



A study of personal orientation factors in the selection of a coeducational residence hall at Montana State University  
by Ronald Jay Silvers

A thesis submitted in partial fulfillment of the requirements for the degree of DOCTOR OF EDUCATION  
Montana State University  
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**Abstract:**

The purpose of this study was to see if there is a significant difference between those students who chose to live in coed residence halls and those who chose a traditional residence hall. The two groups were compared on personality factors as measured by the Personal Orientation Inventory (P.O.I.) and by an analysis of selected biographical data.

The subjects included 361 students from both coeducational and single sex dormitories.

An analysis of variance, factor analysis and discriminant function analysis were used to test significance at the .05 level.

The analysis of variance was used as a test for resident group differences.

Factor analysis provided a more thorough analysis of interrelationships which gave a basis for data reduction.

Discriminant function analysis provided a check on the analysis of variance results plus more detailed information on the predictive value of the P.O.I. and biographical items.

Significance was found for the following: the higher the class the more chance of choosing a coed dorm; students favored alternating male/female rooms, and students who have less formal religious training prefer coed dorms.

From this investigation it appears that personality factors are not determinant of resident hall choice.

It is not so important a fact that one was born, where he was born, where he was brought up and what school he attended; what is important is what does he do once he gets here!

To try and understand, to strive, to doubt, to be, seems far more important.

To have passed this way, to have experienced the positives and the negatives of this institution have further solidified certain beliefs and changed others.

If the aim of the doctoral program is to finally establish in the mind of the student a doubt as to what he knows - it has succeeded!

A STUDY OF PERSONAL ORIENTATION FACTORS IN THE SELECTION OF A  
COEDUCATIONAL RESIDENCE HALL AT MONTANA STATE UNIVERSITY

by

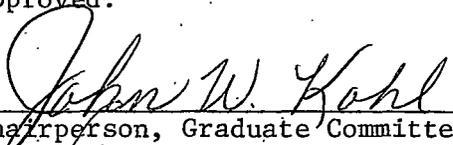
RONALD JAY SILVERS

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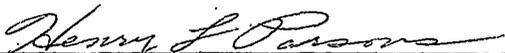
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For the Trust,

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ABSTRACT

The purpose of this study was to see if there is a significant difference between those students who chose to live in coed residence halls and those who chose a traditional residence hall. The two groups were compared on personality factors as measured by the Personal Orientation Inventory (P.O.I.) and by an analysis of selected biographical data.

The subjects included 361 students from both coeducational and single sex dormitories.

An analysis of variance, factor analysis and discriminant function analysis were used to test significance at the .05 level.

The analysis of variance was used as a test for resident group differences.

Factor analysis provided a more thorough analysis of interrelationships which gave a basis for data reduction.

Discriminant function analysis provided a check on the analysis of variance results plus more detailed information on the predictive value of the P.O.I. and biographical items.

Significance was found for the following: the higher the class the more chance of choosing a coed dorm; students favored alternating male/female rooms, and students who have less formal religious training prefer coed dorms.

From this investigation it appears that personality factors are not determinant of resident hall choice.

## Chapter 1

### INTRODUCTION

In recent years (Barker and Wright, 1951; Barker and Gump, 1964), there has evolved a psychology which studies the relationship between man and his environment called ecological psychology. Out of this have come systematic descriptions of man's social environment or a behavioral environment.

The college environment has been examined extensively; research by Sommer (1968) and Titus (1972) has looked into the various designs of college buildings and how these designs might effect scholastic achievement. As Brown (1973) relates:

The general consensus of these investigators, Pace (1966), Austin (1968), Evans (1970), was that each college has a unique campus environment and that the environment remains fully consistent over a period of years.

If these authors are correct the addition of Smail's (1974) University Residence Environment Scale (URES) will be most helpful in evaluating the environs of any type of residence in a school of higher education.

It is axiomatic that a universities' role is the development of a "total person", the very existence of a Student Personnel Office on Campus lends itself to this idea.

College youth, says Sanford (1969) ". . . is given a chance to repair (the) ravages. . . childhood (has) visited upon him. He can escape the image of himself that he formed when a child, he can

find a new way of relating to authority figures. . . "

Students "bring" their values to the college campus. Young people want to be people in their own right, not an extension of parents or various institutions. For most students in this period of life, it would seem that reality is changeable and that permanency is almost non-existent. The "loss" of parental contact is real, certainly more real than the psychological connection that is still present. The cycle of self as the center is given over to more mature relationships; a more reasoned approach to life is gained through deliberate re-evaluations of attitudes and values they, the students carry. Not only the fact that students leave home, but as was found in Pugh and Chamberlain's (1976) study as students grow, mature and become upperclassmen, they will tend to live off campus.

As part of the student's growing they will look at religion in general and their own religion in particular. Seemingly abstractions are in the foreground and one aim of students at this time is to peel away that which they see as "life" at that moment (Keniston, 1965 and 1968).

If the college accepts the task of helping its students to develop the "whole self", then all the college's resources which include policies and actions should be directed to this endeavor. Since other facets of university life have been studied such as the grades one gets and his residence hall living (Brown, 1973) yet

another avenue of study would be the characteristics of students that choose to live in a particular type residence hall.

#### STATEMENT OF THE PROBLEM

The purpose of this study was to see if there is a significant difference between those students who chose to live in a coed residence hall and those who chose a traditional residence hall. The two groups were compared on personality factors as measured by the Personal Orientation Inventory (P.O.I.) and by an analysis of selected biographical data.

#### NEED FOR THE STUDY

There is a need on the campus of Montana State University (MSU) for administrators to determine what effect home environment might have on residence hall selection. Administratively, also, what does satisfy student needs in the way of residence halls; will a particular student choose a certain resident hall because he has a certain maturity and socialization already? Is there a significant difference between individual needs when it comes to a question of housing and personality factors?

The concept of coeducational living on the Montana State University campus presents a new way of housing students for the institution. In this paper, the assumption is made that the decision

to live in university-operated residence halls, at home, or off campus is representative of a choice by parent and/or student. Furthermore the choice mirrors reality factors such as religion, family norms, self-esteem, and the various stages of complexity-simplicity preferences of the student.

