1987

Perceptions of residence hall living environment by resident assistants and student-athletes and the relationship of perceptions to the Myers-Briggs Type Indicator

Ann Coppernoll Farni
Iowa State University

INFORMATION TO USERS

While the most advanced technology has been used to photograph and reproduce this manuscript, the quality of the reproduction is heavily dependent upon the quality of the material submitted. For example:

- Manuscript pages may have indistinct print. In such cases, the best available copy has been filmed.

- Manuscripts may not always be complete. In such cases, a note will indicate that it is not possible to obtain missing pages.

- Copyrighted material may have been removed from the manuscript. In such cases, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, and charts) are photographed by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each oversize page is also filmed as one exposure and is available, for an additional charge, as a standard 35mm slide or as a 17"x 23" black and white photographic print.

Most photographs reproduce acceptably on positive microfilm or microfiche but lack the clarity on xerographic copies made from the microfilm. For an additional charge, 35mm slides of 6"x 9" black and white photographic prints are available for any photographs or illustrations that cannot be reproduced satisfactorily by xerography.

Farni, Ann Coppernoll

PERCEPTIONS OF RESIDENCE HALL LIVING ENVIRONMENT BY RESIDENT ASSISTANTS AND STUDENT-ATHLETES AND THE RELATIONSHIP OF PERCEPTIONS TO THE MYERS-BRIGGS TYPE INDICATOR

Iowa State University PH.D. 1987

PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark ✓.

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print _____
3. Photographs with dark background _____
4. Illustrations are poor copy _____
5. Pages with black marks, not original copy ✓
6. Print shows through as there is text on both sides of page _____
7. Indistinct, broken or small print on several pages ✓
8. Print exceeds margin requirements _____
9. Tightly bound copy with print lost in spine _____
10. Computer printout pages with indistinct print _____
11. Page(s) _____ lacking when material received, and not available from school or author.
12. Page(s) _____ seem to be missing in numbering only as text follows.
13. Two pages numbered _____. Text follows.
14. Curling and wrinkled pages _____
15. Dissertation contains pages with print at a slant, filmed as received _____
16. Other _____

_____

_____

University
Microfilms
International

Perceptions of residence hall living environment by resident assistants and student-athletes and the relationship of perceptions to the Myers-Briggs Type Indicator

by

Ann Coppernoll Farni

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Department: Professional Studies in Education
Major: Education (Higher Education)

Approved:

Signature was redacted for privacy.

Signature was redacted for privacy.

In Charge of Major Work

Signature was redacted for privacy.

For the Major Department

Signature was redacted for privacy.

For the Graduate College

Iowa State University
Ames, Iowa
1987

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1--PROBLEM STATEMENT

Environment is important in a college student's life. The campus environment contains a multitude of environments, from restaurants and housing units to classroom work and social events. According to Banning (1978, p. 4), the study of human population groups on college campuses and the interaction of those groups with the environment "... incorporates the influence of environment on students and students on environment. The focus of concern is not solely on student characteristics or on environmental characteristics but on the transactional relationship between students and their environment."

One aspect of campus environment that has great impact on the students is the university residence halls (Astin, 1980; Banning, 1978; Moos and Insel, 1974; Gerst and Moos, 1972). As Moos and Insel (1974, p. 442) noted, "The immediate living environment as distinguished from the general college environment may have significant impact on students in areas such as satisfaction with college life, intellectual and academic productivity."

According to Walsh's (1973) subculture concept, person-environment relationships tend to maintain and reinforce certain attitudes and behaviors. The environment at the university can affect student behavior at that institution.

The living environment as a positive support for the resident student has been illustrated in Astin's research (Astin, 1980). Satisfaction with the living environment may have an effect on classroom attendance, satisfaction with the college, and successful continuance in school. Residents belong to various groups, from activity groups such as student government

to resident assistant staff positions. Based on this difference plus differences in gender and race, several related issues must be addressed:

Exactly how do these diverse students perceive their living environment? Do different students see the living environment differently? To what extent is group membership related to differing perceptions?

Purpose of the Study

The purposes of this study were (a) to assess residence hall students' perceptions of their living environments at Iowa State University, as related to membership in special groups, and (b) to relate the perception of living environment to personality type.

For the first part of the study, the University Residence Environment Scale (URES) (Moos and Gerst, 1974) was used to measure each student's perception of his/her living environment. For the second part of the study, the Myers-Briggs Type Indicator, or MBTI, (Myers, 1962) was used to assess the personality type of each resident.

The results of this study will provide the Department of Residence with data about residents' perceptions of the living environment in the residence halls at Iowa State. A comparison of different groups (resident assistants, student-athletes, undergraduates) will assist the staff in being better informed about possible varying perceptions of these groups. As the Department works on orientation and training of the residence hall staff and the programs that are constructed for special groups, the information from the study could assist in planning appropriate and beneficial training.

Residence Halls at Iowa State University

The single-student residence halls at Iowa State University are divided into three separate physical areas. The Towers Residence Halls are made up of four ten-story coed buildings. Richardson Court Residence Halls have both high-rise and low-rise buildings of five stories or less, with both coed and non-coed halls. The Union Drive Residence Halls have all low-rise buildings, with both coed and all-male buildings.

Each house (or floor) has its own governing system, which is comprised of the residents from each house. The house government and the residents within each house determine house policies that range from alcohol use and visitation rules to guidelines for storage room use (Guide to Residence Hall Living, 1985-86). This method of government, while having limitations set by the Department of Residence, allows residents to participate in determining the policies they will follow. Each house has a resident assistant (RA) who is hired by the Department of Residence to do certain administrative tasks, as well as to assist house members in the implementation of house policies and procedures.

In the Iowa State residence hall system, the residents strongly link themselves to their houses and associations. The system in use since the early 1950s has assigned a permanent name to each house. The traditions and characteristics pass over from year to year to new residents.

Social Climates

In studying environment and its effects on people, Moos and Gerst (1974) worked on a method of social ecological research. They developed a series of social climate scales designed to provide information which is

helpful in understanding the environment and its effects, and in determining if change could be attributed to the environment. The environmental climate exerts influence on behavior, and the environment in which people live and function influences their personal development, satisfaction, and self-esteem (Moos and Insel, 1974). Banning (1978) suggested that the perceived social climate of an environment has a relationship to people's health and well-being.

If these observations have merit, then both the student affairs professionals and faculty members would gain from greater insight into the students' perceptions of their living environment.

Study Participants

Group membership can be defined with various parameters. Year in school or residence hall assignment can constitute a group. Other groups can be student leaders, employees of the residence system such as resident assistants, and activity-related groups such as student-athletes.

Three groups of residents were selected for this study: resident assistants, student athletes, and a group of residents selected at random. All were living in the Residence Halls at Iowa State University during Spring semester 1985.

The resident assistants work as helpers, administrators, and communicators on each floor of the residence halls. They are employed by the Department of Residence on the basis of their skills and potential in the following areas: organization, confrontation, role-modeling, and mediating. The residence hall staff manual points out the necessary abilities of demonstrating sensitivity with floor residents and of maintaining an atti-

tude which allows for positive working relationships with residents, as well as with staff and administrators (Staff Manual, Iowa State Department of Residence, 1985). The Department unequivocally supports the statement by Gerst and Moos (1972) that enhancing the skills of the helpers will enhance their ability to interact. As a part of the job requirements for resident assistants, the Department requires training in listening skills, time management, crisis intervention, racial and sexual awareness, and self-awareness (Staff Manual, 1985-86).

Student-athletes are a highly visible group in the residence halls. The major-sport athletes generally receive much attention in the press, and as Maltross (1980) reports, the student body socializes around the sports functions. Just as the RA must spend time at the job of being an RA, so must the student-athlete spend time as an athlete, whether it is in practice, meetings, travel, or on-going learning. Because of the scope of the commitment of the student-athletes to the athletic program, there must be a commitment also for the student-athletes' experiences outside the sport. Golden, in Shirberg and Brodzinski (1984), points out that the academic side of school should be the ultimate reason for being, but what happens outside the classroom is an equally vital and compelling part of the students' total educational experience. The residence hall is a likely and convenient place for this education to occur. Residence halls serve as a classroom for growth in communication skills of all types.

The third group in this study was composed of house residents who were neither staff members nor student-athletes. There were no other criteria; the resident could be an active member of the living unit, or a non-

participant in house events.

Research Questions

In conceptualizing this study, the following research questions were identified: Do the three groups of resident assistants, student-athletes, and undergraduates perceive their living environment similarly or differently? Is there a different perception for men and women, black or white, freshman or senior? Does the personality of the student have an effect on perception of living environment? Does group membership, such as being a resident assistant, student-athlete, or undergraduate relate to personality type?

With the above questions in mind, the following hypotheses were formulated.

Hypotheses of the Study

Specifically, this study addressed the following hypotheses, stated in the null form:

1. There will be no significant differences in perception of living environment among the groups resident assistants, student-athletes, and undergraduates.

2. There will be no significant differences of perceptions of living environment by the combined groups of resident assistants, student-athletes, and undergraduates when compared by sex, classification, living complex, race, and size of hometown.

3. There will be no significant differences in perceptions of living environment when compared by sex, classification, living complex, race, and size of town when tested within the groups of resident assistants, student-

athletes, and undergraduates.

4. Personality type as measured by the MBTI will have no significant difference with student perception of living environment.

5. There will be no significant differences between group membership and personality type as measured by the MBTI.

Limitations of the Study

The limitations of this study were the following:

1. Sample size was a factor in the statistical analysis. The numbers are small when the analysis is broken down into groups by the variables in the study. Because of sample size, the analysis may not be as effective as with larger numbers.

2. The size of the total sample and individual groups was a factor in the interpretation of the results from the study. Because of the small numbers, generalization of results must be approached with caution.

3. The results are an indication of the student groups at Iowa State University and should be carefully interpreted to other institutions of like environment. Institutions with a land-grant background, institutions of similar size, and with similar structure in the residence halls and in collegiate athletics may be better able to use the results than institutions opposite in structure, size and characteristics from Iowa State.

4. The bias of the instruments may have an effect on the results. The URES is used primarily in living group studies. The MBTI is used with normal groups. The assumption in this study was that the groups were in the normal population as versus the non-normal.

5. Confounding factors in this study are numbers of persons in each

sample group, sex of group members, and groups with limited race membership.

6. The possibility of extraneous factors such as time of year, success of programs, both residential and athletic, could influence the respondents as they answered the questions on the instruments.

Operational Definitions

Student-athlete: One who attends classes and participates in a sport at the collegiate level, is on full or partial athletic scholarship, and maintains eligibility according to both NCAA rules and ISU rules (Student Athlete Academic Handbook, Iowa State University, 1983-1984, p. 8).

Resident Assistant: An undergraduate student at Iowa State University who is selected, trained, and paid by the Department of Residence as a helper, mediator, administrator, and facilitator in a house (Staff Manual, 1985-1986, pp. 2.40- 2.43).

Residence Hall: A building at Iowa State University where students may reside while going to school (ISU Undergraduate Catalog, 1985-1987, p. 20).

House: A living unit or floor in the residence hall (Guide to Residence Hall Living, 1985-86, pp. 3-4).

Department of Residence: One of the departments in the Division of Student Affairs at Iowa State University, charged with the responsibility to assist students in remaining at ISU (Staff Manual, 1985-1986, p. 2.1).

Perception: Knowledge or feeling obtained through activities and impressions of the college environment (Gerst and Moos, 1972, p. 442).

CHAPTER 2--REVIEW OF THE LITERATURE

This chapter considers the current literature available concerning theories related to the college living environment; the ways this environment can be measured; the instrument chosen for this study, the University Resident Environment Scale (URES); and the literature related to resident assistants and student-athletes and environment. Abundant in the literature are personality theories as related to athletes. The personality indicator chosen for this study, the Myers-Briggs Type Indicator (MBTI), will be reviewed, as will some of the literature related to student-athletes and residence halls.

The study of the environment is not without a theoretical base and supporting literature. In recent years, research on philosophies of campus environment has been carried out by Banning (1978), who made this statement about the relationship between the student and the campus environment: "Campus ecology incorporates the influence of environments on students and students on environments. The focus of concern is not solely on student characteristics or environmental characteristics but on the transactional relationship between students and their environment" (p. 4).

Individuals do not act in isolation; they respond to people and situations with whom they are in contact. Several theoretical positions have been used to explain the behavior of a person in a situation, such as "personalogism," "situationalism," and "interactionism." One theory, the interactionist theory, hypothesizes that a person's attributes interact with situational variations to motivate and direct behavior. Behavior is thus a function of both the environment and the person.

> As Huebner (1981) pointed out, "Although [we] focus on theories of the environment, remember that environments impinge on people, people interact with widely differing abilities, goals, expectations, and attitudes. And people are part of the environment and impose their own interpretations and meanings on the environment. The impact of any environment is always mediated by personal attributes" (Delworth, Hanson and Associates, 1981, p. 119).

Environmental Theories

Numerous aspects of the environment affect human functioning. For example, "Moos (1979) classifies the variables 1--The physical environment, including the manmade and the natural environment, the architecture, the weather, and geography, for example, and 2--The social and psychological environment--for example, behavior settings, social climate, organizational structure, and functioning, and characteristics of milieu inhabitants" (Huebner, 1981, pp. 120-121).

In addition, Walsh (1973) and Delworth, Hanson and Associates (1981) outlined five credible theories of living environment: Barker's theory of behavior settings, Stern's environmental press, Pervin's transactional approach, Holland's theory of personality type and model environments, and Moos's social ecological approach.

In explaining his theory, Barker maintained "that environments select and shape the behavior of people who inhabit them. People tend to behave in highly similar ways in specific environments, regardless of their individual differences" (Delworth et al., 1981, p. 122). This approach describes behavior settings, which are basic and naturally occurring environmental units. The surrounding non-psychological environment is called a "milieu," and it is defined physically and is independent of behaviors or perceptions. A behavior setting includes four factors:

"(1) physical components, (2) overt behaviors, (3) temporal properties, and (4) the relationship between behavior and non-behavior factors" (Huebner, 1981, p. 122). Examples of behavior settings might include a baseball game, a lecture, or a church service. Barker suggested that the behaviors which occur in these settings were influenced by the behavior settings where they took place. The theory is commonly known as the objective approach to the study of person-environment (P-E). Barker's theory is logically sound. One strength is its multidimensional quality of defining behavior settings in terms of place, objects, behaviors, and time. A weakness is its lack of attention to the individual. This theory also lacks direct assessment of perceived environment.

A second theory which explains environmental influences on people is the work of Stern (1964) (in Walsh, 1973) on environmental press, which is defined as the relationship between the person and the environment. Its three main assumptions are (a) Behavior (B) is a function (F) of the person (P) and the environment (E): B = F(P,E); (b) The person is represented in terms of needs, which are inferred from the self-reported behaviors; and (c) the environment is defined in terms of press and is inferred from the aggregate of self-reported perceptions or interpretations of the environment.

Stern defined two dimensions of the person-environment relationship:

> "The first is congruence-dissonance, and Stern hypothesizes that a relatively congruent P-E relationship would produce a sense of satisfaction and fulfillment. A dissonant P-E relationship may result in discomfort or stress, which might in turn lead to modification of the press, withdrawal of the participants, or perhaps, tolerance of the dissonance" (Delworth, Hanson and Associates, p. 123).

A major limitation of Stern's theory was the assumption that needs could be

inferred from preferences for activities.

