The purpose of this research was to determine if there were initial differences in selected dimensions of self-actualization, as measured by the Personal Orientation Inventory (POI), between the freshmen who selected co-educational residence halls and those who selected single-sex residence halls; and to determine if the type of residence hall affected the development of certain dimensions of self-actualization for these students over a period of approximately seven months. In addition, the study sought to investigate the relationship between the students' initial level of self-actualization and the impact of different residential settings on the development of self-actualization.

The primary source of the data was students' responses to the following selected scales of the POI: Inner-Directed Support (I); Existentiality (Ex); Feeling Reactivity (Fr); Spontaneity (S);
Acceptance of Aggression (A); and Capacity for Intimate Contact (C).

The participants completed the POI during New Student Week immediately preceding the 1971 fall term, and a second time during the middle of April 1972.

A stratified sample of new freshmen living in residence halls was selected for the study. A total of 568 students completed the POI fall term and 449 completed both the pre- and post-testing sessions.

The data were analyzed by two analysis of variance models and an analysis of covariance model. Statistical comparisons were made to determine if differences existed between: (1) pre-test scores for freshmen men and women who selected co-educational and single-sex residence halls; (2) pre- and post-test scores for freshmen men and women residing in co-ed and single-sex halls for a continuous seven month period; and, (3) pre- and post-test scores for low, medium and high self-actualizing freshmen men and women living in co-ed and single-sex residences for a continuous period of seven months. Observed differences were accepted as significant when $p \leq .05$.

The following conclusions were drawn from the results of this study:

1. Freshmen women initially scored significantly higher than freshmen men on the six selected scales of the Personal Orientation Inventory.
2. Freshmen students in co-educational residence halls initially scored significantly higher on the I, Ex, and C scales of the POI than freshmen residents in single-sex halls.

3. Freshmen females changed significantly more on the I, Fr, and S scales over the seven month period than freshmen males.

4. Freshmen students living in co-ed halls changed significantly more on the C scale than freshmen students in single-sex halls.

5. No significant differences in the amount of change were recorded on the selected POI scales for low self-actualizing freshmen males in single-sex and co-ed halls and for low self-actualizing freshmen females in single-sex and co-educational residences.

6. No significant differences in the amount of change were revealed on the selected POI scales for medium self-actualizing freshmen females in single-sex and co-ed residence halls.


9. High self-actualizing freshmen males in co-ed halls changed significantly more on the C scale than high self-actualizing freshmen males in single-sex residences.
An Analysis of the Impact of Residential Setting on the Development of Selected Dimensions of Self-Actualization

by

Charles Clayton Schroeder

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Associate Dean & Director of Counseling Center in charge of major

Redacted for privacy

Dean, School of Education

Redacted for privacy

Dean of Graduate School

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AN ANALYSIS OF THE IMPACT OF RESIDENTIAL SETTING ON THE DEVELOPMENT OF SELECTED DIMENSIONS OF SELF-ACTUALIZATION

CHAPTER I

INTRODUCTION

In recent decades higher education has been faced with numerous pressing issues. The large increment in the college age population, the increasing number of college applicants and the continual changes in the labor market have forced institutional consideration of new curriculums, increasingly diversified programs and a reordering of priorities. However, institutional self evaluation and reform have not kept pace with the complexities and swift rate of change of modern life. In many instances colleges and universities continue to cling tenaciously to medieval practices in the wake of student demands for a more relevant education.

In his book, The American College, Sanford (1962) viewed contemporary higher education as primarily a failure and called for public criticism, to act as a catalyst for educational reform. In a subsequent publication, Sanford (1967) stressed that the failure of colleges can be attributed to their lack of emphasis on individual development. This viewpoint is reinforced by other behavioral scientists who agree that "... the development of students as individuals, and not the accumulation of knowledge, is the primary aim of education" (Axelrod, et al.,
1969, p. 8). However, our society's narrow conceptualization of education often precludes a more inclusive approach to individual growth and development. This view is strengthened by many colleges and universities who continue to reward only academic achievement while refusing to focus on other aspects of student development (Hall and Brockmeier, 1967; Hoyt, 1968). Similarly, by providing mass education, the individual student and his development have been neglected (Katz, 1968).

As a reaction against the impersonalization of mass education and the development of the intellect as the primary concern of higher education, college student personnel work has evolved as a professional field dedicated to the total development of the individual student (Williamson, 1961). Although this holistic philosophy of education has provided the framework for student personnel, many practitioners have been preoccupied with providing services for students or trying to justify personnel functions on the basis of their educational value (Johnson, 1970). In addition, personnel workers' excessive concern with supervision, control, remediation and reactionary methodologies have, with few exceptions, prevented the emergence of strong student development programs (Crookston, 1970). Recently, however, a number of writers (Adams, 1970; Crookston, 1970; Morrill and Ivey, 1970) have formulated a new conceptualization of student personnel's role in terms of the "student
development specialist". As such, the role would stress major changes in administrative emphasis and methodologies, as well as "creating a campus environment which facilitates the individual's behavioral development" (Johnson, 1970, p. 10). Nonetheless, without a solid body of knowledge on student growth and development, efforts to become student development specialists would appear to be, at best, rather futile. Indeed, the student himself must be considered as a reasonable centrality for research since, "any ultimate criterion of the efficacy of educational efforts must derive from the impact of the college experience upon the student" (Linn, 1965, p. i). Furthermore, by assessing various dimensions of personality development, "a basis can be laid for analysis of changes in behavior that occur during the college years and of factors that impede or facilitate these changes" (McConnell and Heist, 1962, p. 249).

Within the last decade, major research studies conducted by behavioral and social scientists have contributed significantly to a more complete understanding of the impact of college on student development (Chickering, 1971; Feldman and Newcomb, 1970; Katz, 1968; Sanford, 1962). The data from these projects suggest that the formal academic experiences of colleges and universities have little impact on personality development. Instead, research evidence supports the contention that informal, out of class activities are very influential in creating personality changes during the college years.

Opportunities for continuous peer interaction appear to be maximized in college residence halls. It is estimated that a student may spend between 65 to 70 percent of his time in his living unit (Greenleaf, 1962), in comparison with 15 to 18 hours per week in class. Through daily encounters with other residents, a student develops strong peer associations which often influence his value system, challenge his attitudes and beliefs, and place demands on his interpersonal skills. Thus, as one segment of the campus milieu, "college residences do provide a significant context for student development" (Chickering, 1967, p. 179). Indeed, extensive research at Michigan State concluded that, "The most significant reported experience in the collegiate lives of these students was their association with different personalities in their living units" (Lehmann and Dressel, 1965, p. 180).

While few student personnel professionals would disagree that residence halls do influence student development, housing programs have traditionally been instituted, "without a scientific basis for evaluating their effects on the social-psychological well-being of students" (Menne and Sinnett, 1971, p. 26). Perhaps of greater
significance is the fact that although new decisions concerning student housing must be made on a continual basis, "Few of these decisions are made in the light of a clear conception of how student development may be influenced by housing arrangements" (Chickering, 1967, p. 179). Thus, many decisions regarding housing accommodations are made through default, or on the basis of "educated guesses" or "shared ignorance" (Matson, 1963). Hence, if residence halls are to facilitate the intellectual, social and cultural growth of students, "Colleges need to study the process of student development on their own campuses in relation to their residential programs" (Sandeen, 1968, p. 229). This study is an attempt to assess the relationship between place of residence and certain aspects of student development.

Statement of the Problem

During the last decade, many colleges and universities attempted to diversify their housing programs by providing a variety of living arrangements. These innovative residences often took the form of freshmen dorms, foreign language halls, living learning centers, and co-educational complexes. In 1967 Oregon State University altered its traditional approach of housing men and women in separate residences by creating a co-educational residence hall. Since that time, seven of the thirteen campus residence halls have been converted to co-educational facilities. However, no research has been
undertaken at Oregon State to determine factors associated with choice of a particular residence and personality change resulting from different types of residential living.

Recent research reported by Feldman and Newcomb (1970) suggests that the differences among students in several types of residential settings can be primarily attributed to self-selection and group recruitment. Nonetheless, these researchers went on to conclude that,

Although the phenomenon has been inadequately studied, the particular residential arrangement in which students locate themselves have ongoing impacts upon them quite apart from the effects of initial selection (Feldman and Newcomb, 1970, p. 223).

The problem was to determine if there are initial differences in selected dimensions of self-actualization between freshmen students who select co-educational and single-sex residence halls and whether or not the type of residence hall affects the development of certain dimensions of self-actualization for these freshmen students over a period of seven months.

**Purpose of the Study**

The purpose of this study was twofold: (1) to determine if initial differences existed between male and female freshmen who select co-educational or single-sex residence halls with regard to selected dimensions of self-actualization; and, (2) to determine the
direction and amount of change in the development of selected dimensions of self-actualization for low, medium and high self-actualizing male and female freshmen as a result of their residing in a co-educational or single-sex hall over a seven month period.

Importance of the Study

Because the educational goal of colleges and universities is the maximum development of the individual, each subsystem of the university community must be continually studied with regard to its contribution to this ultimate goal. College residence halls, as a university subsystem, have become increasingly viewed as an integral part of higher education (Williamson, 1958; Riker, 1965). However, very little research has been undertaken to describe the relationship between a students' place of residence and subsequent changes in his personality structure. Indeed, although many recent studies have dealt with various facets of the residence hall experience, most of these have investigated such factors as roommate compatibility (Gehring, 1970), study conditions (Somner, 1969), effects of over-assignment of rooms (Severinsen, et al., 1970), assessment of residence hall environment (Duvall, 1969; Miller, 1972), and resident assistant effectiveness (Wyrick and Mitchell, 1971) - factors which appear to be mainly peripheral to an understanding of the impact of place of residence on student development. Hopefully, this study
will provide important information regarding personality development associated with different types of residence halls.

The data gathered from this investigation will be helpful in understanding specific differences between students who select different types of living arrangements and subsequent impact of these arrangements on the development of selected dimensions of self-actualization.

The results of this research should likewise aid college administrators in interpreting the role of student housing to the various publics of the university. Similarly, the data should contribute to a clarification of the role of co-educational residence halls, thereby assisting many individuals in overcoming their fears, misperceptions and stereotypic beliefs concerning this type of residential arrangement.

The study should also provide a framework for future decisions concerning residence halls, especially those dealing with structural arrangements and program implementation.

Hopefully, the results of this project, along with questions and issues generated by the data, will stimulate additional research in the area of student housing both at Oregon State University and elsewhere.
Research Hypotheses

In order to facilitate statistical treatment of the data, the following hypotheses are stated in the null form:

1) No initial differences exist in certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between male and female freshmen who choose co-educational halls and those male and female freshmen who select single-sex residence halls.

2) No change occurs in the development of certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between male and female freshmen who reside for a continual period of seven months in co-educational halls or for those male and female freshmen who reside in single-sex halls during the same period.

3) No change occurs in the development of certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between low self-actualizing female freshmen who reside for a continual period of seven months in co-educational halls or for those low self-actualizing female freshmen who reside in single-sex residence halls during the same period.

4) No change occurs in the development of certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between low self-actualizing male freshmen who
reside for a continual period of seven months in co-educational halls
or for those low self-actualizing male freshmen who reside in single-
sex residence halls during the same period.

5) No change occurs in the development of certain dimensions
of self-actualization as measured by selected scales of the Personal
Orientation Inventory between medium self-actualizing female fresh-
men who reside for a continual period of seven months in co-educa-
tional halls or for those medium self-actualizing female freshmen
who reside in single-sex residence halls during the same period.

6) No change occurs in the development of certain dimensions of
self-actualization as measured by selected scales of the Personal
Orientation Inventory between medium self-actualizing male freshmen
who reside for a continual period of seven months in co-educational halls
or for those medium self-actualizing male freshmen who reside in single-
sex residence halls during the same period.

7) No change occurs in the development of certain dimensions
of self-actualization as measured by selected scales of the Personal
Orientation Inventory between high self-actualizing female freshmen
who reside for a continual period of seven months in co-educational
halls or for those high self-actualizing female freshmen who reside
in single-sex residence halls during the same period.

8) No change occurs in the development of certain dimensions
of self-actualization as measured by selected scales of the Personal
Orientation Inventory between high self-actualizing male freshmen who reside for a continual period of seven months in co-educational halls or for those high self-actualizing male freshmen who reside in single-sex residence halls during the same period.

**Limitations of the Study**

The subjects who composed this study were limited to 1971-1972 Oregon State University freshmen residing in either a co-educational or single-sex residence hall of their own selection. These students were citizens of the United States, who had never attended college before, and who were 19 years of age or younger.

The data gathered from the subjects are accurate insofar as the Personal Orientation Inventory is a valid instrument for measuring the various dimensions of self-actualization. Results obtained can be generalized only to the 1971-1972 freshmen residing in the residence halls at Oregon State University. Thus, results can not be generalized for other campuses.

For any significant change in scores on the selected scales of the Personal Orientation Inventory, this study simply describes the change and does not attempt to evaluate such change in terms of cause and effect relationships.
Definition of Terms

Freshmen

Freshmen refers to male and female enrollees at Oregon State University who had not previously enrolled at any college or university and who remained in a continuous course of study for seven months during the 1971-1972 year.

Residence Halls

Residence halls at Oregon State University refer to university owned housing complexes which provide living quarters for 200 or more students. The terms hall, residence, housing accommodation and residential setting are used synonymously with the term residence hall.

Single-Sex Residence Halls

Single-sex residence halls refer to university owned housing complexes which provide living quarters for students of the same sex.

Co-educational Residence Halls

Co-educational residence halls refer to university owned housing complexes which are occupied by members of both sexes, separated horizontally by different floors or wings. Within these halls residents share common facilities and lounge areas as well as maintain joint systems of student government.
Self Selected

Self selected refers to those freshmen who initially selected a particular hall as their first choice of residence and who were subsequently assigned to that hall. The term also applies to students who were not assigned to their first choice but who were assigned to a hall on the basis of their preference for either a co-educational or single-sex residence hall.

Impact

The term impact is viewed by Feldman (1970) as one of three conditions: induced change, stability or nonchange, or outcome - all of which may by attributed to some aspect of the college experience.

Self-Actualization

The term self-actualization was developed by Maslow (1954, 1962), and it refers to a person who is more fully functioning and lives a more enriched life than does the average person. Such an individual is seen as developing and utilizing all of his unique capabilities, or potentialities, free of the inhibitions and emotional turmoil of those less self-actualized (Shostrom, 1966, p. 5).
CHAPTER II

REVIEW OF RELATED LITERATURE

An extensive review of the literature revealed a lack of research evidence germane to the specific problem of this study. Hence, this chapter is concerned with reporting on research related to the two general areas of personality development and residence halls.

Within the section on personality development, three divisions exist which deal with the following topics: Theoretical frameworks for personality development during the college years; changes in personality associated with college attendance; and, studies relative to self-actualization.

The section dealing with residence halls is composed of three divisions: Overview of research on college residence halls; studies relative to co-educational residence halls; and, implications of residential setting for personality development.

I. Personality Development

Theoretical Frameworks for Personality Development During the College Years

In the past, theoretical conceptualizations of personality development have been dominated by two major schools of thought:
psychoanalysis and behaviorism. According to these traditional views, an individual's personality is, for the most part, formed during the first five or six years of his life. The final shaping of the personality occurs during the termination of early adolescence, around the age of sixteen. Strict adherence to these viewpoints would indicate that little change would occur in personality development during the college years.