On a tertiary level, birth order seems to have some effect on self-esteem (Eisenman, 1970), as well as does the sex of the individual. Typically, there are birth order and sex differences found in the area of complexity-simplicity preferences, but the analysis of sex or birth order singly, rather than in combination, would give one the erroneous impression that neither variable had any effect on self-esteem.

Religion as well as religious beliefs may be important. If the religion, by definition, is liberal and one lives in a large center of 50,000 people or more, then it would seem the chances of choosing a coeducational hall would be greater (Keen, 1976) than if the student came from an area of less than 30,000 people.

A questionnaire consisting of various integrative statements was used to get at such things as religion, place of birth, place raised etc. . . (Appendix C p. 81).

### Hypotheses to be Tested

This study was conducted to test the following hypotheses:

1.  $H_{0a}$  - There is no significant difference between coeducational residence hall students mean scores on the Personal Orientation

Inventory and single-sex resident hall students' mean scores on the Personal Orientation Inventory on any of the 12 subscales of the test.

2.  $H_{0b}$  - There is no significant difference between the scores on the Nature of Man (Nc), Self-Actualized (SAV), and Synergetic (Sy) scales of the Personal Orientation Inventory and what type of resident hall the student selects and selected biographical data.

3.  $H_{0c}$  - There is no significant difference between the categories designating where a student grew up and selection of either a coeducational or single-sex resident hall.

4.  $H_{0d}$  - There is no significant difference between the scores on the Capacity for Intimate Contact (C), Self-Acceptance (Sa), and Existentiality (Ex) scales of the Personal Orientation Inventory and what type of resident hall the student chooses and selected biographical data.

5.  $H_{0e}$  - A student's religious preference makes no significant difference in resident hall selection.

#### General Questions to be Answered

1. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question whether parents are living?

2. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of

whether the student had sex education in high school.

3. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the student is satisfied with the dorm supervisor as that person is now functioning?

4. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the dorm could function better if the supervising staff were an elected body?

5. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the student would like to see both sexes living in alternating rooms on the same floor?

6. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the student is in favor of communal toilet facilities.

7. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the student comes from a broken home?

8. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the student grew up in Montana?

9. Is there a significant difference between coeducational

dorm selection and single-sex dorm selection on the question of in what city in Montana did the student grow up?

10. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of what state other than Montana did the student come from?

11. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of what city as defined outside of Montana did the student grow up.

12. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of how many brothers in the family?

13. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of how many sisters in the family?

14. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of what birth order the student was in the family?

15. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of what religious preference the student has?

16. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether a student is a freshman, sophomore, junior, senior or graduate student?

### General Procedures

To accomplish the stated objectives, a random sampling was used to obtain a sample of 400 subjects. The 400 students were selected from 2545 students in the eight resident halls at Montana State University.

An analysis of variance, factor analysis and discriminant function analysis were used. The level of significance was set at .05.

### Definition of Terms

The following terms as defined are used in this study:

Acceptance of Aggression. Measures ability to accept one's natural aggressiveness as opposed to defensiveness, denial, and repression of aggression. (Shostrom, 1966)

Capacity for Intimate Contact. Measures ability to develop close, meaningful, interpersonal relationships with other human beings, unencumbered by expectations and obligations. (Shostrom, 1966).

City. An area having some of the elements of a community as defined by Sanders (1953: 86-89) and a population of 10,000 to 50,000.

Coeducational Resident Halls. Housing arrangement in which men and women live together in a common or single physical facility that still provides ample opportunity for personal privacy needed as considered important by males and females.

Existentiality. Measures ability to situationally or exis-

tentially react without rigid adherence to principles. (Shostrom, 1966).

Feeling Reactivity. Having the capacity to measure sensitivity of responsiveness to one's own needs and feelings is a person with this type of feeling. (Shostrom, 1966).

Large City. An area having some of the elements of a community and having a population of 50,000 to 1,000,000 people is a large city (Sanders, 1953).

Inner Directed. Measures the feelings or attitudes of personal freedom or independence and external direction based upon inner motivations rather than upon external expectations and influences is a person that is inner directed (Shostrom, 1966).

Metropolitan Area. A geographic location having some of the elements of a community and a population over 1,000,000 people (Sanders, 1953).

Nature of Man. A concept where an individual can resolve the goodness-evil, masculine-feminine, etc., dichotomies in the world (Shostrom, 1966).

Rural. An area having some of the elements of a community and a population of less than 1,000 people is a rural area (Sanders, 1953).

Self-Acceptance. Being able to accept one's self in spite of one's weaknesses or deficiencies is self-accepting (Shostrom, 1966).

Self-Actualizing Value. Self-actualizing value enables a

person to utilize his talents and capabilities more fully, lives in the present, functions relatively autonomously, and tends to have a more benevolent outlook on life and on human nature (Shostrum, 1966).

Self Regard. How one measures the ability to like one's self because of one's strength as a person is considered having self regard.

Small City. A geographical area having some of the elements of a community and a population between 2,500 and 10,000 people is a small city (Sanders, 1953).

Spontaneity. Having the freedom to react without hesitation or to be oneself is classified as having spontaneity (Shostrum, 1966).

Synergy. One who sees opposites of life as meaningfully related is one who is synergetic (Shostrum, 1966).

Time Competent. This person has the ability to tie the past and the future to the present in a meaningful way (Shostrum, 1966).

#### SUMMARY

During the past twenty years, there has developed a particular caring environment on university campuses. As a result of this, some administrators have started to look at student characteristics for direction on how to attend to their needs, as a consequence some institutions of higher education have established dormitories which house both male and female students. Montana State University started its "sandwich" type coeducational living in the fall of 1973.

## Chapter 2

### REVIEW OF SELECTED LITERATURE

The purpose of this chapter is to review literature related to the problem of the study. The chapter is organized in two categories: the first category is literature related to descriptive characteristics of the population i.e. birth order, self-esteem, and family size as they relate to personality variables; the second category is a review of recent developments in coeducational resident living on various campuses of higher education.