A third model has been proposed by Pervin (in Delworth et al., 1981), a transactional model based on the self-report of perceptions and the reactions to these perceptions. Assumptions of the model are that (a) individuals find large discrepancies between their perceived actual selves and their ideal selves to be painful and unpleasant, and (b) individuals are positively attracted to objects in the perceived environment that have potential for moving them toward their ideal selves. Conversely, individuals are negatively disposed toward stimuli that have potential for moving them from their ideal selves. A third assumption is that similarity of the individual to objects of importance is desirable when the individual's actual self and ideal self are congruent. It has been observed that "Pervin's main hypothesis is that individuals perform better and are more satisfied in environments that reduce the discrepancy between their perceived actual selves and the ideal selves" (Delworth et al., 1981, p. 125). A major fault of Pervin's theory is that he never defined the environment in an objective or physical sense. He also ignored the function and relevance of personality variables. In addition, few data support this theory.

The human aggregate theory has been heavily researched by John Holland, who in Delworth et al. (1981) suggested that the environment is closely related to the attributes, behavior, and goals of the people who inhabit that environment. Holland stated, "The people in a given vocational group will create characteristic interpersonal environments" (Delworth et al., 1981, p. 126). He identified three assumptions of this theory. First, people may be described by their resemblance to one or more person-

ality types (clusters of personal attributes) that may be used to measure the person. There are six types, and a person's resemblance to these types is a product of environment. Next, environments may be characterized by resemblance to one of the six model environments, which correspond to the six personality types. Thus, environmental models are defined in terms of the situation or atmosphere created by the people who dominate them. Each personality type then searches for an analogous environment. Finally, congruent person-environment relationships lead to predictable and understandable outcomes with respect to vocational choice, stability, and achievement; personal stability; and creative performance. This theory has been criticized by Delworth et al. (1981) for being descriptive rather than explanatory, for failing to assess the perceived or the physical environment, and for ignoring the issues of learning and change.

Rudolf Moos has been most responsible for advances in the study of social climates, the last theory to be reviewed. His focus has been on the perceived climate, which he measured via respondents' descriptions of the usual patterns of behavior that occur in various living settings, plus their own perceptions of the environment. Moos included three broad categories in his survey: (a) relationship (how people affiliate their mutual support), (b) personal development (the potential or opportunity in the environment for personal growth and development of self-esteem), and (c) system maintenance and change (the extent to which the environment is orderly and clear in its expectations, maintains control, and responds to change). Moos and Insel (1974, p. 1980) concluded that these three categories "must be connected in order for an adequate and reasonably complete

picture of the environment to emerge." Moos's work is most recent; however, his model seems to be limited by its singular focus on the psychological environment to the exclusion of other objective characteristics.

Environmental Assessment Approaches

In reading about environmental assessment approaches, the author found three basic approaches that have been used to study college living environments: objective, behavioral, and perceptual.

Objective approach

The objective approach technique is basically a descriptive approach that may include factors such as size of residence hall, distance from campus, number of meals served, and number of roommates. Objective approaches to assessing campus environment have been promoted by Astin (1971). One positive aspect of the objective approach is the small cost involved because no instruments are used. Limitations of this approach are (a) arbitrary interpretation of the results, (b) difficulty in determining the specific sources of impact that result in different environments, (c) variations occurring in the accuracy of institutional data which can lead to diminished comparative utility (Hyne, 1976 and Baird, 1978).

Behavioral approaches

The behavioral approach typically consists of frequency measures of observable student behaviors relating to the university environment. These behaviors are either recorded by an independent observer or by student self-report.

Behavioral measures and educational process factors, such as par-

ticipation in activities or use of facilities, can point to specific areas for institutional interventions. They also have the advantage of pinpointing issues specific to a particular campus that may inadvertently be missed by the demographics associated with perceptual approaches (Hyne, 1976, p. 115).

Perceptual approach

Perceptual studies of the campus environment have been the most widely used assessment techniques (Moore, 1982). The perceptual approach asks people to respond to a statement or statements about the living environment. The results are usually used in comparison of students, students-staff, and others (Moos and Gerst, 1974). Perceptual instruments came into use largely after Pace and Stern (1958) researched and refined an assessment tool to measure these factors.

Moore (1982) stated several advantages of the perceptual approach:

1. It is sensitive to environmental change.
2. Its results are easy to interpret and to understand.
3. It serves as a general monitoring function of living climate.
4. It helps an institution to recognize and deal with problems.
5. It can help evaluate new programs.

However, there are limitations of the perceptual approach. There is some ambiguity about the meaning of an "aggregate" perception of the environment. A person's perception of social situations depends on individual attitudes and characteristics which both influence and are influenced by the environment. Therefore, it may be difficult to generalize about the meaning of this collective perception.

Accuracy of perceptions depends on the knowledge and perception of the respondent, a factor which varies by person and by topic. This limitation includes respondents who are influenced by stereotypes or rumors. Further, a respondent can describe only those aspects of the environment included in the instrument. Finally, most perceptual measures do not directly identify the source of the environmental impact (Baird, 1978 and Hyne, 1976).

University Resident Environment Scale

The University Resident Environment Scale (URES), developed by Moos and Gerst (1974), is a perceptual tool used to assess students' perceptions of residents in their living environment. This instrument measures the social environments of campus living groups and is designed to compare differences within and among groups. The groups include residence halls, sororities and fraternities. The URES focuses on student-student and student-staff relationships, on aspects of personal and intellectual development, and on the organizational structure of the living groups (Moos, 1979).

The survey is predicated on the theory that a consensus among individuals in an environment has an influence on behavior. The rationale used for the development of the URES evolved from Henry Murray's theory of environmental press (the relationship between the person and the environment) (Moos and Gerst, 1974). The URES, used in numerous studies (Ballou, 1986; Schroeder, 1979; Moos and Insel, 1974) for evaluating student resident reaction to the living environment, has been recognized as one of the most frequently used tools in the assessment of residence hall environments (Baird, Hartnet and Associates, 1980).

The URES is a 100-item inventory divided into ten subscales that measure the emphasis students place on various dimensions of the living unit's social environment (Moos and Gerst, 1974). The choice of items in Form R was guided by the general concept of environmental press. Each item had to identify characteristics of an environment that would exert a press toward Involvement or toward Academic Achievement or toward Innovation. A press toward Involvement was inferred for these kinds of items: "People in the house often do something together on weekends," and "There is a feeling of unity and cohesion." A press toward Academic Achievement was inferred from such items as "People around here tend to study long hours at a stretch," and "In the evening many people here begin to study right after dinner." A press toward Innovation was inferred from items like these: "In this house people often do unusual things," and "Around here there is a minimum of planning and a maximum of action."

The 100-item Form R (reality of the student in responding to what is in the present) of the URES was derived from extensive analyses of two previous forms. The initial form had 238 items concerning various aspects of residence hall living and was administered to thirteen residence halls. A revision of this form included items that significantly discriminated among houses, produced true-false response splits less extreme than 80%-20%, and did not correlate with the Cronne-Marlow Social Desirability Scale.

Table 1, page 20, lists brief descriptions of the URES subscales. The ordering of the ten subscales reflects a conceptualization of the relationship among them. The Involvement and Emotional Support subscales were

conceptualized as the relationship dimension, assessing the extent to which students and staff tend to support and help each other, and the extent to which these groups are involved in the house and its activities. Essentially, these subscales assess the types and intensity of personal relationships among students and between staff and students.

The second group of subscales was conceptualized as personal growth and development dimensions. They measure the emphasis within the house upon maturational processes. Independence and Traditional Social Orientation measure the emphasis on personal and social maturation, while Competition, Academic Achievement, and Intellectuality assess the emphasis on different aspects of academic growth.

The last three subscales are Order and Organization, Student Influence, and Innovation. They were conceptualized as assessing the system maintenance and system change dimension. These three subscales are system-oriented in that they tap information about the structure of organization within the house as well as the processes and potential for change in its function (Moos and Gerst, 1974).

The URES Manual makes the following statement regarding the URES Form R test statistics:

> Internal consistencies for the Ten Form R subscales are calculated using Kuder-Richardson Formula 20 and average within living group variances for the items. The internal consistencies are all acceptable, ranging from 0.88 for Involvement to 0.77 for Competition and Innovation. The mean of the subscale intercorrelations is 0.18, indicating that the subscales measure diverse aspects of the environment and have a common variance that is small enough to tap the unique components of a living group environment (page 5).

Several other criteria were used in selecting items and subscales for the final 100-item Form R. Data from 74 residence halls representing in-

stitutions with a wide range of student living groups were used to reduce the total number of items in the scale, to reduce content overlap and redundancy, and to minimize the overlap among subscales. Item intercorrelations, subscale intercorrelations, and item-to-subscale correlations were calculated for three successive trials, with item deletion and subscale recomposition after each trial. The subscales were reorganized using the criteria of high item-scale correlation, low to moderate correlations among subscales, and maximum item discrimination among different living groups. This resulted in a 100-item URES Form R (four items are unscored). (See Table 1, URES SUBSCALES.)

URES and residence halls

Research with the URES led to the division of a college environment into various subenvironments which may have considerable impact on students, specifically on students in campus residence halls where students spend much of their time (Astin, 1980). It may be that the residence hall living environment has a great impact on the student satisfaction with college life, the growth of the individual in academic areas, and the physical and emotional wellness of the student. The manner in which a student may perceive the social climate of his or her residence may influence moods of depression, alienation, and isolation. Student's satisfaction with the residential environment may influence their perceptions of themselves and the overall college experience so that pursuits of relationships with others and the degree of involvement in intellectual and emotionally significant activities may be affected (Moos and Insel, 1974, p. 443).

Schroeder (1980) postulated that people who are congruous with their

Table 1. Brief URES subscale description (Moos and Gerst, 1974)

	RELATIONSHIP DIMENSIONS	
1.	Involvement	Degree of commitment to the house and residents; amount of interaction and feeling of friendship in the house.
2.	Emotional Support	Extent of manifest concern for others in the house; efforts to aid one another with academic and personal problems, emphasis on open and honest communication.
	PERSONAL GROWTH OR DEVELOPMENT DIMENSIONS	
3.	Independence	Diversity of residents' behaviors allowed without social sanctions, versus socially proper and conformist behavior.
4.	Traditional Social Orientation	Stress on dating, going to parties, and other "traditional" heterosexual interactions.
5.	Competition	The degree to which a wide variety of activities such as dating, grades, etc. are cast into a competitive framework.
6.	Academic Achievement	Extent to which strictly classroom and academic accomplishments and concerns are prominent in the house.
7.	Intellectuality	Emphasis on cultural, artistic and other scholarly intellectual activities in the house, as distinguished from strictly classroom achievements.
	SYSTEM MAINTENANCE AND SYSTEM CHANGE DIMENSIONS	
8.	Order and Organization	Amount of formal structure or organization (i.e., rules, schedules, following established procedures, etc.) in the house; neatness.
9.	Student Influence	Extent to which student residents (not staff or administration) perceive they control and running formulate and enforce the rules, control use of the money, selection of staff, food, roommates, policies, etc.
10.	Innovation	Organizational and individual spontaneity of behaviors and ideas; number and variety of activities; new activities.

environment and who share the dominant interest of the group in that environment will be more satisfied and secure in their choice of a major field of study and will perform at higher levels than those who do not have such common characteristics.

Other studies, such as that of Kalsbeek, Rodgers, Marshal, Denny and Nichols (1982), supported the contention that students in living environments described as supportive in the URES profile actually demonstrated lower frequency of impulsive deviancy and more frequent supportive interaction with others in the environment. Thus, the establishment of environments high in the supportive dimension has been shown to have a positive effect on student functioning.

In an article on milieu management, Schroeder (1979) asserted that use of the URES could be an approach for greater understanding of individual differences and acceptance of differences in roommates. A feeling of unity and cohesion through formulating mutually shared goals could result from such a study.

Golden, in Shirberg and Brodzinski (1984), listed several areas that lead to isolation, which could in turn lead to behavior which is not socially acceptable. Students become disenchanted with residence halls within a short amount of time, perhaps due to dissatisfaction with lack of space, frustration due to roommate conflicts, forced sociability, and the impersonal environment (Heilweil, 1973).

Schroeder went on to say that milieu management strategies, with the use of various assessment tools, provide student affairs professionals with perhaps the most valuable approach to designing environments for the mutual

benefit of individuals and groups need satisfaction and goal attainment. Research has demonstrated that certain social climate dimensions facilitate student satisfaction, growth, and well-being. Students express more satisfaction with residential environments that emphasize such relationship dimensions as involvement, support, genuineness, and friendship (Schroeder,1980).

Gerst and Moos (1972), in Moos and Insel (1974), noted that perceptions of males and females differ. Women perceived their houses as placing an emphasis on emotional support, house involvement, and the traditional social behaviors. Men perceived their houses as competitive and stressing more non-conformist behaviors.

Resident Assistants and Student-Athletes in the Living Environment

According to Schroeder (1979), for all members of a living group, satisfaction with environment, if the satisfaction is high, should result in optimal group functioning. The feeling of unity among house members should assist the resident assistant in a pleasant task of advising a cohesive student government and a productive social committee, and should lessen the attention that often must be directed toward deviant behavior. This might result in a satisfied RA, who in turn could perform more efficiently on the job. Butters and Gade (1982) wrote that RA job satisfaction is related to both the tasks of the job and to the human relations aspects of the job.

Student-athletes are a somewhat unique population. They are drawn to the university to demonstrate not only academic but physical performance

prowess. They are often times defined more in terms of their athletic rather than academic role, especially if they compete in several sports. The student-athlete may live in the residence halls for several reasons: convenience, finances, or requirement of a coach or athletic scholarship. A continuing debate seems to be whether or not the student-athlete should live with non-athletes in the residence halls. Leach and Conner, in Shirberg and Brodzinski (1984), reported that from a study of 388 student-athletes at one institution, fewer than one-third of the group wished to live in exclusively athletic housing areas. Those who did live separately stated that they felt isolated from the rest of the student body. The findings were generally true of both male and female athletes.

The student-athlete is different from other students and residence hall members in terms of role expectations, time commitments, and social skills. According to West (Shirberg and Brodzinski, 1984), contradictions in the role of being female which equated to femininity and being a student-athlete which may have some non-feminine characteristics, may lead some women athletes to over-compensation in feminine behaviors and/or withdrawal of participation in social events. As Rhatigan (1984) points out in a review of student-athlete basketball players' time commitment to the sport, there are few situations in which the students are required to miss 26% of class-time in order to participate in an extracurricular activity. The time demands on study, practice, and travel may deprive the student-athlete of the opportunity to develop social skills that enable him/her to interact with other residents at school, at work, or in general. The student-athlete walks the thin line between admiration and resentment by the

university community. Although the feelings are opposite in nature, those feelings are generally expressed by the same groups of people. Residents who support athletics and join the crowd on Saturday can also talk about the "dumb jocks" and the student-athlete "having the life" (Shirberg and Brodzinski, 1984, p. 37).

This ambiguity of support was documented by Maltross (1980) in a study done at a large public university. The results indicated that students felt athletics helped the quality of life at the university, balanced the personal development of the student-athlete, and provided entertainment for the university community; but the students also felt a certain lack of friendliness if the team lost. Leach has written that peer support would assist the student-athlete in greater self-development in areas of self-confidence and social skills (Shirberg and Brodzinski, 1984). Sowa and Gressard (1983, pp. 237-238) found the following results from a survey:

> In this study using the Student Developmental Task Inventory, three areas of difference were found between student-athletes and non-athletes; educational plans, career plans, and mature relationships with peers. No significant differences were found between male and female response....

Personality Theories of Student-Athletes

Interest in personality type of the athlete is high for several reasons. Coaches would like to relate better to players and to work on individual and team performance, and athletes would like to be more successful in their personal and professional lives. Researchers are looking for more information that would assist in theory formulation and support of previously collected information that would help all parties (Straub, 1980). Several theories of personality are evident among studies of athletes.

Three will be covered briefly in this review: trait theory, interactional model of behavior, and personal dispositions and cognitive styles.