With the publications of Maslow (1954, 1962), Rogers (1951, 1961), and Erikson (1963), many psychologists and educators began to accept a more organismic approach to understanding human development. As Heath (1969) stated,

This systematic emphasis on the gradual actualization of an organism's genetic potential is in some quarters referred to as a third force in psychology in counter distinction to psychoanalysis and behaviorism (p. 215).

Thus, according to organismic theories of psychology, significant developments in the personality can take place beyond childhood and early adolescence. Indeed, the period of late adolescence is increasingly recognized as a developmental stage where significant changes occur in the total personality configuration (Constantinople, 1969).
The concept of developmental stages has become a popular model for analyzing personality growth. Its importance was emphasized by Blocher (1966) when he stated,

The usefulness of a life-stages approach lies chiefly in the general concept that cultural forces and maturational changes acting at particular times in the lives of human beings will result in particular kinds of problems, crises, and behavior patterns. The interaction between the culture and the developing individual can best be understood in terms of these life stages (p. 47).

During each life stage, certain developmental tasks arise which must be achieved if the individual is to find happiness and subsequent success with future tasks (Havighurst, 1953; Erikson, 1963).

Personality growth during the college years has been viewed in terms of two different developmental stages. Blocher (1966) described the period from age fifteen to nineteen as "later adolescence", with the primary developmental task being identity as a worker. The period from age twenty to thirty, termed "young adulthood", is concerned with three fundamental developmental tasks: intimacy, commitment, and generativity. Studies reported by Freedman (1965) indicated that the period of late adolescence commenced at some point during secondary school and terminated around the end of the sophomore year in college. Hence, freshmen and sophomore students are in a different stage of development
than juniors and seniors. Heath (1969) likewise distinguished between various developmental stages in college when he stated that, "the first two years of college are crucial ones in the transition from late adolescence to adulthood" (p. 222).

Erik Erikson (1959) described personality growth during late adolescence primarily in terms of an identity crisis. During this period the primary task is the establishment of a sense of identity. Ego-identity is achieved when "the individual comes to be and feel most himself" (p. 76). It rests on an inner continuity, a meaningful synthesis of past, present, and future. In addition to the task of identity vs. identity-diffusion, the late adolescent must also resolve the crisis of intimacy vs. isolation. Hence, these two tasks are "telescoped into each other" (p. 87). The period of adolescence is terminated when the individual has fulfilled the developmental necessities of establishing an identity connected with a sense of competence, fused intimacy and sexuality, and developed an expectation of responsibility for the next generation (Erikson, 1970).

Although he made no clear distinction between late adolescence and early adulthood, Coons (1970) discussed five prominent developmental tasks encountered by college students. These
included: (1) a shift in the nature of one's relationship with one's parents from a child-parent to an adult-adult model; (2) resolution of a personal sexual identity; (3) formulation of a personal value system; (4) development of the capacity for true intimacy; and, (5) choice of a life's work. On the basis of Coon's research, there appeared to be definite sex differences in the resolution of each task.

Nixon (1962, 1966) conceived of personality growth during the college years in terms of a cognitive stage of development. During this stage the individual is capable of knowing himself, of discovering facets within himself that had previously been unfamiliar to him. As with Nixon's other four stages, the cognitive stage is characterized by specific content and by a common sequence: discovery - experimentation - mastery. Common tasks of this stage include: the struggle for identity and independence; freeing oneself from guilt associated with sex and anger; moving from external to internal modes of control; and, freeing anxiety from guilt.

Kenniston (1963) described the relationship between "youth culture" and personality development. During the period of youth, which differs dramatically from both childhood and adulthood, the individual prepares himself for adult responsibilities.
As such, this period represents a "way-station" or a "psychosocial moratorium" on adulthood which provides the necessary opportunity for the individual to develop a sense of identity or inner-sameness. Kenniston argued that the achievement of identity, the fusing of past, present, and future, has become very difficult since the generational past is more distant and the future is much more unpredictable. Similarly, the phenomenon of "unrestrained change" has compounded the identity crisis and in many instances it has created a prolonged moratorium on commitment. In a subsequent publication, Kenniston (1968) expanded the concept of youth as a life stage and indicated that a primary developmental task of this stage is individuation vs. alienation.

The construct of ego-identity was classified by Marcia (1966) into two basic components: crisis and commitment. The crisis component was further divided into categories of "moratorium" and "identity diffusion", each based on a lack of ego-identity resulting from a current state of crisis. The terms "identity achievement" and "foreclosure" were used to describe individuals who had achieved a sense of commitment.

Kron (1966) reported that college students developed a sense of mature selfhood through dealing with problems of identity and independence. Achievement of a nondependent identity was
based on a commitment to self-oriented goals and self-reliance in choosing between possible goals.

Toolan (1967) stressed that the search for a personal identity has become much more difficult by recent social changes in the western world. Similarly, due to our society's confusion over what is "normal" for women, they have more difficulty than men in resolving the identity issue.

According to Greeley (1968), a psychosocial moratorium is an absolute prerequisite to identity formation. However, because of increased social pressures upon late adolescents to adopt work-oriented attitudes, few students have time for a psychological moratorium. Being forced to make premature decisions and commitments, likewise limits the students in the process of growing up.

In his book *Self and Society*, Nevitt Sanford (1966) described personality development in the following manner,

...we have to say that in order to induce desirable change - toward further growth or development or toward greater health - we have to think in terms of what would upset the existing equilibrium, produce instability, set in motion activity leading to stabilization on a higher level (p. 37).
According to Madison (1968), this dynamic interaction between stability and change is the emerging view of personality development during the college years. Sanford (1967) further elaborated on his "challenge-response principle" in a subsequent book when he stated that, "people develop when stress is great enough to challenge their prior modes of adaptation, but not so great as to induce defensive reactions" (p. 53).

The relationship between stress and personality growth has received considerable attention in recent studies. In an extensive four year study of college students at Stanford and the University of California at Berkeley, Katz (1968) reported that students who experienced more conflict than their peers appeared to have achieved a higher level of personality development. This led Katz to infer that "conflict and development go together" (p. 12). Mamlet (1968), while writing on the value of crisis in adolescence, urged that students not be protected from stress and crisis, for further development was inspired by a personality crisis during adolescence. Similarly, Nixon (1962), after studying students at Vassar College, found that psychological maturity was attained by only a few "growers" who exerted psychological effort in order to define their identity. In discussing the relationship between social change and youth's
quest for identity, Kenniston (1963), indicated that youth must struggle to "achieve" identity. Feldman and Newcomb (1970), in their comprehensive study of college impact, stated that, "a college is most likely to have the largest impact on students who experience a continuing series of not-too-threatening discontinuities" (p. 332). The importance of balancing this challenge with support was summarized by Sanford (1966) when he declared that,

> the institution which would lead an individual toward greater development must, then, present him with strong challenges, appraise accurately his ability to cope with these challenges, and offer him support when they become overwhelming. (p. 46)

In summary, most researchers conceived of personality development as an ongoing process, extending through the college years. Such growth was analyzed in terms of life stages and developmental tasks. Of prime importance during the late adolescent period was the development of identity. Achievement of identity and psychological maturity were viewed in terms of a "challenge-response process" which emphasized the facilitative relationship between conflict and growth.
Changes in Personality Associated with College Attendance

In reviewing the research related to student change influenced by college attendance, a majority of the most recent studies were concerned with changes in attitudes and values during the college years. One of the most thorough and exhaustive reviews of studies on college students' attitudes and values was made by Jacob (1957). His principal contention was that, "The main overall effect of higher education upon student values is to bring about general acceptance of a body of standards and attitudes characteristic of college-bred men and women in the American community" (p. 4). Thus, Jacob concluded that very few changes observed in students could be directly attributed to the impact of college. Although Jacob provided a wealth of data on college students, his study has been highly criticized by other researchers (Lazarsfeld, 1959; Riesman, 1958).

Nonetheless, with few exceptions, studies of the attitudes and values of college students from their freshman to their senior year indicated marked changes (Arsenian, 1943; Hunter, 1942; Jones, 1938; Newcomb, 1943; Plant, 1958a and 1958b; Webster 1956 and 1958). In his Bennington studies, Newcomb (1943) noted that there was a significant and progressive change
from conservatism to liberalism as the student proceeded through college. Plant (1958a and 1958b) in two separate studies concerned with change in ethnocentrism, found college seniors, in both instances, to be less ethnocentric than they had been as freshmen. The findings of a study conducted by Lehmann and Dressel (1962) at Michigan State University likewise indicated that significant attitude changes did occur from the freshman to senior year; however, in this research, the major changes took place during the first two years of college. In a similar study, Lehmann, Sinha, and Hartnett (1966) tested students as freshmen and then four years later as seniors. The results of this study disclosed that, regardless of sex and length of college attendance, all groups of students became less stereotypic in their beliefs, less dogmatic, and with few exceptions, more "outer directed" in their value orientation. Reporting on his study at Vassar, Webster (1958) found that seniors were less authoritarian, less conventional, more tolerant, more liberal in religious matters, and placed more emphasis on intellectualism than when they were freshmen. Although Jacob (1957) concluded that college students tended to become more homogeneous in their attitudes and values from their freshman to senior year, the findings at Michigan State
(Lehmann and Dressel, 1962) and Vassar (Webster, 1958) did not support this view - in fact, in almost every case, there was greater heterogeneity among seniors than among freshmen.

In addition to this previous research, Jacob (1957), while reporting on one aspect of the Vassar study, noted that seniors were more independent of their families, more critical of their families' habits, and under less sense of an obligation, than were their freshmen counterparts. McConnell (1962), likewise found major differences between freshmen and senior attitudes, with seniors exhibiting more permissiveness than freshmen. In addition, students in the study became much more tolerant from their freshman to senior year.

In a study designed to examine traditional and contemporary value changes during the freshman year, Lehmann and Payne (1963) found that students altered certain values within this comparatively short period of time. Change was facilitated more by informal experiences than formal ones, and males tended to alter their values more than females.

Whiteley and Sprandel (1970), reporting on "The Harvard Student Study", revealed that as students progressed from the freshmen to senior year, their development was marked by:
(1) a strong rejection of authority with a corresponding increase in autonomy and self-confidence; (2) increased emphasis on the interpersonal aspects of life; and, (3) increased impulse control, especially as reflected in the decline of aggression. In addition, the authors confirmed Newcomb's hypothesis that a student's background and personality "determine his choice of friends his freshman year and they serve as the primary influences upon his attitudes and values during college" (p. 16).

In a longitudinal study of 10,000 young adults, Trent and Medsker (1968) measured attitude and value change among collegians and noncollegians during the first four years after high school. The results of their research indicated that the most personality development took place among college persisters, followed by the withdrawals, and then by the employed youth. Such change by college persisters may be attributed to a "facilitative effect" of the college experience (Plant, 1962).

Katz (1968) examined personality development at Berkeley and Stanford over a four year period. An analysis of his data showed that: (1) attitudes, values, opinions, and interests did change during four years of college; (2) informal experiences were of greater importance to change than formal ones; and, (3) personal relationships were the major source of change.
Korn (1968), reporting on a particular aspect of this project, disclosed that consistent patterns of change in personality occurred from the freshman to senior year. This change pattern was represented by a humanization of conscious, increased tolerance and openness, and a rejection of a restricted view of life. Although many students began to exhibit a greater capacity for feeling close to others over the four year period, most encounters were "superficial rather than intimate and rewarding" (p. 170).

Research evidence accumulated from many studies indicated that changes occur early in the college experience, mainly within the first two years, and more particularly within the first year (Freedman, 1965; Lehmann and Dressel, 1962; Sanford, 1967; Webster, Freedman, and Heist, 1962). Indeed, the freshmen year appeared to be the period in which changes in interests, opinions, and attitudes were most likely to occur (Freedman, 1965). Similarly, studies of college alumni have shown that early personality changes have considerable persistence (Freedman, 1962; Hoyt, 1968).

Plant and Minium (1967) compiled data from five previous studies of college student personality change over time in order to assess the relationship between different aptitude levels and differential rates of personality development. Greater non-intellectual changes over time were recorded for both males and females.
with high aptitudes in comparison to low aptitude students. As a result of these findings, the authors criticized previous research in this area on the basis that,

> what investigators have been reporting as changes in personality characteristics resulting from college attendance... (may be) developmental changes in personality characteristics for bright young adults irrespective of their higher educational attainment during a given period of time (p. 142).

Using a pre-post test model, Izard (1962) administered the Edward's Personal Preference Schedule to students in different fields of study during their freshman and senior years. Mean changes for all groups revealed increases in social and emotional maturity. Specific changes included: (1) increased self-assertiveness; (2) a decrease in "other-directed behavior"; and, (3) freer overt expression of hostility in response to threat or frustration.

Nichols (1967) studied National Merit Finalists at 104 institutions over a four year period in order to assess changes in personality. Taken together, the results of this investigation suggested that during college, students increased in self-sufficiency while decreasing in dependency, and their super-ego strength declined with an accompanying increase in tolerance for ambiguity. In general, these changes were similar for both sexes.
In a longitudinal study conducted at the University of Iowa, Schmidt (1970) administered the American College Survey to all entering students in the fall of 1964 and then again four years later to the remaining women students from the original group. Mean score changes represented increases in interpersonal competencies, decreased orientation to the extracurricular, social and academic subcultures of the campus, and greater selectivity in occupational choice. In interpreting these results, Schmidt indicated that the changes could be attributed to subgroup membership, and urged future researchers to focus on the relationship between personality change and group membership.

Constantinople (1969) constructed an Eriksonian measure of personality development which she administered to 952 undergraduate students at the university of Rochester in 1965. Many students were subsequently retested later in their college careers. The questionnaire was designed to evaluate successful and unsuccessful resolution of Erikson's first six stages of development. With regard to the three stages of industry, identity, and intimacy, both male and female students moved toward resolution of these stages as they passed through college. However, significant differences were recorded between male and female freshmen on the first testing. Although female freshmen initially scored as more mature,
differences between the sexes were minimal by the senior year. The data compiled on unsuccessful resolution of the various stages revealed that, "feelings of inferiority, of identity diffusion, and isolation were all at a peak in the freshman year among the males" (p. 362). Nonetheless, while the females scored significantly higher at time of entrance, greater gains in maturity were recorded for the males over the four year period. This led Constantinople to speculate that, "the college environment is more conducive to growth among males than among females" (p. 368). As such, differential aspects of the college environment should be assessed in terms of their contribution to personality development.

Waterman and Waterman (1970) reported on two studies concerned with the relationship between ego-identity status and satisfaction with college. Their findings demonstrated that students who did not go through an identity crisis during college exhibited more favorable attitudes toward their college experience than students who had gone through such a crisis. However, these researchers cautioned that it was not the identity crisis that created the unfavorable attitudes and dissatisfaction, but rather the association of the stress of crisis with the college experience.
In a longitudinal study conducted at Goddard College, Chickering (1967) used the Omnibus Personality Inventory to study the development of emotional independence. Scores obtained on both the 1964 and 1965 classes showed increases in social maturity and autonomy between the time of entrance and the fourth semester.

