Mental, Emotional and Social Factors to the Recreational Preferences of College Women," unpublished doctoral dissertation, University of Iowa, Iowa City, Iowa, 1961.
10. Neulinger, John and Mirand Breit, "Attitude Dimensions of Leisure," Journal of Leisure Research, I, No. 3 (Summer, 1969), 255-261.

11. Newcomb, Theodore M. and Everett K. Wilson, editors, College Peer Groups, Chicago, Aldine Publishing Co., 1966.
12. Pace, C. Robert and George G. Stern, "An Approach to the Measurement of Psychological Characteristics of College Environments," Journal of Educational Psychology, XLIX, No. 5 (1958), 269-281.
13. Peterson, Richard E., "On Typology of College Students," Research Bulletin, RB-65-9, Princeton, New Jersey, Educational Testing Service, 1965.
14. Stancil, Charles Taylor, "Participation Areas and Interest Areas in the Recreation of College Students with Diverse Curriculumms," unpublished doctoral dissertation, Pennsylvania State University, University Park, Pennsylvania, 1957.
15. White, R. Clyde, "Social Class Differences in the Uses of Leisure," American Journal of Sociology, LXI, No. 2 (September, 1955), 145-152.
16. Williamson, E. G., W. L. Layton, and M. L. Snake, A Study of Participation in College Activities, Minnesota Studies in Student Personnel Work, Vol. 5, Minneapolis, Minn., University of Minnesota Press, 1954.

CHAPTER II

SURVEY OF RELATED LITERATURE

This chapter contains a survey of the literature which pertains to subculture, residence, personality, and other factors as determinants of student recreation participation. An attempt has been made to divide the chapter into categories of personality, subculture, residence, and related research with all material arranged in chronological order.

Personality and Its Relationship to Recreation Participation

Strong (45), in an early study, paired 308 men and women at Stanford University on the basis of age, year in college, grade point average, and scores on the Thorndike Aptitude Test. The subjects were questioned as to what activities they participated in most. From the answers, masculinity-femininity scales were developed. Using these scales, Strong determined that interests of men and women differ but as they grow older all interests become more feminine (45, p. 66).

Williamson and Darley (50) conducted a study at the University of Minnesota using 400 students divided as to sex and drawn from 2280 subjects on the basis of being well adjusted or poorly adjusted to campus life. The 400 were

queried as to kinds and numbers of organized social activities in which they had participated. It was found that well adjusted students participated more than poorly adjusted (50, p. 232). Moreover, fraternity and sorority members participated more than independents (50, p. 232). Finally, Williamson found that participation was linked to the number of new acquaintances made at college (50, p. 237).

In a similar study, Cavanaugh (10) administered a recreation survey and the scales of sociability and neuroticism from the Bernreuter Personality Inventory to 362 students. It was found that well adjusted students do participate more, but sociability had no relationship to activity.

Havighurst (23) in a related study found that leisure activity is more closely related to personality than to variables of sex, age, or social class. Leisure seems to be a response to personality needs. In a later study, Havighurst and Fergenbaum (24) divided a group of subjects by age, economic status, and home or community centeredness. They concluded that personality was still the most important factor in leisure activity.

Merritt (32) tested 780 women from the University of Iowa and 464 from the New York State University, College of Education at Geneseo, to determine the relationship of selected factors to recreational preference. One of the factors was scores on the California Psychological

Inventory. Merritt found that personality differences appear to exist between an individual's liking or disliking certain types of recreational activities when those activities are evaluated by program areas. Measurements of poise, ascendancy, and self assurance were found to be significant in predicting participation in drama, oratory, and music (32, p. 221). Measurements of socialization, maturity, and responsibility were found to be significant in predicting volunteer activity and music, while dominance, good impressions, status, and sociability were related to non-competitive participation (32, p. 222).

Scott's study (41) found that definite personality types appeared to like certain recreational activities. Self-expressive personalities preferred ceramics, photography, and square dancing. Reading and camping were related to people oriented personalities while golfers and fishermen tended toward social status seekers.

Johnson (29) considered leisure activity a behavioral unit. Using sixty college sophomores, it was found that leisure activities did correlate with the Strong Vocational Interest Blank which suggested systematic individual differences in leisure behavior.

Neulinger and Breit (37) determined that leisure attitudes are closely linked to the core of personality. A primary function of leisure is to offer a basis for self definition (37, p. 256).

Ibrahim (27) studied 103 males and 104 females who were college freshmen and sophomores to see if a recreationally inclined personality differed from a non-recreationally inclined personality. Ibrahim found differences between the inclined and non-inclined in only 6 of 18 scales of the California Psychological Inventory for men. Women students who were inclined towards recreation differed from the non-inclined in 9 of the 18 scales. Ibrahim concluded that the differences between inclined and non-inclined personalities were not great enough to reject the null hypothesis. In a later study, Ibrahim (28) administered the Guilford-Zimmerman Temperament Survey to 108 men and 116 women college students. It was hypothesized that there would be no differences in temperament between participants in various recreation activities. Differences were found in 5 of 10 temperament scales for men and 4 of 10 for women. Ibrahim concluded that not enough evidence existed to reject the null hypothesis (28, p. 151).

Elton and Smart (14) surveyed fraternity members and independents for differences in personalities which would explain greater participation in school activities by the Greek organizations. It was concluded that fraternity men indicate significantly more often than independents that they enjoy parties, large gatherings, and social functions.

Howard (26) studied the relationship between leisure activities and personality. It was found that an

individual's personality determines which activities are appropriate for him. Specific leisure activities were chosen to satisfy specific personality needs. It may be deduced that a person will select those leisure experiences whose values are consistent with personality needs.

Subculture and Its Relationship to Recreation Participation

In a study of 1740 boys and girls aged 6-18, White (48) found a clear tendency to choose leisure activities on the grounds of membership in a particular social class. The study indicated that this tendency begins in adolescence and becomes more pronounced in maturity.

Scott (42), while studying male college students, found that peer group influence was the most important factor in determining participation in social activities. Stancil (44), while studying college males from all academic classes and from seven different colleges, found a similar tendency towards participation by groups of peers. Stancil reported that students in liberal arts colleges tended to favor sports, dances, and group social activities. Students enrolled in technical colleges tended to be interested in arts and crafts and outdoors activity. However, students within universities who were enrolled in unlike curriculums did not differ from each other in participation. Thus, it may be concluded that campuses may differ in types of interest but within the campus students follow the group.

Pace and Stern (38), in a study utilizing five colleges and 423 students, found that they could clearly distinguish between colleges on the basis of student cultures. College cultures were seen as an environmental press which corresponded to the personal needs of students and those presses could be clearly differentiated. They suggested that prediction studies should be concerned with performances within the environments.

Kaplan (30) has written that the most important influence upon the individual is the general norm of accepted behavior in the circles within which he moves. "There can be little doubt that many books are read, many movies seen, many places visited, and some symphony concerts are attended because these are the things to do" (30, p. 258). In a study of 104 students at the University of Illinois, Kaplan found that 40 per cent of the students reported that they attended sports events even though they didn't like them (30, p. 251). Forty-one per cent of the subjects belonged to organizations that they did not enjoy and 13 per cent attended social events that they did not enjoy (30, p. 251). Kaplan concluded that a scale of pressures existed which exerted itself to persuade students to attend events or join groups which they would not have done if left to their own devices. In expanding upon his findings, Kaplan wrote that society is a multi-group organization with each group having a set of norms and controls by which they judge their

members. They train the group members and expect certain actions from them (30, p. 55). This group or subculture is a somewhat homogeneous or identifiable group with a larger culture. The group may be large or small, bound by ties of religion, ethnic origin, significant location, or occupation. In any case, it has a "we" feeling resulting from self-recognized elements of identity (30, p. 94).

Astin and Holland (4) in a study of college environments found personal orientations existed on campuses which determined the particular press of that campus. For instance, state colleges exhibited strong social orientations, while others exhibited artistic or intellectual orientation (4, p. 313). It was their view that if behavior was to be predicted then the environment and the person must be assessed.

Burch (8), in a study of recreation use, concluded that recreation behavior is seldom an individual decision. Rather, it appears to be associated with collective forces within one's group. There is something within the nature of the recreational group which structures group membership behavior (8, p. 708). This behavior is structured by a set of collective goals or predominant patterns of action.

Warren (46) wrote that subcultures represent clusters of attitudes, norms, and modes of behavior rather than groups of people. Individual students may move in and out of subcultures or may be marginal members. Nevertheless,

typical sets of attitudes and behavior patterns provide a useful basis for classifying students.

Astin (3), in discussing college environments, also advanced the thought that they could be defined in terms of student behavior. In addition, student bodies tend to become more homogeneous with time, indicating that students in a particular college tend to become more alike in behaviors the longer they are on campus (3, p. 15).

Feldman (15) wrote that every college is to a degree a plurality of different subenvironments. Each one values different interests and rewards different activities. Further, each student faces different environments depending upon his particular location in the college social structure.

Franz (19) attempted a definition of student subcultures based on behavior. He has written that a student subculture is a shared set of expectancies producing a pattern of characteristic behavior by which it can be distinguished from other groups of students.

Apostal (2) studied 1,096 college sophomores using the College Student Questionnaire, the Clark-Trow Typology, and Holland's Personality types as instruments. The study concluded that significant relationships exist between personality types and preferred college subcultures (2, p. 208).

Meyersohn (33) indicated that leisure research has been largely based on random samples in which the connectedness

of humans is sampled out. He suggested that studies of leisure would be more fruitful if groups engaged in common leisure activities or belonging to the same voluntary associations were studied.

Maw (31), using the Clark-Trow Typology and a Recreation Activities Checklist, tested 157 students at Pennsylvania State University to determine if there was a significant difference in recreational activity between subcultures. It was found that the Clark-Trow collegiate subculture led all groups in mean number of activities, followed by non-conformists, academic, and vocational subcultures (31, p. 64). The study concluded that significant relationships do exist between subcultures and activity.

Schmidt, Owens, and Tiffin (40) conducted a study of 315 undergraduates to develop an empirical description of students who attended or did not attend campus cultural events. The study indicated that the average student who attended fine arts events was (1) interested in self, (2) intellectual, (3) majors in social science or the humanities and (4) female. Non-attending students tended to be (1) strongly interested in sports, (2) majors in technology or business, and (3) married males.

Feldman and Thielbar (17) found that the term "life style" has become an important indicator for determining leisure interests. They reported that leisure interests are a group phenomenon which are influenced by participation

in various social groups or through relationships with other people.

Christensen and Yoesting (12), while studying outdoor recreation facilities, found that the groups one belonged to were significant factors in usage. ". . . an individual's use of recreation facilities is related to his personal communities or the influence of his family, friends, work-mates, and relatives" (12, p. 12).

Biggs (6) made a study of the connection between sub-culture orientations and peer culture. It was found that persons who identified with the four Clark-Trow defined subcultures preferred friends of the same subculture. In addition, it was found that different cultures do have different friendship experiences which result in different pressures in making judgments.

Apple, Berry, and Hoffman (1) in a study of sources of collegiate influence found that the most important sources of influence for students were those people with whom they had a close personal relationship. Things, activities, and events that were not closely tied to specific individuals had little influence. "Peer influence must be considered the most prominent single category of influence" (1, p. 172).

Murphy (35) wrote that patterns of leisure, like other forms of behavior, are aspects of daily life. Leisure behavior can only be understood when an investigation is made of an individual's daily life activities. In a later

article, Murphy (36) wrote that subculture membership has become an important indicator of leisure interests. Knowledge of an individual's behavior in one area of his life will provide a strong indicator of how he will act in another segment.

Residence and Its Relationship to Recreation Participation

In surveying the literature relating to recreation participation and its connection to place of residence, there is an area of overlap where the literature is in part a study of peer groups. Studies which seem to most depend upon residence as the area of study have been categorized as residence studies.

Warren (47) reported in an early study that social life is almost inevitable for those who live in a fraternity and is a general rule for those who live in a dormitory. Social life is the exception, however, for those students who live alone. Fraternities are usually looked upon as the center of group activities with dormitories second, but in a survey conducted by Stanford University 40 per cent of the colleges surveyed reported dormitories as supplying the environment most conducive to social adjustment (47, p. 450). Warren summarized that social groups are formed first by daily direct contact and second by those having a common purpose.

Hartshorne (22) found that a college has a social system with students who live at home or off campus clearly in a different social world from those who live in a dormitory (22, p. 322). It was concluded that individuals conform to a particular clique rather than to student norms in general.

Haack (20) while comparing commuting students and dormitory students reported these differences: (1) the commuting student displays less "school spirit," (2) the commuting student's life cycle omits non-classroom participation, and (3) college activities must compete with commercial entertainment for the commuting student's attention.

Sommer (43) in a study at the University of California, Davis, found that social life was weak in college owned apartments. However, when school spirit and participation in college activities of those living in college owned apartments was compared to those living in off campus apartments, the students living on campus were found to be superior.

Pollock (39), while studying intramural programs, determined that the most important factor relating to intramural participation was student membership in some kind of social organization. Those that belonged to an organization tended to participate, while others did not.

Feldman and Newcomb (16) made a survey of fifteen studies and concluded that students living in dormitories or in other organized groups were more active in college events than those living off campus or with parents (16, p. 198).

Yancey and Snell (52) concluded that leisure activities are social activities. They occur in relatively small social groups which are characterized by relatively high continuity of membership.

Field (18) made a study of leisure setting in relationship to "with whom" the respondents engaged in leisure activities. The data suggested that regardless of leisure setting participation within a group predominated. A minimum of 90 per cent of the subjects participated in some activity with others. The study concluded that too much emphasis has been placed on what people do when the emphasis ought to have been on "with whom" people participate. Moreover, Field found that activities for any group are interchangeable with the group being more important than the activity.

Cheek (11) also concluded that while people often go to work alone they rarely play alone. In a study of recreation activities, Cheek found that (1) 84 per cent of movies, (2) 75 per cent of sporting events, and (3) 74.4 per cent of visiting with friends was done with others (11, p. 256).

Miller (34) while studying fraternity members found that fraternity members were significantly more involved in extra-curricular activities than independent students. However, independents were more interested in cultural activities than fraternity members (34, p. 127).

Harrold and Lowe (21) studied the value system of college students as related to intercollegiate athletics. Using place of residence as a grouping device, it was found that students who lived in fraternities, sororities, and dormitories felt athletics were an integral part of college life. Students who lived in apartments felt that athletics were out of touch with contemporary needs.

In a study of resident and non-resident student perceptions, Christian (13) found that non-resident students are less involved in student groups and activities.

Related Areas and Their Relationship to Recreation Participation

In reviewing the literature of recreation participation and its relationship to subculture, residence, and personality, some studies appeared to fit none of the categories yet yield valuable information concerning the total area of recreation participation among college students. Brown (7) began a series of studies designed to analyze the social needs of students at the University of Minnesota in 1933. Brown found that 50 per cent of the men students and 40 per cent of the women students participated in no

activities at all (7, p. 262). Williamson (49), in a continuation of the Minnesota research, determined that (1) women are more socially minded than men, (2) men graduate liking the same activities as when they matriculated, and (3) Education and Liberal Arts students are more active than the professional colleges (49, p. 227). Williamson, et al., (51) took another look at student activities in 1949 to determine if there were any changes in student recreation patterns since 1933. The study found that (1) age, (2) enrollment in certain colleges, (3) upper class status, (4) fraternity or sorority membership, and (5) possession of a large number of friends were mildly related to participation (51, p. 69). But no single factor or set of factors stood out as markedly correlated with participation (51, p. 71).