Trait theory approach

Personality traits have been described as enduring and relatively stable elements used to explain behavior. Trait and type approaches tend to emphasize the developed and established personality "equipment" of the individual that gives rise to a certain expectation of routine behavior. The reviewers of personality trait theory have not been in total agreement, but there has been a tendency for the male athlete to be described in terms of extroverted and stable disposition (such as high dominance, social aggression, leadership, tough mindedness, and emotional control) and for female athletes to be shown as relatively anxious extroverts. Kane (1981) stated that while certain personality variables are related to outstanding performance in a specific sport, the same personality variables are present in outstanding high performances in other sports also.

The interactional approach

One of the more popular and recently favored concepts of personality and sport is the interactional model that centers on the cognitive perceptions and interpretations of the person in a given situation. The interactional model actually builds on the previous ideas of Lewin, in which behavior (B), [$B = f(P < S)$], refers to the behavior resulting from a choice of possibilities of performance on a measurement scale. "P" refers to structural dimensions (physiological and psychological) represented in personality measure; "S" refers to variable aspects of the situation; and

"f" refers to the functional relationship (or interaction between P and S in explaining B). This approach is of interest to sports psychologists, who have recognized the variable effects on performance of different sports situations, particularly where competitiveness and stress are high (Kane, 1981).

Personal dispositions and cognitive style

Kane (1981) stated that "In an interactional approach to behavior, the central importance given to cognition calls for an appreciation of the very personal and idiosyncratic ways in which a person views, perceives, construes, and interprets a situation". Among the most widely studied of the personal dispositions is achievement motivation. Those with a high need to achieve show a tendency to do well and tend to be independent and persistent. Research has shown that achievement motivation is learned at an early age and is a relatively stable aspect of behavior, and that those with a high need for achievement take responsibility for outcome, perform better on tasks requiring individual initiative, and are in general motivated by a "wish to succeed," rather than a desire to "avoid failure."

Causal attribution Kane referred to Rotters' suggestions that high achievers attributed the causes of successes or failures internally or to their own ability, whereas low achievers tend to consider outcomes to be largely externally determined such as by the task difficulty or luck. Attribution theory includes four causal elements: luck, ability, effort, and task. The four elements are located along two independent dimensions: locus of control (internal versus external) and stability (stable versus unstable). Ability and task difficulty are understood to be relatively

unchanged over time, whereas effort and luck vary. This theory works well for interpreting competitive sports behavior.

Intrinsic motivation Kane included intrinsic motivation as a part of cognitive styles because of its continued development as a suitable interpretation of athletic experience and involvement. The terms intrinsic and extrinsic have been commonplace in discussions of motivation for some time. However, the notion of intrinsic motivation has been elaborated in recent years to take into account a wave of interest in personality psychology that focuses on personal satisfaction, self-actualization, and joy. For athletes, it is not just the winning that is important, but feelings, experiences, and satisfaction. This is the approach Kane (1981, p. 66) advised using.

Personality theories are generic in terms of to whom they apply. The previous section reviewed personality theories as used in athlete-related situations. Those same theories may also apply to resident assistants and undergraduate residents. When theories add to the foundations of instruments used to assess behavior, greater understanding of the behavior is incurred.

Myers-Briggs Type Indicator

The Myers-Briggs Type Indicator (MBTI), developed by Isabel Briggs Myers in 1962, has been used in over 1300 research studies, thus establishing itself as one of the most widely used personality instruments. As reported in 1968 and 1985 publications of the Buros Mental Measurements Yearbook, the MBTI has been a successful tool in the evaluation of person-

alities of the normal populations.

The MBTI contains four dichotomous dimensions. Jung's theory of personality advocated the premise that people had a preferred way of responding to the situations they encountered in their living situations. Each dimension outlines one of four basic preferences which, according to Jung, described the use of perception and judgment. The preferences affect not only what people attend to in a situation, but also how they draw conclusions about what they perceive (Myers and McCaully, 1985, p. 2).

The following from the MBTI Manual (1986-1987, page 2) describes the four preferences of the MBTI:

EI	E Extroversion or I Introversion	Whether to direct perception/judgement mainly on the outer world (E) or mainly on the world of ideas (I)
SN	S Sensing or N Intuition	Which kind of perception is preferred when one needs or wishes to perceive
TF	T Thinking or F Feeling	Which kind of judgment to trust when one needs or wishes to make a decision
JP	J Judgment or P Perception	Whether to deal with the outer world in the judging (J) attitude (using T or F) or in the Perception (P) attitude (using S or N)

Myers, who spent much time working on the MBTI, stated in her writing on type and teamwork (1962) that "good teamwork calls for recognition and use of certain valuable differences that result from four basic preferences about the use of perception and judgment." Myers went on to define perception and judgment. Perception is the process of becoming aware of

something. There are two distinct processes of awareness, through the senses or through intuition. People who prefer perception by way of their senses are interested in what is actually there and can be seen or heard or handled. People who prefer perception by way of intuition are interested in what is suggested by what is there--which may be possibilities. A sensing person and an intuitive person can have experiences side by side and tell very different stories of what happened because of different impressions (Myers, 1980).

Judgment is the process of coming to a conclusion about something; the are two distinct ways of judging are thinking and feeling. People who use judgment based on thinking like to come to conclusions in a logical and impersonal manner based on cause and effect. People who use feeling make decisions based on what matters most to them and to others for whom they feel. Both the thinking person and the feeling person can use very different techniques to deal with the same situations.

A basic assumption in Myers' writing was that every person can use all of these processes, but not equally or at the same time. No matter which kind of perception and judgment we prefer, we use it more often and more skillfully the longer we live.

In following up on others' opinions on the Myers-Briggs Type Indicator, Devito (1985) wrote for Buros Mental Measurements (9th edition) that "... the MBTI is probably the most widely used instrument for non-psychiatric populations...."

A major function of the Indicator is the placing of people into groups, not just measuring people. The instrument is intended for normal

populations. A major characteristic of the Indicator is that the results are shared with the client; in fact, Devito stated that the test is actually intended more for the client than for the professional.

In type theory, an individual's preferences interact among the four dichotomies of Extroversion-Introversion, Sensing-Intuition, Thinking-Feeling, and Judgement-Perception. Using one of each of the four dichotomous groups, a type is determined from results of the MBTI, distinguishing one person from another.

Carlyn (1977) discussed the reliability and validity of the MBTI, using both dichotomous type categories and continuous data. Estimates of the internal consistency of continuous MBTI scores seemed to be quite adequate for a self-report instrument, ranging generally between .70 and .90. Estimating the internal consistency of the type categories can be more difficult, because existing statistical procedures can provide only low and high estimates. Yet, they seem adequately reliable for adult samples. Construct validity is at issue when an instrument purports to measure the abstract variances referred to as "constructs." In order to evaluate the construct validity of an instrument, observable behaviors that are related to the construct should be specified.

Although continued validation of behavioral constructs is needed, Devito (1985) noted that the MBTI is a useful tool in behavior studies, and not nearly as strong in vocational studies. The Manual lists these possible uses of the MBTI in educational settings: participation of the examinee in the evaluation of the results, career counseling, determination of general characteristics of an employee, and work group compatibility.

Myers-Briggs Type Indicator and the resident assistant and the student-athlete

Schroeder (1979, 1980, 1981), as a means of utilizing the samenesses and differences of the residents, has written several articles on the subject of living environment and the use of the MBTI. Research related by Schroeder in his writings discussed the relationship of the environment and personality type. If the residents are similar in their perceptions of how a situation is handled, there is less dissonance in the living environment. The relationship between stress and job-performance and burn-out in resident assistants is moderated by (a) identifying RAs who encounter stress, and (b) incorporating into RA training areas with which they are having difficulty as well as increasing RAs' awareness of their perceptions of the environment (Nowack and Hanson, 1983).

The following reviews were the only studies found by the researcher that related to student-athletes. Schurr, Ruble, and Nesbit (1984) used the MBTI in a study on personality characteristics of 182 football players. Analyses by position and offensive and defensive roles showed that the most successful players were characterized on the MBTI as thinking types. Successful lineman response was sensing, whereas offensive backs more frequently relied on intuition. Defensive backs tended more frequently to be introverted than extroverted. The researcher did not find any studies relating the MBTI to the student-athletes in a living environment.

Use of the MBTI can assist student-athletes in understanding why they respond to situations and people in a particular manner. One such program at the University of Florida (Wittmar, Bostic, Phillips, and Waters, 1981) used the MBTI with student-athletes in a life-skills class. The par-

ticipants were learning to become aware of themselves as individuals, which would enable them to function on their own outside of a sports setting. Little is reported on MBTI research and ethnic groups. The MBTI Manual (1985) reports on a study of black physicians from Howard University who were compared to white physicians in New Mexico. The results were consistant across ethnic lines.

Myers-Briggs and the environment

To break down the issues that create disenchantment with the living situation as mentioned by Heilweil (1973), there are strategies that will assist residents in overcoming the negative factors. If the environment is difficult for the resident to adapt to, then a supportive environment needs to be established (Kalsbeek et al., 1982).

At Ohio State University, the MBTI was used in a high-rise residence hall complex. The environment was not a positive one, with high vandalism, and turnover rates exceeding normal University residence hall attrition rates. Suite-mates were assigned according to similarity of MBTI type. Results indicated that the greater the similarity of personality type, the greater the support students perceived in the living environment (Kalsbeek et al., 1982).

The MBTI is adaptable to numerous campus situations. At Auburn University, the goal was to revive a stagnant living environment. As measured by the University Residence Environment Scale (Moos and Gerst, 1974), it was shown that grouping residents together by similar MBTI types led to a greater feeling of support and cohesiveness. A marked increase of friendship developed in these residence halls (Schroeder, Warner and Malone,

1980). At Ohio State University, the Myers-Briggs was used to place residents with residents of similar types, to assist in improving the living environment (Kalsbeek, 1982). In other instances, the MBTI has been used in resolving roommate conflicts and in leading resident assistants to a greater understanding of their living environment (Schroeder, 1981).

Summary of the Review of Literature

The interaction of people with the environment surrounding them has been studied by numerous writers. From Banning's writing on the function of campus environments to the work of Baker, Pace and Stern, and others on theories of environmental interaction, a solid background for research in the area of perceptions of residence hall living environments by specific groups of residents has been established.

Assessment tools for gathering information provide the means for finding information on the perceptions of respondents on the living environment. Schroeder (1979) and others pointed out that the use of a social climate instrument such as the University Residence Environment Scale results in greater understanding of the environment as seen by the people who have participated in the study.

The residents of the living environment such as the resident assistants and the student-athletes do experience special circumstances, which stresses the need for an environment that allows for personal support and understanding (Shirberg and Brodzinski, 1984).

Awareness of the interaction between the environment and individuals will lead researchers to understanding personality type and the relationship to environment. Kane (1981) specifically outlined personality theo-

ries as they relate to student-athletes, specifically describing personal dispositions of the student-athletes as a function of their response in a given situation.

For this study, the Myers-Briggs Type Indicator by Isabel Briggs Myers was selected to measure personality. The MBTI gathers the preferences the respondent uses when responding in a situation.

Schroeder (1980) described the relationship of personality type and satisfaction with the living environment in a residence hall. Few studies have related MBTI and the student-athlete.

The merit of measuring perceptions of living environment has been discussed in this chapter. Various personality instruments have been summarized. This information, along with the results of the study, could provide information that can be used in various residence hall settings and that can lead to better understanding of the dynamics of the residence hall living environment.

CHAPTER 3--METHODOLOGY

This chapter describes the procedures of this study, including the survey instruments applied, reliability and validity of the instruments, survey development and layout, and research design. The sample groups are described, as well as the process for distribution of instruments and collection of data. The statistical procedures used to analyze the data are also noted.

Survey and Sample Selection

Sample Selection

The survey instruments used in this study were selected because of their design. They provided information on students' perceptions of their living environment and collect information on personality type.

The University Residence Environment Scale (URES) by Moos and Gerst was the instrument chosen as the method of collecting information on residents' perceptions of living environment. The Myers-Briggs Type Indicator (MBTI) by Isabel Briggs Myers was used to collect information on personality type.

Survey development and layout

Once the survey instruments were chosen, items to be used for demographic information were selected. Demographic data included sex, race, living complex, hometown size, classification (year in school), and group membership (resident assistant, student-athlete, or undergraduate). A pilot test on the instruction part of the demographic information was given to a group of residents, and clarifications were made.

Reliability and validity

Both URES and the MBTI have been analyzed with regard to reliability and validity.

The University Residence Environment Scale measures the perception of the living environment. The URES is scored using a True and False format. Of the 100 items on the scale, 96 are used in the scoring process. A score is obtained by counting the number of items on the subscale which the subject answered in the scored direction. The mean score is the result. The lower the mean score, the less agreement with the questions grouped in the subscale, and conversely, the higher the mean score, the stronger the agreement with the subscale questions. A mean score of seven is interpreted to indicate greater agreement with the subscale than a mean score of three.

Analysis of the URES included internal consistencies and intercorrelations, which measured from 0.88 for the subscale Involvement to 0.77 for Competition and Involvement (Moos and Gerst, 1974). The mean of the subscale intercorrelations is 0.18. Differences among living groups on the same and different subscales were measured in the initial groups tested with the URES, with variations among the subscales.

Differences within the same group brought up the question concerning measuring the environmental perceptions and the effect that background and/or personal characteristics of the perceivers had on the findings. In subsequent tests run on selected groups, a relationship between socioeconomic variables and the ten subscales was not detected (Moos and Gerst, 1974, p. 32). There were found to be similar perceptions of living en-

vironment by men and women in a coed living situation (Moos and Gerst, 1974).

Carlyn (1977) showed the internal consistencies of continuous MBTI scores to be adequate for a self-report instrument, ranging from .70 to .90. The internal consistency measured results from normal adult samples. The MBTI Manual (Myers and McCaully, 1985) states that reliability is greater for university and college samples than high school students. While the MBTI evaluates normal personality types, reliability studies indicate that the types themselves are not normally distributed. In the personality-type distribution, 75% are extroverts; 75% are Sensors; and depending on sex, the distribution is 60%/40% Thinking/Feeling. Judging-Perceiving is distributed 55% to 45%. In test-retests percentages, a 24% possibility exists for change of type preference.

Sample selection

Resident assistants were selected if they lived in the Iowa State University residence halls during spring semester 1985; student-athletes were selected if they lived in the Iowa State University residence halls spring 1985 and were on either full or partial scholarship spring 1985. The third group, a sample of undergraduates who lived in the Iowa State University residence halls spring semester 1985, were chosen by using a house roster for each of the 144 floors and the table of random numbers. One resident from each house was selected to be included in the study. There was no special order in assignment of students to rooms in a residence hall house, so the selections were treated like a stratified random sample.

Distribution of the surveys

The distribution of surveys for each of the three groups was handled separately. The initial distribution took place in the third week of April, 1985.

A packet of the material was assembled to include a cover letter which insured confidentiality, directions on how to fill out the surveys, and the two surveys for data collection. Also included was an addressed, stamped envelope for the return of the surveys by mail, if necessary.

The resident assistants were provided the material via their staff mailboxes. They were asked to return the material in the addressed envelope to the researcher within one week of receiving it. Follow-up reminders were provided by mail, by phone, and verbally by staff members.

The researcher provided the material to the student-athletes at group meetings or, if they could not attend a meeting, through the athletic department academic counselor. Subjects were asked to return the material within one week. A second follow-up was by phone and mail and through a meeting by student athletes on campus during the summer session. A third follow-up occurred in the fall with the original sample group.

The general student sample were provided the material through their campus mailboxes. They were asked to return the material within one week. Follow-up by phone and mail encouraged the return of the material. A second distribution was mailed in early summer.

Approval for the research project was granted by the Iowa State University Human Subjects (Research) Committee, the Department of Residence, and the Iowa State University Athletic Department.