In a similar study enacted at thirteen small colleges, Chickering, McDowell, and Campagna (1969) investigated the relationship between institutional differences and student development. Regardless of the tremendous differences in students and colleges, student development was found to proceed along similar patterns. Increases were noted in degree of autonomy, impulse expression, practical orientation, awareness of emotions, and estheticism, and these were highly consistent for all colleges. Additional changes were reflected in decreased concern for material success and practical achievement.

The findings of various research studies, as well as theoretical formulations of personality, suggested that healthy interpersonal relationships promote growth and development (Chickering, 1971; Erikson, 1959; White, 1958). Indeed, in the longitudinal study conducted at Stanford and Berkeley by Katz (1968), interpersonal relationships were a major source of personality change. Similar results were reported by Whiteley and Sprandel (1970) in their discussion of the Harvard Student Study.
Dellas and Gaier (1969) studied 139 freshmen women in three different types of colleges in order to assess self-revealed personality traits. In addition to completing a questionnaire, the students were asked to list their greatest personality assets and liabilities. Results indicated no difference in self-revealed personality traits among women at the three colleges. Apparently, all the women regarded good interpersonal relations as their greatest asset, while friendships and concern for others were second in importance.

In a similar study conducted by Frick (1967) at Albion College, 130 male and female students were asked to write essays describing their deepest, most meaningful interpersonal relationship and the changes resulting from it. Analysis of the essays disclosed two basic types of relationships. The first type was classified in terms of its potential for developing personal identity and a sense of individuality. Type two was valued for its growth in other-centeredness. Apparently, the most therapeutic relationship appeared to be a combination of both categories. Frick concluded that through such significant interpersonal experiences, "the subjects appear to achieve a sharpening of their personal identity, a more authentic expression of self, and a great expansion of self-awareness in these relationships" (p. 62).
In a longitudinal study of socio-psychological development, Whittaker (1970) interviewed 164 students and asked them to list individuals who had influenced them in a significant way. Analysis of the data indicated that the students' average response was three persons. The total number of individuals listed was classified into three general categories: (1) peers of the opposite sex; (2) peers of the same sex; and, (3) adults of either sex. For both male and female students, peers of the opposite sex were mentioned as having more influence upon them than peers of the same sex.

Coombs (1969) studied paired student couples concerning their interpersonal satisfaction, shared dating participation and self concept of dating success. His findings suggested a cyclical pattern between interpersonal success, favorable self concept, and social participation. To be sure, a favorable self concept was increased by interpersonal success, which led to increased social participation which, in turn, promoted more interpersonal success.

The interpersonal aspects of college students' lives were studied intensively by Katz and Associates (1968). These researchers were surprised by the "relative interpersonal serenity" that characterized the students in their sample. Although negative feelings were not uncommon, students went to great lengths to avoid expressing them. This led Katz to conclude that what many individuals had interpreted as the relative peacefulness of these students social
relationships was, in actuality, a high degree of superficiality. Furthermore, "The apparent smoothness of relations with others seems in part to be bought at the price of developing a more profound self-definition" (p. 44).

In his noted book, _Childhood and Society_, Erikson (1963) discussed human development in terms of the "Eight Ages of Man". According to his theory, a person must achieve a relatively stable identity as a prerequisite to forming adequate relations with other people. Thus, as the young adult emerges from his search for identity,

He is ready for intimacy, that is, the capacity to commit himself to concrete affiliations and partnerships and to develop the ethical strength to abide by such commitments, even though they may call for significant sacrifices and compromises (p. 263).

In analyzing Erikson's theory, Janis (1969) indicated that, "isolation and self-absorption . . . are the fate of the person who cannot enter into intimate relationships with other people" (p. 352).

Blocher (1966), in discussing college as a developmental milieu, stressed that, "intimacy involves the ability to live in close physical and psychological proximity to others in a variety of relationships not necessarily sexual" (p. 206).
Coons (1970), a psychiatrist at Indiana University, discussed the significance for the college student to develop the capacity for true intimacy. From interviews with students, Coons indicated that difficulty with close interpersonal relationships could often be traced to "refrigerator parents". In addition, such factors as intense competition, delayed autonomy and independence, and sexually segregated dormitory systems, all contribute to make the development of intimacy a major problem for most students.

While discussing intimacy as a basic human desire, Dreyfus (1967) indicated that most students felt ambivalent about closeness with themselves and others. His discussion focused on the following steps in the process of becoming intimate: willingness to become intimate; openness to another person; and, a feeling of closeness with and commitment to one another.

Gardner (1969), in analyzing sex differences in college friendship patterns, administered the Edwards Personal Preference Schedule to 500 students. In addition, the students were requested to rate, on a five point scale, the degree of intimacy in their friendships over a period of months. Results showed that women attained higher intimacy scores than men, and that same-sex friendships were utilized more often by women to satisfy interpersonal needs.
than by men. These results appeared to confirm statements by Coons (1970) and Nixon (1962), that it is easier for women to establish intimate relationships than it is for men. One aspect of this problem is that, through the socialization process, men are taught to avoid physical contact with other males.

In summary, most of the studies reviewed in this section disclosed that systematic changes occur in students' personality during the college years. Many of the changes take place early in the college experience, usually in the first or second year. Change is often facilitated more by the informal, non-academic experiences than by the formal ones. The student's peer group exerts substantial influence on his personality development, and interpersonal relationships are often ranked highest in terms of contribution to change. In addition, many studies presented evidence that differential changes occur in certain dimensions of personality for males and females as they progress through college.

Studies Relative to Self-Actualization

In his book, *Motivation and Personality*, Maslow (1954) discussed six degrees of need priority which lead to psychological health. This "hierarchy of needs" theory is represented by physiological and safety needs as the lower order needs, with belongingness, love,
self-esteem and self-actualization representing the higher order needs. According to Maslow, the lower order needs are the most potent, and these must be satisfied before an individual can move on to the next level of needs. The ultimate nature of man is to function at the upper levels of the hierarchy, especially at the level of self-actualization. The actualization process is viewed as "the development or discovery of the true self and the development of existing or latent potential" (Goble, 1970, p. 24). Unlike other personality theorists, Maslow chose to investigate self-actualization by intensively studying the lives of a group of exceptionally healthy individuals who had realized their potentialities to the fullest. From this research, he delineated fifteen characteristics of self-actualized people. These distinguishing features included: (1) Efficient perception of reality; (2) Acceptance of self, others, and the natural world for what they actually are; (3) High degree of spontaneity and naturalness; (4) Problem-centered, not self-centered orientation; (5) Quality of detachment with a need for privacy; (6) Autonomy and independence; (7) Experiencing mystical or oceanic feelings; (8) Fresh appreciation of people and the world; (9) Strong identification with mankind; (10) Deep, intimate, and profound interpersonal relations; (11) Democratic attitudes and values; (12) Discrimination between means and ends; (13) Philosophical rather than hostile
sense of humor; (14) Tremendous creative capacity; and, (15) Resistance to enculturation. Thus, as Hall and Lindzey (1970) concluded, "As self-actualizers, these people whom Maslow has observed are the embodiment of organismic theory" (p. 329).

Unlike Maslow, Kurt Goldstein (1940) formulated his organismic theory of human behavior by studying defective and disorganized people. However, self-actualization, likewise, is the central theme in his conceptualization of personality. Indeed, for Goldstein, "The only motive in human existence is the trend to actualize oneself" (Bischof, 1964, p. 632). Through the process of "coming to terms" with the environment, the individual finds the setting which is most appropriate for self-actualization. This involves achieving adequacy and order between his own potentialities and the demands of the environment. Thus, for Goldstein, self-actualization is "the creative trend of human nature. It is the organic principle by which the organism becomes more fully developed and more complete" (Hall and Lindzey, 1970, p. 306).

Shostrom (1964) discussed a number of personality dimensions which discriminated self-actualized people from normal or non-self-actualized people. Through an item analysis of his Personal Orientation Inventory (a measure of self-actualization), he found that self-actualized people had liberated themselves from various
social pressures, expectations, and goals. Furthermore, they appeared to live more fully in the here and now, tying "the past and the future to the present in meaningful continuity" (p. 212). The self-actualizing people were found to possess a more autonomous, self-supportive or being orientation than normal or non-self-actualized people. Similarly, they were described as synergic or capable of transcending the dichotomies between selfishness and unselfishness, spirituality and sensuality, and work and play.

In a study conducted at the University of Tennessee, McClain and Andrews (1969) investigated the relationship between peak experiences and self-actualization. Students who reported having peak experiences were found to be more open-minded, more intelligent, forthright and self-sufficient, freer from anxiety and tension, and more anti-authoritarian than other students in the study. From these results, the authors concluded that the students who had peak experiences were more self-actualized than the other students. These findings tended to support Maslow's (1968) theory of the relationship between self-actualization and peak experiences.

McKenzie (1966) designed an Actualizing Orientation Scale based on self-actualization theory. His instrument was composed of the following eight subscales: Altruism; Satisfaction; True Rational; Freedom to Move; Open to Environment; Rectitude; Non-Authoritarian; and, Intuition. After administering the scale to
public school counselors, physicians and ministers, he concluded
that differing occupational specializations were accompanied by
significant differences in actualization orientations.

In a study designed to investigate Maslow's assertion that highly
self-actualized people are resistant to enculturation, Hekmat and
Theiss (1971) subjected low, moderate and high self-actualizers to a
social conditioning interview. The number of affective self-disclosures
were recorded for each group before and after conditioning. Results
indicated that although high self-actualizers had a significantly higher
rate of affective self-disclosure prior to conditioning, they showed
a non-significant gain during conditioning. Furthermore, they were
more resistant to extinction when compared to both the low and
moderate groups. Thus, these findings give empirical support to
Maslow's assertion.

Braun (1969) tested 39 undergraduate students using four
different instruments in an attempt to find correlates of self-
actualization. He hypothesized that self-actualizers would possess
a superior ability to reason and be logical, have a greater preference
for ambiguity and unstructured stimuli, and have more accurate per-
ception than other persons. Intercorrelations between the four instru-
ments did not support the hypotheses.
In a study designed to assess the relationship between self-actualization and achievement, underachievers scored significantly lower than academically successful students on six of twelve scales of the Personal Orientation Inventory (POI), with the largest difference being recorded on the Inner-Directed (I) scale (Le May and Damm, 1968). Subsequent research in this area revealed that self-actualization and achievement are not directly related (Le May, 1969), but "are related secondarily through separate relationships with other variables" (Leib and Snyder, 1968, p. 388). No significant relationship was found between students' grade point average and their scores on a measure of self-actualization (the POI), with the exception of one scale, in a study reported by Stewart (1968).

Maul (1970), in an attempt to empirically determine the presence and existence of the overlap between self-actualization and creative thinking processes, administered the Torrance Tests of Creative Thinking and the Personal Orientation Inventory to 137 college students. Significant relationships were found between all subscales for the various instruments. These findings suggested a widespread connection between self-actualization and creative thinking processes. Similarly, the results added support to Maslow's theory of the relationship between creativity and self-actualization.
In a similar study conducted by Gerber (1964), students were administered the POI in conjunction with a paper and pencil creativity test. Comparisons were made between low, medium and high psychologically healthy groups and low, medium and high creativity groups. The results showed a definite trend indicating a positive relationship between psychological health and creativity. The findings appeared to be more specific for males than for females.

Gunnison (1964) investigated the relationship of psychological health to political and economic attitudes and life values. Analysis of his results revealed significant differences in social values between lower and upper psychologically healthy groups. Psychologically healthy individuals were found to be more liberal in social philosophy than the group that scored lower in psychological health. In addition, the psychologically healthy group was characterized by initiating rather than reacting, indicating a preference for a more active and energetic life.

Rosenthal (1967), in an attempt to study the self-actualizing process in college students, administered the Personal Orientation Inventory to a selected group of female students at the beginning and end of their freshman year. Post-test scores were generally significantly higher than the pre-test ones, leading the author to conclude that freshmen women do experience positive growth toward self-actualization during their first year in college.
In a study designed to assess the interrelationships of self-actualization, personal characteristics, and subculture attitudes, La Bach (1970) obtained scores from 241 freshmen and 167 seniors on the POI and the College Student Questionnaire, Part 2 (CSQ-2). Although the obtained correlations were low, they were statistically significant. Self-actualization, as measured by the I scale of the POI, was positively related to age, marital status, and years in college as well as to the CSQ-2 scales that measured satisfaction with college, satisfaction with social life, and cultural sophistication. Lower POI scores were obtained for students who identified with the vocational subculture. Seniors scored significantly higher than freshmen on all major POI scales except Existentiality and Acceptance of Aggression. The author concluded that the results "give validity to the concept of self-actualization as growth" (p. 104).

Gibb (1968), reporting on the relationship between home background and self-actualization attainment, identified a number of variables associated with a higher level of self-actualization. His results suggested that those students who were more highly self-actualized were: (1) from smaller families; (2) from homes whose parents had more formal education; (3) from families whose mothers had worked full time; (4) presently not involved in active religious participation. In an earlier study, Gibb (1966) indicated that the females in his sample were more self-actualized than the males.
In a similar study, Dawson (1969) found no significant relationship between such selected factors as maternal employment, denial of same sex chum in preadolescence, and family residential mobility and the achievement of self-actualization.

By using a multiple discriminant analysis, Wills (1972) identified variables which discriminated between groups differing in level of self-actualization. Male and female students were sorted into low, medium and high self-actualization groups on the basis of their scores on the I scale of the POI. Each group was then administered the Tennessee Self-Concept Scale, the Differential Profile, Mehrabian's Achievement Scales for Males and Females and a Personal Data Questionnaire. The three groups of males were discriminated by: Personal Self, Self-Criticism and Moral Ethical Self, with the high self-actualizers scoring more positively on each variable. The three female groups were discriminated by: Social Self, Self-Criticism, Personal Self, Physical Self and Moral Ethical Self. Like the males, the high self-actualizing females scored more positively on each of these variables. The study also reported that the three male groups differed with regard to their preferred living arrangement (off-campus, single-sex or coed residence halls, cooperatives, fraternity houses, living at home).

Rogers (1969) studied the relationship between nuclear family environment and self-actualizing tendencies. A group of 183 under-
graduate students was divided into self-actualizing and non-self-actualizing subgroups on the basis of their scores on three scales of the California Psychological Inventory and two scales of the Personal Orientation Inventory. A number of significant differences were found between the two groups on ratings of ten family interaction variables. This led the author to conclude that self-actualizers came from families with a higher degree and variety of common participation among family members.

Reporting on personality changes resulting from a "non-group" training experience, Byrd (1967) indicated that "creative risk takers" made significantly more gains on selected dimensions of self-actualization than "sensitivity trainees". In a related study, Reynolds (1968) found a positive correlation between subjective interpersonal risk and self-actualization.

Ridge (1968) investigated the relationship between selected housing setting and such factors as self-actualization, achievement, demographic variables, and student attitudes toward college education, life goals, and housing setting at the University of Florida. Housing setting was defined as: on-campus residence halls; Greek houses; privately owned off-campus housing; and, an area of high density garden apartments located off-campus. In general, all the factors were found to be quite similar in nature for the four different housing arrangements. Approximately the same degree of
self-actualization was indicated for students in the four settings.