Hooley (25) sought to determine the most preferred social activities of college students. It was found that students prefer group activities but few activities appealed to all groups.

Bossard and Bell (5) found that marriage over all lessened participation in campus activities for college students. However, this was less true for married men students than for married women students (5, p. 61).

Carlson (9), in discussing the municipal university, found that off-campus friends vie with the college for recreational time and interests of the student. Moreover,

Carlson reported that from 50 to 80 per cent of students at municipal universities are employed and therefore less available for other activities (9, p. 63).

Summary

This chapter contains a survey of the literature concerning the relationship of personality, subculture, and residence to recreation participation. In addition, literature which indicated that other factors could influence recreation participation was examined.

When personality was studied for its relationship to recreation participation, all authors except Ibrahim (27, 28) found a connection between some personality traits and recreation participation or selection. Ibrahim (27, 28), using the California Psychological Inventory and the Guilford-Zimmerman Temperament Survey, could not find any indication that personality affected recreation participation.

In regard to subculture and its connection to recreation, all authors examined found that group pressures were a significant force in selection of activities. White (48), Scott (42), Stancil (44), Kaplan (30), Christensen and Yoesting (13), Biggs (6), Appel, Berry, and Hoffman (1), and Murphy (35) all noted a connection between recreation pursuit and peer influence. Pace and Stern (38) and Astin and Holland (4) found that each college exhibited a different

press or pressure upon its students in regard to activities. Burch (8), Warren (46), Feldman (15), and Franz (19) found college campuses were composed of a number of subcultures which could affect the behavior of their members. Apostol (2) connected personality to subculture preference while Meyersohn (33), Maw (31), and Feldman and Thielbar (17) found a correlation between subculture and recreation. Schmidt, Owens and Tiffin (40) indicated that persons who were likely to attend activities of differing natures could be identified by grouping characteristics.

The literature connecting residence and recreation participation found two main thoughts. Warren (47), Hartshorne (22), Haack (20), Sommer (43), Feldman and Newcomb (16), Miller (34), Harrold and Lowe (21), and Christian (13) all found that students living in dormitories or Greek houses participated in campus activities more than did commuters or students who live off campus. Pollock (39), Yancey and Snell (52), Field (18), and Cheek (11) all concluded that recreation participation was a group function leading to a conclusion that residential or organizational memberships would promote participation.

While reviewing the literature, other factors in addition to subculture, residence, and personality were found to affect recreation participation. Brown (7) found that a large percentage of students participated in no campus activities while Williamson (49) found that women are

more active than men, and men do not change in recreational preference during college years. Williamson (51) also found that age, college year, and number of friends influenced participation. Hooley (25) determined that students preferred group activities. Bossard and Bell (5) found that marriage lessened participation but more for women than for men.

Chapter III contains the procedures used in selection of subjects, a review of the instruments, and procedures used in gathering the data.

CHAPTER BIBLIOGRAPHY

1. Appel, Victor H., Margaret C. Berry, and Robert W. Hoffman, "Significant Collegiate Sources of Influence," Journal of College Student Personnel, XIV, No. 2 (March, 1973), 171-174.
2. Apostol, Robert A., "Personality Types and Preferred College Subculture," Journal of College Student Personnel, II, No. 3 (May, 1970), 206-209.
3. Astin, Alexander W., The College Environment, Washington, D. C., The American Council of Education, 1968.
4. Astin, Alexander, W. and John L. Holland, "The Environmental Assessment Technique: A Way to Measure College Environments," Journal of Educational Psychology, LII, No. 6 (May, 1970), 308-316.
5. Bellman, Samuel J., editor, The College Experience, San Francisco, Chandler Publishing Company, 1962.
6. Biggs, Donald A., "Clark-Trow Orientations and Peer Culture," Journal of College Student Personnel, XIV, No. 1 (January, 1973), 57-62.
7. Brown, Clara A., "A Social-Activities Survey," Journal of Higher Education, VIII (May, 1937), 257-264.
8. Burch, William R., "Two Concepts for Guiding Recreation Management Decisions," Journal of Forestry, LXII (1964), 707-712.
9. Carlson, William S., The Municipal University, Washington, D. C., The Center for Applied Research in Education, Inc., 1962.
10. Cavanaugh, Jean Ogden, "The Relationship of Recreation to Personality Adjustment," Journal of Social Psychology, XV (1942), 69-74.
11. Cheek, Neil H., Jr., "Towards a Sociology of Not Work," Pacific Sociological Review, XIV (July, 1971), 245-258.

12. Christensen, James E. and Dean R. Yoesting, "Social and Attitudinal Variants in High and Low Use of Outdoors Recreational Facilities," Journal of Leisure Research, V, No. 2 (Spring, 1973), 6-15.
13. Christian, Charles E., "A Comparison of Resident and Non-Resident Student Perceptions of the University of California at Irvine," unpublished doctoral dissertation, University of California at Irvine, Irvine, California, 1973.
14. Elton, Charles F. and John C. Smart, "Many Are Rushed but Who Will Pledge?," Journal of College Student Personnel, XII, No. 3 (May, 1971), 204-207.
15. Feldman, Kenneth A., "Studying the Impact of Colleges on Students," Sociology of Education, XLII, No. 2 (Summer, 1969), 207-237.
16. Feldman, Kenneth A. and Theodore M. Newcomb, The Impact of College on Students, San Francisco, Jossey-Bass, Inc., 1969.
17. Feldman, Saul D. and Gerald W. Thielbar, Life Styles: Diversity in American Society, New York, Little, Brown and Co., 1972.
18. Field, Donald R., "Interchangeability of Parks with Other Leisure Settings," paper presented at the AAAS Symposium, Philadelphia, Pennsylvania, December 26-31, 1971.
19. Franz, Thomas T., "Student Subcultures," Journal of College Student Personnel, X, No. 1 (January, 1969), 16-20.
20. Haack, Arno J., "Student Life in an Urban University," paper delivered at the annual meeting of the Association of Urban Universities, Detroit, Michigan, October, 1962.
21. Harrold, Roger D. and Benjamin Lowe, "Intercollegiate Athletics in the Contemporary Student Value System," Journal of College Student Personnel, XIV, No. 4 (July, 1973), 345-351.
22. Hartshorne, E. Y., "Undergraduate Society and the College Culture," American Sociological Review, VIII (June, 1943), 321-332.

23. Havighurst, Robert J., "The Leisure Activities of the Middle-Aged," American Journal of Sociology, LXII, No. 2 (September, 1957), 142-153.
24. Havighurst, Robert J. and K. Feigenbaum, "Leisure and Life Style," American Journal of Sociology, LXIV, No. 4 (January, 1959), 396-404.
25. Hooley, Anne M., "Leisure Time Pursuits in College," Recreation, (February, 1960), pp. 83-84.
26. Howard, Dennis R., "Multivariate Relationships Between Leisure Activities and Personality," unpublished doctoral dissertation, Oregon State University, Eugene, Oregon, 1973.
27. Ibrahim, Hilmi, "Recreational Preferences and Personality," Research Quarterly, XL, No. 1 (March, 1969), 78-82.
28. _____, "Recreation Preferences and Temperament," Research Quarterly, XLI, No. 2 (May, 1970), 145-154.
29. Johnson, Charles Enger, "An Exploratory Study of Individual Patterns of Leisure Time Activities," unpublished doctoral dissertation, University of Minnesota, Minneapolis, Minnesota, 1964.
30. Kaplan, Max, Leisure in America: A Social Inquiry, New York, John Wiley and Sons, Inc., 1960.
31. Maw, Ian E. L., "Student Subcultures and Activity Involvement," Journal of College Student Personnel, XII, No. 1 (January, 1971), 62-66.
32. Merritt, Myrtle Agnes, "The Relationship of Selected Physical, Mental, Emotional and Social Factors to the Recreational Preferences of College Women," unpublished doctoral dissertation, University of Iowa, Iowa City, Iowa, 1961.
33. Myersohn, Rolf, "The Sociology of Leisure in the United States: Introduction and Bibliography, 1945-65," Journal of Leisure Research, I, No. 1 (Winter, 1969), 53-68.
34. Miller, Leonard D., "Distinctive Characteristics of Fraternity Members," Journal of College Student Personnel, XIV, No. 2 (March, 1973), 126-129.

35. Murphy, James F., Concepts of Leisure Philosophical Implications, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1974.
36. _____, "Leisure Determinants of Life Style," Journal of Health, Physical Education and Recreation, (November-December, 1974), pp. 35-37.
37. Neulinger, John and Mirand Breit, "Attitude Dimensions of Leisure," Journal of Leisure Research, I, No. 3 (Summer, 1969), 255-261.
38. Pace, C. Robert and George G. Stern, "An Approach to the Measurement of Psychological Characteristics of College Environments," Journal of Educational Psychology, XLIX, No. 5 (1958), 269-281.
39. Pollock, Bernard, "A Method for Obtaining and Utilizing Student Information in Intramural Program Development in an Urban College Setting," unpublished doctoral dissertation, Columbia University, New York, 1968.
40. Schmidt, Frank, W. A. Owens, and Joseph Tiffin, "Correlates of Student Attendance at Cultural Events," Journal of Student Personnel, XII, No. 1 (January, 1971), 41-43.
41. Scott, Ethel Oliva, "An Analysis of the Relationship of Personality and Selected Conditioning Forces to Participation in Individual Preferred Leisure Activities," unpublished master's thesis, University of North Carolina, Raleigh, North Carolina, 1962.
42. Scott, Frank Lester, "A Study of the Origin of Recreation Activities of Male Students at San Diego State College," unpublished doctoral dissertation, University of Michigan, Ann Arbor, Michigan, 1957.
43. Sommer, Robert, "Student Reactions to Four Types of Residence Halls," Journal of College Student Personnel, IX, No. 4 (July, 1968), 232-237.
44. Stancil, Charles Taylor, "Participation Areas and Interest Areas in the Recreation of College Students with Diverse Curriculum," unpublished doctoral dissertation, Pennsylvania State University, University Park, Pennsylvania, 1957.

45. Strong, Edward K., Jr., "Interests of Men and Women," Journal of Social Psychology, VII, No. 1 (February, 1936), 49-67.
46. Warren, Jonathon R., "Student Perceptions of College Subcultures," America Educational Research Journal, V, No. 2 (March, 1968), 213-232.
47. Warren, Roland L., "A Sociological Analysis of Student Activities," Educational Forum, V, No. 4 (May, 1941), 442-457.
48. White, R. Clyde, "Social Class Differences in the Uses of Leisure," American Journal of Sociology, LXI, No. 2 (September, 1955), 145-152.
49. Williamson, E. G. and J. G. Darley, "The Measurement of Social Attitudes of College Students: I Standardization of Tests and Results of a Survey," Journal of Social Psychology, VIII, No. 2 (May, 1937), 219-229.
50. _____ . "The Measurement of Social Attitudes of College Students: II Validation of Two Attitude Tests," Journal of Social Psychology, VIII, No. 2 (May, 1937), 231-242.
51. Williamson, E. G., W. L. Layton, and M. L. Snake, A Study of Participation in College Activities, Minnesota Studies in Student Personnel Work, Vol. 5, Minneapolis, Minn., University of Minnesota Press, 1954.
52. Yancey, William L. and Jane Snell, "Parks As Aspects of Leisure in the Inner-City: An Exploratory Investigation," a paper delivered at the AAAS Symposium, Philadelphia, Pennsylvania, December 26-31, 1971.

CHAPTER III

PROCEDURES OF THE STUDY

This chapter contains the procedures used to select subjects and collect data. It reviews the instruments and the procedures for treating the data.

Selection of the Subjects

The subjects for the study were selected from thirteen classes in Secondary Education in the College of Education at North Texas State University during the spring semester, 1973. Six of the classes were EDSE, The American Secondary School, and seven of the classes were EDSE 345, The Adolescent in School and Society.

The criteria established for the selection of participants in this study required each subject to have taken the Guilford-Zimmerman Temperament Survey and to have been in attendance at North Texas State University during the fall semester of the 1972-73 school year. Of 304 students enrolled in the thirteen classes, 214 met those criteria and were present the day the classes were administered. The 214 subjects included 108 men and 106 women.

In order that time of registration should not affect the chances of any student enrolled in EDSE 343 and 345 being in the sample, an attempt was made to select classes

which met throughout the day and on Monday, Wednesday, and Friday and on Tuesday-Thursday.

Table I indicates the dispersion of classes from which subjects were drawn.

TABLE I
DISPERSION OF SUBJECTS

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00	345-01 . .	343-08 345-08	345-01 . .	343-08 345-08	345-01 . .
9:00	343-02 345-02	345-09 . .	343-02 345-02	345-09 . .	343-02 345-02
10:00	343-04	. .	343-04	. .	343-04
11:00
12:00	343-04 . .	343-10 345-11	343-05 . .	343-10 345-11	343-05 . .
1:00	345-06	. .	345-06	. .	345-06
2:00	343-07 345-07	343-07 345-07	343-07 345-07

Selection of Instruments

The Guilford-Zimmerman Temperament Survey, the Clark-Trow Typology of Student Subculture, a Survey of Recreation Participation, and a Questionnaire to determine selected personal information about the subject were used.

The Guilford-Zimmerman Temperament Survey is a 300 item instrument which measures ten personality traits. Each question is answered "Yes" or "No." A high score is in the

direction of a socially desirable pole. The inter-correlations between traits are generally small enough that there seems not to be any question as to the existence of ten separate dimensions (1). Personality traits measured are General Activity, Restraint, Ascendance, Sociability, Emotional Stability, Objectivity, Friendliness, Thoughtfulness, Personal Relations, and Masculinity. The norms for the instrument were determined from administering the test to 523 college men and 389 college women (1).

The Fourth Mental Measurements Yearbook contains a review of this instrument by Van Steenberg. He says, "The survey gives a very favorable impression of a well-rounded, carefully worked out method of evaluating an important portion of the total personality" (1, p. 50). Shaffer reviewed the instrument in the Journal of Consulting Psychology by saying, "As the outstanding omnibus instrument based primarily on factor analysis, the Survey will have usefulness for screening, rapid evaluation and research" (1, p. 50).

The Clark-Trow Typology of Student Subculture was used to determine college student subculture. Sociologists Clark and Trow have suggested a typology of four college student subcultures. These student subcultures have been identified as vocational, academic, collegiate, and nonconformist. Clark and Trow defined student subcultures as "group norms, shared notions of what constitutes right action, and attitude toward a range of issues and experiences confronted in

college" (3, p. 7). Further, Clark and Trow explain,

We can distinguish four broad patterns of orientation toward college which give content and meaning to the informal relations of students. When these patterns of orientation define patterns of behavior, sentiment, and relationships we can usefully think of them as subcultures (3, p. 7).