#### Descriptive Characteristics of the Population

Much of current research in the birth order phenomenon is traceable to Schacter's (1959) finding in explaining that first-born's children show greater affiliative tendencies under stress. He explains that first-borns suffer anxiety and loss of self-esteem engendered by the arrival of the second child. Thus, first-borns seek various kinds of attention and support from others in social interaction.

Studies concerning birth order have, at times, been somewhat inconclusive or even conflicting. However, there does seem to be general agreement on several personality differences between first- and second-born children. First-born children are generally more sensitive, conscientious, adult-oriented, "good," serious, fearful, and studious. On the other hand, second-born children are more

cheerful, placid, easy-going, emotional, and nonstudious (McArthur, 1956). Sampson (1962) found that first-born children place higher on achievement. He also found social influence will enter into the life of a first-born male more readily; also, that first-born children are more affiliative under anxiety and more suggestible.

Smith (1964) found there may be some relationship between first and second born children and parental attitudes and differential acceptance. Believing that a strong personality determinant is whether parents accept the child or not, Smith conveyed the idea that parents generally are less warm and understanding of first born. This seems to imply that a discrepancy in acceptance may cause personality differences. Parents' inexperience in child rearing seems also to lead to expecting too much or too little from the first born. Smith further relates that first-born children are more restricted and coerced. Thus, first-born children seem to be adult oriented, whereas second-born children are more peer oriented.

Larsen and Schwendeman (1970) found that first-born children often register high on absolute obedience scales, since first-born children are often accessible to a punitive environment and punitive child rearing practices are thought fundamental in the genesis of authoritarianism.

Karl Konig, in his text Brothers and Sisters (1963), stated that there is a definite relationship between personality and birth

order. He asserts that there are four basic peer positions: only child, first born, second born, and third born. He also related that these positions repeat themselves in a triadic pattern for successive siblings (i.e., fourth = first, fifth = second, etc.). In his findings, the third born is delineated as overly sensitive, withdrawn, reflective, and often feels lonely. The only child is a combination of first- and third-born personality traits.

In a study of sixty-four children from large families, Bossard and Ball (1955) list eight personality types. Their research corroborates Konig's birth-order theory.

Studies by Coopersmith (1967), Rosenberg (1965) and Platt, Moskalski, and Eisenman (1968) have offered that first born or only child subjects may tend to have higher self-esteem than later born subjects. Of interest in these studies is that if self-esteem scores were analyzed by sex alone or by birth order alone, negative results would have appeared. But, it seems that the combination of being both female and a later born child leads to low self-esteem, at least as measured by the discrepancy between the real self and ideal self measures utilized in these studies.

To the researcher, the results of these findings are somewhat surprising; one might have anticipated that the first born would have fairly high self-esteem, but any advantage that first-born subjects have in the Coopersmith, Rosenberg, and Platt studies as

regards self-esteem is not so much due to their high self-esteem as it is based on the relatively low self-esteem of the later born females. Perhaps the combination of being both female and later born is particularly conducive to low self-esteem.

Numerous studies using various self-esteem measures have reported findings consistent with expectations. However, there are some questions to be kept in mind about any attempt to measure self-esteem (Dreger, 1962). It was found in various other research (Dreger, 1962; Block and Thomas, 1955; and Chodorkoff, 1954) that the relationship between self-esteem and adjustment appears to be bounded by curved lines rather than straight lines. High self-satisfaction may represent defensiveness rather than true satisfaction with oneself. It is true, also, that one should not necessarily expect different measures of self-esteem to yield the same findings. Certainly it is hoped that any and all measures of given construct would show high intercorrelations; certain research does not always bear this out (Eisenman, 1967). Again, in single measure of self-esteem, we do not necessarily know what it is that the test is measuring. This is seen in a methodological study by Berger (1969) in which a factor analysis of self-esteem questionnaire items for 298 undergraduates yielded five identifiable factors: Communicative Propensity, Other-Anxiety, Negative Self-Evaluation, Positive Self-Evaluation, and Other-Certainty. In his study, Berger's interpretation was that part

of females self-esteem is based on their certainty that others like them.

Generally, family size affects paternal involvement most strongly among middle-class boys and lower-class girls. Sex composition effects are greatest in the rearing of girls in large lower-class families. As family size increases, these girls are more likely to perceive father as dominant in making child-rearing decisions, to see parents as less communicative and more controlling, and to report that parents use physical punishment occasionally and praise infrequently. These tendencies are stronger when there are one or more boys in the family. Family size and sex composition apparently have less effect on the rearing of middle-class girls.

In middle-class boys, the likelihood of paternal dominance in child-rearing matters, paternal stability of control, uncommunicativeness, and the father's occasional use of physical punishment increases as family size increases. The sex composition of the family appears to have little effect on child-rearing in these families regardless of the number of children. Although fathers are more likely to be dominant in large families, the number of boys in the family seems to make no difference in child rearing (Konig, op, cit.).

One factor that might account for the variations in family size and sex composition effects by social class is that middle and lower-class parents have different goals. In the middle-class family,

it is of utmost importance that a child be able to decide for himself how to act and that he have personal resources to act on these decisions. For the working class, the important thing is that the child not transgress proper rules (Eiseman, op. cit.).

To summarize the major points:

1. Parent behavior toward first children as contrasted to second is on the whole less warm emotionally and more restrictive. A similar differential exists between second and third children, but less distinctive. Changes are noted in the treatment of first children, mainly in the direction of reduced parent-child interaction.

2. Behavior toward second children does not tend to change systematically as the child grows.

3. The nature of the emotional relationship between parent and child is less predictable from one sibling to another than the relationship between siblings.

4. Age difference between children is an important contributor to the variation in parent behavior toward two siblings in that parents change in outlook as they and their children grow older.

#### A Review of Recent Developments in Coeducational Resident Living

A major concern of educators has been meeting needs and interests of students. Identification of those needs and interests should precede changes in the programs that involve and influence them.