In summary, much of the research reported in this section tends to support Maslow's theory of self-actualization. Specifically, strong, positive relationships were found to exist between self-actualization and creativity, resistance to enculturation, peak experiences, creative interpersonal risk taking, certain social and political attitudes, and various personal and home background characteristics. In addition, some research evidence indicates that students experience positive growth toward self-actualization during their freshman year in college.

II. RESIDENCE HALLS

Overview of Research on College Residence Halls

Although new housing facilities have been erected at an 'explosive' rate, during the last 15 years, very little research has been undertaken to evaluate the impact of differential housing environments on student behavior. Instead, much of the literature related to college residence halls appears to be concerned with attempting to justify their "educational value" through either a philosophical or theoretical approach.

From a historical standpoint, residence halls were initially conceived as an integral part of the educational experience. However, as enrollments increased and facilities were subsequently expanded,
the campus residence hall began to lose its' educational identity (Brunson, 1963). Hence, on many campuses, student housing currently occupies a rather paradoxical position. While many administrators view it solely in terms of an "auxillary enterprise", others perceive it as one avenue through which to achieve the educational objectives of the institution (Fairchild, 1963). In most instances, however, the business operation tends to dominate the educational aspects of student residences, thereby reinforcing the auxiliary concept (Riker, 1956). Nonetheless, many educators agree that residence halls should be centers of learning (Butler, 1962; Campbell and Richards, 1964; Murphy, 1969; Riker, 1965; Sanford, 1962; Williamson, 1958; Wise, 1958). Williamson (1958) synthesized the attitudes of many authors when he stated,

I am convinced that residences can serve most fruitfully educational purposes of significance in higher education. And I am equally convinced that these purposes will be served only when we reappraise our present uses of residences (p. 397).

Similarly, Eddy (1959) criticized colleges for not recognizing the educational potential of their residence halls, both in terms of contributing to the academic program and the character development of students.

In an attempt to actualize the educational potential of residence halls, Riker (1965) proposed a new role for student housing. As such, he envisioned three major uses of campus residences:
(1) Centers for living and learning; (2) Centers for community development; and, (3) Centers for student services. A principal goal of this new role would be the merging of the in-class and out-of-class life of students.

In 1961 Michigan State University began experimenting with the "living-learning" residence concept. Space in their residence halls was redesignated for classrooms, faculty offices, and social facilities, as well as for student rooms. Blackman (1966), reporting on this experiment, indicated that the new approach had facilitated intimate student/faculty relationships, in addition to increasing student participation in various programs.

Adams (1967) completed a follow-up evaluation of the first Michigan State living-learning residence hall and found that 80 percent of his sample felt that the living-learning concept was by far superior to other residence hall experiences, course offerings and the conventional curriculum.

In discussing future trends for residence halls during the 1970's, Greenleaf (1967) indicated that students are increasingly resistant to living in residence halls. She attributed this resistance to the following circumstances: (1) the lack of attention focused on the relationship of facilities to student needs and interaction patterns; (2) the 'cell-like' environments of most halls; (3) excessive rules and regulations designed primarily to control students.
After an environmental analysis of the residence halls at the University of California at Berkeley, Van der Ryn and Silverstein (1967) concluded that residences appeared to be designed to meet the needs of one group of students, the 'collegiates', at the expense of other student subcultures. Furthermore, their results suggested that the dormitories failed to provide an adequate personal environment because: (1) access of others could not be controlled, and hence, solitude and privacy were non-existent; (2) room design was inflexible; and, (3) excessive regulations concerning social conduct, room use and furnishings permeated all aspects of the living experience,

Sandeen (1968) argued that the student migration away from residence hall living was not primarily due to dissatisfaction with architecture, facilities, and rules and regulations. Instead, he attributed 'moving out' to students' concern for personal privacy. Furthermore, he stressed that,

It is the inability of the college to combine the sense of community and the need for privacy in a meaningful way that stands as the principal barrier to the success of many residential programs (p. 229).

In discussing freedom and privacy in student residences, Shay (1969) felt that most residence hall programs were based on a philosophy of controlling group behavior rather than facilitating individual growth through freedom of choice. Similarly, archaic
social rules combined with the physical limitations of most halls were responsible for the exodus away from the campus.

Saffian (1968) criticized contemporary student housing because "The college residence hall has failed to grow up with its inhabitants" (p. 6). He called for intensive evaluation of the residence hall experience in terms of its' ability to either stimulate or inhibit growth in the individual.

In research of a different nature, Penn (1967) investigated student attitudes toward housing at the University of Wisconsin. The results of his survey showed that both men and women preferred to live in university residence halls for at least a brief period. Although many students ranked residence halls as the least desirable place to live, they were considered advantageous for getting acquainted with people and for the opportunity they afforded for participation in a variety of campus activities.

Matson (1963) compared the influence of fraternity, residence hall, and off-campus living on students of high, average and low college potential. Analysis of the three living arrangements revealed that the best atmosphere for academic achievement was provided by the residence hall environment.

In a study conducted at Colorado State University, Schoemer and McConnell (1968) investigated certain characteristics of freshmen women who lived in all-freshman halls, all-undergraduate halls, and
co-educational halls. Although the freshmen in all-undergraduate halls achieved higher grade point averages, no initial differences were recorded in perceptions of the campus environment for the three groups. However, over the one year period, all three groups significantly modified their original expectations.

Reporting on a similar study, Beal and Williams (1968) found that freshmen who lived in halls occupied by upperclassmen expressed greater satisfaction with their college experience than freshmen who lived in all-freshmen halls. In addition, these students exhibited more favorable attitudes toward personal problems, their family, and finances.

Baker (1966) compared students living in residence halls, boarding houses, and at home in regard to their perception of the environmental press at the University of Wisconsin. His findings concluded that place of residence accounted for differences in the perception of the characteristics of college environments.

A study conducted at Syracuse University by Conover (1957) revealed that students who lived in smaller housing units participated and contributed more to their residence hall and campus activities than students who lived in large residence units. Similarly, the larger living units provided poorer study conditions and limited the students' understanding of their hall government.
In summary, a review of the literature related to college residence halls revealed that the majority of publications were primarily concerned with the educational potential of student housing. Most researchers agreed that this potential had not been actualized. Current trends in residence hall living indicated, however, substantial attempts to integrate the in-class and out-of-class life of students through the development of living-learning centers. Similarly, as students' resistance to residence hall living increases, more attention is being focused on the relationship between the halls' environmental qualities and student needs. In addition, some efforts are being made to increase student freedom and privacy within residences. Nonetheless, one must conclude that only an insignificant amount of research has been undertaken to evaluate the impact of differential housing arrangements on student behavior.

Studies Relative to Co-Educational Residence Halls

In reviewing the literature from 1955 to the present, it became evident that co-educational living is a relatively new concept in housing on college campuses in the United States. For, as Nelson (1960) stated,

The old custom was to build men's residence halls on one side of the campus and women's residence halls on the other, and then spend a good deal of money on mixers and exchange dinners to get the young people acquainted (p. 40).
However, a gradual trend toward co-educational living has been established during the last decade. This was substantiated by a survey of A.C.U.H.O. member institutions in 1967 which revealed that of 392 institutions reporting, 51 percent offered some form of co-educational housing (Riker and DeCoste, 1967).

Although co-educational living has enjoyed only a short existence in a few housing programs, it takes form in a wide variety of designs and is operated on the basis of widely differing philosophies. From the early sixties to the present, co-ed units generally assume one of three basic formats: (1) large living centers with separate buildings for men and women; (2) a large building with separate wings for men and women; or, (3) large halls with separate floors for men and women (Greenleaf, 1962). Although each of these designs assures separation of men and women, integration of the sexes occurs through the mutual use of common residence hall facilities. Recently, however, with the advent of such policies as visitation, some institutions have developed radically new formats for co-educational living (Thorsen, 1970). Nonetheless, basically two operational philosophies are involved in co-ed housing: (1) Many institutions build co-educational residence halls primarily to compensate for year to year fluctuations in the male-female ratio with little, if any, attempt to make these structures part of the educational program; (2) Some colleges and universities "build co-ed complexes almost exclusively,
and regard the co-educational living experience as an integral part of the educational process" (Imes, 1966, p. 1).

Early definitions of co-educational living appeared to focus on the structural aspect of the experience. For example, in an early survey of residence hall programs, Crane (1962) defined co-educational housing as "adjacent buildings with restricted access to single-sex living units, but with maximum co-educational use of all public areas such as dining rooms, recreation rooms, and lounges" (p. 48). Noted housing authority Harold Riker, also viewed co-ed housing as separate living areas for men and women. However, he suggested utilizing the same structure divided horizontally or vertically into separate units for men and women (Riker and Lopez, 1961). In a paper published in 1964, Allen, et al., defined co-ed living in the following manner,

Residence halls, as co-educational communities, are men and women students living in a specific physical environment within a university or college campus, working and learning together in the changing process of human relationships and interrelationships (p. 82).

Allen's view, although somewhat incomplete, extended beyond the narrow confines of Crane's and Riker's definitions and suggested some of the process inherent in co-educational living. The process aspect of co-ed living is further evident in Butcher's (1968) conceptualization which indicated that "co-educational living and learning take place when a harmonious working relationship with fellow
students of the opposite sex is evident . . . (this involves) the sense of belonging . . . and the realization of one's self'' (p. 7).

Although most researchers did not appear to share a universal definition of co-educational living, they did seem to agree on the various advantages associated with this type of housing. In discussing the positive aspects of co-ed living, researchers listed such benefits as: (1) increased social education and greater diversity of social activities; (2) more effective use of space; (3) increased naturalness of male-female interaction; (4) increased understanding of the variations in the roles of each sex; and, (5) more "real life" situations (Allen, et al., 1964; Greenleaf, 1962; Imes, 1966; Paddock, 1966).

In addition, most researchers agreed that both men and women appear to be more conscious of their dress and behavior in the co-ed units. To be sure, when compared to the traditionally segregated halls, "general social behavior patterns appear to be better in the co-ed living centers" (Greenleaf, 1962, p. 109). With regard to activities, there seemed to be less of a need for formal functions, such as exchanges.

After evaluating co-ed living at the University of Illinois, Seibert (1959) maintained that the success of the program rested on the intangible benefits. He offered the following explanation:

The students sociability, responsibility and intelligent thinking that have characterized the program at Illinois are benefits students do not usually get in the classroom, but they learn them by eating and working together (p. 42).
Upon reviewing the new co-ed living arrangement at Oberlin, Dr. Martha Verda, a counseling psychologist, indicated that the new program helped students learn how to have friends. Similarly, Dr. Verda contended that, "As community spirit grows, students do not have to pair off as lovers to get to know each other. They form brother-sister relationships and take on larger groups of friends" (Thorsen, 1970, p. 39).

The role of co-educational living in transforming the traditional dating - mating game on campus was likewise reported in Katz's investigation of student development at Stanford University and the University of California at Berkeley. In an article in American School and University, Katz was quoted as saying,

By placing more emphasis on acquaintance and shared time activities ... co-educational housing avoids over-idealization of the opposite sex. Providing men and women students with shared dining and social facilities and common academic programs may lead them to regard each other more like brothers and sisters ... (American School and University, 1968, p. 35).

In a survey of co-educational housing at ten institutions, Imes (1966) related no significant difference in grade point average between co-ed and non-co-ed students. In addition, her data indicated that significant numbers of students tend to return to co-ed halls the following year.
The advantages of co-ed living previously listed by professional residence hall staff and other educators appeared to be widely supported by students living in co-ed halls. During A.C.U.H.O.'s Fifteenth Annual Conference, a student panel member concluded that, "for contact, co-educational living is less artificial and more informal and perhaps more sincere . . . that the associations are spontaneous and not planned. . . (and) relationships tend to be more continuous" (A.C.U.H.O., 1963, p. 254).

At the University of Rochester, co-educational living is centered in two nine story buildings called the "Towers". From their experience with co-ed living in this arrangement, students generally agreed that it is easier to learn to know one of the opposite sex as a person rather than as a potential date or competitive student. In addition, Rochester students indicated that the environment is "conducive to healthier and more realistic perceptions of the opposite sex than any other environment in which they have previously lived" (Paddock, 1966, p. 164).

After evaluating co-educational living at the University of Maryland, Lynch (1971) found that co-ed residents discussed personal problems more frequently with members of the opposite sex than did non-coed residents. Similarly, co-ed residents exhibited more "spirit" and interaction within their living unit as well as a higher degree of satisfaction with their hall. An earlier evaluation of the
"Hagerstown Experience" revealed that co-ed residents felt that co-ed living provided "a strong stimulus for intellectual and emotional growth" (University Housing Office, University of Maryland, 1970, p. 12).

In a current longitudinal study sponsored by the Laboratory For Social Research at Stanford, researchers are investigating the impact of co-ed living on peer interaction. Preliminary reports indicated that behavioral changes are expected in the following areas: dating, sexual behavior, friendship patterns, age at marriage, stability of marriage, stereotypic notions about the opposite sex and one's own sex (Askinas, 1970).

Although co-educational housing is primarily viewed as a positive force on campus, this arrangement, nonetheless, exhibits certain disadvantages. Administrators and students agreed that the primary concerns included: (1) limited leadership opportunities for women; (2) co-educational staffing problems; (3) differential regulations for men and women; (4) lack of privacy; (5) dating within the complex or hall; and, (6) prevalence of a "social" atmosphere (A.C.U.H.O., 1963; Allen, et al., 1964; Greenleaf, 1962; Imes, 1966; Paddock, 1966; Thorsen, 1970). An additional concern voiced by some parents and faculty pertained to the increased opportunity for sexual freedom within co-ed halls - especially those with extended visitation policies. However, according to Stanford
psychologist, Joseph Katz, "co-ed living does not lead to promiscuity" (Thorsen, 1970, p. 39).

Miller (1972) used the College and University Environment Scales (CUES) to compare the changes in perception of the university environment that occurred in freshmen men and women residing in co-educational and single-sex residence halls. Greater changes in perception were recorded on certain CUES scales for freshmen women in the single-sex halls. However, students in all four treatment groups changed their perceptions of the university environment over a sixth month period, but the change was in a negative direction.

From the preceding discussion of co-ed housing, it becomes evident that most of the research in this area dealt primarily with such factors as structural arrangements, activities, rules and regulations, academic performance, utilization of space, and staffing. Nonetheless, some authors stressed that co-educational living facilitated a better understanding of sex roles and increased naturalness of male-female interaction. Similarly, interpersonal relationships were perceived as more genuine and continuous in co-ed halls. Dating patterns likewise were transformed, as students in co-ed residences formed brother-sister relationships. However, very little research focused upon the relationship between individual student development and the co-educational residence hall environment.
Implications of Residential Setting for Personality Development

In surveying the research related to the impact of residence halls on personality development, most of the literature dealt with two general areas: (1) personality factors associated with selection of various housing arrangements; and, (2) the impact of different residential groups on individual development.

Alfert (1966), reporting on an investigation of housing selection, need satisfaction and dropout from college, administered the Omnibus Personality Inventory (OPI) to 153 students living in six different residential settings at the University of California at Berkeley. The results indicated that the lowest dropout rates occurred for men living in university residence halls and cooperatives. In addition, students who continued to select university-provided and controlled housing initially obtained low scores on both the Impulse Expression and Social Maturity Scales of the OPI.