The procedures used to classify students according to subculture were as follows. Condensed statements of each of the four orientations of Clark and Trow were written by researchers of the Educational Testing Services of Princeton, New Jersey. These four statements are meant to communicate the nub of each type of orientation in an understandable manner. Students are typed according to which one of the philosophies each indicates as "most accurate" as a self-description (3, p. 9). This typology was administered to 12,949 freshmen at twenty-three colleges in September of 1963 by the Educational Testing Service as a part of the College Student Questionnaire, Part I. Section 1 of the report describes how students, classified according to the typology, differ on other characteristics in a way that one would expect them to differ if the typology is a valid construct. Students were asked to evaluate themselves according to the four fold typology, i.e., vocational, academic, collegiate, and nonconformist. (See Appendix B.) They were then asked to answer thirty-five questions which elicited relationships logically predictable from the four fold typology (3, p. 14). The data were collected from

questions about major field, plans for graduate study, expected satisfactions, expected extra-curricular involvement, and curricular and instructional preferences. The results, in general, were predictable on the basis of the model and are presented as evidence for construct validity of the four item Clark-Trow Typology of Student Subculture (3, p. 41). The Research Bulletin states that ". . . as an abstraction a typology may well function as a valuable analytic tool--to organize meaningfully a wide range of data, to help understand whole networks of related variables" (3, p. 3).

A further validation of the Clark-Trow Typology has been provided by Kees and McDougal (2). They found significant differences between the four subcultures of the Clark-Trow Typology when each of the subcultures was measured by the Omnibus Personality Inventory. The differential personality characteristics as measured by the Omnibus Personality Inventory and as applied to students placing themselves in the vocational, academic, collegiate, and nonconformist groups tend to confirm their existence (2, p. 198).

A Survey of Recreation Participation on the North Texas State University campus during the fall semester of 1972-73 school year was constructed to determine actual participation in campus recreation. The recreation events were drawn from these sources: (1) the North Texas Daily, (2) from published lists of events of the Student Activities Union, (3) from

activity lists obtained in the offices of men's and women's intramurals, (4) from lists of approved university organizations obtained from the Office of the Dean of Students, and (5) from monthly bulletins of the Public Information Office. Only those events or clubs sponsored by the university were included. Participation was divided into six categories--participant sports, social recreation, fine arts, modern media, modern music, and spectator sports. In addition, a total score for all participation was recorded. A survey for men and for women was constructed. The Survey constructed for the North Texas campus for the fall semester 1972 is included in Appendix C. The Recreation Survey for Men has 148 questions while the Survey for Women has 142 questions. The number of questions in each category is as follows:

	<u>Men</u>	<u>Women</u>
Participant Sports	26	20
Social Recreation	34	34
Fine Arts	27	27
Modern Media	26	26
Spectator Sports	20	20
Modern Music	<u>15</u>	<u>15</u>
	148	142

Personal information on each subject was obtained in six areas by inclusion of a questionnaire in the Recreation Participation Survey and were administered at the same time.

The six areas of personal information were (1) sex, (2) age, (3) college class, (4) marital status, (5) place of residence, and (6) Greek affiliation. (See Appendix A.)

Testing the Subjects

The Clark-Trow Typology, the Recreation Participation Survey, and the Personal Data Questionnaire were administered during regular class periods in the spring semester of 1973. Only those students who were enrolled as full-time students during the fall semester of 1972-73 were asked to take the tests.

Each subject was asked to answer personal data questions in six areas. The areas were sex, age, class in college, Greek affiliation if any, residence, and marital status during the fall semester of 1972-73. Next, the subjects were asked to read the four philosophies of the Clark-Trow Typology and to indicate the philosophy which most accurately described their own orientation in regards to college expectations.

Lastly, the subjects were asked to read through the lists of campus activities which occurred during the fall semester and to place a check beside any activity which they attended. Raw scores in each of the six areas of Recreation Participation were totaled. A score of total participation in all six areas was also recorded. The raw scores were then converted to percentages for data analysis. After the

three instruments were administered, the Guilford-Zimmerman scores were taken from the records of the subjects.

Grouping the Subjects

After collection of the data, the computer was used to group the subjects. These subgroups became the independent variables which were tested for relationship to recreation participation. The group division contained eight major divisions, with thirty subgroups. The major groups and subgroups were as follows:

- A. Sex
- B. Age
 - 1. 18, 19, or under
 - 2. 20, 21
 - 3. 22, 23
 - 4. 24 or older
- C. Class in college last semester
 - 1. Sophomore
 - 2. Junior
 - 3. Senior
 - 4. B.A. plus
- D. Marital status last semester
 - 1. Single
 - 2. Married
- E. Greek Affiliation (Yes or No)
- F. Residence
 - 1. Dormitory on campus
 - 2. Fraternity or Sorority
 - 3. Room, apartment, house in Denton
 - 4. Room, apartment, house outside Denton

G. Student Subculture

1. Vocational
2. Academic
3. Collegiate
4. Nonconformist

H. Guilford-Zimmerman Scores

1. Restraint
2. Ascendance
3. Sociability
4. Emotional Stability
5. Objectivity
6. Friendliness
7. Thoughtfulness
8. Personal Relations
9. Masculinity
10. General Activity

Treating the Data

In the statistical analysis of the data, the Recreation Participation scores were treated as dependent variables and the subject subgroups as independent variables. The data were analyzed using multiple linear regression and stepwise multiple regression procedures. The first step was to determine the simple correlations between the areas of residence, student subculture, and Guilford-Zimmerman scores. The second step was to determine if the areas of residence, student subculture, or Guilford-Zimmerman scores were significant predictors of recreation participation. The third step was to analyze all of the subgroups, using stepwise multiple regression, to find the best predictors of recreation participation.

Summary

This chapter details the procedures used in selecting subjects, the instruments administered, and the procedures used in gathering the data. Chapter IV is the analysis of the data.

CHAPTER BIBLIOGRAPHY

1. Buros, Oscar Krisen, editor, The Fourth Mental Measurements Yearbook, Highland Park, New Jersey, Gryphon Press, 1955.
2. Kees, Donald J. and William P. McDougall, "A Validation Study of the Clark-Trow Subculture Typology," Journal of College Student Personnel, XII, No. 3 (May, 1973), 193-199.
3. Peterson, Richard E., "On Typology of College Students," Research Bulletin, RB-65-9, Princeton, New Jersey, Education Testing Service, 1965.

CHAPTER IV

RESULTS OF ANALYSIS OF DATA

This chapter contains the statistical analysis of data gathered from 108 men and 106 women students on the North Texas University campus. The data include scores from the Guilford-Zimmerman Temperament Survey and the Clark-Trow Typology of Student Subculture, plus data concerning student residence, age, marital status, class in the university, and Greek affiliation, if any. The above data were treated as independent variables. The dependent variables in the analysis were obtained from data gathered from surveys of recreation participation. The data were subjected to statistical analysis using techniques of multiple linear regression and stepwise multiple linear regression.

In the first step of analysis, means and standard deviations of both independent and dependent variables were found. (See Appendices D, E, F, G.) In the second step, simple correlation coefficients (r) were determined for all variables. The third step produced multiple correlation coefficients (R), and applied an F test of significance to the equation to determine if the independent variables were significant predictors of the criterion or dependent variables.

A stepwise multiple linear regression analysis was then used to determine the rank order and significance of all predictor variables. This procedure combined the predictor with the highest value of simple correlation with the second most significant predictor, although not necessarily the one with the next best r . An F test of significance was then applied to the new R and the process continued until the rank order and significance of all predictors had been established. This procedure was repeated for each of the seven areas of recreation participation which were the dependent variables. In addition, a squared correlation coefficient (R^2) which determined the proportion of variance of the dependent variables that is accounted for by the independent variables was found.

Garrett (1, p. 176) has stated that the following classifications can be used for determining relationships between two or more variables:

r from $\pm .00$ to $\pm .20$ denotes indifferent or negligible relationship;

r from $\pm .20$ to $\pm .40$ denotes low correlation; present but slight;

r from $\pm .40$ to $\pm .70$ denotes substantial or marked relationship;

r from $\pm .70$ to ± 1.00 denotes high to very high relationship.

In assessing the correlation (r) of personality, sub-culture, and residence to recreation participation, Garrett's classifications will be used. The .05 level of confidence

will be used for acceptance or rejection of the hypotheses under investigation.

Guilford-Zimmerman Temperament Survey
As a Significant Predictor of
Recreation Participation

Table II contains the simple correlations (r) between scores on the Guilford-Zimmerman Temperament Survey and scores on the Recreation Participation Survey for men.

Applying Garrett's (1, p. 176) classifications to the correlations of Table II reveals that scores of men of the Guilford-Zimmerman Temperament Survey and the Recreation Participation Survey correlated only slightly. Two areas of the Recreation Participation Survey related to the Guilford-Zimmerman Temperament Survey with an r great enough to fall within Garrett's classification of "low but present" relationship. A negative relationship of $-.2325$ was found between Spectator Sports and the Guilford-Zimmerman score of Objectivity. A negative relationship of $-.2360$ was also found between the Fine Arts category of the Recreation Participation Survey and the Guilford-Zimmerman score for Masculinity.

The negative relationship is a result of higher scores on the Guilford-Zimmerman tests for Objectivity and Masculinity correlating with lower scores on the Recreation Participation Survey. It would seem to indicate that men with an objective outlook may not be interested in varsity

TABLE II

SIMPLE CORRELATION COEFFICIENTS (r) OF THE GUILFORD-ZIMMERMAN TEMPERAMENT
SURVEY AND THE RECREATION PARTICIPATION SURVEY FOR MEN

Independent Variable	Spec. Sport	Modern Media	Fine Arts	Modern Music	Social Rec.	Part. Sports	Combined Events
General Activity	-.0563	.0323	-.1160	.0309	-.0369	.0959	-.0118
Restraint	-.1199	-.0913	.1139	.0242	-.0052	-.1520	-.1072
Ascendance	.0527	-.0433	-.1402	.1694	.0761	.1095	.0479
Sociability	.1113	.0240	-.1029	.1245	.0934	.1736	.1239
Emotional Stability	-.1841	-.1690	.0536	.0305	.0459	-.0988	-.1562
Objectivity	-.2325	-.1790	.0610	.0991	.0182	-.0761	-.1710
Friendliness	-.0792	-.0429	.0541	.0946	.0405	-.0110	-.0142
Thoughtfulness	.0688	.1074	.1250	.1903	.1068	.0231	.1535
Personal Relations	-.0905	-.1039	-.1169	-.0407	.0990	-.0012	-.0960
Masculinity	-.1456	-.0332	-.2360	-.1134	-.1018	-.1574	-.1841

athletics. It would also indicate men with high scores for Masculinity have little interest in Fine Arts.

Table III on page 53 contains the simple correlations (r) between scores on the Guilford-Zimmerman Temperament Survey and scores on the Recreation Participation Survey for women. The scores of women on the Guilford-Zimmerman Survey correlated with scores on the Recreation Participation Survey in only two areas above the .20 level. The score for Thoughtfulness from the Guilford-Zimmerman correlates negatively ($-.3071$) with the Spectator Sports and the Participant Sports ($-.2028$) categories of the Recreation Participation Survey. The Guilford-Zimmerman score for General Activity was correlated with the Recreation Participation Survey when all activities were combined, however, the r of $.2367$ was low.

The negative scores are the result of high scores on the Guilford-Zimmerman test for Thoughtfulness correlating with a low score on the Recreation Participation areas of Spectator Sport and Participant Sport.

The data were next subjected to a multiple linear regression analysis. This technique enables the investigator to use knowledge of two or more independent variable. The ten scores from the Guilford-Zimmerman Temperament Survey were used as the predictor variables for the seven areas of recreation participation for both men and women.

TABLE III

SIMPLE CORRELATION COEFFICIENTS (r) OF THE GUILFORD-ZIMMERMAN TEMPERAMENT
SURVEY AND THE RECREATION PARTICIPATION SURVEY FOR WOMEN

Independent Variables	Spec. Sport	Modern Media	Fine Arts	Modern Music	Social Rec.	Part. Sports	Combined Events
General Activity	.1625	.0963	.1282	.0158	.0873	.1951	.2367
Restraint	-.0029	.0188	-.0524	-.0200	-.1327	-.1142	-.0153
Ascendance	-.1293	.0411	.0499	.0873	.1762	-.0145	.0221
Sociability	-.1038	-.0720	-.1196	-.0458	.1292	.0953	-.0958
Emotional Stability	-.0305	-.0022	.0740	-.0601	-.0466	.0474	.0020
Objectivity	-.0873	-.0636	-.0064	-.1586	-.1116	.1438	-.0840
Friendliness	.0008	-.0545	-.0515	-.1248	.0178	.1345	-.0223
Thoughtfulness	-.3071	-.0381	-.0275	.1094	-.0159	-.2028	-.1080
Personal Relations	-.0885	-.1126	-.1081	-.0555	.0029	.0422	-.1048
Masculinity	-.0398	.0069	.1797	-.1253	-.0596	.1359	.0631

An inspection of Table IV indicates that Guilford-Zimmerman Temperament Survey scores of men did not produce a significant coefficient of correlation (R) at the .05 level of confidence when multiple regression techniques were applied to the prediction equation. Thus, hypothesis number one which stated that scores of men on the Guilford-Zimmerman Temperament Survey will be significant predictors of scores on the Recreation Participation Survey was rejected.

TABLE IV

THE PREDICTION OF RECREATION PARTICIPATION SCORES USING
GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY SCORES AS
THE PREDICTOR VARIABLES FOR MEN

Recreation Variables	R	R ²	F	P
Spectator Sports	.3304	.1092	1.17	.315
Modern Media	.2468	.060	.623	.790
Fine Arts	.4023	.1618	1.85	.061
Modern Music	.3440	.1183	1.28	.247
Social Recreation	.2612	.0682	.703	.719
Participant Sports	.3030	.0918	.971	.473
All Events	.3404	.1159	1.25	.264

Hypothesis number two states that scores of women on the Guilford-Zimmerman Temperament Survey will be significant predictors of scores on the Recreation Participation

Survey. An examination of Table V indicates that Guilford-Zimmerman scores for women are significant predictors of Recreation Participation Survey scores in only one category, Spectator Sports, where an R of .4283 was obtained. This score was significant at the .03 level of confidence. It is concluded that hypothesis number two would be rejected except for prediction of participation in Spectator Sports.

TABLE V

THE PREDICTION OF RECREATION PARTICIPATION SCORES USING
GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY SCORES AS
THE PREDICTOR VARIABLES FOR WOMEN

Recreation Variables	R	R ²	F	P
Spectator Sports	.4283	.1834	2.13	.028*
Modern Media	.2180	.0475	.474	.903
Fine Arts	.3621	.1311	1.43	.177
Modern Music	.2878	.0828	.858	.574
Social Recreation	.3118	.0972	1.02	.430
Participant Sports	.3957	.1565	1.76	.077
All Events	.3710	.1376	1.52	.145

*Significant at the .05 level of confidence.