Feldman and Newcomb (1969) and Sanford (1967) have confirmed that attitudes change where students are in close proximity to each other. This can be found also in Dressel and Lehmann's (1965) and Beamer's (1974) studies that the place wherein the student resides plays a most important part in attitude formation.

Students move to those residences which they perceive as satisfactory (Dollar, 1966) because some students need a homelike atmosphere. Titus (1972) found that the first priority of men in selecting a residence was convenience. Women's first consideration was location.

Differences in perception about housing often exist between men and women. Duvall (1969) found that men were much more critical of residence halls than women. Women expressed a more positive attitude toward most dimensions of residence hall life. Murphy (1971), investigating student leaders across the United States, found that differences occur in attitudes of men and women. Women leaders were significantly more favorable toward residence halls than men. Another investigation (Gerst and Moos, 1972) reports that residence halls emphasize general psychological support and interpersonal involvement for women. Competition and non-conformist qualities are stressed for men. Lazoff (1968: 311) agrees and states, "In general, the dormitory men were not at ease in social situations, nor could they verbalize their needs as well as others." The others were females living in

resident halls.

Educators have asked the question: are students living in one type of residence more satisfied than students living in another type? Corbett and Sommer (1972) found that many students were satisfied with a coed-living situation. However, there were others who found coed living arrangements objectionable. Therefore, Corbett and Sommer suggested that colleges should offer a variety of living situations. Buchner (1967) suggests that students who grew up in liberalized environments are more satisfied with coeducational living situations than those whose growth pattern was more restricted.

Parents attitudes are important factors in a student's choice of residence halls. While Murphy (op. cit.) found that students desire open intervisitation, Seligman and Hanson (1971) indicated that most parents were not in favor of an open intervisitation policy.

Residence hall staff are caught between the external pressures on the university to control student behavior and student demands for increased freedom (Bedir and Richard, 1971). Shay (1969) relates that there are some communication problems between students living in resident halls and the supervisors concerning rule enforcement, procedures, etc.

The result of the Schroeder, LeMay study (1971) appears to support the idea that coeducational living has a facilitative effect on the development of healthier and more mature relationships. This

can also be seen in the work of Brown, Winkworth, and Braskamp (1971) when it was found that morale in the coeducational dorms was high and the general feeling was that the hall was a "nice" place to reside.

The Brown investigation is further supported by Coons (1970) and Duncan (1970) when it was found that male-female interaction would become more realistic and spontaneous if males and females were given the opportunity for continual contact through coeducational dormitories.

Whittaker (1970) and Morrison and Anderson (1973) stated that mingling of both sexes in the coeducational dormitories seems to activate interpersonal sensitivity and fulfills some interpersonal needs on the part of the student. Indiana University also found (Greenleaf, 1962) that students improved in such areas as social activities, dress, and the like when living in coed residence halls.

#### SUMMARY

In this chapter the literature related to the descriptive character of the population, i.e., birth order, self-esteem and family size was presented. The second category dealt with a review of recent developments in coeducational resident living.

Studies on birth order indicated that a first-born child was generally serious, fearful, studious, and more sensitive than a second-born child; further, the first born was often exposed to a

punitive environment.

Interestingly, several studies indicated that first born did not necessarily have high self-esteem, but that subsequent births have lower self-esteem, particularly if the child was female. One must keep in mind that when dealing with high self-esteem that high self-satisfaction may be a defense rather than any real satisfaction with one's own personality.

Finally, this chapter reviewed recent developments in coeducational resident living. Attitude changes take place where students are in close proximity. Men are more negative than women concerning dormitory life. Competition and non-conformist qualities are stressed among the men.

From the studies (Schroeder, LeMay, 1971; Brown, et. al., 1971) it was found that coeducational dormitory life has a positive effect.

## Chapter 3

### PROCEDURES

This chapter includes sections on the population description and sample selection, the P.O.I., and biographical questionnaire sheet, method of data collection, statistical hypothesis, limitations and the data analysis plan.

#### Population Description and Sample Selection

The subjects included in this study's population were limited to the residents of five single-sex residence halls and three coeducational resident halls on the campus of Montana State University. Included within each dormitory were all classes, i.e., freshmen, sophomore, junior, senior and graduate students. In addition, each subject was a full-time student. The unique characteristic of the three halls - Hedges North, Hedges South, and Roskie - was that, for the first time, Montana State University was using them for coeducational living accommodations. The arrangement was such that females lived on one floor, male students on another floor, etc.

Each facility had a prepared list of students and room assignments. Each student was given a number from one through whatever number it took to complete the count for that resident hall. Refer to Table 1 below for the population distribution for each building.

Table 1

## Population-Distribution by Building

Dormitory	Sex	Number in Dormitory
Culbertson-Mullen	M	164
Hannon	F	256
Hapner	F	268
Hedges North	Coed	519
Hedges South	Coed	503
Langford	M	344
Pryor	F	101
Roskie	Coed	390
Totals		2,545

A sample of fifty was selected from each resident hall by use of simple random sampling. This is a method by which the members, in this case the 2545 students, are drawn independently with equal probability for selection. Since  $N = 2545$  students and a sample size of  $n = 400$  was wanted, a 3 digit starting number was used counting until 50 names were listed from each dormitory. If for some reason the particular student was not in the dorm, i.e., away, ill etc. . . . , the next number was used. Random sampling leaves the

selection of the sample entirely to chance (Snedecor, 1956).

A letter was mailed to each of the 400 subjects in the sample (see Appendix A , page 77). The letter explained the purpose of the investigation, the need for the subjects' cooperation, and the time, place, and length of time it would take them to fill out a questionnaire (Appendix D , page 90 ).

The first letter was followed by a reminder to all 400 subjects as to time, place and confidentiality of the investigation. Out of the 400 invited 361 accepted; from that the simple random sampling technique was again used to fit them into cells of 30 each thus equalling 240.

#### The Personal Orientation Inventory and Questionnaire Data Sheet

The instruments used in the data collection for this study were the Personal Orientation Inventory (P.O.I.) (Shostrom, 1964), and a sixteen-question questionnaire sheet, (Appendix C, page 81), developed by the investigator.