Statistical procedures

The data were analyzed by the following procedures:

1. Frequencies and means,
2. Chi-square,
3. General linear model and analysis of variance, and
4. Pearson-correlation coefficient product.

The results, presented in Chapter Four, are from the statistical analysis of the URES and MBTI and the independent variables of the study, using the previously listed statistical procedures. The .05 level of significance was used to note differences in means by group (resident assistants, student-athletes, and undergraduates).

The data were computed using the statistical computer programs of SPSSX (1975) and SAS (1985). These programs were run on the University computer system using the Wylbur system. The information presented in this chapter describes the methodology and procedures that were utilized to implement the research study. The results are presented in the following chapter.

CHAPTER 4--RESULTS

This chapter will present the findings and statistical analysis of the data collected during this research project.

The research for and implementation of this study resulted in data which were subjected to statistical procedures analysis. This chapter includes information on the sample subjects, item frequencies, means and standard deviations, correlations, analysis of variance, and general linear model, as well as specific comparisons of the URES and the independent variables of sex, race, living complex, classification, and size of hometown. Also reported are findings of the Myers-Briggs Type Indicator as related to group membership and URES scores.

Sample

The sampling procedure for this study generated a pre-test sample of 416 residents consisting of 145 resident assistants (one per house), 126 student-athletes, and 145 undergraduate students (one per house). The sample included 145 resident assistants, 107 student-athletes, and 132 undergraduate students, for a total sample size of 384 residents. One hundred and seventy-two participants responded. Group populations and percentages are shown in Table 2. The discrepancy in the numbers was caused by the non-participation of the men's baseball and basketball teams, and the non-return of surveys by some sample group members. Eight returned surveys were unusable: two surveys were returned not completed, five Myers-Briggs instruments were not filled out and one survey was by a non-resident. The return rates by group were 50% for resident assistants, 40%

for student-athletes, and 30% by the undergraduates.

Table 2. Total group respondents by sex, and percentage of total sample by group

Membership	Number of Responses			% of	% of Original
	Male	Female	Total	Sample	Sample Returned
Resident Assistants	41	39	80	46.5	55.0
Student-Athletes	29	21	50	29.1	46.7
softball		6	6		
football	25		25		
golf(w)		1	1		
basketball(w)		4	2		
volleyball(w)		2	2		
track(w)		2	2		
swimming(f)		5	5		
swimming(m)	4		4		
tennis(w)		1	1		
Undergraduates	15	27	42	24.4	31.8
Total	85	87	172	100.0	

Demographic Responses, Frequencies and Descriptive Statistics

The following information presents demographic information in terms of classification level, race, place of residence, and size of hometown.

Race characteristics of the sample

As shown in Table 3, a large majority of the sample was white, with blacks, Asian Americans, Hispanics, and other ethnics few in number. White respondents most frequently were resident assistants and undergraduates, and least frequently were student-athletes.

Group membership and hometown

Evaluation of the total sample by size of hometown showed that 51.7% of the respondents came from areas where the population was less than

Table 3. Group membership and percentage by race (n = 172)

	Black		White		Other	
	n	%	n	%	n[a]	%
Resident Assistant	2	10	75	51	3	3.75
Student-Athlete	18	90	31	21	1	.6
Undergraduate	0	0	42	28	0	0
Total	20	11.6	148	86.0	4	2.4

[a]Asian American, Hispanic, other.

30,000 (Table 4a). The sample by group showed that the majority of student-athletes came from hometowns larger than 30,000 (Table 4b). In contrast, the majority of resident assistants (68.75%) were from towns smaller than 30,000. Like the resident assistants, undergraduates (59.4%) were more likely to be from towns of less than 30,000 than from larger hometowns (Table 4b). Further analysis showed that the majority of football players (44%) were from towns of 100,000 or greater population (Table 4c). The women student-athletes were more evenly distributed by size of town. From this study it would appear that student-athletes, particularly football players, are recruited from urban areas.

Table 4a. Frequency of response by size of hometown

Size of Town	Frequency	%
100-5,000	51	29.7
5,000-15,000	26	15.1
15,000-30,000	12	7.0
30,000-60,000	20	11.6
60,000-100,000	20	11.6
100,000-greater	39	22.7
Missing	4	2.3
	172	100.0

Table 4b. Frequency by group according to size of hometown

Size of Town	Resident Assistant n	%	Student Athlete n	%	Undergraduate n	%
100-5,000	26	32.5	10	20.0	14	33.3
5,000-15,000	25	31.2	3	6.0	8	19.0
15,000-30,000	4	5.0	5	10.0	3	7.1
30,000-60,000	11	13.7	7	14.0	3	7.1
60,000-100,000	7	8.7	6	12.0	6	14.2
100,000-greater	15	21.2	16	32.0	8	19.0
Missing	2	2.5	3	6.0	0	0
Total	80		50		42	

Table 4c. Frequency of response by size of hometown by sport

Sport	Size of Hometown 100-5,000	%	5,000-10,000	%	15,000-30,000	%	30,000-60,000	%	60,000-100,000	%	100,000 greater	%	Missing	%	Total
Football	4	16	1	4	1	4	2	8	4	10	11	44	2	8	25
Swimming(M)							2	50	2	50					4
Swimming(W)					1	20	1	20			3	60			5
Softball	3	50			1	16							2	33	6
Golf					1	100									1
Basketball	1	25	1	25			1	25					1	25	4
Volleyball	1	50					1	50							2
Track	1	50					1	50							2
Tennis			1	100											1
%	20		6		8		16		12		28		10		
Total	10		3		4		8		6		14		5		172

Classification level of the sample

Table 5 shows classification levels of subjects in each group. Responses revealed that the resident assistant group contained the greatest number of seniors, as well as the greatest number of juniors. Over 80% of the student-athletes were freshmen and sophomores, with only 29% in the junior and senior classification levels. Among undergraduates, 69.0% of the students were classified as freshmen and sophomores.

Table 5. Frequencies of classification by group

	Resident Assistant		Student-Athlete		Undergrad		Total	
	n	%	n	%	n	%	n	%
Freshman	1	3.1	17	53.0	14	33.3	32	18.6
Sophomore	6	18.7	11	34.3	15	35.7	32	18.6
Junior	28	68.2	9	21.9	4	9.5	41	23.8
Senior	42	77.7	4	7.4	8	19.0	54	31.3
Missing	3	23.0	9	69.2	1	2.3	13	7.5
Total	80		50		42		172	100.0

Living complex

As listed in Table 6, an examination of the sample groups according to living complex showed that in the total group, the greatest number of respondents (40.7%) were from the RCA. The TRA was second (33.1%), and the UDA housed 25% of the total respondents. The largest number of resident assistant returns were from those living in the RCA. The greatest number of student-athlete responses were from those in the TRA, with the RCA having the second highest response. The RCA again had the largest number of responses from undergraduates, followed by the UDA.

Table 6. Membership by groups in living complex

Living Complex	Resident Assistants n	%	Student-Athletes n	%	Undergraduates n	%	Total n	%
RCA	33	41.2	16	32.0	21	50.0	70	40.7
UDA	23	28.8	8	16.0	12	28.5	43	25.0
TRA	23	28.8	25	50.0	9	21.4	57	33.1
Missing	1	0.6	1	0.6	0		2	1.2
Total	80		50		42		170	100.0

The URES Subscales

The University Resident Environment Scale measured students' perceptions of their residence hall living environment in the residence halls. The following list gives a short description of the subscales that were explained in Chapter Two:

URES Subscales:

RELATIONSHIP DIMENSION

Involvement is the degree of commitment to the house and residents; the amount of interaction in the house.

Emotional Support is the extent of concern for others in the house with emphasis on open communication.

PERSONAL GROWTH

Independence measures the residents' degree of behavioral diversity without social sanctions.

Traditional Social Orientation stresses the traditional heterosexual interactions.

Competition is the degree of competitiveness that exists in a variety of activities, from dating to classwork.

Academic Achievement relates to the emphasis on strictly academic concerns in the house.

Intellectuality is the emphasis on the cultural and artistic activities, separate from just the classroom work.

SYSTEM CHANGE AND MAINTENANCE

Order and Organization is the amount of formal structure, or rules and regulations in the house.

Student Influence is the perception of non-staff residents concerning the control they may have in the running of the house, structuring of policies, etc.

Innovation looks at the spontaneity of behaviors and ideas, and new ideas. (Moos and Gerst, University Residence Environment Scale Manual, 1974.)

The URES Subscale Mean and Standard Deviation Results

Table 7 shows the mean and standard deviation of each URES Subscale for the study sample. The significant differences are noted in the following section on inferential results. As previously reviewed in Chapter Three, the mean score of a subscale is derived form the number of True/False responses to questions which relate to a specific subscale. The mean score results could range from zero through ten. The range of mean subscale scores is characterized in this study by a low of 3.38 on the Intellectuality subscale and a high of 7.36 on the Order and Organization subscale.

The low intellectuality mean of 3.38 indicates that the sample did not perceive the environment as emphasizing the cultural, artistic aspects of their living environment. They felt that there was not an emphasis on cultural and artistic activities. The Order and Organization mean of 7.36 indicates that the respondents perceived the environment to be structured by formal rules and regulations. In an arbitrary choice of a mean response of 5.00 for the purpose of comparison between groups, the following are subscale responses with a mean score greater than 5.00: Organization and Order, Involvement, Emotional Support, Traditional Social Orientation, and

Student Influences.

Resident assistant responses

Analysis of the resident assistants' mean scores on the URES showed that five subscales were scored 5.00 or higher (Table 8). These subscales were Involvement, Emotional Support, Traditional Social Orientation, Academic Achievement, and Student Influence. The subscale Order and Organization obtained the highest mean, indicating the residents' strong agreement with the questions that related to that concept.

Table 7. URES subscale means and standard deviation by total sample (n = 168) and by sex.

Subscales	Total Sample[a]	S.D.	Male (n=29) Means	S.D.	Female (n=21) Means	S.D.
1 Involvement	6.35	2.75	6.83	2.57	5.88	2.85
2 Emotional Support	5.43	2.96	4.63	2.65	6.20	3.05
3 Independence	3.67	2.22	4.52	2.17	2.83	1.94
4 Traditional Social	5.30	2.18	4.85	2.20	5.73	2.09
5 Competition	3.34	1.48	3.26	2.03	2.93	1.85
6 Academic Achievement	4.98	2.35	4.96	2.20	5.01	2.49
7 Intellectuality	3.38	2.20	3.50	2.26	3.26	2.15
8 Order and Organization	7.36	2.51	6.97	2.49	7.73	2.49
9 Student Influence	5.03	1.62	4.97	1.52	5.09	1.72
10 Innovation	4.43	2.09	4.64	2.06	4.21	2.10

[a]Range of means is 0-10.

When the mean scores were compared by sex, the greatest differences occurred on the Emotional Support and Traditional Social subscales, where female means were higher than male means, and on the Independence and In-

volvement subscales, where male means were higher than female means (Table 12).

Table 8. URES subscale means and standard deviation by Resident Assistants total group (n = 77) and by sex

Subscales	Total Group Means	S.D.	Male (n=41) Means	S.D.	Female (n=39) Means	S.D.
1 Involvement	7.03	2.56	7.39	2.28	6.66	2.81
2 Emotional Support	5.75	2.84	4.56	2.62	7.00	2.54
3 Independence	3.61	2.07	4.41	2.06	2.76	1.73
4 Traditional Social	5.20	1.93	4.73	1.94	5.69	1.82
5 Competition	3.18	2.00	3.60	2.20	2.74	1.69
6 Academic Achievement	5.50	2.12	5.04	2.32	5.97	1.79
7 Intellectuality	3.27	2.10	3.17	3.17	3.38	1.78
8 Order and Organization	7.61	2.37	7.02	2.49	8.23	2.10
9 Student Influence	5.23	1.09	5.09	1.11	5.38	1.06
10 Innovation	4.42	2.60	4.39	2.06	4.46	1.97

Student-athlete responses

The first column in Table 9 lists student-athlete means and standard deviations on the URES by the subscales. The three subscales characterized by means of 5.00 or higher were Involvement, Traditional Social Orientation, and Order and Organization. When the means were compared by sex, the greatest differences were on the Independence and Competition subscale, where men had higher mean scores than women.

Student-athlete means were similar to total sample means and resident assistant means on the following subscales: Order and Organization, Involvement, and Traditional Social Orientation. The subscale mean for Emotional Support, 5.00, was lower for student-athletes than for resident as-

sistants and undergraduates. Comparison of means by group and by sex showed that female students had a higher mean on the Competition subscale than did female resident assistants.

Table 9. URES subscale means and standard deviations by student-athlete total group (n = 50) and by sex (n = 50)

Subscales	Total Group Means	S.D.	Male (n=29) Means	S.D.	Female (n=21) Means	S.D.
1 Involvement	5.22	2.62	5.65	2.49	4.61	2.74
2 Emotional Support	4.92	3.21	4.82	2.87	5.04	3.70
3 Independence	4.16	2.41	4.82	2.25	3.23	2.38
4 Traditional Social	5.84	2.26	5.44	2.18	5.66	2.43
5 Competition	3.66	1.92	4.06	1.79	3.09	1.99
6 Academic Achievement	4.58	2.30	4.93	1.81	4.09	2.99
7 Intellectuality	3.46	2.26	4.00	1.92	2.71	2.53
8 Order and Organization	6.82	2.67	6.48	2.36	7.28	3.03
9 Student Influence	4.86	2.05	4.68	1.85	5.09	2.32
10 Innovation	4.60	2.21	4.96	2.04	4.09	2.38

Undergraduate sample responses

The undergraduate URES mean and standard deviations are shown in Table 10. Mean scores greater than 5.00 for the undergraduate group occurred on the subscales measuring Involvement, Emotional Support, and Order and Organization. The lowest mean score was on Competition.

The undergraduate males had a higher mean score than females on both Involvement and Order and Organization. Females had higher means than males on Emotional Support and Traditional Social Orientation.

In comparing undergraduate means to other groups, the means were highest for Order and Organization, followed by the male resident assistants.

Emotional Support was greater than 5.00 for resident assistants and undergraduates and 4.90 for the student-athletes.

Table 10. URES subscale means and standard deviation by undergraduate total group (n = 42) and by sex

URES Subscales	Total Group Means	S.D.	Male(15) Means	S.D.	Female(27) Means	S.D.
1 Involvement	6.67	2.85	7.60	2.82	5.74	2.69
2 Emotional Support	5.21	2.83	4.46	2.44	5.96	2.94
3 Independence	3.44	2.21	4.26	2.43	2.62	1.88
4 Traditional Social	4.95	2.54	4.06	2.71	5.85	2.24
5 Competition	3.33	2.01	3.00	2.06	3.07	1.98
6 Academic Achievement	4.56	2.56	4.80	2.67	4.33	2.54
7 Intellectuality	3.49	2.35	3.46	2.47	3.51	2.32
8 Order and Organization	7.58	2.53	7.80	2.65	7.37	2.51
9 Student Influence	4.93	1.89	5.20	1.82	4.66	1.94
10 Innovation	4.34	2.13	4.73	2.15	3.96	2.12

Summary of the mean results for the sample

While women earned their highest mean on the Emotional Support subscale (concern for others), the highest male mean occurred in the Relationship dimension on Involvement (the interaction of the people in the living environment).

The Order and Organization subscale held the greatest consensus among the total group sample, while the Independence and Intellectuality subscales were marked by the lowest total group means.

Across the groups sampled, there appears to be agreement that the living environment is very structured, and that the behavior of the residents conforms to the norm in the living environment. The system is also seen as

not emphasizing the cultural and artistic areas outside of the classroom (Table 11).