Clark-Trow Typology of Student Subculture As a Significant Predictor of Recreation Participation

Table VI, page 56, contains simple correlation coefficients (r) obtained when scores on the Clark-Trow Typology

TABLE VI

SIMPLE CORRELATION COEFFICIENTS (r) OF THE CLARK-TROW TYPOLOGY OF STUDENT
SUBCULTURE AND THE RECREATION PARTICIPATION SURVEY

Subculture Variables	Men							
	Spec. Sport	Modern Media	Fine Arts	Modern Music	Social Rec.	Part. Sports	Combined Events	
Non-Conformist	-.1150	-.0831	-.0535	.0864	.0037	.0541	-.0968	
Vocational	-.2193	.0695	-.0239	-.0566	.0644	-.0637	-.0738	
Academic	-.2262	-.2083	-.0704	-.0934	-.1048	-.1651	-.2843	
Collegiate	.4754	.1635	.1141	.0947	.0304	.2384	.3777	
Subculture Variables	Women							
	Spec. Sport	Modern Media	Fine Arts	Modern Music	Social Rec.	Part. Sports	Combined Events	
Non-Conformist	.0323	.1086	.0943	.2321	-.0634	-.0656	.1287	
Vocational	-.0846	.0192	-.0934	-.0267	-.1341	-.0431	-.1282	
Academic	-.1181	-.0177	-.0449	.0338	.0563	-.0749	-.0404	
Collegiate	.1801	-.0554	.0635	-.1337	.1110	.1428	.0919	

of Student Subculture were correlated with scores on the Recreation Participation Survey. Subculture categories as selected by the student subjects were the predictor variables and Recreation Participation Survey scores were the dependent variables.

Table VI reveals that knowledge of student subculture for men was related to two areas of recreational participation but generally at a low level of correlation. Male students who classified themselves as vocationally oriented produced scores which correlated with the Spectator Sports category of the Recreation Participation Survey with a negative r of $-.2193$. Males who considered themselves academically oriented were found to have a negative relationship with Spectator Sports ($-.2262$) and with the Combined Events category ($-.2843$). Male students who considered themselves in the Collegiate subculture correlated with Recreation Participation Survey variables at a slightly higher level of correlation. Spectator Sports participation obtained an r of $.4754$ when correlated with the male collegiate subculture, indicating substantial relationship. The Participant Sports category of the Recreation Participation Survey obtained an r of $.2384$, showing slight or low correlation with the Collegiate subculture. The male Collegiate subculture was also predictive, at a low level, when correlated with the Combined Events category of the Recreation Participation Survey. An r of $.3777$ was obtained.

Table VI also contains the simple correlation coefficients (r) when female scores on the Clark-Trow Typology of Student Subculture are used to predict Recreation Participation Survey scores. Table VI reveals that scores of women students who consider themselves to be in the non-conformist subculture are predictive at a low level (.2321) when correlated with participation in the Modern Music category of the Recreation Participation Survey. No other subculture category for women produced a correlation of significance.

Table VII contains the results when multiple linear regression equations using all four predictor variables of

TABLE VII

THE PREDICTION OF RECREATION PARTICIPATION SCORES USING CLARK-TROW TYPOLOGY OF STUDENT SUBCULTURE CATEGORIES AS THE PREDICTOR VARIABLES FOR MEN

Recreation Variables	R	R ²	F	P
Spectator Sports	.4765	.2270	7.49	.001*
Modern Media	.2432	.0591	1.60	.179
Fine Arts	.1226	.0150	.390	.815
Modern Music	.1462	.0213	.557	.694
Social Recreation	.1079	.0116	.300	.877
Participant Sports	.2489	.0620	1.68	.159
All Events	.4044	.1635	4.98	.001*

*Significant at the .05 level of confidence.

the Clark-Trow Typology of Student Subculture were used to predict variables on the Recreation Participation Survey for men. A review of Table VII indicates that the combined subculture variables are significant predictors of only two areas of recreation participation for men students. The areas of Spectator Sports and Combined Events obtained a multiple correlation coefficient (R) of .4765 and .4044 respectively at the .05 level of confidence.

Hypothesis number three stated that scores of men on the Clark-Trow Typology of Student Subculture would be predictors of scores on the Recreation Participation Survey. Since only two of seven recreation participation variables are correlated at the .05 level of significance, it is concluded that hypothesis number three should be rejected for all Recreation Participation variables except for Spectator Sports and Combined Events.

Hypothesis number four states that scores of women from the Clark-Trow Typology of Student Subculture would be significant predictors of scores on the Recreation Participation Survey. Table VIII on page 59 indicates that when the subculture preference of women students is used as the predictor variable and Recreation Participation variables were the dependent variables, no significant multiple correlation coefficients (R) were obtained. Hypothesis number four was rejected.

TABLE VIII

THE PREDICTION OF RECREATION PARTICIPATION SCORES USING
CLARK-TROW TYPOLOGY OF STUDENT SUBCULTURE CATEGORIES
AS THE PREDICTOR VARIABLES FOR WOMEN

Recreation Variables	R	R ²	F	P
Spectator Sports	.2028	.0411	1.08	.368
Modern Media	.1172	.0137	.352	.842
Fine Arts	.1769	.0312	.816	.518
Modern Music	.2725	.0742	2.02	.097
Social Recreation	.1678	.0281	.732	.572
Participant Sports	.1539	.0237	.613	.654
All Events	.1870	.0349	.915	.458

Place of Student Residence As a Significant
Predictor of Recreation Participation

Table IX on page 61 contains the simple correlation coefficients (r) obtained when place of student residence was used as the predictor or independent variable and Recreation Participation was used as the predicted or dependent variables. Relationships between residence and recreation participation variables were the strongest of the three categories of predictor variables.

Table IX reveals that three types of residence of male students were predictive when correlated with the Recreation Participation Survey. The scores of males who lived in

TABLE IX

SIMPLE CORRELATION COEFFICIENTS (r) OF THE PLACE OF STUDENT RESIDENCE
AND THE RECREATION PARTICIPATION SURVEY

Residence Variables	Men							
	Spec. Sport	Modern Media	Fine Arts	Modern Music	Social Rec.	Part. Sports	Combined Events	
Fraternity	.2445	.0515	-.0594	.1471	.1394	.2462	.2439	
Dormitory	.3546	.3913	-.0789	.0482	.3816	.0840	.4219	
Denton	.1106	.0468	-.0046	-.0136	-.0566	.1611	.0853	
Commuter	-.4366	-.3079	-.0776	-.0795	-.2331	-.3261	-.4608	
Residence Variables	Women							
	Spec. Sport	Modern Media	Fine Arts	Modern Music	Social Rec.	Part. Sports	Combined Events	
Sorority	.1261	.0375	-.0366	.0127	.1589	.0585	.1040	
Dormitory	.3872	.1222	.3279	.2136	.2765	-.0102	.4264	
Denton	-.0438	.1594	-.0120	.1176	-.1305	.0591	.0261	
Commuter	-.3763	-.3054	-.2857	-.3373	-.1901	-.0788	-.4803	

fraternity houses were correlated at a "low but present" relationship with recreation participation scores in the areas of Spectator Sports (.2445), Participant Sports (.2462), and Combined Events (.2439). A relationship (r) was found between male dormitory residents and four areas of the Recreation Participation Survey. Dormitory residence correlated at a "low but present" level or relationship with the Recreation Participation areas of Spectator Sports (.3546), Modern Media (.3913), and Social Recreation (.3816). The area of Combined Events on the Recreation Participation Survey indicated the highest degree or relationship to dormitory residents with an r of .4219. According to Garrett (1), this indicates a substantial relationship between male dormitory residents and the total number of campus recreation events attended.

Of the four categories of residence, male commuter students showed the strongest relationship with the Recreation Participation Survey. The relationship was "slight but present" in the areas of Modern Media (-.3079), Social Recreation (-.2384), and Participant Sports (-.3261). A substantial relationship was indicated in the areas of Spectator Sports (-.4366) and Combined Events (-.4608). All relationships were negative. This fact indicates that commuter students attended fewer events than students who lived in the other categories of residence.

Table IX contains simple correlation coefficients (r) for female students also, using residence as the predictor variable and scores on the Recreation Participation Survey as the dependent variables. It was found that dormitory residence and commuter status for women was correlated with some areas of recreation participation. Female dormitory residents obtained an r in the "slight but present" degree of relationship of four areas of recreation participation. Correlation coefficients for Spectator Sports (.3872), Fine Arts (.3279), Modern Music (.2136), and Social Recreation (.2765) fell into this degree of relationship. A relationship between female dormitory residents and Combined Events on the Recreation Participation Survey of .4264 indicated a relationship that falls in the "substantial or marked" area of correlation.

Table IX also reveals a relationship between female commuter students and the Recreation Participation Survey. The relationship is negative in all cases as was the relationship for men commuters. The Recreation Participation categories of Spectator Sports (-.3763), Modern Media (-.3054), Fine Arts (-.2857), and Modern Music (-.3373) all were related to female commuter status but at a low level of relationship. The Recreation Participation category of Combined Events fell in the "substantial but marked" range of relationship with an r of -.4803.

Hypothesis number five states that the place of residence of male students will be significant predictors of scores on the Recreation Participation Survey. Table X on page 65 indicates that when multiple correlation coefficients (R) with all four residence variables in the equation are used, male residence is predictive at the .05 level of significance in five of seven areas of recreation participation.

The areas of Spectator Sports (.5462), Modern Media (.4502), Social Recreation (.4320), Participant Sports (.3806), and Combined Events (.5923) can be predicted with knowledge of the place of residence at the .03 level of confidence. Hypothesis number five is, therefore, accepted for those areas of Recreation Participation which obtained significant multiple correlation coefficients (R).

Hypothesis number six states that knowledge of the place of residence of female students would be significant predictors of scores on a Recreation Participation Survey. Table X on page 65 indicates that the place of residence of female students is predictive of recreation participation at the .05 level of significance in six of the seven areas of recreation participation on the Recreation Participation Survey instrument. The areas of recreation participation which were predicted by the place of residence of females were Spectator Sports (.4779), Modern Media (.3055), Fine Arts (.3279), Modern Music (.3504), Social Recreation (.3418), and All Events (.5564). Hypothesis number six is

TABLE X
 THE PREDICTION OF RECREATION PARTICIPATION SCORES
 USING PLACE OF STUDENT RESIDENCE
 AS THE PREDICTOR VARIABLE

Men				
Recreation Variables	R	R ²	F	P
Spectator Sports	.5462	.2983	10.84	.001*
Modern Media	.4502	.2027	6.48	.001*
Fine Arts	.1058	.0111	.289	.884
Modern Music	.1638	.0268	.703	.591
Social Recreation	.4320	.1866	5.85	.001*
Participant Sports	.3806	.1448	4.32	.003*
All Events	.5923	.3508	13.78	.001*
Women				
Spectator Sports	.4779	.2284	7.47	.001*
Modern Media	.3055	.0933	2.60	.04 *
Fine Arts	.3732	.1392	4.08	.004*
Modern Music	.3504	.1228	3.53	.009*
Social Recreation	.3418	.1168	3.34	.01 *
Participant Sports	.0990	.0098	.250	.909
All Events	.5564	.3095	11.32	.001*

*Significant at the .05 level of confidence.

rejected for prediction of Participant Sports but is accepted for the remaining six areas of recreation participation.

The Selection of Best Predictors of Recreation Participation

A stepwise multiple regression analysis was used to confirm the rejection or acceptance in part of the hypotheses. The procedure identified the best predictor variable available from the entire group of predictor variables. The procedure produced a rank order and significance of all independent variables as predictors of Recreation Participation Survey scores. The analysis also produced a squared correlation coefficient for each step (R^2). The squared correlation coefficient indicated the proportion of the variance of the dependent variable which was accounted for by the independent variable. As the stepwise multiple regression analysis continued, it was possible to find the additional value added to the predictor equation by each variable.

Additional independent variables of age, marital status, university class, and Greek membership were added to the variables from the Guilford-Zimmerman Temperament Survey, the place of residence, and the subculture instruments. This was done to investigate the possibility that factors other than personality, subculture, and residence could be predictive of Recreation Participation Survey scores. An F test of significance was determined at each

step. The data were arranged according to the seven categories of the Recreation Participation Survey.

A review of Table XI indicates that while all variables are significant, the first four account for the largest portion of the variance. Membership in the Collegiate subculture emerges as the best predictor of Spectator Sports participation (.4754). This confirms the acceptance of that

TABLE XI

THE PREDICTION OF SPECTATOR SPORTS PARTICIPATION FOR MEN USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE, AGE, MARITAL STATUS, UNIVERSITY CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P*
Subculture (Collegiate)	.4754	.2260	.2260	30.66	.001
Age (20-21)	.5568	.3100	.0840	23.36	.001
Residence (Commuter)	.6060	.3672	.0572	19.92	.001
Residence (Denton)	.6382	.4073	.0401	17.52	.001
G/Z (Ascendance)	.6533	.4268	.0194	15.03	.001
G/Z (Objectivity)	.6685	.4469	.0201	13.46	.001
Fraternity Member	.6753	.4560	.0091	11.85	.001
G/Z (Thoughtfulness)	.6805	.4630	.0071	10.56	.001
G/Z (General Activity)	.6832	.4667	.0037	9.43	.001
Class (Junior)	.6860	.4706	.0039	8.53	.001
Age (24 and older)	.6887	.4743	.0037	7.79	.001
Residence (Dormitory)	.6903	.4766	.0022	7.13	.001
Subculture (Vocational)	.6918	.4785	.0020	6.56	.001
Subculture (Academic)	.6995	.4793	.0107	6.29	.001
G/Z (Personal Relations)	.6999	.4898	.0005	5.82	.001
Marital Status (Single)	.7003	.4904	.0006	5.41	.001
G/Z (Masculinity)	.7005	.4907	.0003	5.04	.001
G/Z (Emotional Stability)	.7009	.4911	.0004	4.71	.001
G/Z (Sociability)	.7011	.4916	.0004	4.42	.001
Class (Senior)	.7012	.4917	.0001	4.15	.001

*All variables are significant at the .05 level.

part of hypothesis number three which indicated that Subculture is a predictor of Spectator Sports participation.

Table XII indicates that the best predictor of the Spectator Sports category of the Recreation Participation Survey for women is residence in a dormitory. An R of .3872 is significant at the .05 level of significance. The emergence of dormitory residence for women as the best predictor of Spectator Sports participation supports the acceptance in

TABLE XII

THE PREDICTION OF SPECTATOR SPORTS PARTICIPATION FOR WOMEN USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE, AGE, MARITAL STATUS, UNIVERSITY CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P*
Residence (Dormitory)	.3872	.1499	.1499	18.34	.001
Residence (Commuter)	.4604	.2119	.0620	13.85	.001
G/Z (Thoughtfulness)	.5032	.2532	.0412	11.52	.001
G/Z (General Activity)	.5200	.2703	.0172	9.35	.001
Age (20-21)	.5389	.2904	.0200	8.18	.001
Age (22-23)	.5500	.3032	.0129	7.18	.001
G/Z (Masculinity)	.5507	.3125	.0093	6.36	.001
G/Z (Personal Relations)	.5591	.3235	.0110	5.80	.001
Residence (Denton)	.5688	.3327	.0092	5.31	.001
Subculture (Academic)	.5851	.3424	.0097	4.94	.001
Age (24 and older)	.5912	.3495	.0071	4.59	.001
Subculture (Vocational)	.5964	.3557	.0063	4.28	.001
G/Z (Restraint)	.6013	.3615	.0058	4.00	.001
G/Z (Friendliness)	.6064	.3678	.0062	3.78	.001
Class (Junior)	.6087	.3705	.0007	3.27	.001
G/Z (Sociability)	.6087	.3705	.0007	3.27	.001
Marital Status (Single)	.6094	.3714	.0008	3.06	.001
Subculture (Collegiate)	.6098	.3719	.0005	2.86	.001
Greek Member	.6100	.3720	.0002	2.68	.001

*All variables are significant at the .05 level.

part of hypothesis number six, place of residence is a predictor, in part, of recreation participation.