The P.O.I. was selected because it is one of the few measures available that attempts to determine the developmental state of an individual for a specific period of time.

Since the study was trying to determine if there was any difference between selective personality variables and student selection of living quarters the P.O.I. would afford some insight as to possible

developmental stage of the student and his selecting a particular residence hall.

The Personal Orientation Inventory (Murray, 1972) consisted of 150 comparative value judgement items reflecting values and behavior seen to be of importance in the development of the self-actualizing individual. Such a person is one who lives in the present rather than dwelling in the past or the future, functions relatively autonomously, and tends to have a more benevolent outlook on life and on human nature than the average person.

In responding to the P.O.I., the examinee was asked to select the one statement in each pair that is most true of himself. Four major scales and ten subscales were used; two of the major scales define a time ratio, two a support ratio. The time ratio assesses the degree to which one was reality oriented in the present and who was able to bring past experiences and future expectations into meaningful continuity. The support ratio defined relative autonomy assessing a balance between other-directedness and inner-directedness. Other-directed persons tend to be dependent; primarily inner-directed persons tend to be independent. The subscales purport to tap values important in the development of the self-actualizing individual.

Self Actualizing Value (SAV). This value describes a person who works and produces to his capabilities, functions in the present and tends to operate autonomously. The self-actualized person, it would

seem, is continually trying to actualized himself. A person is adjusted if he is aware of and accepting of what is going on in himself. The self is a total look at how the individual perceives himself in connection with and to his experiences (Shostrum, 1966).

Existentiality (Ex). Existentiality looks to the present or what Shostrum calls "being" oriented to living. Thus for those who would advocate this approach they would try to get people to see a balance of the past, present and future (Shostrum, 1966).

Feeling Reactivity (RR). Not only must one develop a time base but also an individual must develop some interdiscipline. Shostrum (1966) states there is a moderate correlation ( $r = .49$  in college sample) between time and inner-directedness. The self-actualized person lives in the here-and-now, relies more on his own strengths and his own expressive avenue than does a person who lives in the past or future.

Spontaneity (S). Spontaneity means to express feelings behaviorally; more open to one's own feelings and not masking those feelings to others. Anxiety can result from lack of structure which is a function of a person's perceptual makeup and what his world is to him. The spontaneous person is more aware of his world and functions accordingly (Shostrum, 1966).

Self-Regard (SR). As has been stated in other subscales of the P.O.I., if a person has high self-regard he will tend to view

himself from a more positive position. Ego and self-regard would be the same.

Self-Acceptance (Sa). Shostrom (1966) states it is more difficult to achieve self-acceptance than self-regard. The rationale seems to be that a person can accept his own strengths easily enough but might have trouble accepting the weaknesses he may have.

Nature of Man (Nc). Man is essentially looked at as being good. He can see the dichotomies of life such as good and evil, masculinity-femininity etc. . . . This is having the capacity to have synergy. (Shostrom, 1966).

Synergy (Sy). To be synergetic is to have the capability to see relationships between what, on the surface, appears to be dichotomies. (Shostrom, 1966).

Acceptance of Aggression (A). Shostrom (1966) relates that to be self-actualized an individual must accept his own natural aggressiveness and not deny or otherwise dismiss the feeling. It is not coincidental that "violently aggressive people usually have bizarre. . . impulses and severe conflicts about masculinity and femininity." (Stoller, 1975). Shostrom is saying that the self-actualized person is ready to work with his feelings of aggression as well as other feelings.

Capacity for Intimate Contact (C). As Shostrom (1966) says ". . . the ability to express vs. impress, being vs. pleasing, and the

ability to relate intensely to another person either aggressively or tenderly," is one who is capable of having intimate contact.

The non-threatening character of the items, the broad personal and social relevance of the value concepts measured, and the interpretation of scales in terms of positive concepts of self-development have been prime considerations facilitating application of the Inventory in a wide variety of settings. The importance of the availability of an instrument to measure humanistic concepts of self-actualization perhaps best can be appreciated from a review of the diversity of the research. As Maslow (1971) has stated:

. . . there is today a standardized test of self-actualization (the Personal Orientation Inventory). Self-actualization can now be defined quite operationally, as intelligence used to be defined, i.e., self-actualization is what the test (P.O.I.) tests.

Studies of Faking (Knapp, 1971)  
and Response Sets

Correlations of P.O.I. scores with "be" or response distortion scales has shown that the P.O.I. responses are not easily distorted in a predictable positive direction. In a study by Knapp (1965) relating the P.O.I. and the Eysenck Personality Inventory (E.P.I.), very low order correlations were found between P.O.I. scales and the E.P.I. Lie scale. Similarly, in a study (Shostrom and Knapp, 1966) relating the P.O.I. to the Minnesota Multiphasic Personality Inventory (M.M.P.I.). No P.O.I. scale was found to be significantly correlated with the M.M.-

P.I. or L Scale, the highest  $r$  being .26 (Hathaway and McKenley, 1951).

In one study involving the use of different test sets, Braun (1966) administered the P.O.I. with instructions to answer as would a "typical Neurotic" and then, upon immediate readministration, as this same hypothetical person would after two years of therapy. On all twelve scales, significantly more favorable scores were achieved with the "after therapy" set. In a follow-up study, Braun, and LaFaro (1969) administered the P.O.I. to college student groups under standard instructions followed later by readministration with instructions either to make a "good impression" or to appear "well adjusted." Faked administration scores were consistently less favorable than those obtained under standard instructions, with twenty-three of forty-eight tests reaching significance. The authors conclude that "unless subjects have special information about the P.O.I. and self-actualization, the inventory shows an unexpected resistance to faking."