Table 11. URES subscale means by group

Subscales	Resident Assistants Total Group (n = 77)	Student-Athlete Total Group (n = 50)	Undergraduate Total Group (n = 42)
1 Involvement	7.03	5.22	6.67
2 Emotional Support	5.75	4.92	5.21
3 Independence	3.61	4.16	3.44
4 Traditional Social	5.20	5.84	4.95
5 Competition	3.18	3.66	3.33
6 Academic Achievement	5.50	4.58	4.56
7 Intellectuality	3.27	3.46	3.49
8 Order and Organization	7.61	6.82	7.58
9 Student Influence	5.23	4.86	4.93
10 Innovation	4.42	4.60	4.34

The following pages relate the statistical findings of this study. The relationship of the descriptive results and the inferential statistics will be noted.

Findings Related to the Hypotheses

Response results on the University Residence Environment Scale as analyzed by analysis of variance and the General Linear Model

The following results are based on the statistical analysis of the URES and the independent variables of the study using analysis of variance and the General Linear Model for the level of significance between the variables and the URES subscales. The .05 level of significance was used as the level of rejection for all the hypotheses. Tukey's test of signifi-

(resident assistant, student-athlete, and undergraduates).

URES response by all groups

Hypothesis One - There will be no significant differences in perception of residence hall environment among the groups Resident Assistants, Student-Athletes (by sport), and Undergraduates. This hypothesis was rejected. As shown in Table 12, analysis of variance revealed significant differences at the .05 level or higher for all 11 groups on six of the ten URES subscales. The Tukey test of significance indicated differences between student-athletes and other groups on the Involvement subscale, where the student-athletes responded with a lower mean score ($\bar{x}$ = 4.70) than resident assistants and undergraduates ($\bar{x}$ = 7.00).

Table 12. Total sample F values on the URES subscales (n = 172)

Subscales	df	Sum of Squares	F Value
1 Involvement	10	193.05	2.90**
2 Emotional Support	10	176.18	2.32**
3 Independence	10	63.30	1.52
4 Traditional Social	10	43.99	0.95
5 Competition	10	47.54	7.27
6 Academic Achievement	10	150.03	3.08**
7 Intellectuality	10	98.27	2.14*
8 Order and Organization	10	78.77	1.30
9 Student Influence	10	60.66	2.48**
10 Innovation	10	80.93	1.97*

*p < .05.

**p < .01.

Hypothesis Two - There will be no significant differences between group perceptions of living environment and sex, classification, living complex, race, and size of town. This hypothesis was rejected because the analysis of data, using the General Linear Model, revealed differences in perceptions of the living environment when sex and race were tested.

Greatest significance in relation to the URES subscales occurred with the variable sex. Table 13 shows the results of a general linear model analysis when sex was tested as the independent variable. Significance at the .05 level or greater was found in four of the subscales. The means were compared by sex to note differences: males had higher mean scores than females on Involvement and Independence, while females had greater mean scores for Emotional Support and Traditional Social Orientation (see Table 7). The other independent variables that were to be considered in the study were classification, race, area of residence, and size of hometown. Race was the only variable which showed significant difference at the .05 level.

Analysis of the independent variable race and the URES subscales showed a significant difference on the Independence subscale [$F(1,151) = 8.31$, $p < .004$]. Using the mean score to determine where the difference existed, the black population had a greater mean score ($\bar{x} = 5.10$) than the white population ($\bar{x} = 3.43$) on the Independence subscale. The Competition subscale was significant at the .01 level also at [$F(1,151) = 8.37$, $p < .004$], where the mean score for blacks ($\bar{x} = 4.47$) was again greater than the score of the white population ($\bar{x} = 3.16$). It is important to note that there were 19 black residents and 140 white residents in the sample groups.

Table 13. F-values on the URES subscales by the variable sex

Subscales	df	Sum of Squares	F-value
1 Involvement	1	43.39	6.52*
2 Emotional Support	1	100.73	13.29***
3 Independence	1	70.08	16.85***
4 Traditional Social	1	49.04	10.54***
5 Competition	1	12.60	3.37
6 Academic Achievement	1	1.36	0.28
7 Intellectuality	1	0.45	0.10
8 Order and Organization	1	3.92	0.65
9 Student Influence	1	0.39	0.16
10 Innovation	1	3.17	0.77

*$p < .05$

***$p < .001$

Analysis of the influence of size of town and classification level on the scores on the URES subscales produced no significant differences.

Hypothesis Three stated that there would be no significant differences between individual group perceptions of living environment and sex, classification, living complex, race, and size of hometown. This hypothesis was rejected because there were significant differences in some of the variables for each group.

The greatest significant difference at the .05 level within the resident assistant group occurred with the variable sex on these four subscales: Emotional Support, [$F(1,64) = 9.37$, $p < .003$]; Independence, [$F(1,64) = 11.00$, $p < .001$]; Competition, [$F(1,64) = 7.11$, $p < .009$]; and Academic Achievement, [$F(1,64) = 4.45$, $p < .038$]. In further analysis, men had higher means for the Independence subscale ($\bar{x} = 4.44$) and the Competition subscale ($\bar{x} = 3.63$). The women had greater means on the Emotional

Support subscale ($\bar{x}$ = 7.00) and on the Academic Achievement subscale ($\bar{x}$ = 5.97) (see Table 8).

For the student-athletes, significant differences in URES subscales occurred when the independent variables race and living complex were tested. On the variable race, significant differences were found in three of the URES subscales: Academic Achievement, [$F(1,33) = 5.12$, $p < .003$]; Intellectuality at [$F(1,33) = 13.48$, $p < .000$]; and Innovation [$F(1,33) = 6.12$, $p < .018$]. Black student-athletes (n = 17) had greater means on three URES subscales than did the white respondents (n = 24): Academic Achievement, $\bar{x}$ = 5.47; Intellectuality, $\bar{x}$ = 4.58; and Innovation, $\bar{x}$ = 5.41. The white population had means of $\bar{x}$ = 3.91 for Academic Achievement, $\bar{x}$ = 2.66 for Intellectuality, and $\bar{x}$ = 4.08 for Innovation.

In the ANOVA test, statistically significant F-values on the independent variable Living Complex occurred on the subscales of Competition, [$F(2,46) = 4.35$, $p < .018$] and Student Influence [$F(2,46) = 3.51$, $p < .038$]. The Tukey test for significant differences revealed no significance at the .05 level for Student Influence; however, a difference existed in the means for the living complexes TRA and UDA on the Competition subscale.

Within the undergraduate group (n = 41), significant differences in URES subscales at the .05 level or greater occurred on two independent variables, size of hometown and sex. The Competition subscale was significant [$F(5,30) = 2.88$, $p < .030$] with the Hometown variable. Members from towns of 15,000-30,000 had a mean score of 1.66, while the other hometown sizes had means from 2.00 to 4.66. Males had a mean of 3.60 and females 3.07 on the Competition subscale. Undergraduates were significantly dif-

ferent on the Independence subscale [$(F(1,30) = 4.85, p < .035)$] when tested with the variable Sex. Females had a lower mean score ($\bar{x} = 2.62$) than the males ($\bar{x} = 4.26$) on the Independence subscale. ANOVA revealed no significant difference on the living complex variable.

Intercorrelations among the Subscales of the University Environment

Intercorrelations among the subscales of the URES were tested for significant relationship among the subscales within independent variables group, sex, race, hometown, and classification level. This analysis was examined to determine if intercorrelations among the subscales were similar, regardless of the independent variables tested. The Pearson-correlation analysis was the statistical procedure used. A correlation coefficient of .40 or greater (at .05 level of significance) was used to determine relationship of the URES subscales to the variables.

Gerst and Moos (1972) noted that the highest positive intercorrelation occurred between Emotional Support and Involvement, with those two subscales being significantly related to Intellectuality and Innovation. When the results were compared, the Involvement and Emotional Support subscales that were most likely to correlate according to the research by Gerst and Moos (1972) did indeed correlate in this sample. Intellectuality and Innovation were not significantly related across all variables. In the Appendix, Tables 18 through 27 display the relationships of the subscales by independent variables. The Race variable had the least number of significant intercorrelations among subscales. Freshmen and senior variables had the greatest number of significant intercorrelations between the

subscales.

The Myers-Briggs Type Indicator and the Effect on the University Residence Environment Scale and the Relationship to Membership in the Groups

The following information is based on results of the administration of the Myers-Briggs Type Indicator (Myers, 1962) to the sample population. From the 172 instruments returned, 166 MBTI scores were included in the study. Six incomplete instruments were unusable.

The following information describes the distribution of Myers-Briggs personality types among the sample groups. The MBTI was defined in Chapter 2 as an instrument that measures the preferences which guide an individual's actions in everyday situations.

Isabel Briggs Myers stated that there were four dichotomous dimensions which are a part of the process of making decisions and reacting to the situation at hand. The first dimension is Extroversion-Introversion (E-I), or the preference of dealing with the world using the outer world of people (E), or the inner world of thoughts and ideas (I). The second dimension speaks of the way in which an individual perceives the world. The Sensors (S) view a situation in a realistic way, while the Intuitors (N) use imagination and think of the possibilities. The third dimension addresses the way an individual judges a situation or arrives at a decision. The Thinkers (T) logically or analytically arrive at a conclusion, while the Feelers (F) use personal and interpersonal subjective values to arrive at a conclusion. The fourth dimension of the MBTI is Judging-Perception; it indicates whether the person prefers to use a judging attitude (thinking or feeling) or a perceptive attitude (sensing or intuition) in dealing with

the external world.

Table 14 shows the number of respondents by group for each of the possible preferences.

Table 14. Preference of MBTI types by group (percentages rounded)

	Resident Assistants (n=75)	%	Student-Athletes (n=49)	%	Under-graduates (n=42)	%	Total (n=168)	%
E xtrovert	54	72	26	53	23	55	103	61.3
I ntrovert	21	28	23	47	19	45	43	37.5
S ensing	40	53	38	78	25	60	103	61.3
N Intuiting	35	47	11	22	17	40	63	37.5
T hinking	45	60	32	65	17	45	94	55.9
F feeling	30	40	17	35	23	55	70	41.6
J udging	45	60	28	57	26	62	99	58.9
P erceiving	30	40	21	43	16	38	67	39.8

MBTI type among the resident assistant group

The first MBTI dimension is E-I, the preference for dealing with the world as an extrovert or introvert. Seventy-two percent of the RAs were Extrovert in type, preferring to direct their dominant mental processes toward the external world of people. Twenty-eight percent of the RAs were Introverts, preferring the inner world of concepts and ideas.

Among resident assistants, 53% are Sensors, while 47% are Intuitors in the dimension of perception. Sixty percent are Thinkers and 40 percent are Feelers. Sixty percent of the RAs preferred judging and 40 percent preferred perception in dealing with the external world.

MBTI type among the Student-athlete group

On the Extrovert/Introvert dimension, 53% of the student-athletes preferred to direct their dominant mental process to the external world of

people (E), and 47% preferred to use the inner world of concepts and ideas (I). On the dimension of perception, 78% of the student-athletes preferred Sensing, or the factual realistic way of perceiving the world; 11 student-athletes, or 22%, were inclined to use the intuitive process, or the imaginative way to perceive the world.

Thinking and Feeling refers to whether or not the individual prefers to arrive at decisions by logical analysis or by appreciating personal and interpersonal subjective values. Sixty-five percent of the student-athletes were Thinkers and 35% were Feelers. On the fourth dimension, Judgement, 57% of the student-athletes used the judging attitude of Thinking or Feeling in dealing with the external world. Forty-three percent used a perceptive attitude as the process for dealing with the external world.

MBTI type among the Undergraduate group

In the first dimension, preference of dominant mental process, 55% of the undergraduates preferred the outer world of people, and 45% preferred the inner world of concepts and ideas. On the perception dimension, 60% preferred sensing in a factual realistic way, and 40% preferred the process of perceiving in imaginative possibilities (Intuitive). In the judgement area, 45% of undergraduates preferred to arrive at conclusions in a logical and factual way (Thinking), and 55% preferred Feeling, or appreciating the personal and interpersonal subjective values. On the judgement dimension, 62% of the undergraduates preferred to use a judging attitude, and 38% chose to use a perceptive attitude in dealing with the outer world.

Frequencies of MBTI types

Respondents' MBTI types are shown in Table 15. These sixteen types are combinations of the following eight preferences which are derived from the dichotomies discussed earlier:

E = Extrovert or I = Introvert;

S = Sensing or N = Intuition;

T = Thinking or F = Feeling;

J = Judging or P = Perceiving.

The table shows that the most frequent type is ESTJ (Extroverted, Sensing, Thinking, Judging), followed by ISTJ or the Introverted, Sensing, Thinking, Judging type. The least frequent types were in the IN (Introverted, Intuitive) area of the type table. The ST preference (Sensing, Thinking), which shows a majority of the RA's and student-athletes, is consistent with other studies which indicated ST to be the usual personality type for people in education and physical education (Myers, 1980).

The Myers-Briggs Type Indicator Results Related to the Hypotheses

Hypothesis Four - Personality type will have no significant difference with student perception of living environment. This hypothesis was rejected. Based on results from the one-way analysis of variance procedure, the URES subscales Involvement and Independence showed a significant difference with MBTI types for the total groups of resident assistants, student-athletes, and undergraduates, at the .05 level.

Table 16 shows the analysis of variance results. There is shown to be a significant difference on the URES subscales with the MBTI in the subscales Involvement and Independence significant at the .05 level. The

Table 15. Distribution of MBTI type by group, and characteristics of each type (Myers and McCaully, 1985)

	ISTJ n=17	ISFP n=15	INFJ n=3	INTJ n=4
Resident Assistant	8	5	1	3
Student-Athlete	5	3	1	1
Undergraduate	4	7	1	0
	ISTP n=11	**ISFP n=5**	**INFP n=3**	**INTP n=5**
Resident Assistant	0	0	1	3
Student-Athlete	9	2	1	1
Undergraduate	2	3	1	1
	ESTP n=10	**ESFP n=4**	**ENFP n=19**	**ENTP n=10**
Resident Assistant	6	2	9	9
Student-Athlete	3	1	4	0
Undergraduate	1	1	6	1
	ESTJ n=26	**ESFJ n=15**	**ENFJ n=8**	**ENTJ n=11**
Resident Assistant	12	7	5	4
Student-Athlete	10	5	0	3
Undergraduate	4	3	3	4

Code[a]: I = Depth of Concentration E = Breadth of Interests
S = Reliance on Facts N = Grasp of Possibilities
F = Warmth and Sympathy T = Logic and Analysis
P = Adaptability J = Organization.

[a]See appendix for the code in MBTI table form.

Tukey's test showed the differences between the MBTI types ISTP (Introvert, Sensing, Thinking, Perceiving) and ENFJ (Extrovert, Intuiting, Feeling, Judging). The Tukey test of significance found differences on the Independence subscale, with the mean score for ISTP (5.76) greater than the mean score for ENFJ (1.3).

Table 16. Anova with the MBTI with the URES subscales

Subscales	df	Sum of Squares	F-value
1 Involvement	15	182.74	1.77*
2 Emotional Support	15	142.93	1.09
3 Independence	15	124.85	1.78*
4 Traditional Social	15	54.26	0.78
5 Competition	15	48.67	0.80
6 Academic Achievement	15	76.03	0.89
7 Intellectuality	15	96.46	1.35
8 Order and Organization	15	56.68	0.57
9 Student Influence	15	40.90	1.00
10 Innovation	15	80.83	1.25

*$p < 0.05$.

Chi-square with the Myers-Briggs Type Indicator and the groups of Resident Assistants, Student-Athletes and Undergraduates

Hypothesis Five stated that there would be no significant differences between group membership and personality type as measured by the MBTI.

In an analysis to see if there was significance between group membership and the MBTI type, a chi-square was run. The first analysis was run with the three groups combined, with the results of the chi-square being $\chi^2(30) = 43.784$, $p = 0.050$. After looking over the results of the analysis, and in conjunction with the level of significance, the results in this analysis are presumed to have occurred by chance.