Table XIII indicated that the best predictor of scores in the Recreation Survey area of Modern Media for men was residence in a dormitory (.3913). The R is significant at the .05 level of significance. It confirms the acceptance in part of hypothesis five. Residence is a predictor of

TABLE XIII

THE PREDICTION OF MODERN MEDIA PARTICIPATION FOR MEN USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE, AGE, MARITAL STATUS, UNIVERSITY CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P*
Residence (Dormitory)	.3913	.1531	.1531	18.98	.001
Residence (Commuter)	.4486	.2013	.0481	13.10	.001
Age (22-23)	.4787	.2291	.0279	10.20	.001
Subculture (Vocational)	.5002	.2502	.0210	8.50	.001
G/Z (Emotional Stability)	.5163	.2665	.0163	7.34	.001
Class (Junior)	.5269	.2776	.0111	6.40	.001
G/Z (Personal Relations)	.5343	.2855	.0079	5.65	.001
G/Z (Friendliness)	.5402	.2918	.0063	5.04	.001
Class (B. A. or more)	.5452	.2972	.0054	4.55	.001
Residence (Denton)	.5499	.3024	.0051	4.16	.001
G/Z (General Activity)	.5525	.3053	.0029	3.79	.001
G/Z (Restraint)	.5543	.3072	.0020	3.47	.001
Subculture (Academic)	.5555	.3086	.0014	3.19	.001
Marital Status (Single)	.5566	.3098	.0012	2.94	.001
Fraternity Member	.5571	.3104	.0006	2.73	.001
G/Z (Masculinity)	.5575	.3108	.0004	2.53	.001
Class (Senior)	.5579	.3112	.0004	2.36	.001
Age (20-21)	.5582	.3116	.0004	2.21	.001
Age (24 or more)	.5612	.3150	.0034	2.10	.001
G/Z (Sociability)	.5614	.3152	.0002	1.97	.001
G/Z (Ascendance)	.5617	.3155	.0003	1.86	.001

*All variables are significant at the .05 level.

scores of men on the Modern Media category of the Recreation Participation Survey.

Table XIV indicates that the best predictor of the scores of women on the Recreation Participation Survey in the area of Modern Media was the residence category of commuter. It should be remembered that while a simple correlation (r) was also found between commuter status and

TABLE XIV

THE PREDICTION OF MODERN MEDIA PARTICIPATION FOR WOMEN
USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT
SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESI-
DENCE, AGE, MARITAL STATUS, UNIVERSITY
CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P
Residence (Commuter)	.3054	.0933	.0933	10.69	.001
Age (20-21)	.3530	.1246	.0314	7.33	.001
G/Z (Ascendance)	.3854	.1485	.0239	5.93	.001
Marital Status (Single)	.4047	.1638	.0152	4.94	.001
G/Z (General Activity)	.4213	.1775	.0137	4.31	.001
G/Z (Sociability)	.4335	.1879	.0104	3.81	.002
Age (24 and older)	.4396	.1933	.0054	3.35	.003
Residence (Denton)	.4448	.1978	.0045	2.99	.005
Greek Member	.4511	.2035	.0057	2.73	.007
Residence (Dormitory)	.4748	.2254	.0219	2.76	.005
G/Z (Emotional Stability)	.4780	.2285	.0030	2.53	.008
G/Z (Masculinity)	.4824	.2327	.0042	2.35	.010
College Class (B.A. plus)	.4856	.2358	.0031	2.18	.020
G/Z (Thoughtfulness)	.4873	.2374	.0016	2.02	.020
Subculture (Vocational)	.4887	.2388	.0014	1.88	.040
Age (22-23)	.4894	.2395	.0007	1.75	.050
G/Z (Personal Relations)	.4901	.2402	.0007	1.64	.070*
G/Z (Friendliness)	.4908	.2409	.0007	1.53	.100*
College Class (Junior)	.4915	.2416	.0007	1.44	.130*
College Class (Senior)	.4933	.2434	.0018	1.37	.160*
G/Z (Restraint)	.4942	.2443	.0009	1.29	.200*
Subculture (Academic)	.4944	.2444	.0001	1.22	.250*
Subculture (Collegiate)	.4945	.2445	.0001	1.15	.310*

*These variables are not significant.

modern media it was a negative correlation, (-.3054). It is in effect an inverse relationship which indicates that as the number of female commuter students grows larger, participation in the Modern Media category grows smaller. Hypothesis number six is maintained.

An inspection of Table XV reveals that the best predictor of the scores of men on the fine arts category is the Guilford-Zimmerman score for Masculinity. The score accounted

TABLE XV

THE PREDICTION OF FINE ARTS PARTICIPATION FOR MEN USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE, AGE, MARITAL STATUS, UNIVERSITY CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P
G/Z (Masculinity)	.2360	.0557	.0557	6.19	.0144
Class (Senior)	.2920	.0852	.0295	4.84	.0097
Fraternity Member	.3393	.1151	.0299	4.46	.0054
Marital Status (Single)	.3762	.1416	.0264	4.20	.0034
G/Z (Objectivity)	.3985	.1588	.0173	3.81	.0033
G/Z (Ascendance)	.4215	.1776	.0188	3.60	.0028
G/Z (Thoughtfulness)	.4504	.2029	.0252	3.59	.0017
G/Z (Friendliness)	.4701	.2210	.0181	3.47	.0014
Subculture (Collegiate)	.4791	.2295	.0085	3.21	.0019
Residence (Dormitory)	.4883	.2384	.0089	3.00	.0024
Subculture (Vocational)	.4942	.2443	.0058	2.79	.0034
Age (24 or older)	.4969	.2469	.0027	2.56	.0055
Age (20-21)	.4986	.2486	.0017	2.36	.0088
Residence (Commuter)	.4996	.2496	.0010	2.18	.0139
Residence (Denton)	.5003	.2503	.0007	2.02	.0215
Age (22-23)	.5011	.2511	.0008	1.88	.0317
G/Z (General Activity)	.5015	.2515	.0004	1.75	.0465
G/Z (Personal Relations)	.5018	.2518	.0003	1.64	.0659*
Class (B. A. or more)	.5020	.2520	.0002	1.54	.0910*
Subculture (Academic)	.5021	.2521	.0001	1.44	.1222*

*These variables are not significant at the .05 level.

for a squared correlation coefficient (R^2) of only .0557, indicating that the Masculinity variable accounts for only a small proportion of the variation of the Fine Arts scores. Due to the low R^2 and to the insignificant multiple correlation coefficient (r), the rejection of hypothesis number one is maintained.

The data in Table XVI indicates that for women, residence in a dormitory is the best predictor of scores on the

TABLE XVI

THE PREDICTION OF FINE ARTS PARTICIPATION FOR WOMEN USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE, AGE, MARITAL STATUS, UNIVERSITY CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P
Residence (Dormitory)	.3279	.1075	.107	12.53	.001
College Class (Senior)	.3932	.1546	.047	9.42	.001
Marital Status (Single)	.4597	.2113	.057	9.11	.001
G/Z (General Activity)	.4889	.2390	.028	7.93	.001
G/Z (Masculinity)	.5111	.2617	.022	7.07	.001
G/Z (Personal Relations)	.5402	.2918	.030	6.80	.001
College Class (B.A. plus)	.5521	.3048	.013	6.13	.001
Subculture (Collegiate)	.5668	.3212	.016	5.74	.001
G/Z (Emotional Stability)	.5766	.3325	.011	5.31	.001
G/Z (Friendliness)	.5852	.3425	.010	4.95	.001
G/Z (Sociability)	.5959	.3551	.012	4.70	.001
Residence (Denton)	.6027	.3633	.008	4.42	.001
G/Z (Ascendance)	.6079	.3696	.006	4.14	.001
College Class (Junior)	.6110	.3734	.003	3.87	.001
G/Z (Thoughtfulness)	.6128	.3756	.002	3.60	.001
Subculture (Vocational)	.6143	.3773	.002	3.37	.001
Subculture (Academic)	.6150	.3783	.001	3.14	.001
Age (20-21)	.6156	.3790	.001	2.94	.001
G/Z (Objectivity)	.6163	.3799	.001	2.77	.001
Greek Member	.6171	.3809	.001	2.61	.001
Age (24 and older)	.6175	.3813	.001	2.46	.002
G/Z (Restraint)	.6177	.3815	.000	2.32	.003

Fine Arts category of the Recreation Participation Survey. The R of .3279 is significant at the .05 level of significance. The acceptance of hypothesis six as a predictor of the Fine Arts category of the Recreation Participation Survey for women is maintained.

The data in Table XVII reveal that none of the three major categories of predictors was the best predictor for

TABLE XVII

THE PREDICTION OF MODERN MUSIC PARTICIPATION FOR MEN USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE, AGE, MARITAL STATUS, UNIVERSITY CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P
Marital Status (Single)	.3175	.1008	.1008	11.76	.0009
G/Z (Ascendance)	.3835	.1471	.0468	8.96	.0003
G/Z (Objectivity)	.3998	.1598	.0128	6.53	.0004
Subculture (Academic)	.4194	.1757	.0158	5.43	.0005
G/Z (Thoughtfulness)	.4334	.1878	.0122	4.67	.0007
Class (Junior)	.4455	.1984	.0106	4.12	.0010
Class (B. A. or more)	.4585	.2102	.0118	3.76	.0012
Class (Senior)	.4697	.2206	.0106	3.46	.0015
G/Z (Masculinity)	.4817	.2320	.0114	3.25	.0017
G/Z (Emotional Stability)	.4962	.2462	.0141	3.13	.0017
G/Z (General Activity)	.4998	.2498	.0036	2.87	.0027
Residence (Denton)	.5016	.2516	.0018	2.63	.0044
G/Z (Sociability)	.5029	.2530	.0013	2.42	.0073
Subculture (Collegiate)	.5040	.2540	.0011	2.23	.0116
Subculture (Vocational)	.5066	.2566	.0026	2.09	.0169
Residence (Commuter)	.5081	.2581	.0015	1.95	.0248
Residence (Dormitory)	.5108	.2610	.0028	1.84	.0337
Fraternity Member	.5162	.2665	.0055	1.77	.0410
G/Z (Restraint)	.5171	.2674	.0009	1.67	.0571
G/Z (Personal Relations)	.5178	.2681	.0007	1.57	.0779
Age (22-23)	.5182	.2686	.0004	1.48	.1043
G/Z (Friendliness)	.5186	.2689	.0004	1.40	.1365
Age (24 and older)	.5187	.2691	.0001	1.32	.1754
Age (20-21)	.5189	.2692	.0001	1.25	.2202

men of the Modern Music category. Single marital status emerges as the top predictor. Table XVII data bear out the rejection of all hypotheses for the prediction of Modern Music scores on the Recreation Participation Survey.

Table XVIII data indicate that the best predictor for women of participation in Modern Music is the single marital status. These findings coincide with the findings for men. Again, the three major categories of prediction are by-passed

TABLE XVIII

THE PREDICTION OF MODERN MUSIC PARTICIPATION FOR WOMEN
USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT
SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESI-
DENCE, AGE, MARITAL STATUS, UNIVERSITY
CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P
Marital Status (Single)	.3471	.1205	.1205	14.24	.001
Residence (Commuter)	.3873	.1500	.0295	9.08	.001
G/Z (Ascendance)	.4258	.1813	.0313	7.53	.001
G/Z (Masculinity)	.4547	.2068	.0255	6.58	.001
G/Z (Thoughtfulness)	.4821	.2324	.0256	6.05	.001
G/Z (Personal Relations)	.4941	.2442	.0118	5.33	.001
G/Z (Friendliness)	.5086	.2587	.0146	4.88	.001
Age (24 and older)	.5199	.2703	.0116	4.49	.001
G/Z (Emotional Stability)	.5289	.2798	.0095	4.14	.001
G/Z (Objectivity)	.5372	.2885	.0088	3.85	.001
Age (20-21)	.5455	.2976	.0090	3.62	.001
Age (22-23)	.5617	.3155	.0180	3.57	.001
Subculture (Collegiate)	.5719	.3271	.0115	3.44	.001
Subculture (Vocational)	.5832	.3402	.0131	3.35	.001
Subculture (Academic)	.6010	.3612	.0210	3.29	.001
G/Z (General Activity)	.6070	.3685	.0073	3.25	.001
Class (B. A. or more)	.6120	.3746	.0061	3.10	.001
Class (Senior)	.6145	.3776	.0030	2.93	.001
G/Z (Restraint)	.6151	.3783	.0008	2.75	.001
G/Z (Sociability)	.6160	.3795	.0011	2.60	.001
Residence (Dormitory)	.6168	.3804	.0009	2.45	.002
Class (Junior)	.6169	.3805	.0001	2.31	.003

as the best predictor. Table XVIII also reveals that the residence category of commuter status is second in importance as a predictor variable. Hypothesis number six accepted residence as a significant predictor of scores, and this is maintained.

Table XIX indicates that the best predictor for men of Social Recreation scores on the Recreation Participation

TABLE XIX

THE PREDICTION OF SOCIAL RECREATION PARTICIPATION FOR MEN
USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT
SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESI-
DENCE, AGE, MARITAL STATUS, UNIVERSITY
CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P
Residence (Dormitory)	.3816	.1456	.1456	17.89	.0001
Marital Status (Single)	.4182	.1749	.0293	11.02	.0001
Subculture (Vocational)	.4554	.2074	.0325	8.98	.0001
G/Z (Personal Relations)	.4769	.2274	.0200	7.50	.0001
G/Z (Ascendance)	.4893	.2394	.0120	6.35	.0001
Residence (Commuter)	.4980	.2480	.0086	5.49	.0001
Residence (Denton)	.5141	.2643	.0163	5.08	.0001
G/Z (Masculinity)	.5225	.2730	.0087	4.60	.0001
Fraternity Member	.5285	.2793	.0063	4.17	.0001
Subculture (Collegiate)	.5319	.2829	.0036	3.78	.0003
G/Z (Objectivity)	.5342	.2854	.0025	3.44	.0005
G/Z (Thoughtfulness)	.5365	.2879	.0024	3.16	.0008
G/Z (Sociability)	.5391	.2906	.0027	2.93	.0013
Class (B. A. or more)	.5420	.2938	.0032	2.73	.0021
G/Z (Restraint)	.5447	.2967	.0029	2.55	.0032
G/Z (General Activity)	.5460	.2981	.0015	2.38	.0051
Age (24 or more)	.5470	.2992	.0011	2.23	.0079
Age (22-23)	.5493	.3018	.0025	2.11	.0114
Age (20-21)	.5603	.3139	.0122	2.09	.0111
Class (Senior)	.5612	.3150	.0010	1.97	.0164
Class (Junior)	.5640	.3181	.0031	1.88	.0219
Subculture (Academic)	.5650	.3192	.0011	1.79	.0309
G/Z (Emotional Stability)	.5652	.3194	.0002	1.69	.0437

Survey is dormitory residence. Hypothesis number five which accepted Residence for the prediction of Social Recreation is maintained.

Table XX shows that dormitory residence is the best predictor for women of participation in Social Recreation.