In a similar study conducted at a later date, Alfert (1968) found that both males and females who scored high on the OPI's Social Maturity and Impulse Expression scales changed residences more frequently than did low scorers. Similarly, complexity of personality was related to choice of living arrangement. Students low in complexity tended to live at home, while complex students lived in various residences other than home and changed residences
most often. This led the author to conclude that, "Personality factors may determine the residence students select" (p. 92).

Dollar (1966) found differences in socio-economic background, sociability, and American College Test (ACT) scores for men living in fraternity houses, residence halls and off-campus. The residence hall group apparently valued independence more than the other two. These findings suggested that the three living situations appeared to attract different types of men with different needs and purposes.

In a study designed to assess personality traits of females who select either sorority, residence hall or off-campus living, Duke and Dollar (1970) administered the Edwards Personal Preference Schedule to 106 students in these three groups. Analysis of the results revealed that the women who chose to live in residence halls differed from those in sororities on Affiliation scores. Similarly, differences were recorded in Succorance scores for residence hall women and those living off-campus.

The results of these studies tend to support Feldman and Newcomb's (1970) claim that the forces of self-selection and group recruitment account for many of the differences among students living in various types of residences.

In discussing the relationship between residential setting and individual development, Segal (1967) suggested a relevant point:
The developmental tasks of the college years do not differ for the college students living at home, in residence halls, or in off-campus housing. Rather, what differs is the setting within which these common developmental tasks must be achieved . . . different settings allow different kinds of testing, trying, and doing, and the choice of one or another setting suggests different strategies and tactics in terms of the primacy of different needs within the person (p. 308).

Chickering (1967), in analyzing the student development potential of college residences, indicated that students occupying residence halls formed close associations which fostered the freeing of interpersonal relationships. The development of a personal value system appeared to be stimulated by such relationships. In a subsequent publication, Chickering (1971) stated that, "A residence hall has most impact when it becomes an effective- and affective-subculture, when it becomes a reference group for its members" (p. 153). This statement parallels Feldman and Newcomb's (1970) belief that the extent of change fostered by residences is directly linked to the amount of peer involvement in the halls.

In a study of personality development at Haverford College, Heath (1968) reported that forcing students with different backgrounds and values to live together, helped them to become more tolerant and accepting of others. Similarly, reports from alumni disclosed that ethnocentrism had decreased as a result of relationships with roommates and friends.
Alsobrook (1962) found that the 'health engendering' or 'health depressing' orientation of a student's roommate directly affected his social and personal adjustments while at college.

In a study of residential groups and individual development at Stanford and Berkeley, Lozoff (1968) studied students living in residence halls, fraternities, and off-campus, as well as members of eating clubs. Her findings disclosed that residence hall men changed less in intellectual interests, freedom to express feelings, and kinds of friends, than men in the other groups. Of particular interest was the difference between groups in acceptance of aggression and hostility. For, as the author stated, the residence hall men "tended to deny their hostile feelings or to control all feelings to the point where intimacy was sacrificed." (p. 305). With regard to activity involvement, residence hall men were more isolated than the other groups. The results of this study inferred that support of peers is essential for the resolution of developmental tasks of late adolescence.

As previously stated, developing the capacity for intimacy is regarded as a principal developmental task of late adolescence (Blocher, 1966; Coons, 1970; Erikson, 1958). However, such factors as sexually segregated dormitory systems "make the establishment of true intimacy more difficult" (Coons, 1970, p. 538).
White (1969), in an article dealing with life styles and residence halls, appeared to support, in part, Coon's thesis when she stated, "The majority of students are residents who live in a controlled environment, itself characteristically formal and impersonal and therefore inappropriate for informality and intimacy" (p. 123).

Brown (1968) manipulated the environmental press in a college residence hall by allowing students with similar academic backgrounds to numerically dominate certain floors. Thus, while humanities students established dominance by a four to one ratio on one floor, social science students maintained the same ratio on another floor. The dominance of one vocational group had a significance impact on students' choice of friends, social interaction, commitment to a major and satisfaction with college.

In a study of a different nature, Chesin (1969) administered the Inventory of Beliefs and the Differential Value Inventory to freshmen residing in mixed class halls, all-freshmen halls, and upperclass residences. Differences in pre-test scores indicated a marked similarity between freshmen in the three living groups. The post-test results revealed that, regardless of their degree of contact with upperclassmen, all freshmen became more emergent in their values and more mature and less stereotypic in their beliefs and attitudes.
To summarize, the literature reviewed in this section disclosed that students with distinct personality characteristics often selected certain types of living arrangements. In addition, different residential groups appeared to either facilitate or inhibit the development of various dimensions of personality.

Summary of Reviewed Literature

A review of the literature revealed very little research pertaining to the specific problems of this study. The review was thus concentrated in two general areas: personality development and residence halls. Within these sections, the following topics were considered: theoretical frameworks for personality development during the college years; changes in personality associated with college attendance; studies relative to self-actualization; overview of research on college residence halls; studies relative to co-educational halls; and, implications of residential setting for personality development.

Personality development during the college years was conceived by most researchers in terms of life stages and developmental tasks. Of principal importance to the late adolescent was the achievement of identity and the establishment of intimate relationships with others. Reports from numerous studies indicated that conflict and growth go together.
Numerous studies conducted over the last 30 years found that systematic changes occurred in students' personality during the college years, with most changes taking place in the freshmen and sophomore years. Changes appeared to be facilitated by students' interpersonal relationships, their peer group, and by the informal, non-academic experiences of the college milieu.

Maslow's research on self-actualization stimulated a great deal of interest in "third force" psychology. Subsequent investigations into various aspects of his theory tended to support his concepts. Specifically, significant relationships were found to exist between self-actualization and creativity, peak experiences, resistance to enculturation, interpersonal risk taking and various personal and home background characteristics.

Literature related to college residence halls revealed a significant amount of concern over the educational value of student housing. This prompted many educators to attempt to integrate the in-class and out-of-class lives of students through establishing living-learning residence halls. Current trends disclosed more concern for the relationship between physical structure and student needs, as well as some attempts to move away from the controlling function of student housing.

The research that focused on co-educational residence halls seemed more concerned with such factors as utilization of space,
structural arrangements, rules and regulations, activities, and staffing, than with its impact on student development. However, a few studies presented evidence that co-ed living facilitated: a better understanding of sex roles; increased naturalness of male-female interaction; and, more genuine and continuous interpersonal relationships.

Although little research has been undertaken to investigate the relationship between residential setting and personality development, some studies revealed that certain types of living arrangements appeared to either facilitate or inhibit specific kinds of personality development. Most researchers considered the processes of self-selection and group recruitment to be potent forces that accounted for many of the differences found between students in various types of living units.
CHAPTER III

METHODOLOGY AND PROCEDURES

The purpose of this chapter is to describe the location and design of the study, the sample selection method, and procedures used to collect and analyze the data.

Locale of the Study

Oregon State University, the land grant institution of the state, is located in Corvallis, Oregon, a city of 20,000 population independent of university students. It is a co-educational university with an undergraduate student body drawn from all parts of the United States and a number of foreign countries as well, though approximately 90 percent of the students are Oregon residents. Because of its location, the university is primarily a residential campus.

During the fall term of 1971, the university enrolled a total of 15,542 undergraduate students, with 4,514 of this number comprising the freshman class. At the initiation of this study, 2,490 freshmen students (55.1 percent of the total freshman class) were housed in one of six single-sex or five co-educational residence halls. Throughout the year, these university owned and operated residence halls maintained an average total occupancy of 300 students per hall, including approximately 220 freshmen for each unit.
Thus, freshmen students comprised 63.4 percent of the total residence hall population.

Of the freshmen who did not live in residence halls, 21.1 percent were housed in either university approved cooperatives, fraternities or sororities. The remaining 23.8 percent of the freshmen resided with parents or relatives in local or neighboring communities.

**Subjects**

The subjects in this study were selected by using lists and other information provided by the Department of Housing. Only those students age 19 years and younger, citizens of the United States, with no previous attendance in any institution of higher education were considered eligible for the sample. Furthermore, in order to qualify as subjects, freshmen had to be assigned their first preference of residence hall. However, if freshmen did not receive their first choice but indicated that they desired either a single-sex or co-ed hall, and subsequently received an assignment based on this preference, they were considered eligible for the sample.

A total population of 1,874 students fulfilled the requirements for participation in the study. Of that number 590, or 31 percent, were selected by utilizing a random number sampling technique (Steel and Torrie, 1960). In order to insure a representative
proportion of students from each of the 11 residence halls, the sample was stratified on the basis of the percentage of freshmen for each individual hall. Table 1 indicates the number of male and female students from single-sex (SS) and co-educational (CO) residence halls selected for the study. Although a number of the students either changed housing arrangements or withdrew from school after the winter quarter, 76.1 percent of the initial sample participated throughout the period of the study.

**TABLE 1. Distribution of Random Sample and Pre- and Post-Test Participants**

<table>
<thead>
<tr>
<th>Randomly Selected Sample</th>
<th>Pre-Test Participants % of Subgroup</th>
<th>Post-Test Participants % of Subgroup</th>
<th>% of Pre-Test Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number N</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>MSS</td>
<td>146</td>
<td>135</td>
<td>92.4</td>
</tr>
<tr>
<td>FSS</td>
<td>150</td>
<td>149</td>
<td>99.3</td>
</tr>
<tr>
<td>MCO</td>
<td>146</td>
<td>143</td>
<td>97.9</td>
</tr>
<tr>
<td>FCO</td>
<td>148</td>
<td>141</td>
<td>95.3</td>
</tr>
<tr>
<td>Total</td>
<td>590</td>
<td>568</td>
<td>96.2</td>
</tr>
</tbody>
</table>

**Sources of the Data**

The primary source of data for this study was students' responses to selected scales of the Personal Orientation Inventory. Additional information was gathered from housing contract cards and room assignment lists provided by the Oregon State University Department of Housing.
The Personal Orientation Inventory

The Personal Orientation Inventory (POI) was developed by Shostrom (1964) as an inventory for the measurement of self-actualization. The instrument consists of 150 two choice comparative value judgements which compose two basic scales: inner-directed support (I scale, 127 items) and time competence (Tc scale, 23 items). The POI is further divided into ten subscales, "each of which measure a conceptually important element of self-actualization" (Shostrom, 1966, p. 5). The 12 scales of the POI include:

- **Tc**, Time Competence (23 items): measures degree to which one is "present" oriented.
- **I**, Inner-Directed Support (127 items): measures an autonomous self-supportive, or being-orientation.
- **Ex**, Existentiality (29 items): measures ability to situationally or existentially react without rigid adherence to principles.
- **Fr**, Feeling Reactivity (23 items): measures sensitivity of responsiveness to one's own needs and feelings.
- **S**, Spontaneity (18 items): measures freedom to react spontaneously or to be oneself.
- **Sr**, Self-Regard (16 items): measures affirmation of self because of worth or strength.
- **Sa**, Self-Acceptance (26 items): measures affirmation or acceptance of self in spite of weaknesses or deficiencies.
NC, Nature of Man (16 items): measures degree of the constructive view of the nature of man, masculinity, femininity.

Sy, Synergy (9 items): measures ability to be synergistic, to transcend dichotomies.

A, Acceptance of Aggression (25 items): measures ability to accept one's natural aggressiveness as opposed to defensiveness, denial, and repression of aggression.

C, Capacity for Intimate Contact (28 items): measures ability to develop contactful intimate relationships with other human beings, unencumbered by expectations and obligations.

Six of the 12 POI scales were used in this study. These included:

Inner-Directed Support (I), Existentiality (Ex), Feeling Reactivity (Fr), Spontaneity (S), Acceptance of Aggression (A), and Capacity for Intimate Contact (C). Scores for the test were derived from concepts formulated by Maslow (1954, 1962), Riesman (1950), May (1958), and Perls (1947, 1951).

The POI has demonstrated a high degree of concurrent validity for all 12 scales in studies reported by Fox (1965 and 1968), Shostrom (1964) and Shostrom and Knapp (1966). In an early study, Knapp (1965) found the POI to discriminate extremely well between a highly neurotic group and a group comparatively low on neuroticism. In addition, Knapp concluded that the I scale was "the most representative overall measure of the self-actualization concept as measured by the POI" (p. 17). This contention was further supported by the findings of other researchers (Damm, 1969; Foulds, 1969a; and Rosenthal,
1967). Results of studies dealing with normal adults (McClain, 1970), psychopathic felons (Fisher, 1968) and dormitory assistants (Graff and Bradshaw, 1970) gave additional support to the validity of the POI, both in terms of concurrent and predictive validity.

Test-retest reliability coefficients obtained after administering the POI to college students twice, a week apart, revealed coefficients ranging from .55 to .85 (Klavetter and Mogar, 1967). For five of the six scales being used in this study, the reliability coefficients ranged from .69 to .85. In a test-retest study over a period of one year, nine of the 12 POI scales obtained reliability coefficients of .51 to .74 with the I scale acquiring a .71 coefficient (Ilardi and May, 1968). This lead these researchers to conclude that, "The findings on the POI are well within these ranges on somewhat comparable MMPI (Minnesota Multiphasic Personality Inventory) and EPPS (Edwards Personal Preference Schedule) test-retest reliability studies" (p. 71).

Initially, the POI was thought to be highly transparent, and consequently easily fakable (Braun, 1966). However, subsequent research revealed that the POI showed an unexpected resistance to faking (Braun and LaFarò, 1969; Braun and Astra, 1969; and Foulds, 1971). Indeed, one study concluded, "The findings provide increased confidence in the results of research studies using the POI with undergraduate college students . . . who are naive with regard to the self-actualizing model of man" (Foulds, 1971, p. 280).
In recent years the POI has been utilized to measure change toward self-actualization in a variety of circumstances. The POI successfully measured changes occurring in subjects who participated in a non-group (Byrd, 1967), a sensitivity group (Culbert, Clark and Bobele, 1968), and a personal growth group (Foulds, 1970). In each of these three studies change was reflected in the I, C, and A scales of the POI. In the one study dealing with the personal growth group, experimental subjects scored significantly higher (<.001) on the I, Ex, Fr, and C scales. The POI was also used to differentiate between high and low groups of counselor trainees with regard to level of interpersonal functioning (Foulds, 1969a). Similarly, counselors who exhibited the ability to communicate the therapeutic condition of facilitative genuineness within the counseling relationship scored significantly higher than a low group on seven of 12 POI scales (Foulds, 1969b). In the two preceding studies, the I and Fr scales and the I and C scales were the most adequate for discriminating between the various groups.

One research study has found sex differences in scores obtained on four of the POI scales for a sample of male and female college freshmen (Shostrom, 1966). In this study, female students scored significantly higher on Time Competence (Tc), Self-Acceptance (Sa), Nature of Man (Nc) and Synergy (Sy). However, Fox (1965) found no significant sex differences on POI scales for adult hospitalized
psychiatric patients. Similarly, Vance (1967), while investigating the relationship of self-actualization to mental health, reported no difference in scores obtained by male and female college freshmen on all of the POI scales. In a correlation study dealing with the relationship between the POI and the Edwards Personal Preference Schedule, Le May and Damm (1969) suggested that, "there might be differential need hierarchies for the sexes that naturally accompany self-actualization" (p. 834).