A second analysis was run consolidating the RAs and undergraduates by sex, and the student-athletes separated by male and female. With this combination, there was found to be a relationship between group membership and the MBTI type at $\chi^2(45) = 61.82$, $p = 0.049$. In this analysis, the results are not readily explained. The division of student-athletes by sex could

have resulted in a significant relationship of group membership and MBTI type, but the numbers are so small, the results could also be by chance.

One more chi-square test was run to test relationship between the membership in a group and the MBTI type. This test was done by group and by sex, and yielded no significant difference of the MBTI types to group membership.

Therefore, the null hypothesis that there is no significant difference between group membership and type on the Myers-Briggs Type Indicator was retained.

Summary of Findings

This study attempted to determine if there were relationships among perception of living environment and group membership, sex, ethnic group, classification, living complex, and size of hometown. The other purpose of this study was to assess the relationship between personality type and perception of living environment.

Based on the results of this study, residents' perceptions of their living environment appears to be related to group membership.

Among the independent variables, the greatest differences in perception were by sex and by race. There were also differences in perception by each group, resident assistants, student-athletes, and undergraduates, on the subscales of the URES.

The results of this study indicate that perceptions of living environment are affected by group membership of the residence hall student and that residents who belong to different groups have differing perceptions of the living environment in the residence halls at Iowa State University.

The study also showed that while group mean scores on the URES subscales differed, the scores, as shown in Table 17, moved in the same direction.

When the analysis was carried further to locate differences within each of the groups, significant differences were found at the .05 level when the independent variables were tested with the URES dependent variable. Analysis of resident assistant group scores by sex showed significant differences in four subscales: Emotional Support, Independence, Competition, and Academic Achievement.

For student-athletes, significant differences were found in the variables Race and Living Complex. The subscales with significant differences for Race were Academic Achievement, Intellectuality, and Innovation. For living complex, the subscales with significant differences were Competition and Student Influence.

For the undergraduate group, a significant difference occurred when examining the Competition subscale score by hometown. On the variable Sex, the subscale Independence showed significant differences due to males having a higher mean score than females.

Personality type as measured by the MBTI appears to have no significant relationship to perceptions of the living environment, nor is personality type related to group membership of this sample.

The end results of this study are that the three groups in the sample, resident assistants, student-athletes, and undergraduates, do have different perceptions of the living environment. The variables included in this study, sex, race, hometown, classification level, and living complex, do also appear to have an effect on the perception of the living environment.

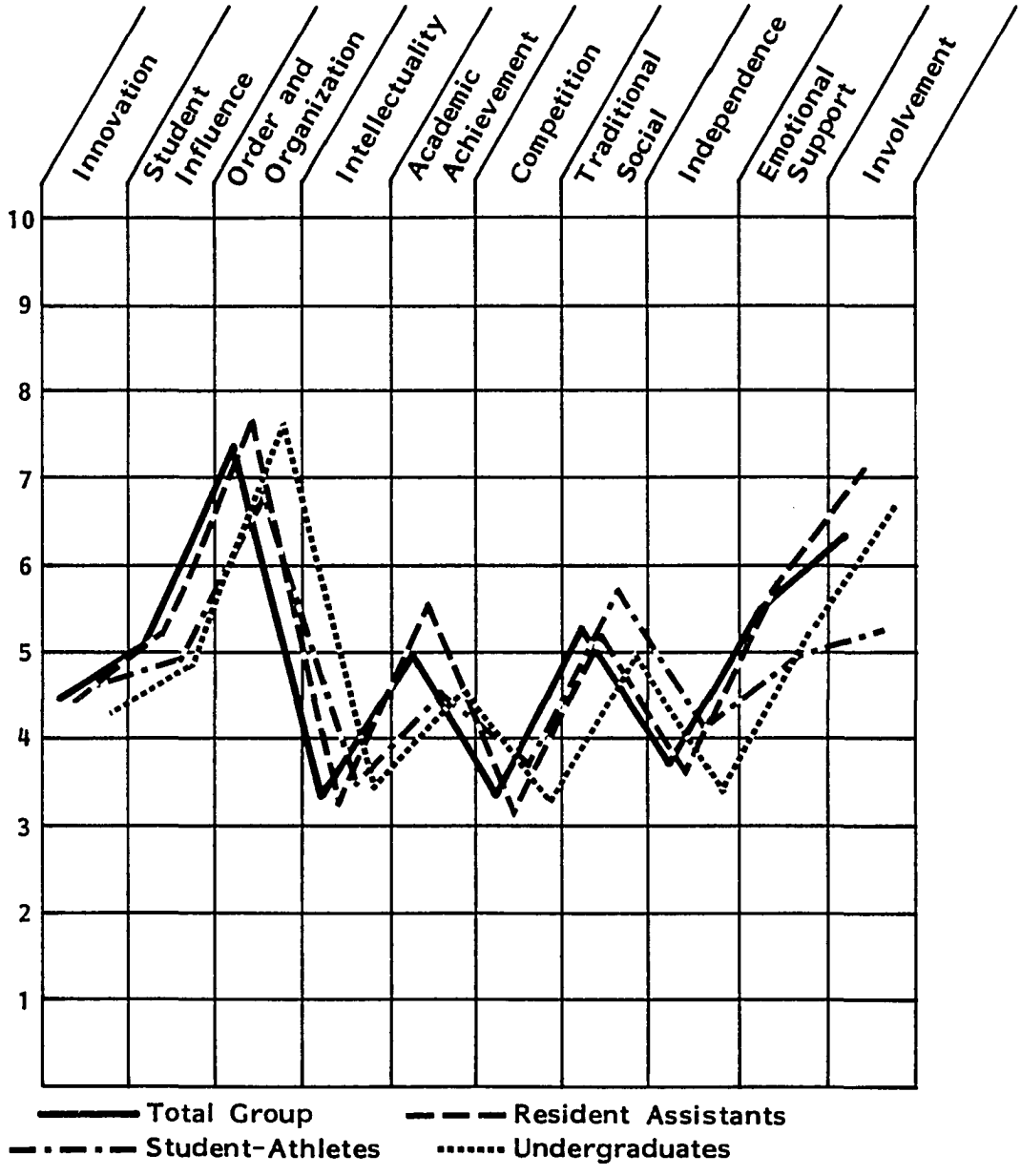

Table 17. Mean scores of resident assistants, student athletes, undergraduates, and by total group

The subscales Independence, Competition, and Intellectuality in the Personal Growth dimension had lower mean scores than did subscales Order and Organization and Student Influence in the System Change and Mainenance Dimension, or Involvement and Emotional Support subscales in the Relationship dimension.

CHAPTER 5--DISCUSSION AND RECOMMENDATIONS

This chapter contains a discussion of the results of the study as well as recommendations for future research. The results of this study support the hypotheses that perceptions of the living environment are affected by the independent variables examined in this research.

The questions to be answered by the study were the following: Was there a relationship between membership in a group and students' scores on the University Residence Environment Scale (URES)? Did the variables sex, race, classification level, living complex, size of hometown, and personality type have any effect on perception of living environment?

The following diagram lists the groups studied, group characteristics, and the URES subscales. One aspect of this study to remember is the potential effect of the confounding factors on the results.

Total Group	Group Characteristics	URES Subscales
Resident Assistants	Sex	Involvement
Student Athletes	Race	Emotional Support
Underclassmen	Classification Level	Independence
	Living Complex	Traditional Social
	Size of Hometown	Competition
	Personality Type	Academic Achievement
		Intellectuality
		Order and Organization
		Student Influence
		Innovation

Findings of the Study

The first finding of the study was that among the total group sampled there were similar perceptions of the living environment. Respondents saw the residence halls as an organized system, characterized by a great deal of structure. The nearly thirty-year-old system at Iowa State undoubtedly contributed to the stability of the system that was perceived as being well-organized. Respondents did not see the system as innovative or providing opportunities for spontaneity of new ideas.

The second finding of this study was that the perceptions of the living environment varied by group, sex, race, classification level, living complex, and size of hometown. Statistically significant differences in perception of the living environment were found on the Involvement subscale. Student-athletes perceived the environment as less supportive of involvement in living environment activities than did resident assistants and undergraduates. As noted in the review of literature, this situation may be related to the tendency for student-athletes to have less time available for day-to-day residence hall activities. In some instances, this situation may be due to a coaching staff which does not encourage student-athletes to participate in activities outside of sports. The resident assistants, on the other hand, have as a part of their job the responsibility to be involved in the house activities. In contrast to student-athletes, the greater involvement of undergraduates in house activities may be due to undergraduates' greater time and desire to become involved in residence hall activities. Furthermore, as supported in the literature (Baird, Hartnett et al., 1980), underclassmen (who make up the majority of

this undergraduate group) become more involved in the day-to-day activities than other groups of residents.

In analyzing residents' perceptions as revealed through the URES, the greatest difference occurred on the variable sex, both in the total group and across groups (resident assistants, student-athletes, and undergraduates). As found in previous research (Moos and Gerst, 1974), men, when contrasted to women, tended to score higher on involvement in house activities. Men also viewed the living environment as competitive and supportive of independence displayed by house members. Women, on the other hand, tended to score higher than the men on emotional support from house members, and perceived the living environment as encouraging the traditional dating and social protocol. These sex differences may be attributed to several factors.

Men may score higher than women due to different group experiences. For example, men may have greater interaction with other men through intramurals and house government activities. Or as Kalsbeek (1980) noted, the obtained sex contrasts may be due to differing interaction with the living environment when women are more concerned with emotional support from house members and men are interested in the socializing with house members.

Sex was also the variable for which there was the greatest difference in perceptions within each group. Male resident assistants more frequently perceived the living environment as competitive and supportive of independence. The women, in contrast to the men, found the environment to be supportive of the relationships among members in a living unit and of academic

pursuits of the house residents. These findings are supported by Moos and Gerst (1974) in their writings.

An examination of undergraduate subgroups also showed differences in perceptions of the living environment by sex. Males noted that they felt more independence in the living environment than did women. This finding could be the result of the structure of living units in which individuals are responsible for themselves. The total group male response was also similar in this study. This could be a result of the students' freedom to make their own choices and decisions in the residence system at Iowa State.

Significant differences in perception of living environment were also found by race. It should be noted that a sample bias existed, however, since 17 out of the 19 minority residents were student-athletes. Considering this limitation, the data show that minority residents, in contrast to the white students, viewed the living environment as allowing greater independence in the actions of residents. The minority residents also perceived a greater level of competition in the living environment than did their majority counterparts. These findings can be explained, but not without the complication of other variables. A majority of the black residents were men, and as previously noted (Moos and Gerst, 1974), men, more often than women, perceive the environment as supportive of independent actions and competition. Most blacks were also student-athletes, which could result in a tendency by the student-athletes, who spend much of their time in a competitive sports environment, to pick up on the competitive aspects of the living environment.

Across-group analysis also yielded differences in perceptions of the

living environment. Among the student-athletes, a comparison of the mean scores by race showed that the black student-athletes differed from whites in their views of the living environment areas of academic achievement, culturally different programs, and the opportunity for introduction of new ideas in the living environment. These findings parallel earlier reported findings according to race. Student-athletes may find the residence environment more open when compared to a sports environment which does not typically encourage individual ideas, thoughts, and actions. Another difference in the student-athlete perceptions of the living environment was noted with regard to the variable living complex. The student-athletes at the Towers Residence Halls perceived the living environment to be more competitive than did the student-athletes in the other two living areas. A factor involved in this outcome could be the result of the majority of the student-athletes in the study being in the sport football. Kalsbeek (1980) noted in his study that there were differences in perception of the living environment by different living units; similarly, there could be differences in perception by groups with similar interests, by different living groups.

No significant differences were found in examining subgroup personality type and group membership. The expectation of the researcher was to find more of one Myers-Briggs (MBTI) personality type in a specific subgroup than in another subgroup. However, statistical findings indicated little or no correlation, although the descriptive results pointed to more of one type than another. For example, in the resident assistant subgroup, 72.0% were extroverts, but in the student-athlete and undergraduate sub-

groups the percentage of extroverts and introverts was more evenly split. This finding is supported by research done by Myers and McCaulley (1985) that concluded that in any population there will be more of one type than another. It should also be noted that in the resident assistant position, the personality style that generally succeeds in both the interview process and on the job is the extrovert type.

Two limitations of this study become obvious in light of the above observations. With the small sample size and the lack of distribution of race across groups, the results may not be a true reading of the types that could make up the subgroups' populations.

There were significant differences between two MBTI types on only one subscale of the URES. The subscale was Competition and the personality types were ISTP (Introvert, Sensing, Thinking, Perceiving) and ENFJ (Extrovert, Intuitive, Feeling, Judging). The ISTP personality type had a greater mean response than did the ENFJ personality type. An individual who is ISTP uses the inner world of concepts, facts rather than intuition, thinking rather than feeling and perception as a method of decision-making. An individual who is ENFJ, or extroverted, prefers to use their mental processes toward the world of people, using intuition rather than facts, feelings rather than thoughts, and judging as a method of decision-making. The findings did not support the research hypothesis that there would be a significant relationship in the area of personality type and the URES subscale scores. The findings of this project are not consistent with results of other studies which indicated a relationship between personality type and perceptions of the living environment.

The confounding factors in this study, as mentioned in previous chapters, do not allow for clear-cut findings, as each group may be affected by the variables sex, race, hometown size, classification level, and living complex. This is not to say that the living environment is not positive, but that each group saw the environment differently than the other. The following recommendations are offered in support of this diverse environment.

Recommendations

This study showed that there are differences in perceptions of the three groups of students who live in the residence halls at Iowa State University. This may be of interest both to those who administer the living areas and to those who provide programming for the residents of the living units.

The following recommendations are made by the researcher with the intent of enhancing the living environment of the residence halls.

1. Mean score of the subscale Order and Organization was the highest score by all three groups in this study. Further research would be helpful to see if this is seen as a positive aspect of the environment. Residents might be asked if they see the rules and regulations structure of the living environment as positive or negative. The strength of the student government system at Iowa State is based on the ability of the governing bodies to work within the rules and regulations to establish procedures for the residents. Residents might be asked in what areas, if any, they would like to see more or less constraints placed upon them by the system?

2. The system is not seen as innovative, nor supportive of culturally

different ideas. This area of programming appears to be one where more support of varying cultural and educational programs is needed. Although the system has for many years supported cultural programs, the full-time staff should place greater emphasis on establishing and supporting educational/cultural programs.

3. In consideration of the differences in perceptions by the resident assistants and undergraduates, the following recommendations are made. Resident assistants may need to be trained to work with the new residents in the living unit who come in with energy and a need to be active with the house members. The resident assistant, on the other hand, may be in the last year of school and not as patient with all the behavior exhibited by new residents. As part of the orientation, the resident assistant should have a greater self-awareness of the behaviors which they are not comfortable with but which take place in the living environment where there are a majority of freshmen and underclass persons. Resident assistants should also be asked during the interview process for the position what concerns they may have working with underclass persons.

4. From the response of the sample, there appeared to be a difference in perception of the living environment by groups of residents who have different perspectives such as sex, race, job, or living area. An effort needs to be made to continue development of a system which supports differences among hall residents, such as the "Minority Support Groups," International Days, and "Support Your Basketball Team" Week. The continued recognition that there are individual differences will underscore the need for innovative programming as well as point out the differences and similari-

ties of the residents who are living together in the same environment.

5. Noted in the literature review of this study is the time that a student-athlete spends at a number of different tasks. As various athletic teams report to campus in the fall, their orientation should be continued and organized so that these students also receive information about residence hall life. When student-athletes are able to meet the staff and students they are to live with, the degree of unfamiliarity for all people involved is lessened. This should support greater communication and understanding among all parties.