#### P.O.I. Correlational Studies

In an exploratory study by Grossack, Armstrong, and Lussein (1966), P.O.I. scales were related to the scales of the Edwards Personal Preference Survey (1959). Positive correlations were found between the P.O.I. Support scales and E.P.P.S. scales of Autonomy and Heterosexuality and negative correlations between the P.O.I. and Abasement and Order. Extending the above study, LeMay and Damm (1969)

considered correlations between the P.O.I. and E.P.P.S. separately for males and females. Although, as the authors note, it is difficult to interpret results of correlation between ipsative (E.P.P.S.) and normative (P.O.I.) measures, it was of interest to note comparative differences between the sexes in terms of patterns of significant correlations against the P.O.I. In the male sample, E.P.P.S. Autonomy and Abasement scales had relatively greater relationship to the P.O.I. Five P.O.I. scales were negatively related to abasement. In the female sample, four P.O.I. scales were significantly and positively related to change and four were negatively related to order.

Braun and Asta (1968) investigated the relationship between the P.O.I. and the Gordon Personal Inventory (G.P.I.; Gordon, 1956). High, significant correlations were obtained between the G.P.I. Personal Relations scale and P.O.I. scales of Nature of Man, Constructive ( $r = .51$ ), and Self-Actualizing Value ( $r = .42$ ). Five of the nine significant correlations were with the G.P.I. original thinking scale which, as the authors note, is consistent with the theorizing of Maslo (1962) in which the creativeness of the self-actualizing individual has been emphasized. Further, these findings are consistent with the empirical findings of Damm (1967) that P.O.I. scores among a high school sample are significantly and positively related to scores from the Remote Associates Test (Mednick and Mednick, 1967).

Several studies have related P.O.I. scores to home background and other demographic variables. Gibb (1968) in relating self-actualization to home background found that those college students scoring comparatively higher on the P.O.I. were (a) from homes in which the parents had finished high school and had additional formal education; (b) from families with one to three children; (c) from families where the mother had worked full-time; and (d) who were presently not actively involved in religious participation.

LaBach (1969) found in a college sample that P.O.I. Inner Directed (I) and Time Competence (Tc) scales were positively related to age, year in college, marital status, and satisfaction with college. In addition, the P.O.I. I scale was positively related to number of hours worked per week, infrequent attendance at religious services, political liberalism, and identification with an academic or non-conformist subculture.

A number of other studies have shown that individuals scoring comparatively high, as contrasted with low scores, in terms of self-actualization tend to be more liberal in social philosophy (Gunnison, 1964), tend to express a lower need to control the behavior of his child (Swift, 1966); and tend to rank occupational values differently (Masucci, 1966).

Validating studies, e.g., Meredith, 1967; Cattell and Eber, 1965; Guilford-Zimmerman Temperament Survey, 1949; conducted to date

suggest that high P.O.I. scores reflect values and attitudes attributed to the self-actualized.

### Reliability of the Instrument

Two studies have appeared bearing on the test-retest reliability of the P.O.I. Klavetter and Mogar (1967) administered the P.O.I. twice with a one-week interval to a sample of forty-eight college students. All correlations ranged from .52 to .82. The major P.O.I. scales of Time Competence and Inner Direction displayed generally high reliability coefficients of .71 and .77, respectively. The authors concluded that, with the exception of three subscales, "stability coefficients are generally high, ranging from .71 to .85."

Examining the stability of P.O.I. scores among a sample of forty-six student nurses over a one-year period, Ilardi and May (1968) report coefficients ranging .32 to .74. In contrasting results of their study with those for other personality inventories administered to similar samples, "The findings reported on the P.O.I. are well within those ranges of somewhat comparable M.M.P.I. and E.P.P.S. test-retest reliability studies."

### Questionnaire

The questionnaire was made up of 16 statements (Appendix D, page 90). The rationale for these questions came as an outgrowth from the background studies for the P.O.I., Gibb (1968) related that self-

actualization scores are higher when college students came:

- a) from homes in which the parents finished high school and had additional formal education,
- b) from families with 1-3 children,
- c) from families whose mother had worked full time,
- d) from families providing little or no formal religious training, and
- e) who were presently not actively involved in religious participation.

Longitudinal studies indicate clearly (Gibb, 1968; Coons, 1970) that the model provided to the child by his parents is crucial in determining which stage of development (Loevinger, 1970) he will reach. The child, who is seeking structure to enable him to operate in the world, takes over values, and the like from his parents.

The general quality of the family environment can importantly influence ego development. If the environment is good and kind, for example, the parents show affection toward each other, this will influence ego development.

### Hypotheses

1.  $H_{0a}$  - There is no significant difference between coeducational residence hall students mean scores on the Personal Orientation Inventory and single-sex resident hall students mean scores on the Personal Orientation Inventory on any of the 12 subscales of the

test.

2.  $H_{0_b}$  - There is no significant difference between the scores on the Nature of Man (Nc), Self-Actualized (SAV), and Synergetic (Sy) scales of the Personal Orientation Inventory and what type of resident hall the student selects and selected biographical data.

3.  $H_{0_c}$  - There is no significant difference between the categories designating where a student grew up and selection of either a coeducational or single-sex resident hall.

4.  $H_{0_d}$  - There is no significant difference between the scores on the Capacity for Intimate Contact (C), Self-Acceptance (Sa), and Existentiality (Ex) scales of the Personal Orientation Inventory and what type of resident hall the student chooses and selected biographical data.

5.  $H_{0_e}$  - A student's religious preference makes no significant difference in resident hall selection.

#### General Questions to be Answered

1. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question whether parents are living?

2. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the student had sex education in high school?

3. Is there a significant difference between coeducational

dorm selection and single-sex dorm selection on the question of whether the student is satisfied with the dorm supervisor as that person is now functioning?

4. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the dorm could function better if the supervising staff were an elected body?

5. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the student would like to see both sexes living in alternating rooms on the same floor?

6. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the student is in favor of communal toilet facilities?

7. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the student comes from a broken home?

8. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether the student grew up in Montana?

9. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of in what city in Montana did the student grow up?

10. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of what state other than Montana did the student come from?

11. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of what city as defined outside of Montana did the student grow up?

12. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of how many brothers in the family?

13. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of how many sisters in the family?

14. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of what birth order the student was in the family?

15. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of what religious preference the student has.