TABLE XX

THE PREDICTION OF SOCIAL RECREATION PARTICIPATION FOR WOMEN USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE, AGE, MARITAL STATUS, UNIVERSITY CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P
Residence (Dormitory)	.2765	.0765	.0765	8.60	.004
G/Z (Ascendance)	.3376	.1140	.0375	6.62	.002
Age (20-21)	.4077	.1662	.0522	6.78	.001
Subculture (Vocational)	.4431	.1963	.0301	6.17	.001
G/Z (Emotional Stability)	.4670	.2181	.0218	5.58	.001
Class (Junior)	.4732	.2239	.0058	4.76	.001
Class (Senior)	.4837	.2340	.0101	4.27	.001
Class (B. A. or more)	.4899	.2400	.0060	3.83	.001
G/Z (Objectivity)	.4943	.2443	.0043	3.44	.001
G/Z (Personal Relations)	.5006	.2506	.0062	3.17	.001
Residence (Commuter)	.5063	.2563	.0057	2.94	.002
Residence (Denton)	.5118	.2620	.0056	2.75	.003
G/Z (Thoughtfulness)	.5157	.2660	.0040	2.56	.004
G/Z (Restraint)	.5212	.2717	.0057	2.42	.006
Subculture (Collegiate)	.5239	.2744	.0028	2.27	.009
Age (24 and older)	.5267	.2774	.0030	2.13	.013
Subculture (Academic)	.5307	.2816	.0018	1.89	.026
G/Z (Masculinity)	.5321	.2832	.0016	1.78	.037
G/Z (Friendliness)	.5331	.2842	.0010	1.69	.051
G/Z (Sociability)	.5340	.2851	.0009	1.59	.069
Sorority Member	.5343	.2855	.0003	1.50	.094

These data coincide with data from Table XIX which indicated a similar predictor variable for the prediction scores of

men. Hypothesis number six which accepted residence as a predictor of Social Recreation is maintained.

Table XXI provides data which indicate that for men, fraternity membership is the best predictor of activity in the Participant Sports category of the Recreation Participation Survey. This variable was not in the three major categories of predictor variables. Hypothesis number five

TABLE XXI

THE PREDICTION OF PARTICIPANT SPORTS PARTICIPATION FOR MEN USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE, AGE, MARITAL STATUS, UNIVERISTY CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P*
Fraternity Member	.4687	.2197	.2197	29.56	.0001
Residence (Denton)	.5408	.2925	.0728	21.49	.0001
G/Z (Sociability)	.5606	.3143	.0218	15.73	.0001
Class (Senior)	.5804	.3369	.0226	12.95	.0001
Age (24 or more)	.5889	.3468	.0100	10.72	.0001
G/Z (Masculinity)	.5941	.3530	.0061	9.09	.0001
G/Z (Ascendance)	.5992	.3591	.0061	7.92	.0001
G/Z (Emotional Stability)	.6035	.3642	.0051	7.01	.0001
G/Z (Objectivity)	.6116	.3741	.0099	6.44	.0001
G/Z (General Activity)	.6178	.3817	.0076	5.92	.0001
Subculture (Academic)	.6233	.3886	.0069	5.48	.0001
Age (22-23)	.6267	.3927	.0042	5.06	.0001
Age (20-21)	.6319	.3993	.0066	4.75	.0001
Marital Status (Single)	.6349	.4030	.0037	4.43	.0001
G/Z (Thoughtfulness)	.6380	.4070	.0040	4.16	.0001
Subculture (Collegiate)	.6399	.4094	.0024	3.89	.0001
Subculture (Vocational)	.6412	.4112	.0017	3.65	.0001
G/Z (Restraint)	.6422	.4124	.0012	3.43	.0001
G/Z (Friendliness)	.6431	.4136	.0012	3.22	.0001
Class (B. A. or more)	.6438	.4145	.0009	3.04	.0002
G/Z (Personal Relations)	.6444	.4153	.0008	2.87	.0003
Residence (Dormitory)	.6448	.4158	.0005	2.71	.0006

which stated that residence would be a significant predictor of Participant Sports, was accepted. This acceptance is maintained by the presence of Denton residence as the second best predictor of the Participant Sports category.

Table XXII indicates that the best predictor of the Participant Sports category for women of the Recreation

TABLE XXII

THE PREDICTION OF PARTICIPANT SPORTS PARTICIPATION FOR WOMEN USING SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY, THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE, AGE, MARITAL STATUS, UNIVERSITY CLASS, AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P
G/Z (Thoughtfulness)	.2028	.0411	.0411	4.46	.037
G/Z (General Activity)	.2759	.0761	.0350	4.24	.017
Age (22-23)	.3396	.1153	.0392	4.43	.006
Class (Senior)	.4033	.1627	.0473	4.90	.001
G/Z (Masculinity)	.4488	.2014	.0388	5.04	.001
Marital Status (Single)	.4754	.2260	.0246	4.81	.001
Residence (Commuter)	.5022	.2522	.0262	4.72	.001
Subculture (Academic)	.5079	.2580	.0058	4.22	.001
G/Z (Personal Relations)	.5128	.2629	.0049	3.80	.001
G/Z (Objectivity)	.5174	.2677	.0048	3.47	.001
Class (Junior)	.5201	.2705	.0028	3.17	.001
G/Z (Friendliness)	.5225	.2730	.0025	2.91	.002
G/Z (Emotional Stability)	.5252	.2759	.0029	2.69	.003
G/Z (Restraint)	.5273	.2780	.0021	2.50	.005
Residence (Denton)	.5293	.2801	.0021	2.33	.007
Residence (Dormitory)	.5317	.2827	.0026	2.19	.010
Sorority Member	.5380	.2894	.0067	2.10	.013
G/Z (Ascendance)	.5396	.2912	.0018	1.98	.020
Subculture (Vocational)	.5409	.2926	.0014	1.87	.027
Subculture (Collegiate)	.5437	.2956	.0030	1.78	.036
Class (B. A. or more)	.5439	.2959	.0003	1.68	.050
Age (20-21)	.5442	.2961	.0003	1.59	.069*
Age (24 and older)	.5449	.2969	.0008	1.50	.092*
G/Z (Sociability)	.5453	.2973	.0004	1.43	.121*

*These factors are nonsignificant at the .05 level.

Participation Survey was the Guilford-Zimmerman score for Thoughtfulness. Hypothesis number two which stated that Guilford-Zimmerman scores would predict Recreation Participation was rejected, however. This was the result of an insignificant multiple correlation coefficient (R). An inspection of the data in Table XXII indicates that while the Guilford-Zimmerman score for thoughtfulness is the best predictor of Participant Sports, it accounts for only .04 per cent of the variance of the dependent variable. This is a very low proportion and the rejection of hypothesis two is maintained.

Table XXIII on page 80 indicates that the best predictor of the Combined Events category for men is residence status. The two top predictors are commuter status and Denton residency. Both are significant at the .05 level of significance. The simple correlation (r) for Combined Events and Commuter status was negative. This indicates that the predictive quality would be of an inverse nature. The greater the number of commuters the smaller the total recreation events attended. Nonetheless, the predictive relationship is present. Hypothesis five which stated that residence would be predictive of recreation participation is accepted in part.

TABLE XXIII

THE PREDICTION OF ALL EVENTS PARTICIPATION FOR MEN USING
 SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY,
 THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE,
 AGE, MARITAL STATUS, UNIVERSITY CLASS,
 AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P*
Residence (Commuter)	.4508	.2032	.2032	26.77	.0001
Residence (Denton)	.5912	.3495	.1463	27.93	.0001
Age (24 or more)	.6378	.4068	.0573	23.54	.0001
G/Z (Thoughtfulness)	.6506	.4232	.0164	18.71	.0001
G/Z (Masculinity)	.6613	.4373	.0141	15.70	.0001
Subculture (Collegiate)	.6709	.4501	.0127	13.63	.0001
Subculture (Vocational)	.6817	.4648	.0147	12.28	.0001
G/Z (Ascendance)	.6893	.4751	.0103	11.08	.0001
Marital Status (Single)	.6951	.4831	.0080	10.07	.0001
Fraternity Member	.6992	.4889	.0058	9.18	.0001
G/Z (Restraint)	.7024	.4934	.0046	8.41	.0001
Subculture (Academic)	.7050	.4970	.0036	7.73	.0001
Residence (Dormitory)	.7063	.4988	.0018	7.11	.0001
G/Z (Emotional Stability)	.7075	.5005	.0017	6.58	.0001
G/Z (Objectivity)	.7106	.5050	.0044	6.18	.0001
G/Z (Friendliness)	.7110	.5056	.0006	5.75	.0001
G/Z (Sociability)	.7113	.5059	.0003	5.35	.0001
Class (Senior)	.7114	.5062	.0003	5.01	.0001
Age (22-23)	.7117	.5065	.0003	4.69	.0001
Age (20-21)	.7132	.5086	.0021	4.45	.0001
Class (Junior)	.7135	.5091	.0005	4.19	.0001
Class (B. A. or more)	.7139	.5096	.0005	3.96	.0001
G/Z (Personal Relations)	.7140	.5099	.0002	3.75	.0001

*All variables are significant at the .05 level.

Table XXIV data indicate that for women the best predictor of activity in all events combined is residence. The two best predictors are identical to the two best for men. Hypothesis six which stated residence would be a significant predictor of recreation participation is maintained.

TABLE XXIV

THE PREDICTION OF ALL EVENTS PARTICIPATION FOR WOMEN USING
 SCORES OF THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY,
 THE CLARK-TROW TYPOLOGY, PLACE OF RESIDENCE,
 AGE, MARITAL STATUS, UNIVERSITY CLASS,
 AND GREEK MEMBERSHIP

Independent Variables	R	R ²	Increase in R ²	F	P*
Residence (Commuter)	.4803	.2307	.2307	31.18	.0001
Residence (Denton)	.5551	.3082	.0775	22.93	.0001
G/Z (General Activity)	.5951	.3541	.0459	18.63	.0001
Marital Status (Single)	.6211	.3858	.0317	15.86	.0001
Age (22-23)	.6346	.4028	.0170	13.48	.0001
G/Z (Emotional Stability)	.6406	.4104	.0076	11.48	.0001
G/Z (Friendliness)	.6496	.4220	.0116	10.22	.0001
G/Z (Sociability)	.6591	.4345	.0125	9.31	.0001
G/Z (Ascendance)	.6662	.4438	.0093	8.51	.0001
Age (20-21)	.6692	.4478	.0040	7.70	.0001
Residence (Dormitory)	.6723	.4520	.0043	7.04	.0001
Subculture (Vocational)	.6764	.4576	.0055	6.53	.0001
Greek Member	.6795	.4617	.0042	6.07	.0001
Subculture (Academic)	.6823	.4655	.0038	5.66	.0001
Subculture (Collegiate)	.6858	.4704	.0048	5.32	.0001
Class (Senior)	.6874	.4726	.0022	4.98	.0001
G/Z (Personal Relations)	.6889	.4746	.0021	4.67	.0001
Class (Junior)	.6916	.4783	.0018	4.15	.0001
Class (B. A. or more)	.6968	.4856	.0073	4.01	.0001
G/Z (Restraint)	.6977	.4868	.0012	3.79	.0001
G/Z (Thoughtfulness)	.6978	.4869	.0001	3.58	.0001

*All variables are significant at the .05 level.

Summary

This chapter provided an analysis of the data using multiple linear regression and stepwise multiple linear regression. Two hypotheses were rejected and four were accepted in part. Some relationship was found between Guilford-Zimmerman scores for women in prediction of recreation participation but none for men. Subculture selection

had a slight predictive relationship with Recreation Participation Survey scores for men but none for women. Place of residence of both men and women showed the highest degree of relationship in prediction of Recreation Participation scores but not in every category. Of the variables, outside the three major categories only single marital status and fraternity membership were predictive.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purposes of this study were to ascertain recreation participation by undergraduate students at North Texas State University and to determine if University-sponsored recreation participation could be predicted from knowledge of a student's personality, subculture, or place of residence.

A review of related literature indicated that peer pressures could be determinates of recreational behavior. It was evident that university campuses contained different subcultures and these subcultures affected the recreational behavior of their members. Further, it was apparent that the characteristics of subcultures could be grouped according to recreational pursuits.

The literature concerning residence was unanimous in support of the view that students who live in dormitories or Greek houses participate more than non-resident students. It was concluded that recreation participation was a group function that residential membership would promote.

The literature concerning the influence of personality on recreation participation was less conclusive. A connection was found, however, between some personality traits

and recreation selection. Other influences were also noted in the review of literature. It was found that age, college class, sex, and marital status also affected recreational participation.

The review of the literature supported the conclusion that further research into the subject of recreation selection could be justified. Moreover, such research could be of value to university administrators in determining needs of the student body for various types of recreation.

For the purpose of investigation, six hypotheses were established. The hypotheses stated that scores of the Guilford-Zimmerman Temperament Survey, the Clark-Trow Typology of Student subculture, and knowledge of the place of residence would predict scores on a Recreation Participation Survey. Two of the hypotheses were rejected and four were accepted in part. A relationship was found between Guilford-Zimmerman scores for women and recreation participation but none for men. Subculture selection had a predictive relationship with recreation participation for men but none for women. Place of residence of both men and women was predictive for some of the recreational categories but not all. Of the variables outside the three major categories, only single marital status and Greek membership were predictive.

Findings

The subjects selected for this study were enrolled in classes of the College of Education during the spring semester of 1973. Each subject in the study was required to have taken the Guilford-Zimmerman Temperament Survey and to have been enrolled at North Texas State University in the fall semester. Three hundred and four students were in the classes selected for study and 214 met the criteria. All subjects completed the Clark-Trow Typology of Student Subculture, a Survey of Recreation Participation, and a personal information questionnaire.

The data were subjected to computer analysis using procedures of multiple linear regression and stepwise multiple linear regression. The data was analyzed to determine the predictive abilities of scores on the Guilford-Zimmerman Temperament Survey, the Clark-Trow Typology, and the place of residence on seven categories of recreation participation for men and women.

Hypothesis number one stated that scores of men on the Guilford-Zimmerman Temperament Survey would be significant predictors of scores on the Recreation Participation Survey. Hypothesis one was rejected.

Hypothesis number two stated that scores for women on the Guilford-Zimmerman Temperament Survey would be significant predictors of scores on the Recreation Participation

Survey. Hypothesis two was rejected except for the prediction of participation in Spectator Sports.

Hypothesis number three stated that knowledge of student subculture would be a significant predictor of scores for men on a Recreation Participation Survey. Subculture scores were predictive in two categories of the Recreation Survey, Spectator Sports (.4765) and All Events (.4044). Hypothesis three was accepted in part for those recreation scores which were significant.

Hypothesis number four stated that knowledge of student subculture would be a significant predictor for women of scores on a Recreation Participation Survey. No significant correlation coefficients (R) were obtained and hypothesis four was rejected.

Hypothesis number five stated that the place of residence of men would be a significant predictor of scores on a Recreation Participation Survey. Significant multiple correlation coefficients appeared for the recreation participation categories of Spectator Sports (.5462), Modern Media (.4502), Social Recreation (.4320), Participant Sports (.3806), and All Events (.5923). Hypothesis five was accepted in part, for prediction of those recreation areas which obtained significant R's.

Hypothesis number six stated that the place of residence of women would be a significant predictor of scores on a Recreation Participation Survey. It was found that place

of residence was predictive at the .05 level of confidence in six categories of the Recreation Survey. The categories which were significant were Spectator Sports (.4779), Modern Media (.3055), Fine Arts (.3732), Modern Music (.3504), Social Recreation (.3418), and All Events (.5564). Hypothesis six was accepted for prediction of recreation participation for all areas except Participant Sports.