6. This study has shown that while there are differences in perceptions of living environment by all three of the groups, there is little evidence that points to the student-athletes' living in a separate area. Continued studies on student-athletes in the residence halls might ask if student-athletes wish to live with others and if there is a philosophical difference between the "athletic" mind and the "residence hall" mind that conflicts with the well-being of the student-athletes in the residence halls. With changes in intercollegiate athletics and the pressure on student-athletes, the outcome of such a study concerning the role of the living environment as it pertains to the well-being of the student-athlete could be very enlightening.

7. Further research could pursue in greater depth the relationship of the MBTI and group membership. Is there a particular Myers-Briggs personality type for resident assistants, student-athletes, and undergraduates? A bigger sample size might reveal more information, which would in turn answer more questions.

8. Further research studies of this nature should include a greater sample size. The greater the number in the study, the stronger the tests and the greater the ability to offer implications.

The campus-specific nature of this study makes it difficult to generalize these findings to another campus. It would be interesting to see if a similar study conducted on another campus would provide like results. If the results were similar, it would provide a powerful tool with which to train the Resident Assistant staff, to introduce the student-athletes to the campus, and to provide undergraduates with the support and direction they need.

Summary

This study gathered information to determine differences in perceptions of living environment among three residence hall groups. The results of the study showed both differences and similarities in perceptions of the living environment in different areas by each of the three groups. Implications of this finding will promote greater understanding of differences in behavior by the group members and may assist staff in forming programs for greater understanding of each group.

BIBLIOGRAPHY

Aber, Glenn W. An assessment of Iowa State University residence hall coed environments. Unpublished Master's thesis. Iowa State University, 1984.

Astin, A. W. Two approaches to measuring students' perceptions of their college environment. Journal of College Student Personnel, 1971, 12(3), 169-172.

Astin, A. Four Critical Years. San Francisco: Jossey-Bass, 1980.

Baird, L. L. Theoretical approaches to college environment. Journal of College Student Personnel, 1978, 19(4), 309-313.

Baird, L. L., Hartnet, R. R., and associates. Understanding Student and Faculty Life. San Francisco: Jossey-Bass, 1980.

Ballou, Roger. Freshmen in college residence halls: a study of freshmen perceptions of residence hall social climates at ten colleges and universities. Journal of College and University Student Housing, summer 1986, 16, (1), 7-12.

Banning, J. H. (ed.). Campus Ecology: A Perspective for Student Affairs. Cincinnati: National Student Personnel Association, 1978.

Borg, Walter R. and Gall, Meredith D. Educational Research: An Introduction. New York: Longmans, Inc., 1979.

Butters, Michael A. and Gade, Eldon. Role satisfaction and leadership behavior of residence hall assistants. Journal of College Student Personnel, 1982, 23, 320-324.

Carlyn, M. An assessment of Myers-Briggs Type Indicator. Journal of Personality Assessment, 1977, 41, 461-473.

Carron, Albert V. Social Psychology of Sport. Ithaca: Movement Publications, 1980.

Chickering, Arthur W. College residences and student development. In Rudolf Moos and Paul Insel (eds.), Issues in Social Ecology-Human Milieu (pp. 429-440). Palo Alto: National Press Books, 1974.

Coan, Richard W. Review of the Myers-Briggs Type Indicator. In Oscar R. Buros (ed.), Buros Mental Measurements Yearbook (pp. 628-631). Highland Park: Gryphon Press, 1968.

Crouse, Roy H. Peer network therapy: An intervention with the social climate of students in residence halls. Journal of College Student Personnel, March 1982, 25, 105-107.

Delworth, Ursula, Hanson, Gary R., and associates. Student Services. San Francisco: Jossey-Bass and Publishers, 1981.

Devito, Anthony J. Review of Myers-Briggs Type Indicator. In James V. Mitchell, Jr. (ed.), Burros Mental Measurements Yearbook (pp. 1030-1032). Lincoln: The University of Nebraska Press, 1985.

Dickson, Gary L. The resident assistant stress inventory. Journal of College Student Personnel, July 1981, 22, 362-367.

Domke, Jane A., Winklepleck, Judy M., and Westefeld, John. Consultation and outreach: Implementation at a university counseling center. Journal of College Student Personnel, November 1983, 24, 545-549.

Fisher, A. Craig. Sports personality assessment: Facts, fallacies, and perspectives. Motor Skills: Theories into Practice, 1977, 1(2), 97-97.

Gerst, Marvin S. and Moos, Rudolf H. The social ecology of university student residences. Journal of Educational Psychology, 1972, 63(6), 513-525.

Guide to Residence Hall Living. Department of Residence, Iowa State University, 1985-1986.

Heilweil, M. The influence of dormitory architecture on resident behavior. Environment and Behavior, 1973, 5, 377-411.

Hirt, Joan, Hoffman, MaryAnn, and Sadlacek, William. Attitudes toward changing sex-roles of male varsity athletes versus nonathletes. Developmental Perspectives, January 1983, 24, 33-38.

Horsfall, J. Stuart, Teshle, A. Craig, and Morris, Harold H. Sports Personality Assessment: A Methodological Re-examination. In Richard Suinn (ed.), Psychology in Sports--Methods and Applications (pp. 163-168). Minneapolis: Burgess Publishing Company, 1980.

Huebner, Lois A. Interaction of Student and Campus. In U. Delworth and Gary R. Hansen and associates (eds.), Student Services. San Francisco: Jossey-Bass, 1981.

Hyne, S. Environmental Assessment Techniques. In L. Aulepp and U. Delworth (eds.), Training Manual for an Ecosystem Model: Assessing and Designing Campus Environments. Boulder, Colorado: Western Interstate Commission for Higher Education, 1976.

ISU Undergraduate Catalog, 1985-1987. Iowa State University, Ames, Iowa.

Kalsbeek, David H. Balancing the challenge/support ratio in residence hall environments: a study of the effects of roommate matching by personality type compared to standard procedures on student perceptions of social climates. Master's thesis, The Ohio State University, 1980.

Kalsbeek, David, Rodgers, Robert, Marshal, Donald, Denny, Donald, and Nichols, Glenn. Balancing challenge and support: a study of degrees of similarity in suitmate personality type and perceived differences in challenge and support in a residence hall environment. Journal of College Student Personnel, September, 1982, 23, 434-440.

Kane, John. Personality: the current controversy and implications for sports studies. In William Straub (ed.), Sports Psychology--An Analysis of Athlete Behavior (pp. 340-352). Ithaca: Movement Publications, 1980.

Kane, John. Sport and personality. Journal of Biosocial Science, 1981, 7, 55-68.

Maltross, Ronald. Student attitudes toward intercollegiate athletes. Journal of College Student Personnel, July 1980, 21, 299-304.

Martens, Rainer. Social Psychological and Physical Activity. New York: Harper and Row, 1975.

McCaulley, M. H. Jung's Theory of Psychologic Types and MBTI. In P. McReynolds (ed.), Advances in Personality Assessment (vol. 5, pp. 294-352). San Francisco: Jossey-Bass, 1981.

Miller, T. K. and Prince, J. The Future of Student Affairs. San Francisco: Jossey-Bass, 1977.

Moore, James. Student perceptions of a learning environment under a quarter system. Unpublished dissertation, Iowa State University, 1982.

Moos, R. H. Evaluating Educational Environments. San Francisco: Jossey-Bass, 1979.

Moos, R. H. and Gerst, M. The University Residence Environment Scale Manual. Palo Alto, CA: Consulting Psychologist Press, 1974.

Moos, Rudolf H. and Insel, Paul M. (eds). Issues in Social Ecology-Human Milieu. Palo Alto: National Press Books, 1974.

Moos, R., Vandort, B., Smail, M., and DeYoung, A. A typology of university student living groups. Journal of Educational Psychology, 1975, 67, 3, 359-367.

Morgan, William. Personality Dynamics and Sports. In Richard Suinn (ed.), Psychology in Sports--Methods and Applications. Minneapolis: Burgess Publishing Company, 1980.

Myers, Isabel Briggs and McCaully, Mary H. Manual: A Guide to the Development and Use of Myers-Briggs Type Indicator. Palo Alto: Consulting Psychologists Press, 1985.

Myers, Isabel Briggs. Gifts Differing. Palo Alto, CA: Consulting Psychologist Press, 1980.

Myers, Isabel Briggs. Type and Teamwork. Gainsville, FL: Center for Application of Psychological Types, Inc. 1962.

Nowack, Kenneth M. and Hanson, Alan L. The relationship between stress, fall performance, and burnout in college student resident assistants. Journal of College Student Personnel, November, 1983, 24, 545-549.

Ott, Lyman. An Introduction to Statistical Methods and Data Analysis. North Scituate, MA: Duxbury Press, 1977.

Pace, C. R. and Stern, G. G. An approach to the measurement of psychological characteristics of college environments. Journal of Educational Psychology, 1958, 49, 269-277.

Rhatigan, James. Point of view: serving two masters; the plight of the college student-athlete. NASPA Journal, Summer, 1984, 20, 42-47.

SAS Introductory Guide--1985. Jane T. Helwig (ed.). Cary, NC: SAS Institute, Inc.

Schenel, George J. and Barbely, James A. Tracing Your Type. Wernersville, PA: Typeprofile Press, 1982.

Schroeder, Charles R. Designing ideal staff environments through milieu management. Journal of College Student Personnel, March 1979, 20, 129-135.

Schroeder, Charles R. The impact of homogeneous housing on environmental perceptions and student development. Journal of College and University Housing Officers, Winter, 1980, 10, 10-15.

Schroeder, Charles R. Student development through environmental management. New Directions for Student Services, 13. San Francisco: Jossey-Bass, 1981.

Schroeder, Charles R., Warner, Roger, and Malone, David R. Effects and assignment to living units by personality types on environmental management. Journal of College Student Personnel, September, 1980, 21, 443-449.

Schurr, K. T., Ruble, V. E., and Nesbit, J. Myers-Briggs Type Inventory Characteristics of more or less successful players on an American football team. Journal of Sport Behavior, 1984, 7(2), 47-57.

Shirberg, Arthur and Brodzinski, Frederick R. (eds.). Rethinking services for college athletes. New Directions for Student Services, 28. San Francisco: Jossey-Bass, 1984.

Sowa, Claudia, and Gressard, Charles F. Athletic participation: Its relationship to student development. Journal of College Student Personnel, May, 1983, 24, 236-239.

SPSSX--User's Guide. SPSS Inc. New York: McGraw-Hill, 1975.

Staff Manual. Department of Residence, Iowa State University, 1985.

Straub, W. F. (ed.). Sports Psychology--An Analysis of Athletic Behavior. Ithaca, New York: Movement Publications, 1980.

Stuart, Debra L. An investigation of the academic performance of student-athletes playing football at Iowa State University. Unpublished Dissertation, Iowa State University, 1983.

Student Athlete Academic Handbook. Iowa State University, Ames, IA, 1983-1984.

Suinn, Richard M. Psychology In Sports Methods and Applications. Minneapolis: Burgess Publishing Company, 1980.

Walsh, W. Bruce. Theories of Person-Environment Interaction: Implication for the College Student. Iowa City: American College Testing Program, 1973.

Winklepleck, Judy and Domke, Jane. Perceived problems and assistance desired by residence hall staff. Journal of Student Personnel, May, 1977, 18, 195-199.

Wittmar, Joe, Bostic, Phillips, Terry, Don, and Waters, Wright. The personal, academic, and career problems of college student athletes. The Personal and Guidance Journal, September, 1981, 60, 52-55.

ACKNOWLEDGEMENTS

To undertake a study such as this, a number of people are involved in support of the researcher. I wish to express my appreciation to the people who assisted me in my efforts on this study.

Thanks go to the Department of Residence staff who supported my studies for several years and allowed the residence halls at Iowa State University to be a part of the research.

Support by the Rise Office Staff and the Statistical Support Lab staff was greatly appreciated by the researcher.

Thanks to the academic advisors in the Athletic Department who assisted in the study.

Special thanks go to the Towers Residence Halls Staff, Diane Van Winkle, and the staff in the Vice President for Student Affairs office for their personal and professional support as I did my writing.

To my committee members, Stan Ahmann, Larry Ebbers, Sharon Mathes, Dan Robinson, and Bob Strahan for their support of the project and of me, as I worked through the project.

The time and effort of such a project has been very trying for the people who are close to me. Unconditional positive regard was greatly needed and they always came through. To Ginny, who always supported me and to my sisters, who always listened, thanks. To my husband Doug, with whom I shared many moments of up and down, and with whom I share this accomplishment, thanks for your love and patience.

To my Mother and Father, who instilled in me the desire to learn and the drive to persevere, I dedicate this effort of research.

APPENDIX

Table 18. Correlation among URES subscales (n = 172)

Subscale	1	2	3	4	5	6	7	8	9	10
1 Involvement	1.00	0.57***	0.00	0.21	0.10	0.35	0.47***	0.54***	0.34	0.39
2 Emotional Support		1.00	-0.22	0.20	-0.09	0.39	0.52***	0.51***	0.31	0.36
3 Independence			1.00	-0.02	0.20	0.02	-0.06	-0.00	0.04	0.29
4 Traditional Social				1.00	0.33	0.16	0.10	0.25	0.31	0.18
5 Competition					1.00	0.03	0.13	0.03	0.15	0.18
6 Academic Achievement						1.00	0.47***	0.47***	0.26	0.16
7 Intellectuality							1.00	0.40***	0.26	0.33
8 Order and Organization								1.00	0.38	0.22
9 Student Influence									1.00	0.31
10 Innovation										1.00

***p < .001.

Table 19. Correlation among URES subscales in RA groups (n = 80)

Subscale	1	2	3	4	5	6	7	8	9	10
1 Involvement	1.00	0.39	-0.16	0.07	-0.08	0.15	0.38**	0.41***	0.15	0.29
2 Emotional Support		1.00	-0.35	0.14	-0.28	0.45***	0.53***	0.43***	0.29	0.36
3 Independence			1.00	-0.18	0.11	-0.17	-0.16	-0.16	-0.08	-0.07
4 Traditional Social				1.00	0.14	0.10	0.02	0.07	0.13	0.11
5 Competition					1.00	-0.18	-0.04	-0.14	-0.08	-0.08
6 Academic Achievement						1.00	0.48***	0.31	0.26	0.10
7 Intellectuality							1.00	0.36	0.13	0.29
8 Order and Organization								1.00	0.12	0.19
9 Student Influence									1.00	0.19
10 Innovation										1.00

**p < .01.

***p < .001.

Table 20. Correlation among URES subscales in student athlete group (n = 50)

Subscale	1	2	3	4	5	6	7	8	9	10
1 Involvement	1.00	7.77**	0.03	0.46**	0.38*	0.47**	0.60**	0.58**	0.34	0.48**
2 Emotional Support		1.00	-0.22	0.26	0.11	0.32	0.53**	0.59**	0.27	0.35
3 Independence			1.00	0.19	0.33	0.17	-0.01	0.04	0.07	0.45**
4 Traditional Social				1.00	0.51**	0.19	0.27	0.45**	0.52**	0.37*
5 Competition					1.00	0.17	0.35	0.20	0.29	0.52**
6 Academic Achievement						1.00	0.62	0.55	0.32	0.33
7 Intellectuality							1.00	0.45**	0.32	0.41**
8 Order and Organization								1.00	0.46**	0.37*
9 Student Influence									1.00	0.38*
10 Innovation										1.00

*p < .05.