Pre-Test Administration of the Instrument

The Personal Orientation Inventory was administered to the subjects participating in this study during New Student Week immediately preceding the 1971 fall term. In order to facilitate the distribution and collection of research materials, Resident Assistants (student staff members living on each floor of the 11 residence halls included in this study) were requested to lend their assistance to the initial data gathering phase of the project. Thus, prior to the pre-test administration, each Resident Assistant (R.A.) was contacted and given an instruction sheet (Appendix A) detailing the procedures to be employed in distributing and collecting the test materials. In addition, the R.A.'s received research packets containing: (1) lists of students on their floors selected to participate in the study; (2) cover letters (Appendix B) for the participants explaining the
purpose of the project; and, (3) the appropriate number of POI booklets and answer sheets. As soon as the Resident Assistants had become familiar with the distribution procedures, they contacted each of the selected students on their respective floors and asked them to complete the POI and return it to them within a 24-hour period. Each R.A. was allowed a total of 72 hours to distribute and collect all of the research materials. At the conclusion of this time period, the investigator contacted each R.A. and collected the POI booklets and answer sheets.

As Table 1 indicates, a total of 568 subjects, or 96.2 percent of the selected sample, participated in the first administration of the POI. The highest questionnaire return rate, 99.3 percent, was recorded for freshmen females in single-sex halls, while the lowest return rate, 92.4 percent, was reported for freshmen men in single-sex halls.

Post-Test Administration of the Instrument

The Personal Orientation Inventory was administered a second time during the second week in April, 1972, shortly after the beginning of spring quarter. This time span enabled the selected students to live in their choice of residence for a continuous period of approximately seven months.
The Resident Assistants were again utilized to distribute and collect the test materials. As with the pre-test administration, each R.A. was contacted and given an instruction sheet (Appendix C) detailing distribution and collection procedures. Similarly, the R.A.'s received the same research packets containing lists of the remaining selected students on their floors, cover letters (Appendix D) for each of the participants, and POI booklets and answer sheets. The Resident Assistants requested the students to complete the POI and return it to them within 24 hours. Once again, a 72 hour period was provided to allow for the distribution and collection of all research materials. The investigator subsequently contacted each R.A. and collected the POI booklets and answer sheets.

A review of Table 1 reveals that, of the 568 initial subjects, 449 freshmen completed the POI during the April administration. This total represents 76.1 percent of the randomly selected sample and 79.1 percent of the freshmen group completing the pre-test administration. Actually, the percentage of remaining students who completed the post-test ranged from 94.5 percent for men in co-ed halls to 98.2 percent for women in co-ed halls, with the mean percentage equaling 96.7 percent. However, as Table 2 indicates, of the original pre-test group, 1.9 percent refused to continue participation in the study, 4.3 percent moved to other types of university approved housing, and, 14.6 percent withdrew from the university.
TABLE 2. Distribution of Subjects Who Refused to Continue Participation, Who Moved to Other Types of University Approved Housing, and Who Withdrew from the University.

<table>
<thead>
<tr>
<th>Number of Pre-Test Subjects</th>
<th>Subjects Refusing to Continue Participation</th>
<th>Subjects Who Moved to Other University Housing</th>
<th>Subjects Who Withdrew from the University</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>MSS</td>
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<td>1.5</td>
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<td>11</td>
<td>1.9</td>
</tr>
</tbody>
</table>
Thus, of the initial sample, a total of 20.8 percent was either unwilling, or simply unavailable, to participate in the post-test administration of the POI.

Scoring and Coding Procedures

After both the pre- and post-test administrations of the instrument, the answer sheets were hand scored using POI scoring stencils purchased from Educational and Industrial Testing Service. In order to reduce the probability of scorer error, each answer sheet was scored twice, according to procedures outlined in the POI manual. After the raw scores for both testings were obtained, the post-test scores were subtracted from the pre-test scores, and this information was recorded on standard I.B.M. punch cards for each of the four subgroups. The punched cards were then verified and subsequently analyzed by the computer center at Oregon State University.

Statistical Treatment of Data

The hypotheses under investigation were analyzed by utilizing three statistical models. These included two analysis of variance models and an analysis of covariance model.

Analysis of Variance Model

For null hypothesis one, an analysis of variance model was employed to determine if differences existed between the various
subgroups' pre-test scores on the six POI scales. The analysis of variance model assumed the following format:

\[ Y = \mu + \alpha + \beta + \alpha \beta + \epsilon \]

where \( Y \) = pre-test score
\( \mu \) = mean
\( \alpha \) = sex effect
\( \beta \) = type of residence hall
\( \alpha \beta \) = interaction effect
\( \epsilon \) = error term

The results of the analysis of variance were subjected to F tests, with levels of significance set at .05 and .01.

The remaining seven null hypotheses were tested using analysis of variance and analysis of covariance models. When the data was not affected by the covariate, the following analysis of variance model was used to make comparisons between the groups relative to change in the development of certain dimensions of self-actualization:

\[ Y = \mu + \alpha + \beta + \alpha \beta + \epsilon \]

where \( Y \) = difference between pre- and post-test scores
\( \mu \) = mean
\( \alpha \) = sex effect
\( \beta \) = type of residence hall
\( \alpha \beta \) = interaction effect
\( \epsilon \) = error term
F tests, with levels of significance set at .05 and .01, were utilized to determine if obtained differences were significant.

Analysis of Covariance Model

According to Garrett (1953), the usefulness of covariance analysis becomes maximized in experiments where it is difficult to initially equate the control and experimental groups. Furthermore, he stated that,

Analysis of covariance represents an extension of analysis of variance to allow for the correlation between initial and final scores. Through covariance one is able to effect adjustments in final or terminal scores which will allow for differences in some initial variable.

The initial variable, or covariate, under examination was the subjects' pre-test scores on the I scale. The affect of this covariate upon the difference between the pre- and post-test scores was measured in relation to two criterion variables: sex and type of residence hall.

The following statistical model was utilized in measuring the covariate variable:

\[ Y = \mu + \alpha + \beta + \alpha \beta + \Theta x + \zeta \]

where \( Y \) = difference between pre- and post-test scores

\( \mu \) = mean

\( \alpha \) = sex effect
\[ \beta = \text{type of residence hall} \]
\[ \alpha \beta = \text{interaction effect} \]
\[ \Theta x = \text{pre-test score on the I scale} \]
\[ \epsilon = \text{error term} \]

The results of this analysis were subjected to F tests, with levels of significance established at .05 and .01.

**Selection of Low, Medium, and High Self-Actualizers**

In order to test hypotheses three through eight, the groups under investigation had to be divided into low, medium, and high self-actualizing groups. The criterion for placement into one of these three groups was the student's pre-test score on the Inner-directed (I) scale. Since sex differences were found to exist on this scale for Oregon State University students (Le May and Damm, 1969; Wills, 1972), means and standard deviations were computed for both male and female groups. The following scheme was used to determine the students' level of self-actualization: (1) low self-actualizers scored at or below -1 standard deviation from their respective mean; (2) medium self-actualizers scored between -1 and +1 standard deviations; and, (3) high self-actualizers scored at or above +1 standard deviation. Table 3 illustrates the pre-test I scale scores for low, medium, and high self-actualizers.

A more complete distribution of subjects by sex, type of residence hall, and level of self-actualization is provided in Chapter 4.
<table>
<thead>
<tr>
<th>Level of Self-Actualization</th>
<th>Freshmen Men</th>
<th>Freshmen Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>I scale score ranges</td>
</tr>
<tr>
<td>Low Self-Actualizers</td>
<td>42</td>
<td>50.00 - 68.00</td>
</tr>
<tr>
<td>Medium Self-Actualizers</td>
<td>139</td>
<td>69.00 - 87.00</td>
</tr>
<tr>
<td>High Self-Actualizers</td>
<td>40</td>
<td>88.00 -104.00</td>
</tr>
</tbody>
</table>

Mean = 77.96
S.D. = 10.14

Mean = 81.17
S.D. = 9.94
CHAPTER IV

RESULTS AND DISCUSSION

The principal objectives of this research were to determine if initial differences existed in selected dimensions of self-actualization between freshmen students who selected co-educational and single-sex residence halls, and whether or not the type of residence hall affected the development of certain dimensions of self-actualization for these freshmen students over a period of approximately seven months. This chapter is devoted to presenting, analyzing, and discussing the data relative to this study.

In the analysis of the data, each of the six selected POI scales was considered separately. Thus, each hypothesis was related to each scale independently. The results of the data for each hypothesis are presented in the form of statistical tables.

Presentation of Results

The first null hypothesis was tested by an analysis of variance model with the results subjected to F tests. This null hypothesis was stated as follows:

Hypothesis 1. No initial differences exist in certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory
between male and female freshmen who choose co-educational halls and those male and female freshmen who select single-sex halls.

Table 4 illustrates the computed pre-test means and standard deviations on the six selected POI scales for freshmen men and women living in the two types of residence halls. Although this information has limited value for this presentation, it is useful in describing the results obtained from the analysis of variance.

A comparison between freshmen pre-test mean scores for men vs. women and single-sex vs. co-ed residence halls is presented in Table 5. Preliminary examination of this table reveals that significant initial differences were found to exist on all six selected POI scales for men vs. women and on three of the six scales for single-sex vs. co-ed residence halls.

As the data in Table 5 indicate, freshmen women obtained a significantly higher mean score (p < .01) on the Inner-directed (I) scale than freshmen men. In addition, freshmen residing in co-educational residence halls scored significantly higher (p < .01) on this scale than freshmen in single-sex halls. By referring to Table 3, it is evident that these results were influenced by the lower mean score (77.16) for freshmen men in single-sex halls, as well as by the higher mean score (82.49) for females in co-ed halls. Further review of this table reveals the following pattern for these two groups
TABLE 4. Pre-test Means ($\bar{x}$) and Standard Deviations (S.D.) on Each of the Selected POI Scales for Men and Women in Single-sex and Co-educational Residence Halls.

<table>
<thead>
<tr>
<th>PERSONAL ORIENTATION INVENTORY SCALES</th>
<th>I</th>
<th>Ex</th>
<th>Fr</th>
<th>S</th>
<th>A</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSS</td>
<td>135</td>
<td>77.16</td>
<td>9.15</td>
<td>19.03</td>
<td>3.90</td>
<td>14.05</td>
</tr>
<tr>
<td>MCO</td>
<td>143</td>
<td>79.03</td>
<td>11.08</td>
<td>19.55</td>
<td>4.31</td>
<td>14.29</td>
</tr>
<tr>
<td>FSS</td>
<td>149</td>
<td>79.58</td>
<td>10.11</td>
<td>19.54</td>
<td>4.06</td>
<td>14.66</td>
</tr>
<tr>
<td>FCO</td>
<td>141</td>
<td>82.49</td>
<td>9.65</td>
<td>20.79</td>
<td>3.89</td>
<td>15.09</td>
</tr>
</tbody>
</table>
TABLE 5. Analysis of Variance of Freshmen Students' Pre-test Mean (\(\bar{x}\)) Scores on the Selected POI Scales for Comparisons Between Sex (Men vs. Women) and Type of Residence Hall (Single-sex vs. Co-ed).

<table>
<thead>
<tr>
<th>PERSONAL ORIENTATION INVENTORY SCALES</th>
<th>I</th>
<th>Ex</th>
<th>Fr</th>
<th>S</th>
<th>A</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>(\bar{x})</td>
<td>Value</td>
<td>(\bar{x})</td>
<td>Value</td>
<td>(\bar{x})</td>
<td>Value</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Men</td>
<td>275</td>
<td>78.12</td>
<td>19.30</td>
<td>13.87</td>
<td>10.96</td>
<td>14.58</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.15**</td>
<td>6.63*</td>
<td>8.74**</td>
<td>8.06**</td>
<td>4.61*</td>
</tr>
<tr>
<td>Women</td>
<td>290</td>
<td>80.99</td>
<td>20.15</td>
<td>14.87</td>
<td>11.80</td>
<td>15.43</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.08**</td>
<td>6.76**</td>
<td>1.89</td>
<td>1.24</td>
<td>1.57</td>
</tr>
<tr>
<td>Single-sex Halls</td>
<td>284</td>
<td>78.43</td>
<td>19.30</td>
<td>14.37</td>
<td>11.40</td>
<td>15.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.08**</td>
<td>6.76**</td>
<td>1.89</td>
<td>1.24</td>
<td>1.57</td>
</tr>
<tr>
<td>Co-ed Halls</td>
<td>284</td>
<td>80.75</td>
<td>20.17</td>
<td>14.68</td>
<td>11.62</td>
<td>15.32</td>
</tr>
<tr>
<td>Interaction Effect</td>
<td></td>
<td>.37</td>
<td>1.12</td>
<td>.15</td>
<td>.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

\(F = 3.86\) at .05 level
\(F = 6.69\) at .01 level

*Significant at .05 level
**Significant at .01 level
on all six selected scales: men in single-sex halls consistently scored lower than the other three groups, while females in co-ed halls consistently scored higher.

A comparison between pre-test mean scores on the remaining five scales listed in Table 5 discloses that freshmen women scored significantly higher at the .01 level on all selected scales except Ex and A. On these two scales differences were found to be significant at the .05 level. Freshmen students living in co-educational residence halls received significantly higher (p < .01) scores on the Ex and C scales than freshmen in single-sex halls. The first null hypothesis was rejected on the six selected POI scales for comparisons between freshmen men and women. Similarly, it was rejected on the I, Ex, and C scales, and accepted on the three other scales for comparisons between students in co-ed and single-sex halls.

Hypothesis 2. No change occurs in the development of certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between male and female freshmen who reside for a continual period of seven months in co-educational halls or for those male and female freshmen who reside in single-sex halls during the same period.
This null hypothesis was tested by the analysis of variance and analysis of covariance models. The covariate under examination was the subjects' pre-test score on the I scale.

Table 6 illustrates the pre- and post-test mean differences and standard deviations on each of the selected scales for each of the four groups. This information is useful primarily for comparative purposes in order to clarify results obtained from the two statistical models. The most pertinent information for this presentation is located in Table 7 where comparisons of change on the selected POI scales are illustrated for freshmen men and women living in co-educational and single-sex residence halls for a continuous seven month period.

An examination of Table 7 reveals that significant change in the development of certain dimensions of self-actualization occurred on three of the six selected scales for men vs. women and on one of the six scales for single-sex vs. co-ed residence halls. As the findings show, freshmen women changed significantly more on the I, Fr, and S scales than freshmen men. The change which occurred was found to be significant at the .01 level for two of the three scales. Students residing in co-educational halls changed significantly (p < .01) more on the Capacity for Intimate Contact (C) scale than students in single-sex halls. The second null hypothesis was rejected on three of the selected POI scales for comparisons between freshmen
TABLE 6. Pre- and Post-test Mean Differences (d) and Standard Deviations (S.D.) on the Selected POI Scales for Freshmen Men and Women in Single-sex and Co-ed Residence Halls.

<table>
<thead>
<tr>
<th>PERSONAL ORIENTATION INVENTORY SCALES</th>
<th>MSS</th>
<th>MCO</th>
<th>FSS</th>
<th>FCO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>d</td>
<td>S.D.</td>
<td>d</td>
</tr>
<tr>
<td>I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex</td>
<td>110</td>
<td>2.01</td>
<td>10.57</td>
<td>.95</td>
</tr>
<tr>
<td>Fr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 7. Comparison of the Change in the Development of Selected Dimensions of Self-actualization that Occurred in Freshmen Men and Women Living in Co-educational and Single-sex Residence Halls.