An analysis of the data to determine the best single predictors for the Recreation Participation Survey found the following variables to be the best predictors:

<u>Category</u>	<u>Men/Women</u>
Spectator Sports---	Men-Subculture (College) Women-Residence (Dormitory)
Modern Media-----	Men-Residence (Dormitory) Women-Residence (Commuter)
Fine Arts-----	Men-G/Z (Masculinity) Women-Residence (Dormitory)
Modern Music-----	Men-Marital Status (Single) Women-Marital Status (Single)
Social Recreation--	Men-Residence (Dormitory) Women-Residence (Dormitory)
Participant Sports-	Men-Greek Membership Women-G/Z (Thoughtfulness)
All Events-----	Men-Residence (Commuter) Women-Residence (Commuter)

Conclusions

The data analysis of this study leads to the following conclusions:

1. The Guilford-Zimmerman Temperament Survey would be of little use in predicting recreation participation for either men or women.

2. The Clark-Trow Typology would be of limited use in predicting recreation participation for men and no use for women.

3. Knowledge of place of student residence would be an important predictor of recreation participation.

4. Predictions of student recreation participation could be strengthened by adding variables of marital status and Greek membership.

Recommendations

On the basis of the findings and conclusions of this study, a number of recommendations are offered.

1. The study could be replicated using a sample of the entire student body.

2. The study could be replicated using only the significant predictors and taking subjects from the entire student body.

3. The study could be verified using a sampling technique at selected campus recreation events.

4. A profile of the characteristics of the student who is most likely to attend a particular type of recreation event with a view to identifying the size of any potential client group in the student body could be done.

5. Information about particular types of activities could be centered on that part of the student body which the study indicates are most likely to attend.

6. The study could be replicated using a Recreation Participation Survey grouped according to an active-passive scale rather than according to specific events. This study could investigate the possibility that students select activities according to the amount of involvement required.

7. The study should be replicated periodically to stay abreast of changing patterns in student recreation participation. This would recognize changes in American society such as greater participation by women in games and sports.

CHAPTER BIBLIOGRAPHY

1. Garrett, Henry E., Statistics in Psychology and Education, New York, Longmans, Green and Co., 1953.

APPENDIX A

APPENDIX B

PERSONAL PHILOSOPHIES SURVEY

On every college or university campus students hold a variety of attitudes about their own purposes and goals while at college. Such an attitude might be thought of as a personal philosophy of higher education. The following paragraphs are descriptive statements of four "personal philosophies" which there is reason to believe are quite prevalent on American college campuses. Read the four statements and determine how close each comes to your own philosophy of higher education. Then rank them from 1 to 4 with number 1 being the philosophy which most nearly matches your own, number 2 being the philosophy which is second most like you and so forth. (This typology is reprinted by permission of the Educational Testing Service, Princeton, New Jersey.)

- Philosophy A: This philosophy emphasizes education essentially as preparation for an occupational future. Social or purely intellectual phases of campus life are relatively less important, although certainly not ignored. Concern with extracurricular activities and college traditions is relatively small. Persons holding this philosophy are usually quite committed to particular fields of study and are in college primarily to obtain training for careers in their chosen fields.
- Philosophy B: This philosophy, while it does not ignore career preparation, assigns greatest importance to scholarly pursuit of knowledge and understanding wherever the pursuit may lead. This philosophy entails serious involvement in course work or independent study beyond the minimum required. Social life and organized extracurricular activities are relatively unimportant. Thus, while other aspects of college life are not to be forsaken, this philosophy attaches greatest importance to interest in ideas, pursuit of knowledge, and cultivation of the intellect.
- Philosophy C: This philosophy holds that besides occupational training and/or scholarly endeavor an important part of college life exists outside the classroom, laboratory, and library. Extracurricular activities, living-group functions, athletics, social life, rewarding friendships, and loyalty to college traditions are important elements in one's college experience and necessary to the cultivation of the well-rounded person. Thus, while not excluding academic activities, this philosophy emphasizes the importance of the extracurricular side of college life.
- Philosophy D: This is a philosophy held by the student who either consciously rejects commonly held value orientations in favor of his own, or who has not really decided what is to be valued and is in a sense searching for meaning in life. There is often deep involvement with ideas and art forms both

in the classroom and in sources (often highly original and individualistic) in the wider society. There is little interest in business or professional careers; in fact, there may be a definite rejection of this kind of aspiration. Many faces of the college--organized extracurricular activities, athletics, traditions, the college administration--are ignored or viewed with disdain. This philosophy may emphasize individualistic interests and styles, concern for personal identity, and often contempt for aspects of organized society.

APPENDIX C

RECREATION SURVEY

Directions: This is a survey of attendance at University sponsored events during the first semester of the 1972-73 year at North Texas State University. Read each question. If you attended the event, place an X in the blank beside the question. If you did not attend the event, place no marks in the blank.

Part I. Did you attend any of the following spectator events in the fall semester of 1972? Place an X in the blank beside the question if you did attend. Place no mark in the blank if you did not attend.

- ___ 1. Varsity football, N.T.S.U. vs. San Diego State, Sept. 23.
- ___ 2. Soccer Club vs. Texas Tech, Sept. 24.
- ___ 3. Soccer Club vs. Stephen F. Austin, Oct. 7.
- ___ 4. Soccer Club vs. Dallas Baptist College, Oct. 8.
- ___ 5. Soccer Club vs. LeTourneau, Oct. 14.
- ___ 6. Varsity football, N.T.S.U. vs. Memphis State, Oct. 21.
- ___ 7. N.T.S.U. Invitational Cross Country Meet, Oct. 21.
- ___ 8. Soccer Club vs. Dallas Tornadoes, Oct. 29.
- ___ 9. Freshman football, N.T.S.U. vs. Arkansas, Nov. 2.
- ___ 10. Varsity football, N.T.S.U. vs. Cincinnati, Nov. 4.
- ___ 11. Rugby vs. Ft. Worth Rugby Club, Nov. 4.
- ___ 12. Varsity football, N.T.S.U. vs. New Mex. State, Nov. 10.
- ___ 13. Soccer Club vs. Midwestern University, Nov. 11.
- ___ 14. Freshman football, N.T.S.U. vs. Cisco Junior College, Nov. 6.
- ___ 15. Varsity football, N.T.S.U. vs. West Texas State, Nov. 18.
- ___ 16. N.T.S.U. High School Invitational Wrestling Tournament, Nov. 24/25.
- ___ 17. Varsity basketball, N.T.S.U. vs. California State, Fullerton, Nov. 28.

- ___ 18. Varsity basketball, N.T.S.U. vs. Georgia State, Dec. 7.
- ___ 19. Wrestling Club vs. Richland, Dec. 2.
- ___ 20. Wrestling Club vs. Ft. Hood, Dec. 6.

Part II. Did you attend on campus any of the following events during the fall semester of 1972? Place an X in the blank beside the question if you did attend. Place no mark in the blank if you did not attend.

- ___ 21. Movie, Charlie Chaplin in "Discovering The Tramp," Aug. 31.
- ___ 22. Movie, "Patton," Sept. 7.
- ___ 23. Movie, "The Point" and "Alice B. Toklas," Sept. 8.
- ___ 24. Movie, "The French Connection," Sept. 13/14.
- ___ 25. Movie, "The Time Machine" and "Ride the High Country," Sept. 15.
- ___ 26. Movie, "The Great White Hope," Sept. 21.
- ___ 27. Movie, "Culpepper Cattle Company," Sept. 28.
- ___ 28. Movie, "Little Big Man," Oct. 4/5.
- ___ 29. Videotape, "Reefer Madness," Oct. 9/13.
- ___ 30. Movie, "Love Story," Oct. 11/12.
- ___ 31. Movies, "Comedy of Terrors," "Wait Until Dark," "Tales of Terror," Oct. 13.
- ___ 32. Movie, "Goodbye Columbus," Oct. 20.
- ___ 33. Videotape, "Ft. Bragg Follies," Oct. 23/27.
- ___ 34. Movie, "Midnight Cowboy," Oct. 26.
- ___ 35. International Film Festival, "Battle of Algiers," Oct. 30.
- ___ 36. International Film Festival, "M", Oct. 31.
- ___ 37. Videotape, "Equal Time," Oct. 31/Nov. 1-7.
- ___ 38. Alpha Psi Omega Horror Flicks, "Devil Bat," "Monster Maker," and "The Roadrunner," Oct. 31.

- 39. Movie, "Alice's Restaurant," Nov. 2.
- 40. International Film Festival, "Sallah," Nov. 3.
- 41. International Film Festival, "The Cranes Are Flying," Nov. 6.
- 42. International Film Festival, "The Red Balloon," Nov. 7.
- 43. Movie, "Satyricon," Nov. 9.
- 44. Movie, "Carnal Knowledge," Nov. 15.
- 45. Movie, "The Ten Commandments," Nov. 30.
- 46. Movie, "The Reivers," Dec. 6.

Part III. Did you attend on campus any of the following events during the fall semester of 1972? Place an X in the blank beside the question if you did attend. Place no mark in the blank if you did not attend. Please do not mark the blank if you attended to fulfill a class assignment. Place an X in the blank only if you attended because you wanted to be at that event.

- 47. Bernard Kalb, CBS correspondent, Oct. 3.
- 48. The New York Chamber Soloists, Acis and Galatea, Oct. 17.
- 49. The Graduate Chamber Orchestra In Concert, Oct. 31.
- 50. University Theater play, "Indians," Oct. 17-21.
- 51. University Brass Choir and Percussion Ensemble, Oct. 25.
- 52. University Symphony Orchestra Concert, Oct. 26.
- 53. Collegium Musicum present "Puppet Opera," Oct. 30-31.
- 54. Arthur Sampley Lecture--20th Century Poets, Robinson and Frost, Oct. 30.
- 55. Concert--Roberta Flack, Nov. 8.
- 56. Art Exhibit--Works from the collections of Marcuses, Murchisons, and Weiners, Nov. 10-17.
- 57. University Theater play, "The Rehearsal," Nov. 14-18.

- ___ 58. The Campus Band, concert, Nov. 16.
- ___ 59. Concert, Guiomar Novaes, Nov. 16.
- ___ 60. The Madrigal Singers perform the works of Thomas Morley, Nov. 28.
- ___ 61. Arthur Sampley Lecture--Saints in the Wasteland, Elliott and Audea, Nov. 29.
- ___ 62. Studio Theatre--"A Streetcar Named Desire," Nov. 31-Dec. 1.
- ___ 63. The N.T.S.U. Marching Band Concert, Dec. 6.
- ___ 64. Were you a member of the Modern Dance Performing Group?
- ___ 65. Were you a member of the University Players?
- ___ 66. Were you a member of the University Debate squad?
- ___ 67. Concert--Campus Chorale and Women's Chorus, Dec. 1.
- ___ 68. Max Morath--Musical Theater, Dec. 1.
- ___ 69. Recital--Mu Phi Epsilon, Sigma Alpha Iota, Phi Mu Alpha, Dec. 3.
- ___ 70. Art Exhibit--British Weavers Show, Dec. 4-15.
- ___ 71. Opera Theater, Dec. 5.
- ___ 72. Concert Band in Concert, Dec. 6.
- ___ 73. Mark Twain On Stage--Larry Davis, Dec. 7-8.

Part IV. Did you attend any of the following events during the fall semester of 1972? Place an X in the blank beside the question if you did attend. Place no mark in the blank if you did not attend.

- ___ 74. Mini Concert--"Russ Kirkpatrick," Aug. 30.
- ___ 75. Mini Concert--"Chet Nichols, Danny Cox," Aug. 31.
- ___ 76. Mini Concert--John Hartford, Norman Blake," Sept. 1.
- ___ 77. Noon-Time Concert--"Clearsign," Sept. 5.
- ___ 78. Concert--"Seals and Croft," Sept. 5.

- ___ 79. Concert--"Zachowitz," Sept. 9.
- ___ 80. Concert--"Colours," "Mike Williams," Sept. 26.
- ___ 81. Concert--"Nitty Gritty Dirt Band," Sept. 27.
- ___ 82. Concert In The Park--"Zachowitz," Sept. 30.
- ___ 83. Concert--"Freddy King and Nitsinger," Nov. 1.
- ___ 84. Concert--"Its A Beautiful Day" and "Daniel," Oct. 2.
- ___ 85. Black Greeks United II, Nov. 4.
- ___ 86. Concert--Vickie Carr, Nov. 13.
- ___ 87. Lab Bands Combo Concert, Nov. 14.
- ___ 88. Lab Bands Concert, Nov. 21.

Part V. Did you attend any of the following events during the fall semester of 1972 or did you belong to any of the following clubs? Place an X in the blank beside the question if you did. Place no mark in the blank if you did not.

- ___ 89. Watermelon Feast, Aug. 29.
- ___ 90. Dance--"Texas Rose," Aug. 29.
- ___ 91. Picnic Supper, U. B. Patio on Aug. 30.
- ___ 92. Coffeehouse--Pecos, Aug. 30.
- ___ 93. Dance--"Day and Night"--U.B. Patio, Aug. 30.
- ___ 94. Fall Fashion Review, Aug. 31.
- ___ 95. Picnic Supper, U. B. Patio on Aug. 31.
- ___ 96. Coffeehouse, "Greg Fisher," Aug. 31.
- ___ 97. S.A.U. sponsored free Swim, Sept. 1.
- ___ 98. Volleyball and Frisbee, U.B. Patio, Sept. 1.
- ___ 99. Picnic Supper, U. B. Patio, on Sept. 1.
- ___ 100. Dance--"Felix"--U.B. Patio, Sept. 1.
- ___ 101. Coffeehouse, "Ray Kinney," Sept. 11.

- ___ 102. Yucca Beauty Contest, Sept. 18/19.
- ___ 103. Dance--"Daniel"--U. B. Patio, Sept. 22.
- ___ 104. Coffeeshouse, "Mike Williams and the Colours," Sept. 26.
- ___ 105. Octoberfest--Playday in the Park, Oct. 7.
- ___ 106. Coffeeshouse, "Mike Bradford," Oct. 16.
- ___ 107. "Free Day in the Park," Oct. 21.
- ___ 108. Coffeeshouse, "Barry Coggins," Oct. 23.
- ___ 109. Fashion Show, "His and Her Wardrobe," Oct. 24.
- ___ 110. Coffeeshouse, "Chuck Yates," Oct. 2.
- ___ 111. Coffeeshouse, "Rueben Duarte," Oct. 30.
- ___ 112. Coffeeshouse, "Amy and Hans," Oct. 31.
- ___ 113. Coffeeshouse, "Jim Swartwout," Nov. 6.
- ___ 114. Spanish Flea Market, U. B. Ballroom, Nov. 9.
- ___ 115. Homecoming Dance, "Daniel," Nov. 10.
- ___ 116. Coffeeshouse, "Ezra Shadow," Nov. 14.
- ___ 117. Coffeeshouse, "Susay Byers," Nov. 20.
- ___ 118. Coffeeshouse, "Ray Kinney," Nov. 21.
- ___ 119. Lighting of the Christmas Tree, Dec. 4.
- ___ 120. Coffeeshouse, "Paul Bryant," Nov. 27.
- ___ 121. Christmas Crafts Workshop, Nov. 29.
- ___ 122. Did you belong to the S.A.U. Bridge Club?