**p < .01.

Table 21. Correlations among URES subscales in undergraduate group (n = 42)

Subscale	1	2	3	4	5	6	7	8	9	10
1 Involvement	1.00	0.63***	0.34	0.24	0.29	0.42**	0.59***	0.66***	0.54***	0.51**
2 Emotional Support		1.00	0.03	0.24	0.04	0.34	0.54***	0.51***	0.38	0.42**
3 Independence			1.00	-0.10	0.15	0.16	0.03	0.28	0.16	0.41**
4 Traditional Social				1.00	0.41**	0.25	0.02	0.33	0.25	0.05
5 Competition					1.00	0.29	0.17	0.20	0.29	0.25
6 Academic Achievement						1.00	0.37	0.61***	0.17	0.06
7 Intellectuality							1.00	0.45***	0.37	0.32
8 Order and Organization								1.00	0.56***	0.28
9 Student Influence									1.00	0.41**
10 Innovation										1.00

**p < .01.

***p < .001.

Table 22. Correlation among URES subscales by sex (female) (n = 87)

	1	2	3	4	5	6	7	8	9	10
1 Involvement	1.00	0.74***	-0.13	0.26	-0.00	0.33	0.48**	0.63**	0.32	0.36
2 Emotional Support		1.00	-0.23	0.16	-0.11	0.44***	0.62***	0.62***	0.34	0.39
3 Independence			1.00	-0.07	0.26	-0.11	-0.21	-0.01	0.12	0.28
4 Traditional Social				1.00	0.39	0.11	0.07	0.31	0.34	0.11
5 Competition					1.00	-0.03	-0.06	0.07	0.20	0.24
6 Academic Achievement						1.00	0.45***	0.53***	0.25	0.11
7 Intellectuality							1.00	0.44***	0.30	0.30
8 Order and Organization								1.00	0.40***	0.17
9 Student Influence									1.00	0.33
10 Innovation										1.00

**p < .01.

***p < .001.

Table 23. Correlation among URES subscales by sex (male) (n = 85)

	1	2	3	4	5	6	7	8	9	10
1 Involvement	1.00	0.54**	-0.00	0.24	0.16	0.39	0.46**	0.53**	0.40**	0.41**
2 Emotional Support		1.00	-0.04	0.15	0.03	0.35	0.49**	0.35	0.27	0.42**
3 Independence			1.00	0.17	0.02	0.18	0.01	0.12	0.00	0.26
4 Traditional Social				1.00	0.38	0.22	0.15	0.15	0.29	0.30
5 Competition					1.00	0.11	0.28	0.05	0.12	0.09
6 Academic Achievement						1.00	0.50**	0.41**	0.28	0.21
7 Intellectuality							1.00	0.39	0.22	0.37
8 Order and Organization								1.00	0.36	0.31
9 Student Influence									1.00	0.29
10 Innovation										1.00

**p < .01.

Table 24. Correlation among the subscales in Freshmen classification (n = 32)

	1	2	3	4	5	6	7	8	9	10
1 Involvement	1.00	0.62***	0.19	0.22	0.08	0.57***	0.61***	0.76***	0.48**	0.32
2 Emotional Support		1.00	-0.18	0.19	-0.19	0.46**	0.54***	0.67***	0.30	0.22
3 Independence			1.00	0.12	0.35	0.12	0.08	0.13	0.32	0.42*
4 Traditional Social				1.00	0.52	0.17	0.16	0.31	0.46**	0.17
5 Competition					1.00	0.07	0.16	0.12	0.33	0.39
6 Academic Achievement						1.00	0.70***	0.63***	0.35	0.24
7 Intellectuality							1.00	0.59***	0.55**	0.31
8 Order and Organization								1.00	0.49**	0.33
9 Student Influence									1.00	0.42*
10 Innovation										1.00

Table 25. Correlation among the subscales in Senior classification (n = 57)

	1	2	3	4	5	6	7	8	9	10
1 Involvement	1.00	0.51***	0.08	0.16	-0.00	0.18	0.33	0.38	0.26	0.34
2 Emotional Support		1.00	-0.12	0.17	-0.13	0.40	0.46	0.47	0.26	0.36
3 Independence			1.00	-0.12	0.05	-0.03	-0.09	-0.06	0.10	0.22
4 Traditional Social				1.00	0.28	0.06	0.05	0.18	0.26	0.24
5 Competition					1.00	-0.05	0.01	-0.02	0.12	-0.02
6 Academic Achievement						1.00	0.36	0.46***	0.24	-0.12
7 Intellectuality							1.00	0.38	0.17	0.21
8 Order and Organization								1.00	0.28	0.12
9 Student Influence									1.00	0.30
10 Innovation										1.00

Table 26. Correlation among URES subscales in ethnic group black (n = 20)

	1	2	3	4	5	6	7	8	9	10
1 Involvement	1.00	0.52**	-0.36	0.44**	0.16	0.14	0.30	0.30	0.20	0.05
2 Emotional Support		1.00	-0.28	0.00	-0.03	-0.06	0.43**	0.41	-0.04	0.32
3 Independence			1.00	0.01	-0.12	-0.08	-0.41	-0.37	-0.45	-0.15
4 Traditional Social				1.00	0.25	-0.27	-0.08	0.12	0.36	0.13
5 Competition					1.00	-0.12	0.18	0.06	-0.09	0.11
6 Academic Achievement						1.00	-0.05	0.27	-0.09	-0.18
7 Intellectuality							1.00	0.18	0.26	0.11
8 Order and Organization								1.00	0.00	-0.05
9 Student Influence									1.00	0.07
10 Innovation										1.00

**p < .01.

***p < .001.

Table 27. Correlation among URES subscales in ethnic group white (n = 148)

	1	2	3	4	5	6	7	8	9	10
1 Involvement	1.00	0.56***	0.01	0.18	0.08	0.34	0.50***	0.53***	0.37	0.40**
2 Emotional Support		1.00	-0.24	0.22	-0.12	0.41***	0.55***	0.51***	0.35	0.36
3 Independence			1.00	-0.05	0.16	-0.01	-0.10	0.60	0.10	0.28
4 Traditional Social				1.00	0.32	0.18	0.11	0.24	0.30	0.17
5 Competition					1.00	0.00	0.07	-0.00	0.17	0.13
6 Academic Achievement						1.00	0.48***	0.47***	0.30	0.13
7 Intellectuality							1.00	0.42***	0.28	0.31
8 Order and Organization								1.00	0.42***	0.21
9 Student Influence									1.00	0.35
10 Innovation										1.00

**p < .01.

***p < .001.

CONTRIBUTION MADE BY EACH PREFERENCE TO EACH TYPE

	SENSING TYPES WITH THINKING	SENSING TYPES WITH FEELING	INTUITIVE TYPES WITH FEELING	INTUITIVE TYPES WITH THINKING
INTROVERTS JUDGING TYPES	**ISTJ** **I** Depth of concentration **S** Reliance on facts **T** Logic and analysis **J** Organization	**ISFJ** **I** Depth of concentration **S** Reliance on facts **F** Warmth and sympathy **J** Organization	**INFJ** **I** Depth of concentration **N** Grasp of possibilities **F** Warmth and sympathy **J** Organization	**INTJ** **I** Depth of concentration **N** Grasp of possibilities **T** Logic and analysis **J** Organization
INTROVERTS PERCEPTIVE TYPES	**ISTP** **I** Depth of concentration **S** Reliance on facts **T** Logic and analysis **P** Adaptability	**ISFP** **I** Depth of concentration **S** Reliance on facts **F** Warmth and sympathy **P** Adaptability	**INFP** **I** Depth of concentration **N** Grasp of possibilities **F** Warmth and sympathy **P** Adaptability	**INTP** **I** Depth of concentration **N** Grasp of possibilities **T** Logic and analysis **P** Adaptability
EXTRAVERTS PERCEPTIVE TYPES	**ESTP** **E** Breadth of interests **S** Reliance on facts **T** Logic and analysis **P** Adaptability	**ESFP** **E** Breadth of interests **S** Reliance on facts **F** Warmth and sympathy **P** Adaptability	**ENFP** **E** Breadth of interests **N** Grasp of possibilities **F** Warmth and sympathy **P** Adaptability	**ENTP** **E** Breadth of interests **N** Grasp of possibilities **T** Logic and analysis **P** Adaptability
EXTRAVERTS JUDGING TYPES	**ESTJ** **E** Breadth of interests **S** Reliance on facts **T** Logic and analysis **J** Organization	**ESFJ** **E** Breadth of interests **S** Reliance on facts **F** Warmth and sympathy **J** Organization	**ENFJ** **E** Breadth of interests **N** Grasp of possibilities **F** Warmth and sympathy **J** Organization	**ENTJ** **E** Breadth of interests **N** Grasp of possibilities **T** Logic and analysis **J** Organization

This table was designed to outline the concepts of Jung's theory of psychological types. Each type has its own unique combination of the four preferences. Each type also shares preferences in common with other types.

Published by Center for Applications of Psychological Type, P.O. Box 13807, University Station, Gainesville, FL 32604.

April 22, 1985

Dear Resident Assistant,

We are conducting a survey of your perceptions of your living environment as an RA in the Residence Halls at Iowa State University.

Your response on the survey will be kept confidential in the study. The Department of Residence will be using some of the information in the survey to assist in programming efforts to continue to provide a positive experience for you in the Residence Halls.

The data collected from the surveys will be used to assist in greater understanding of the living environment as perceived by you as an RA, and to establish and maintain a living environment conducive to your stay in the Residence Halls.

You were selected for this study because of your role as an RA.

We are interested in your responses and appreciate your time taken to complete the survey.

Please return the survey to your Hall Advisor by May 1.

Thank You.

Sincerely,

Dan Robinson
Dr. Dan Robinson

Larry Ebbers
Dr. Larry Ebbers

Ann C. Farni
Ann Coppernoll Farni

Please respond to the following information in the spaces provided in the answer sheet.
Thank you.

Name
Sex (M/F)
Grade:
13 Freshman
14 Sophomore
15 Junior
16 Seniors
1 Other
Birthdate
Identification Number
Special Codes as follows:

K : Ethnic Group
1 Black American
2 Caucasian (white)
3 Asian American
4 American Indian
5 Hispanic American
6 Other

L and M : Place of Residence (Hall)
01 Barton-Lyon-Freeman
02 Birch-Welch-Roberts
03 Oak-Elm
04 Linden
05 Maple
06 Willow
07 Larch
08 Fisher-Nickell
11 Wallace
12 Wilson
13 Knapp
14 Storms
21 North Friley
22 South Firley
23 Westgate
24 North Helser
25 South Helser

N : Hometown Population
1 100-5,000
2 5,000-15,000
3 15,000-30,000
4 30,000-60,000
5 60,000-100,000
6 100,000-greater

O : Mark 0 for Resident Assistant

April 22, 1985

Dear Student-Athlete,

We are conducting a survey of your perceptions of your living environment as a student-athlete in the Residence Halls at Iowa State University. We are also gathering information on personality types by giving you a personality indicator.

Your responses on the surveys will be kept confidential in the study. The Athletic Department may use some of the information from the surveys to assist in programming efforts to continue to provide a positive experience for you as a student-athlete living in the Residence Halls at Iowa State.

The data collected from these two surveys will be used to assist in greater understanding of student-athletes who live in the residence halls, and to establish and maintain a living environment conducive to the student-athletes' stay in the residence halls.

You were selected for this study because as a student-athlete you live in the residence halls.

We are interested in you responses and appreciate your time taken to complete these surveys.

Please return these surveys to your coach by May 1.

Thank You.

Sincerely,

Dan Robinson
Dr. Dan Robinson

Larry Ebbers
Dr. Larry Ebbers

Ann C. Farni
Ann Coppernoll Farni

Please respond to the following information in the spaces provided in the answer sheet.

Thank you.

Name
Sex (M/F)
Grade:
13 Freshman
14 Sophomore
15 Junior
16 Seniors
17 Other
Birthdate
Identification Number

Special Codes as follows:

K : Ethnic Group
1 Black American
2 Caucasian (white)
3 Asian American
4 American Indian
5 Hispanic American
6 Other

L and M : Place of Residence
01 Barton-Lyon-Freeman
02 Birch-Welch-Roberts
03 Oak-Elm
04 Linden
05 Maple
06 Willow
07 Larch
08 Fisher-Nickell
11 Wallace
12 Wilson
13 Knapp
14 Storms
21 North Friley
22 South Firley
23 Westgate
24 North Helser
25 South Helser

(Special Codes continued)
N : Hometown Population
1 100-5,000
2 5,000-15,000
3 15,000-30,000
4 30,000-60,000
5 60,000-100,000
6 100,000-greater

Primary Sport you participate in
O : Men
1 Baseball
2 Basketball
3 Football
4 Tennis
5 Golf
6 Wrestling
7 Gymnastics
8 Track
9 Swimming

P : Women
1 Softball
2 Basketball
3 Tennis
4 Golf
5 Gymnastics
6 Track
7 Volleyball
8 Swimming

June 27, 1985

Dear Student-Athlete,

We are conducting a survey of your perceptions of your living environment as a student-athlete in the Residence Halls at Iowa State University. We are also gathering information on personality types by giving you a personality indicator.

Your responses on the surveys will be kept confidential in the study. The Athletic Department may use some of the information from the surveys to assist in programming efforts to continue to provide a positive experience for you as a student-athlete living in the Residence Halls at Iowa State.

The data collected from these two surveys will be used to assist in greater understanding of student-athletes who live in the residence halls, and to establish and maintain a living environment conducive to the student-athletes' stay in the residence halls.

You were selected for this study because as a student-athlete you have lived in the residence halls.

We are interested in you responses and appreciate your time taken to complete these surveys.

Please return these surveys to Coach Wilson or Pat (Rebecca Millers' secretary) by Friday July 12 at 4 p.m..

Thank You.

Sincerely,

Dr. Dan Robinson

Dr. Larry Ebbers

Ann Coppernoll Farni

April 22, 1985

Dear Resident,

We are conducting a survey of your perceptions of your living environment in the residence halls at Iowa State University. We are also gathering information on personality types by giving you a personality inventory.

Your reponses on these surveys will be kept confidential in the study. The Department of Residence will be using some of the information from the surveys to assist in programming efforts to continue to provide a positive experience for you in the residence halls.

The data collected from these two surveys will be used to assist in greater understanding of the living environment as perceived by you as a resident in the halls, and maintain a living environment conducive to your stay in the residence halls.

You were selected at random as a resident in the hall you live in at this time.

We are interested in your responses and appreciate your time taken to complete these surveys.

Please return the surveys to your Complex Office by May 1.

Thank you.

Sincerely,

Dan Robinson

Dr. Dan Robinson

Larry Ebbers

Dr. Larry Ebbers

Ann C. Farni

Ann Coppernoll Farni

Please respond to the following information in the spaces provided in the answer sheet.
Thank you.

Name
Sex (M/F)
Grade:
13 Freshman
14 Sophomore
15 Junior
16 Seniors
1 Other
Birthdate
Identification Number
Special Codes as follows:

K : Ethnic Group
1 Black American
2 Caucasian (white)
3 Asian American
4 American Indian
5 Hispanic American
6 Other

L and M : Place of Residence (Hall)
01 Barton-Lyon-Freeman
02 Birch-Welch-Roberts
03 Oak-Elm
04 Linden
05 Maple
06 Willow
07 Larch
08 Fisher-Nickell
11 Wallace
12 Wilson
13 Knapp
14 Storms
21 North Friley
22 South Firley
23 Westgate
24 North Helser
25 South Helser

N : Hometown Population
1 100-5,000
2 5,000-15,000
3 15,000-30,000
4 30,000-60,000
5 60,000-100,000
6 100,000-greater

TO:

A reminder to return

the survey
you
received this past week
concerning your perceptions of your

Residence Hall Living Environment.

Please take the time to

complete the survey.

If you can not, please return

the packet anyway.

Thank you for your time

You can return to the Complex Office -
or to your RA at the time of check out.

Please return the packet in the envelope provided, even if you do not fill out the surveys.

We appreciate your time to fill out the surveys.

THANK YOU.