<table>
<thead>
<tr>
<th>PERSONAL ORIENTATION INVENTORY SCALES</th>
<th>I</th>
<th>Ex</th>
<th>Fr</th>
<th>S</th>
<th>A</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>d</td>
<td>F d</td>
<td>F d</td>
<td>F d</td>
<td>F d</td>
</tr>
<tr>
<td></td>
<td>Value</td>
<td>Value</td>
<td>Value</td>
<td>Value</td>
<td>Value</td>
<td>Value</td>
</tr>
<tr>
<td>Men</td>
<td>221</td>
<td>3.19</td>
<td>1.13</td>
<td>.41</td>
<td>.39</td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.23**</td>
<td>2.93</td>
<td>7.01**</td>
<td>6.45*</td>
<td>3.76</td>
<td>3.69</td>
</tr>
<tr>
<td>Women</td>
<td>227</td>
<td>4.96</td>
<td>1.48</td>
<td>.92</td>
<td>.90</td>
<td>.96</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.11</td>
<td>1.29</td>
<td>2.15</td>
<td>.33</td>
<td>3.45</td>
<td>9.60**</td>
</tr>
<tr>
<td>Single-sex Halls</td>
<td>228</td>
<td>3.70</td>
<td>1.19</td>
<td>.54</td>
<td>.62</td>
<td>.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.11</td>
<td>1.29</td>
<td>2.15</td>
<td>.33</td>
<td>3.45</td>
<td>9.60**</td>
</tr>
<tr>
<td>Co-ed Halls</td>
<td>220</td>
<td>4.48</td>
<td>1.43</td>
<td>.81</td>
<td>.69</td>
<td>1.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction Effect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex X Type of Hall</td>
<td>3.60</td>
<td>.10</td>
<td>.98</td>
<td>2.97</td>
<td>1.38</td>
<td>2.40</td>
</tr>
</tbody>
</table>

F = 3.86 at .05 level
F = 6.70 at .01 level

*d = pre/post-test mean difference

**Significant at .01 level
men and women, and rejected on only one scale for comparisons between type of residence halls. Thus, the null hypothesis of no change was accepted on the Ex, A, and C scales, for sex comparisons, as well as on all selected POI scales, except the C scale, for comparisons between students in co-ed and single-sex residence halls. It should be noted, however, that obtained F values for comparisons between the sexes approached significance on the A and C scales. Similarly, the obtained F value on the A scale for comparisons between type of hall also approached significance.

Though no test of significance was made, it is of interest to note from Table 6 that freshmen males in single-sex halls changed consistently less on all six scales than students in the other three groups.

Hypothesis 3. No change occurs in the development of certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between low self-actualizing female freshmen who reside for a continual period of seven months in co-educational halls or for those low self-actualizing female freshmen who reside in single-sex halls during the same period.

Null hypotheses three through eight were treated by analysis of variance and analysis of covariance, with the results subjected
to $F$ tests. Table 8 illustrates the distribution of subjects by level of self-actualization, sex, and type of residence hall for these six hypotheses.

Comparisons between pre- and post-test mean differences on the selected POI scales between low self-actualizing freshmen women in single-sex and co-ed residence halls are presented in Table 9. As the findings indicate, there were no significant changes in selected dimensions of self-actualization for these two groups. Therefore, null hypothesis three was accepted for all selected POI scales.

Hypothesis 4. No change occurs in the development of certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between low self-actualizing male freshmen who reside for a continual period of seven months in co-educational halls or for those low self-actualizing male freshmen who reside in single-sex residence halls during the same period.

As the results in Table 9 demonstrate, no significant differences in the amount of change in the development of selected dimensions of self-actualization were found between low self-actualizing freshmen men in single-sex and co-ed residence halls. Thus, null hypothesis
TABLE 8. Distribution of Freshmen by Level of Self-actualization, Sex and Type of Residence Hall.

<table>
<thead>
<tr>
<th></th>
<th>FSS N</th>
<th>FCO N</th>
<th>MSS N</th>
<th>MCO N</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Self-actualizers</td>
<td>24</td>
<td>17</td>
<td>21</td>
<td>21</td>
<td>83</td>
</tr>
<tr>
<td>Medium Self-actualizers</td>
<td>69</td>
<td>68</td>
<td>76</td>
<td>63</td>
<td>276</td>
</tr>
<tr>
<td>High Self-actualizers</td>
<td>25</td>
<td>24</td>
<td>13</td>
<td>27</td>
<td>89</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>118</td>
<td>109</td>
<td>110</td>
<td>111</td>
<td>448</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERSONAL ORIENTATION INVENTORY SCALES</th>
<th>I</th>
<th>Ex</th>
<th>Fr</th>
<th>S</th>
<th>A</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>d</td>
<td>F</td>
<td>d</td>
<td>F</td>
<td>d</td>
</tr>
<tr>
<td>LSA-FSS 24</td>
<td>8.75</td>
<td>2.63</td>
<td>1.04</td>
<td>1.17</td>
<td>1.58</td>
<td>2.54</td>
</tr>
<tr>
<td></td>
<td>.01</td>
<td>.83</td>
<td>.00</td>
<td>.38</td>
<td>1.47</td>
<td>.44</td>
</tr>
<tr>
<td>LSA-FCO 17</td>
<td>9.24</td>
<td>1.82</td>
<td>1.18</td>
<td>.76</td>
<td>2.65</td>
<td>2.06</td>
</tr>
<tr>
<td></td>
<td>.65</td>
<td>.24</td>
<td>1.07</td>
<td>1.19</td>
<td>1.35</td>
<td>.29</td>
</tr>
<tr>
<td>LSA-MSS 21</td>
<td>6.76</td>
<td>2.48</td>
<td>1.10</td>
<td>.33</td>
<td>1.86</td>
<td>1.48</td>
</tr>
<tr>
<td></td>
<td>.65</td>
<td>.24</td>
<td>1.07</td>
<td>1.19</td>
<td>1.35</td>
<td>.29</td>
</tr>
<tr>
<td>LSA-MCO 21</td>
<td>9.24</td>
<td>2.43</td>
<td>2.14</td>
<td>1.71</td>
<td>2.43</td>
<td>2.48</td>
</tr>
</tbody>
</table>

\[ F = 3.96 \text{ at .05 level} \]
\[ F = 6.96 \text{ at .01 level} \]
\[ d = \text{pre/post-test mean difference} \]
\[ *\text{Significant at .05 level} \]
\[ **\text{Significant at .01 level} \]
four was accepted for all selected POI scales.

Hypothesis 5. No change occurs in the development of certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between medium self-actualizing female freshmen who reside for a continual period of seven months in co-educational halls or for those medium self-actualizing female freshmen who reside in single-sex residence halls during the same period.

Table 10 illustrates comparisons between pre- and post-test mean differences on the selected POI scales between medium self-actualizing freshmen women in single-sex and co-ed residence halls. The F values reported in this table reveal that no significant differences in the amount of change in the development of certain dimensions of self-actualization were found between medium self-actualizing freshmen females in single-sex and co-ed residences. Null hypothesis five was therefore accepted for all selected POI scales.

Hypothesis 6. No change occurs in the development of certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between medium self-actualizing male freshmen who reside for a continual period of seven months in co-educational halls or for those medium self-actualizing

<table>
<thead>
<tr>
<th>Personal Orientation Inventory Scales</th>
<th>I</th>
<th>Ex</th>
<th>Fr</th>
<th>S</th>
<th>A</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>d</td>
<td>F Value</td>
<td>d</td>
<td>F Value</td>
<td>d</td>
<td>F Value</td>
</tr>
<tr>
<td>MSA-FSS</td>
<td>69</td>
<td>.88</td>
<td>.93</td>
<td>1.03</td>
<td>.91</td>
<td>1.06</td>
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<td></td>
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<td></td>
<td>3.52</td>
<td>.43</td>
<td>.01</td>
<td>.85</td>
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<tr>
<td>MSA-FCO</td>
<td>68</td>
<td>1.89</td>
<td>1.12</td>
<td>1.10</td>
<td>1.25</td>
<td>1.71</td>
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<tr>
<td>MSA-MSS</td>
<td>76</td>
<td>.36</td>
<td>-.05</td>
<td>.16</td>
<td>.08</td>
<td>.72</td>
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<tr>
<td>MSA-MCO</td>
<td>63</td>
<td>1.64</td>
<td>.90</td>
<td>.38</td>
<td>.44</td>
<td>1.24</td>
</tr>
</tbody>
</table>

F = 3.87 at .05 level
F = 6.72 at .01 level

$\bar{d} =$ pre/post-test mean difference

*Significant at .05 level
**Significant at .01 level
male freshmen who reside in single-sex residence halls during the same period.

As indicated by the findings in Table 10, significant differences in the amount of change in the development of certain dimensions of self-actualization were found on two of the selected scales for comparisons between medium self-actualizing freshmen men in single-sex and co-ed residences. Thus, freshmen male co-ed residents who initially possessed a medium level of self-actualization changed significantly more on the I and Ex scales than medium self-actualizing freshmen males in single-sex halls. The obtained F values for these two scales were significant at the .01 and .05 levels respectively. The pre- and post-mean differences for these two groups approached significance on the C scale. The sixth null hypothesis was accepted on four of the six selected POI scales while it was rejected on the I and Ex scales.

Hypothesis 7. No change occurs in the development of certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between high self-actualizing female freshmen who reside for a continual period of seven months in co-educational halls or for those high self-actualizing female freshmen who reside in single-sex residence halls during the same period.
Table 11 illustrates comparisons between pre- and post-test mean differences on the selected POI scales between high self-actualizing freshmen women in single-sex and co-ed residence halls. As the results demonstrate, high self-actualizing freshmen women in single-sex residences changed significantly more ($p < .05$) on the I and S scales than high self-actualizing freshmen women in co-ed halls. Thus, null hypothesis seven was rejected for these two scales while it was accepted for the other four selected POI scales.

Hypothesis 8. No change occurs in the development of certain dimensions of self-actualization as measured by selected scales of the Personal Orientation Inventory between high self-actualizing male freshmen who reside for a continual period of seven months in co-educational halls or for those high self-actualizing male freshmen who reside in single-sex residence halls during the same period.

As the findings in Table 11 show, high self-actualizing freshmen males in co-ed halls changed significantly more ($p < .05$) on the C scale than high self-actualizing freshmen males in single-sex residences. It is interesting to note that negative mean differences were obtained on five of the six scales for freshmen men in single-sex halls. However, this group numbered only 13 students, or
## TABLE 11.

<table>
<thead>
<tr>
<th>PERSONAL ORIENTATION INVENTORY SCALES</th>
<th>I</th>
<th>Ex</th>
<th>Fr</th>
<th>S</th>
<th>A</th>
<th>C</th>
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<tr>
<td></td>
<td>N</td>
<td>d</td>
<td>F</td>
<td>d</td>
<td>F</td>
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<tr>
<td>HSA-FSS</td>
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<td>1.20</td>
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<td>1.00</td>
<td>.36</td>
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<td>4.21*</td>
<td>.05</td>
<td>1.61</td>
<td>5.46*</td>
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<td>HSA-FCO</td>
<td>24</td>
<td>-.54</td>
<td>.96</td>
<td>-.13</td>
<td>-.29</td>
<td>-.54</td>
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<tr>
<td>HSA-MSS</td>
<td>13</td>
<td>-2.38</td>
<td>-.15</td>
<td>-1.08</td>
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<td>.08</td>
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<td></td>
<td>.97</td>
<td>.44</td>
<td>.89</td>
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<tr>
<td>HSA-MCO</td>
<td>27</td>
<td>1.37</td>
<td>.59</td>
<td>.07</td>
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<tr>
<td>F = 3.96 at .05 level</td>
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<tr>
<td>F = 6.96 at .01 level</td>
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</table>

$d = \text{pre/post-test mean difference}$

*Significant at .05 level

**Significant at .01 level
approximately one half of the other group. Null hypothesis eight was accepted for five of the selected scales and was rejected for the C scale.

Discussion of Results

The principal concern of this section is the interpretation and discussion of the findings which were reported in the preceding pages. References are made to pertinent research in the field and discrepancies in the results are cited. In addition to a discussion of the significant differences, some interpretation is given to non-significant results. The remainder of this section is organized in terms of a discussion of the results relative to: initial differences; change associated with sex and type of residence hall; and, change associated with level of self-actualization, sex, and type of residence hall.

Initial Differences

Significant initial differences were found to exist on all selected POI scales for freshmen men vs. women and on three of the six scales for single-sex vs. co-ed residence halls.

Both freshmen women and students in co-educational residence halls obtained significantly higher scores on the Inner-directed (I) scale than the other two groups under investigation. Since this scale is considered to be the POI's most representative overall
measure of self-actualization (Knapp, 1965; Damm, 1969; Foulds, 1969a; Rosenthal, 1968), these results suggest that freshmen women initially are significantly more self-actualized than freshmen men. Similarly, freshmen who choose co-educational halls are significantly more self-actualized than those freshmen who choose single-sex halls. Thus, both freshmen women and co-ed residents initially appear to possess greater "feelings or attitudes of personal freedom or independence and internal direction based upon inner motivations rather than upon external expectations and influences" (Foulds, 1969b, p. 90). This can further be interpreted to mean that these two groups exhibited a higher degree of psychological maturity than freshmen men and students in single-sex residence halls.

When compared to the other two groups on the Existentiality (Ex) scale, freshmen women and co-ed residents apparently prefer to be more flexible in their application of values, reacting either situationally or existentially, rather than rigidly adhering to principles. On the Feeling Reactivity (Fr) and Spontaneity (S) scales, freshmen women appear to be more sensitive and responsive to their own needs and feelings, and they demonstrate a greater ability to express their feelings freely and openly. Similarly, on the Acceptance of Aggression (A) scale, freshmen women show a greater ability to accept their natural aggressiveness as opposed to defensiveness, denial, and repression of aggression. Finally, as indicated by their
scores on the C scale, both freshmen women and co-ed residents possess a greater ability to develop contactful, meaningful, intimate relationships with other human beings. Such relationships are usually characterized by intense involvement, yet they are unencumbered by expectations and obligations.

These findings generally support much of the related research reviewed in Chapter 2. The evidence that freshmen females scored significantly higher on all of the selected POI scales appears to reinforce Constantinople's (1969) contention that freshmen females initially score as more mature than freshmen males. Similarly, the higher score on the C scale for freshmen women lends support to the findings of Coons (1970), Gardner (1969), and Nixon (1962). Each of these individuals stated that it is easier for women to establish intimate relationships than it is for men. These findings further demonstrate the existence of definite sex differences on selected POI scales that were previously reported to be similar for men and women (Fox, 1965; Vance, 1967). However, the fact that women scored significantly higher than men, especially with regard to the I scale, supports the findings of other researchers who likewise tested Oregon State University students (Le May and Damm, 1967; Wills, 1972). Thus, freshmen women at Oregon State may exhibit differential need priorities than their male counterparts.
The fact that students in co-ed halls initially scored higher than single-sex hall residents on the I, Ex and C scales has interesting implications. Higher scores on these scales suggest that students who choose co-ed residence halls are psychologically more mature, exhibit greater flexibility, and perhaps demonstrate a higher degree of interpersonal competence than freshmen who choose single-sex residences. These findings seem to parallel Segal's (1967) statement that, although the developmental tasks of late adolescence are essentially the same for all college students, the choice of a particular housing arrangement "suggests different strategies and tactics in terms of the primacy of different needs within the person" (p. 308). These results likewise reinforce Dollar's (1966) belief that different residential settings appear to attract students with different needs and purposes. Similarly, additional support is given to Feldman and Newcomb's (1970) hypothesis that many of the differences found between students in various types of residences are due primarily to the forces of self-selection and group recruitment. The higher scores on the three POI scales for co-ed residents further suggests that, "personality factors may determine the residences students select" (Alfert, 1969, p. 92). However, these results are in opposition to those reported by Ridge (1968) which indicated that students who selected four different types of housing arrangements maintained similar levels of self-actualization.
Since freshmen who select co-ed halls initially exhibited a higher degree of self-actualization, they may be more willing to seek out and confront new experiences than students selecting the more traditional single-sex halls. Furthermore, their higher developmental status may better assist them in coping with the variety of new pressures and tasks presented by co-educational living.