16. Is there a significant difference between coeducational dorm selection and single-sex dorm selection on the question of whether a student is a freshman, sophomore, junior, senior or graduate student?

### Split-half or Split-plot Design

The mixed model ( $a \begin{matrix} A & A \\ r & b & c \end{matrix}$ ) is well described by McNemar (Case XV, p.379, 1969). A sample of R individuals are placed in block one, a sample of R different individuals are placed in block two and etc. The B blocks represent B experimental conditions, or B levels for a factor, the effects of which are to be ascertained, and also the C columns stand for yet another factor which is to be evaluated. It is feasible to use each person under each block condition, thus the use of B sets of R individuals. In this way we can compare the groups and also the C conditions and perhaps the BxC interaction.

As seen by observing the two schemas, each of the row means is an average for B different people; thus, row means do not hold for individuals. There are individual difference variations within each block or cell as seen in the diagram with the mean of  $\bar{X}_{rb}$ . It can be anticipated a sum of squares for individual differences which will involve the sum of squares within each block; therefore,  $S_i^2$  is the variance estimate for individual differences.

### Statistical Procedures

Three statistical techniques - analysis of variance, factor analysis, and simple discriminant function analysis - were used to analyze the data. A description of these statistical techniques and their operation in this study follows.

### Analysis of Variance

This analysis, which was a three-variable unreplicated, nested-model, provided first a test for resident group differences in overall P.O.I. means and second a test for resident group by P.O.I. scale interaction, i.e., whether the groups have different "profiles" or patterns across the set of P.O.I. scales.

### Simple Discriminant Function Analysis

In this analysis, the dichotomous group membership, or dependent variable (D.V.), was dorm residence (coed or non-coed). Twenty-eight independent variables (I.V.) or predictors were used: fourteen P.O.I. scores, eight attitude items, and six biographical items. This analysis provided a check on ANOVA results plus more detailed information on predictive value of P.O.I. and other items. The data from these twenty-eight independent variables, eight attitude items, and six biographical items will be further discussed in Chapter 4.

A second discriminant function run was made with the same dependent variable, but the P.O.I. predictors were condensed from fourteen to four (via results of factor analysis) and the use of other (new and different) biographical predictors. This analysis is fully described in Chapter 4.

### Factor Analysis

All fourteen P.O.I. scores, four attitude, and four biographical

items (these can be identified in Chapter 4) provided a more thorough analysis of interrelationships. This gave a basis for data reduction to a smaller set of more basic variables for use in subsequent prediction equations and provided a check on reliabilities via communalities.

#### Limitations and Delimitations

The population consisted of 400 students selected at Montana State University matriculating during the academic year of 1974. The students were drawn from freshmen, sophomore, junior, senior, and graduate classes in five non-coeducational and three coeducational halls at this university.

Further, since this is not an investigation in finding if coeducational living during a school year differs from living in non-coeducational halls during a school year, no test-retest was undertaken.

#### SUMMARY

This chapter presented a description of the population to be used, a description of the P.O.I. and the questionnaire used.

The study covered some 361 student chosen randomly from three coeducational resident halls and five single-sex resident halls.

The Personal Orientation Inventory described the subscales,

studies in faking and some correlation findings done since 1966.

The questionnaire's rationale stated that Gibb (1968) found certain biographical data related to high scores on self-actualization, i.e., parents finishing high school and having additional formal education, children coming from families having 1-3 children, mothers who had worked full time, families that provided little or no religious training, and those not now actively in religious activities.

Finally, a description of the statistical tests that were utilized was given.

## Chapter 4

### PRESENTATION AND ANALYSIS OF DATA

The primary purpose of this investigation was to determine if differences exist between students who chose coeducational resident halls and those who chose single-sex resident halls. This chapter presents an analysis of the data using analysis of variance, factor analysis and discriminant function analysis.

Tables are presented to analyze the various subscales of the P.O.I. and certain biographical and attitudinal data. A listing of those variables was presented in Chapter 1.

#### Discriminant Function Analysis I

Analyses were made on twenty-eight variables with the resident halls being the dependent variables (d.v.), from the P.O.I. and background questionnaire. This analysis was later performed using nine predictor variables from the group that were believed to be more reliable. The twenty-eight variables were first tested in a discriminant function analysis. Those variables were: capacity for intimate contact (c), class, sex, age, parents living, sex education in high school, dorm supervisor, elected, alternate rooms, communal (male/female living together), come from a broken home, grew up in Montana, brothers, sisters, birth order in the family, time incompetence (Ti), time competency (Tc), outer directed (O), self actualized (SAV), existential (Ex), feeling reactionary (Fr), spontaneity (S), self regard (Sr), self

man (Nc), synergy (Sy), and acceptance of aggression (A).

Table 2 gives the result of that analysis. No significance of difference between means was obtained.

Table 2

Variance Table: Discriminant Function Analysis: 28 Variables  
From the P.O.I. and Biographical and Attitudinal Data

Source of Variance	Sum of Squares	DF	Mean Square	F-Ratio
Regression (linear prediction--least best fit)	6.92905	28	.24747	1.4008
Residual (measurement error)	22.25804	126	.17665	P=.108 (NS)

### Factor Analysis

Since the previous analysis did not indicate a significant regression with twenty-eight individual predictors, an attempt was made to determine whether a smaller set of more reliable (internally consistent) composite predictors could be found. Therefore, a factor analysis was conducted to search for such homogeneous composites.

The total P.O.I. scores, four attitude variables (attitude toward dorm supervisor, should dorm supervisors be elected, should the dorms be set up so as to have males and females in alternate rooms, and the question of would you be in favor of males and females living together) and four biographical items (did you have a sex education

course in public school, are parents living, did you come from a broken home, and did you grow up in Montana) were not used. This provided a more sophisticated and thorough analysis of inter-relationships and gave a basis for data reduction to more general variables for use in subsequent prediction equations.

Table 3 lists the communality ( $h^2$ ), or proportion of variance which is common factor variance, values for the variables included in the factor analysis. Since the analysis of variance showed no significant differences, the factor analysis excluded certain variables and kept the stronger values. These values may be taken as minimum reliability estimates.