WOMEN STUDENTS PLEASE OMIT THIS PART AND TURN TO PART VII

Part VI. Did you participate, either as an individual or as a team member in any of the following clubs or activities, during the fall semester of 1972? Place an X in the blank beside the question if you did participate one or more times. Place no mark in the blank if you did not at any time during the semester participate.

- ___ 123. Weight Lifting Club.
- ___ 124. Wrestling Club.
- ___ 125. Intramural Weight Lifting Tournament.
- ___ 126. Intramural Wrestling Tournament
- ___ 127. Intramural Volleyball.
- ___ 128. Intramural Bowling.
- ___ 129. Intramural Cross Country Meet.
- ___ 130. Intramural Badminton Singles Tournament.
- ___ 131. Intramural Badminton Doubles Tournament.
- ___ 132. Intramural Tennis Doubles Tournament.
- ___ 133. Intramural Swimming and Diving Meet.
- ___ 134. Intramural Tennis Singles Tournament.
- ___ 135. Intramural Flag Football.
- ___ 136. Intramural Golf Tournament.
- ___ 137. Communiversitry Golf Tournament.
- ___ 138. S.A.U. One on One Basketball Tournament.
- ___ 139. Karate Club.
- ___ 140. The UB sponsored Billiards Tournament.
- ___ 141. The UB sponsored Partnership Bridge Tournament.
- ___ 142. The UB sponsored Chess Tournament.
- ___ 143. The UB sponsored Table Tennis Tournament.
- ___ 144. The UB sponsored Football Tournament.
- ___ 145. The Intramural Coed Bowling Tournament.
- ___ 146. Intramural Coed Valleyball.
- ___ 147. Intramural Coed Tennis Tournament.
- ___ 148. Intramural Coed Badminton Tournament.

MEN STUDENTS PLEASE OMIT THIS PART

Part VII. Did you participate, either as an individual or as a team member in any of the following clubs or activities, during the fall semester of 1972? Place an X in the blank beside the question if you did participate one or more times. Place no mark in the blank if you did not at any time during the semester participate.

- ___ 149. Women's Intramural Volleyball Tournament.
- ___ 150. Women's Intramural Swimming.
- ___ 151. Women's Intramural Badminton Doubles.
- ___ 152. Women's Intramural Bowling.
- ___ 153. Extramural Women's Volleyball.
- ___ 154. Intramural Coed Badminton.
- ___ 155. Intramural Coed Tennis.
- ___ 156. Intramural Coed Volleyball.
- ___ 157. Intramural Coed Bowling.
- ___ 158. U.B. Billiard Tournament, Sept. 20-28.
- ___ 159. U.B. Football Tournament.
- ___ 160. U.B. Table Tennis Tournament.
- ___ 161. Chess Tournament at the U.B.
- ___ 162. Partnership Bridge Tournament.
- ___ 163. U.B. Billiards Tournament, Nov. 27-Dec. 1.
- ___ 164. Were you a member of the Women's Recreation Association?

APPENDIX D

APPENDIX D

THE MEANS AND STANDARD DEVIATIONS OF THE DEPENDENT
VARIABLES FROM THE RECREATION
PARTICIPATION SURVEY

Recreation	Men N=107		Women N=106	
	<u>M</u>	<u>S.D.</u>	<u>M</u>	<u>S.D.</u>
Spectator Sports	10.1869	15.2946	5.4717	9.1164
Modern Media	6.4392	11.9204	5.9754	8.8937
Fine Arts	1.9252	4.6004	3.8584	6.0260
Modern Music	4.7289	9.1832	4.4811	8.1488
Social Recreation	1.2336	3.7757	1.2924	3.0766
Participant Sports	2.1775	5.0801	0.5943	2.2287
All Events	4.0093	4.7334	3.1886	3.4644

APPENDIX E

APPENDIX E

THE MEANS AND STANDARD DEVIATIONS OF THE INDEPENDENT
 VARIABLES FROM THE GUILFORD-ZIMMERMAN TEMPERAMENT
 SURVEY, THE CLARK TROW TYPOLOGY AND
 PLACE OF RESIDENCE

Survey	Men N=108		Women N=106	
	<u>M</u>	<u>S.D.</u>	<u>M</u>	<u>S.D.</u>
<u>Guilford-Zimmerman</u>				
G/Z General				
Activity	19.1215	4.7398	17.7924	6.1112
G/Z Restraint	19.1401	4.5400	18.3396	4.2803
G/Z Ascendance	18.2897	5.1450	15.7169	5.0554
G/Z Sociability	21.1121	5.1438	21.1320	5.0991
G/Z Emotional				
Stability	19.8878	5.0513	17.9811	6.1427
G/Z Objectivity	18.5420	5.4275	17.5283	5.2230
G/Z Friendliness	15.4579	5.5206	17.1226	5.3447
G/Z Thoughtfulness	19.8878	4.4155	19.2075	4.7643
G/Z Personal				
Relation	14.7570	5.3497	16.3207	5.4433
G/Z Masculinity	20.0654	3.6710	10.8584	4.6525
<u>Clark-Trow</u>				
Non-Conformist	0.0654	0.2484	0.0566	0.2321
Vocational	0.3177	0.4678	0.3962	0.2321
Academic	0.2523	0.4364	0.1886	0.3931
Collegiate	0.3644	0.4835	0.3490	0.4789
<u>Residence</u>				
Greek House	0.0467	0.2120	0.0377	0.1914
Dormitory	0.0934	0.2924	0.2547	0.4950
Denton	0.4953	0.5023	0.4150	0.4950
Commuter	0.3644	0.4835	0.2924	0.4570

BIBLIOGRAPHY

Books

- Astin, Alexander W., The College Environment, Washington, D. C., The American Council of Education, 1968.
- Bellman, Samuel J., editor, The College Experience, San Francisco, Chandler Publishing Company, 1962.
- Buros, Oscar Krisen, editor, The Fourth Mental Measurements Yearbook, Highland Park, New Jersey, Gryphon Press, 1955.
- Carlson, William S., The Municipal University, Washington, D. C., The Center for Applied Research in Education, Inc., 1962.
- Feldman, Kenneth A. and Theodore M. Newcomb, The Impact of College on Students, San Francisco, Jossey-Bass, Inc., 1969.
- Feldman, Saul D. and Gerald W. Thielbar, Life Styles: Diversity in American Society, New York, Little, Brown and Co., 1972.
- Garrett, Henry E., Statistics in Psychology and Education, New York, Longmans, Green and Co., 1953.
- Kaplan, Max, Leisure in America: A Social Inquiry, New York, John Wiley and Sons, Inc., 1960.
- Kraus, Richard, Recreation and Leisure in Modern Society, New York, Appleton-Century-Crofts, 1971.
- Murphy, James F., Concepts of Leisure Philosophical Implications, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1974.
- Newcomb, Theodore M. and Everett K. Wilson, editors, College Peer Groups, Chicago, Aldine Publishing Co., 1966.
- Williamson, E. G., W. L. Layton, and M. L. Snake, A Study of Participation in College Activities, Minnesota Studies in Student Personnel Work, Vol. 5, Minneapolis, Minn., University of Minnesota Press, 1954.

Articles

- Appel, Victor H., Margaret C. Berry, and Robert W. Hoffman, "Significant Collegiate Sources of Influence," Journal of College Student Personnel, XIV, No. 2 (March, 1973), 171-174.
- Apostal, Robert A., "Personality Types and Preferred College Subculture," Journal of College Student Personnel, II, No. 3 (May, 1970), 206-209.
- Astin, Alexander, W. and John L. Holland, "The Environmental Assessment Technique: A Way to Measure College Environments," Journal of Educational Psychology, LII, No. 6 (1961), 308-316.
- Biggs, Donald A., "Clark-Trow Orientations and Peer Culture," Journal of College Student Personnel, XIV, No. 1 (January, 1973), 57-62.
- Brown, Clara A., "A Social-Activities Survey," Journal of Higher Education, VIII (May, 1937), 257-264.
- Burch, William R., "Two Concepts for Guiding Recreation Management Decisions," Journal of Forestry, LXII (1964), 707-712.
- Cavanaugh, Jean Ogden, "The Relationship of Recreation to Personality Adjustment," Journal of Social Psychology, XV (1942), 69-74.
- Cheek, Neil H., Jr., "Towards a Sociology of Not Work," Pacific Sociological Review, XIV (July, 1971), 245-258.
- Christensen, James E. and Dean R. Yoesting, "Social and Attitudinal Variants in High and Low Use of Outdoors Recreational Facilities," Journal of Leisure Research, V, No. 2 (Spring, 1973), 6-15.
- Clarke, Alfred C., "Leisure and Occupational Prestige," American Sociological Review, XXI, No. 3 (June, 1956), 301-308.
- Elton, Charles F. and John C. Smart, "Many Are Rushed but Who Will Pledge?," Journal of College Student Personnel, XII, No. 3 (May, 1971), 204-207.
- Feldman, Kenneth A., "Studying the Impact of Colleges on Students," Sociology of Education, XLII, No. 2 (Summer, 1969), 207-237.

- Franz, Thomas T., "Student Subcultures," Journal of College Student Personnel, X, No. 1 (January, 1969), 16-20.
- Harrold, Roger D. and Benjamin Lowe, "Intercollegiate Athletics in the Contemporary Student Value System," Journal of College Student Personnel, XIV, No. 4 (July, 1973), 345-351.
- Hartshorne, E. Y., "Undergraduate Society and the College Culture," American Sociological Review, VIII (June, 1943), 321-332.
- Havighurst, Robert J., "The Leisure Activities of the Middle-Aged," American Journal of Sociology, LXII, No. 2 (September, 1957), 142-153.
- Havighurst, Robert J. and K. Feigenbaum, "Leisure and Life Style," American Journal of Sociology, LXIV, No. 4 (January, 1959), 396-404.
- Hooley, Anne M., "Leisure Time Pursuits in College," Recreation, (February, 1960), pp. 83-84.
- Ibrahim, Hilmi, "Recreational Preferences and Personality," Research Quarterly, XL, No. 1 (March, 1969), 78-82.
- _____, "Recreation Preferences and Temperament," Research Quarterly, XLI, No. 2 (May, 1970), 145-154.
- Kees, Donald J. and William P. McDougall, "A Validation Study of the Clark-Trow Subculture Typology," Journal of College Student Personnel, XII, No. 3 (May, 1973), 193-199.
- Martens, Rainer, "The Influence of Success and Residential Affiliation on Participation Motivation," Journal of Leisure Research, III, No. 1 (Winter, 1971), 53-58.
- Maw, Ian E. L., "Student Subcultures and Activity Involvement," Journal of College Student Personnel, XII, No. 1 (January, 1971), 62-66.
- McFee, Anne, "The Relation of Student's Needs to Their Perceptions of a College Environment," Journal of Educational Psychology, LII, No. 1 (1961), 25-29.
- Myersohn, Rolf, "The Sociology of Leisure in the United States: Introduction and Bibliography, 1945-65," Journal of Leisure Research, I, No. 1 (Winter, 1969), 53-68.

- Miller, Leonard D., "Distinctive Characteristics of Fraternity Members," Journal of College Student Personnel, XIV, No. 2 (March, 1973), 126-129.
- Murphy, James F., "Leisure Determinants of Life Style," Journal of Health, Physical Education and Recreation, (November-December, 1974), pp. 35-37.
- Neulinger, John and Mirand Breit, "Attitude Dimensions of Leisure," Journal of Leisure Research, I, No. 3 (Summer, 1969), 255-261.
- Pace, C. Robert and George G. Stern, "An Approach to the Measurement of Psychological Characteristics of College Environments," Journal of Educational Psychology, XLIX, No. 5 (1958), 269-281.
- Schmidt, Frank, W. A. Owens, and Joseph Tiffin, "Correlates of Student Attendance at Cultural Events," Journal of Student Personnel, XII, No. 1 (January, 1971), 41-43.
- Sommer, Robert, "Student Reactions to Four Types of Residence Halls," Journal of College Student Personnel, IX, No. 4 (July, 1968), 232-237.
- Strong, Edward K., Jr., "Interests of Men and Women," Journal of Social Psychology, VII, No. 1 (February, 1936), 49-67.
- Warren, Jonathon R., "Student Perceptions of College Subcultures," American Educational Research Journal, V, No. 2 (March, 1968), 213-232.
- Warren, Roland L., "A Sociological Analysis of Student Activities," Educational Forum, V, No. 4 (May, 1941), 442-457.
- White, R. Clyde, "Social Class Differences in the Uses of Leisure," American Journal of Sociology, LXI, No. 2 (September, 1955), 145-152.
- Williamson, E. G. and J. G. Darley, "The Measurement of Social Attitudes of College Students: I Standardization of Tests and Results of a Survey," Journal of Social Psychology, VIII, No. 2 (May, 1937), 219-229.
- _____, "The Measurement of Social Attitudes of College Students: II Validation of Two Attitude Tests," Journal of Social Psychology, VIII, No. 2 (May, 1937), 231-242.

Publication of Learned Organization

Peterson, Richard E., "On Typology of College Students," Research Bulletin, RB-65-9, Princeton, New Jersey, Educational Testing Service, 1965.

Unpublished Materials

Christian, Charles E., "A Comparison of Resident and Non-Resident Student Perceptions of the University of California at Irvine," unpublished doctoral dissertation, University of California at Irvine, Irvine, California, 1973.

Field, Donald R., "Interchangeability of Parks with Other Leisure Settings," paper presented at the AAAS Symposium, Philadelphia, Pennsylvania, December 26-31, 1971.

Haack, Arno J., "Student Life in an Urban University," paper delivered at the annual meeting of the Association of Urban Universities, Detroit, Michigan, October, 1962.

Howard, Dennis R., "Multivariate Relationships Between Leisure Activities and Personality," unpublished doctoral dissertation, Oregon State University, Eugene, Oregon, 1973.

Johnson, Charles Enger, "An Exploratory Study of Individual Patterns of Leisure Time Activities," unpublished doctoral dissertation, University of Minnesota, Minneapolis, Minnesota, 1964.

Merritt, Myrtle Agnes, "The Relationship of Selected Physical, Mental, Emotional and Social Factors to the Recreational Preferences of College Women," unpublished doctoral dissertation, University of Iowa, Iowa City, Iowa, 1961.

Pollock, Bernard, "A Method for Obtaining and Utilizing Student Information in Intramural Program Development in an Urban College Setting," unpublished doctoral dissertation, Columbia University, New York, 1968.

Scott, Ethel Oliva, "An Analysis of the Relationship of Personality and Selected Conditioning Forces to Participation in Individual Preferred Leisure Activities," unpublished master's thesis, University of North Carolina, Raleigh, North Carolina, 1962.

Scott, Frank Lester, "A Study of the Origin of Recreation Activities of Male Students at San Diego State College," unpublished doctoral dissertation, University of Michigan, Ann Arbor, Michigan, 1957.

Stancil, Charles Taylor, "Participation Areas and Interest Areas in the Recreation of College Students with Diverse Curriculums," unpublished doctoral dissertation, Pennsylvania State University, University Park, Pennsylvania, 1957.

Yancey, William L. and Jane Snell, "Parks As Aspects of Leisure in the Inner-City: An Exploratory Investigation," a paper delivered at the AAAS Symposium, Philadelphia, Pennsylvania, December 26-31, 1971.