Table 3

## Communality Table

Variables	Description	$h^2$
Parliv	Parents living	(.08)
Sexeduc	Sex education in high school	(.04)
Drmsuper	Dorm supervisor	(.76)
Elected	Should dorm supervisor be elected	(.37)
Altrooms	Alternate rooms	(.91)
Communal	Male/female living together	(.21)
Brokhome	Come from broken home	(.06)
Growmont	Grow up in Montana	(.18)
POITI	POI - Time incompetence	(.91)
POITC	POI - Time competence	(.90)
POIO	POI - Outer directed	(.95)
POII	POI - Inner directed	(.49)
POISAV	POI - Self-actualized	(.91)
POIEX	POI - Existential	(.75)
POIFR	POI - Feeling reactionary	(.73)
POIS	POI - Spontaneity	(.60)
POISR	POI - Self regard	(.56)
POISA	POI - Self acceptance	(.74)
POINC	POI - Nature of man	(.60)
POISY	POI - Synergy	(.73)
POIA	POI - Acceptance of aggression	(.71)
POIG	POI - Capacity for intimate contact	(.78)

For example, the variable "parents living" had a value of .08 for  $h^2$ . This meant that this particular variable is not reliable in future analyses.

Likewise, the variable "alternate rooms" had a value of .91 for  $h^2$  meaning that future analyses would probably show this as a statistically reliable factor.

Four factors emerged from the analysis. Table 4 displays these factors.

Table 4  
Significant Factors

	Factor	Eigenvalue $\left( \sum_{j=1}^n a_{ji}^2 \right)^*$	Percent of Variance	Cum Percent
Factor I	POIC SA EX	7.42746	57.3	57.3
Factor II	Dormsuper	1.53731	11.9	69.1
Factor III	Altrooms Communal	1.35589	10.5	79.5
Factor IV	POISAV SY NC	.92552	7.1	86.1

\*j=variable; n=total no. of variables; ith factor; aji=factor loading

Factor one included Personal Orientation Inventory Capacity (POIC) which is the capacity for intimate contact; Personal Orientation Inventory Self Acceptance (POISA) which measured affirmation or acceptance of self in spite of weaknesses or deficiencies, and Personal Orientation Inventory Existentiality (POIEX) which measured ability to situationally or existentially react without rigid adherence to principles.

Factor two had only one variable which came from the attitudinal part of the biographical data. The factor was the question: Are you content with the dorm supervisor's position as is now constituted? (Drmsuper).

Factor three is composed of the two predictors which were again from the attitudinal section of the biographical data. They were "would you like to see dorm rooms being established so there are male/female in alternate rooms? (Altrooms), and "Would you be in favor of communal room living, i.e., male and female living together?"

Factor four was also derived from the P.O.I. The first being POISAV or self actualized individual which measured affirmation of a primary value of self actualized people; POISY or synergistic measured ability to be synergistic, to transcendent dichotomies; and POINC which measured the degree of the constructive view of the nature of man, i.e., masculinity and femininity.

These four factors were measured in Table 5, the varimax rotated factor matrix.

Table 5

## Varimax Rotated Factor Matrix; Factor Analysis

Variables	Factor 1 POIC (NON-0) POISA POIEX	Factor 2 Drmsuper	Factor 3 Altrooms Communal	Factor 4 POISAV POISY POINC
Parliv	-.10384	.04116	.12656	-.13142
Sexeduc	-.04824	.02422	-.00925	-.00884
Drmsuper	.06083	.74261	.13147	-.08929
Elected	.11441	-.58050	.05077	-.05911
Altrooms	.01094	-.25927	.86232	.16567
Communal	-.10380	.01823	.43158	-.08418
Brokhome	.05442	.04144	.01880	-.04932
Growmont	-.02119	.35597	-.15205	-.02255
POITI	-.49499	.35973	.14260	-.26895
POITC	.51644	-.30207	-.13215	.56903
POIO	-.81839	.03415	.08928	-.28874
POII	.06352	.02519	.04787	.23976
POISAV	.41962	.07844	-.02846	.82612
POIEX	.74775	-.03186	-.10883	.39996
POIFR	.66856	.08676	-.00036	.35978
POIS	.62067	-.05581	-.09785	.42860
POISR	.44769	-.07847	-.05268	.54324
POISA	.77001	-.18142	-.05486	.15261
POINC	.26213	-.00314	.02368	.70767
POISY	.32161	-.01988	.00368	.78057
POIA	.62426	-.00178	.02762	.39070
POIC	.82476	-.05854	-.09222	.23668

The varimax rotated factor matrix established some clustering of variables. For example, Factor I has contained in POIC .82476, POISA .77001, and POIEX .74775. These numbers are saying there is some strong positive relationship among these three variables. Those

numbers with a minus are negative numbers which indicate an inverse relationship between the given variable and the factor.

### Discriminant Function Analysis II

Discriminant function analysis was performed using nine selected variables including the four listed in the previous analysis.

The nine independent variables (I.V.'s) are listed in Table 6. In contrast to the previous twenty-eight variables listed on page 40 for the discriminant function analysis the present analysis yielded significant predictors of the D.V. The results are presented in Tables 8 and 9 and discussed in the next section of specific hypotheses and questions.

Table 6

## Significant Predictors of Discriminant Function Analysis

Variables	Description
F4	POISAV, Sy, Nc
Class	What class standing are you?
Relig	Religious/nonreligious
Mt. City	Did you grow up in Montana?
Instate	If yes, in what city did you grow up?
Birthord	What birthorder were you in the family?
F1	POIC; SA, EX
F2	Dormsuper
F3	Altroom, communal

HYPOTHESES

The following hypotheses were drawn both from the literature and observations the investigator has made over a period of time from work in classes and practical experience.

Null Hypothesis (H<sub>0</sub>)

A. There is no significant difference between coeducational residence hall students mean scores on the Personal Orientation Inventory and single-sex residence hall students mean scores on the Personal Orientation Inventory on any of the fourteen scales.





































