Change Associated with Sex and Type of Residence Hall

As previously cited, freshmen women changed significantly more than freshmen men on the I, Fr and S scales, and freshmen residing in co-ed halls changed significantly more on the C scale than single-sex residents. The freshmen women's higher score on the A and C scales approached significance, while the co-ed residents' score on the I and A scales likewise approached significance. In addition, men scored lower than women on all selected scales, and single-sex residents obtained lower scores on all selected scales than students living in co-educational residence halls.

These results can be interpreted to mean that over the seven month period, freshmen women, when compared to freshmen men, became more inner-directed and self-actualized, more sensitive to their own needs and feelings, and increased their ability to freely express their feelings behaviorally. Although the results on the A and C scales only approached significance, women changed more...
with regard to interpersonal sensitivity than the freshmen men. These findings support Rosenthal's (1967) conclusion that freshmen women do experience positive growth toward self-actualization during their first year in college. The evidence that freshmen men changed less on all selected POI scales may parallel Constantinople's (1969) assertion that, "feelings of inferiority, of identity diffusion, and isolation were at a peak in the freshmen year among the males" (p. 362). In addition, these results may suggest, as does Nixon (1962), that the males search for identity apparently commences later than the females. Similarly, our culture allows women such attributes as sensitivity, introspection and reflection, whereas these are often considered to be "unmasculine" for young men. Nonetheless, such attributes are considered essential to identity formation (Nixon, 1962).

As evidenced by the higher score on the C scale, freshmen in co-educational residence halls significantly increased their ability to develop contactful, meaningful, intimate relationships with others. This finding seems to directly support Coon's (1970) theory that sexually segregated residence halls hinder the development of intimacy for college students. Because interpersonal relationships within co-ed halls are thought to be more natural, genuine, spontaneous and sincere (A.C.U.H.O., 1963; Imes, 1966; Thorsen, 1970), co-educational living may exert a facilitative effect upon the development of the capacity for intimacy. Similarly, since students often consider
peers of the opposite sex to influence their development more than same sex peers (Whittaker, 1970), opportunities for diverse associations with the opposite sex provided by co-ed residences may stimulate greater interpersonal sensitivity and growth.

The results on the C scale were influenced by the much lower change score recorded for freshmen men in single-sex halls. When this score is considered in light of the lower change score on the Spontaneity (S) scale, the findings appear to parallel Lozoff's (1969) conclusion that residence hall men tended "to control all feelings to the point where intimacy was sacrificed" (p. 305).

It is interesting to note that the change scores obtained by co-ed residents approached significance on the I and A scales. The higher score on the A scale, when coupled with the C scale score, lends more support to the contention that students in co-educational halls develop more interpersonal sensitivity and competence than single-sex residents. Higher scores on these two scales may have influenced the I scale score; for, healthy interpersonal relationships promote growth and development (Chickering, 1971; Erikson, 1959; White, 1958).

Change Associated with Level of Self-Actualization, Sex and Type of Residence Hall

As previously stated, there were no significant differences in the amount of change on the selected POI scales between low self-
actualizing freshmen females in single-sex and co-educational halls and low self-actualizing freshmen males in single-sex and co-ed residences. The results on these scales can be interpreted to mean that over the seven month period, low self-actualizing males and females in both single-sex and co-ed halls basically maintain the following characteristics. These freshmen appear to be primarily dependent and other-directed in their behavior, generally seeking the support of other's views. They seem rigid in their application of values, relatively insensitive to their own needs and feelings, and somewhat fearful of expressing their feelings behaviorally. In addition, they appear to deny feelings of anger or aggression and they have difficulty with warm interpersonal relationships. Thus, for low self-actualizing freshmen males and females, the impact of either single-sex or co-ed residence halls upon their personality development, is primarily in terms of stability or nonchange. One may speculate that low self-actualizing freshmen are still attempting to satisfy their lower order needs, such as security and belonging needs, and are thereby limiting their ability to confront the higher order, or growth, needs (Maslow, 1968). Furthermore, low self-actualizing freshmen may be so other-directed as to insulate themselves from the daily stress and challenges that might evoke new responses. Or, perhaps low self-actualizing freshmen tend to retreat when confronted with stress and challenge, thereby relying
on prior modes of adaptation that inhibit growth.

No significant differences in the amount of change on the selected POI scales were found between medium self-actualizing freshmen females in single-sex and co-educational residence halls. However, the obtained F value on the I scale approached significance, which implied that medium self-actualizing females in co-ed halls changed more on this scale than medium self-actualizing females in single-sex halls. Although the scores were not significant, medium self-actualizing females in co-ed halls scored higher than their counterparts in single-sex residences on four of the five remaining POI scales. Thus, for both medium self-actualizing females in single-sex and co-ed halls, the impact of their residence hall experience appears to be more in terms of stabilization of certain personality dimensions than in terms of change.

Medium self-actualizing males in co-ed halls scored significantly higher on the I and Ex scales than their male counterparts in single-sex halls. In addition, their score on the C scale closely approached significance. Hence, medium self-actualizing freshmen males in co-ed halls become more independent and self-supportive, as well as more flexible in their application of values. One may speculate that these outcomes may be associated with differences in environmental emphasis found among the two types of residence halls. Co-educational residences, by providing more "real life" situations
(Paddock, 1966) with less emphasis on over-idealization of the opposite sex, may assist medium self-actualizing freshmen males to clarify sex-appropriate roles and behaviors. Similarly, sexual identities may begin to solidify as these male students, through their associations with female residents, come to understand what it means to be a man or a woman (Chickering, 1971; Coons, 1970). This interpretation may likewise be generalized to the results obtained on the I scale for medium self-actualizing females in co-ed halls. Thus, although the results only approached significance for the females, both medium self-actualizing freshmen males and females in co-ed halls changed more on the Inner-directed scale than the two groups in single-sex residences.

Comparisons between high self-actualizing females revealed that those in single-sex halls changed significantly more on the I and S scales than females in the co-ed halls. This significant difference is explained, in part, by the fact that the high self-actualizing females in co-ed halls decreased their scores on both of these scales over the seven month period. Thus, whereas single-sex residence halls appear to facilitate slightly more independence, self-support and spontaneity for high self-actualizing freshmen females, co-ed living seems to make a stabilization impact. Since Alfert (1968) found that students who scored high in social maturity and impulse expression changed living arrangements more frequently, it would be of
interest to determine what proportion of these two groups returned to the residence halls for their sophomore year.

For high self-actualizing freshmen males in single-sex and co-ed halls, significance change was recorded on only one of the selected POI scales. Thus, high self-actualizing males in co-ed halls developed the capacity for more contactful, intimate interpersonal relationships to a greater extent than their counterparts in the single-sex halls. It is interesting to note that high self-actualizing males in single-sex halls decreased their scores on five of the six scales. However, any interpretation of these scores is limited by the very small number of students in the single-sex hall group.

In summary, students who possessed a medium level of self-actualization were more prone to change than low or high self-actualizers. This observation does not appear to be surprising in view of the following assumptions. Whereas low self-actualizers may be defensive and resistant to change, high self-actualizers have already reached a high level of growth, thereby reducing the possibility that they would change dramatically during such a short period as seven months. In comparison to these two groups, the medium self-actualizers would seem to be the ones that possess the readiness and necessary developmental status to change. It is interesting to note
that this outcome was recorded for males in the co-ed halls but not for the female group.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This research was stimulated by an interest in the impact of differential housing arrangements on students' personality development during the freshmen year. Although many authorities agreed that residence halls influence student development, only a few researchers investigated the relationship between type of residence and the process of personality change. Similarly, while the number of co-educational residence halls rapidly increased during the last decade, there was no substantial empirical evidence that revealed the kinds of personality changes associated with this form of living arrangement. Hence, the purpose of this study was to assess the relationship between type of residence and certain aspects of student development. Specifically, this research attempted to determine if there were initial differences in selected dimensions of self-actualization between freshmen students who selected co-educational and single-sex residence halls, and whether or not the type of residence hall affected the development of certain dimensions of self-actualization for these students over a period of approximately seven months. This research likewise sought to investigate the relationship between these students' initial level of self-actualization and
the impact of different residential settings on the development of these dimensions of self-actualization.

Subjects for this study included male and female freshmen who either had been assigned their first preference of residence hall or who had received an assignment based upon their desire for a co-ed or single-sex living arrangement. A total of 590, or 31 percent of the eligible freshmen, were selected by utilizing a stratified random sampling technique. Of this number, 568 completed the pre-test while 449 participated throughout the study.

The primary source of the data was students' responses to the following selected scales of the Personal Orientation Inventory: Inner-Directed Support (I); Existentiality (Ex); Feeling Reactivity (Fr); Spontaneity (S); Acceptance of Aggression (A); and, Capacity for Intimate Contact (C). This instrument was initially administered to the subjects during New Student Week immediately preceding the 1971 fall term. It was administered a second time during the middle of April, 1972, after the subjects had lived in their choice of residence for a continuous period of approximately seven months.

The data were analyzed using two analysis of variance models and an analysis of covariance model. Statistical comparisons were made to determine if differences existed between: (1) pre-test scores for freshmen men and women who selected co-educational and single-sex residence halls; (2) pre- and post-test scores for freshmen men and women residing in co-ed and single-sex halls for a
continuous seven month period; and, (3) pre- and post-test scores for low, medium and high self-actualizing freshmen men and women living in co-ed and single-sex residences for a continuous period of seven months. Observed differences were accepted as significant when \( p \leq .05 \).

**Conclusions**

The following conclusions were drawn from the results of this study:

1. Freshmen women initially scored significantly higher than freshmen men on the six selected scales of the Personal Orientation Inventory.

2. Freshmen students in co-educational residence halls initially scored significantly higher on the I, Ex, and C scales of the POI than freshmen residents in single-sex halls.

3. Freshmen females changed significantly more on the I, Fr, and S scales over the seven month period than freshmen males.

4. Freshmen students living in co-ed halls changed significantly more on the C scale than freshmen students in single-sex halls.

5. No significant differences in the amount of change were recorded on the selected POI scales for low self-actualizing freshmen males in single-sex and co-ed halls and for low self-actualizing freshmen females in single-sex and co-educational residences.
6. No significant differences in the amount of change were revealed on the selected POI scales for medium self-actualizing freshmen females in single-sex and co-ed residence halls.


9. High self-actualizing freshmen males in co-ed halls changed significantly more on the C scale than high self-actualizing freshmen males in single-sex residences.

**Recommendations**

On the basis of the results obtained from this study, several recommendations appear to be appropriate. It is highly recommended that this study be replicated on other college and university campuses in order to determine if the findings obtained from this investigation are similar for other institutions.

Studies need to be undertaken which go beyond the scope of this project to determine the effect of such subenvironments as specific residence halls and floors within residence halls upon the personality development of students. Likewise, the effects of disproportionate
numbers of particular subgroups within residence halls, such as an excessively high percentage of freshmen students, need to be investigated in relation to their influence on individual and group development.

Particular attention should be focused on the entering freshmen male who chooses to live in a single-sex residence hall. Demographic, socioeconomic and personality variables need to be identified that account for these students' lower level of psychological maturity and their relative lack of change during the freshmen year. A study should also be undertaken to identify reasons for these students' preference for a single-sex residence hall. For example, do most freshmen males really choose to live in single-sex residences, or is this choice made for them by their parents? Similarly, it is very important to investigate these students' attitudes about the opposite sex, their friendship patterns, as well as their ability to relate to women in a voluntary and independent fashion. Additional research should compare these students with freshmen in co-ed halls in terms of differential value structures and the degree of social isolation and participation.

It is imperative that additional research be undertaken in order to clarify the relationship between co-educational residence halls and the development of interpersonal sensitivity on the part of co-ed residents. Such assessment devices as intensive interviews, attitude and
value questionnaires, as well as other psychological instruments should be employed to determine cause and effect relationships between this type of living arrangement and interpersonal development. Similarly, an instrument such as the University Residences Environment Scale (URES) should be utilized to determine if the environment or climate within co-educational residence halls is perceived by students to be more supportive of healthy interpersonal relationships.

It is further recommended that larger groups of low, medium and high self-actualizing students be studied more intensively with regard to changes in personality development associated with different residential settings. Such a study should be longitudinal in nature, assessing impact throughout the college experience. Special attention should be focused on the personality characteristics of students who: change housing arrangements frequently; persist in the same arrangements; withdraw from the residence hall system after the first year; and, sever relations with the institution.

Attempts should be made to determine if the environmental emphasis within residence halls could be manipulated to facilitate further development on the part of low self-actualizing male and female freshmen. Would these students, for example, experience more personality development during their first year if they were assigned to living units composed primarily of upperclassmen?
Since the results of this research indicate that freshmen students choosing different types of residence halls initially possess differential levels of psychological maturity, it is highly recommended that a more diverse housing program be instituted at Oregon State University in order to meet the different developmental needs of these students. Such a program might include creating some residence halls with minimal restrictions on student behavior, while other halls might project a more controlling environment.

Finally, it is recommended that the Oregon State University Department of Housing develop a continuous research program in order to study the process of student development in relation to specific residential programs.
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APPENDICES
APPENDIX A

To: R. A.'s

From: Charles Schroeder and Dr. Morris Le May

Subject: Distribution and Collection of Research Materials

As you may recall from our conversation during the orientation session, I requested your assistance in handling test materials for a research project. Enclosed you will find a list of the students on your floor who were chosen to participate in the study. Please contact all of the students on the list and give each of them a test packet (cover letter, booklet, answer sheet).

In distributing the materials be sure to remind the students to carefully read the cover letter and to fill in their name on the answer sheet. In addition, please follow these guidelines:

1) Ask the student to complete the questionnaire within a 24 hour period.

2) If the booklet and answer sheet have not been returned to you within this 24 hour period, contact the student and encourage him to complete the questionnaire as soon as possible.

3) When a student returns the booklet and answer sheet, please skim the answer sheet. If the student has left 10 or more items unanswered, please return the booklet and answer sheet to him and request that he answer the omitted items.

4) After collecting the booklets and answer sheets, place them in the original envelope and mark off the student's name on your list.

5) Since the booklets and answer sheets are extremely expensive and difficult to replace, please collect all of these materials.

I will come by your room shortly after the end of the 24 hour period to collect the materials.

The time and effort you will be spending in distributing and collecting materials is truly appreciated. Thanks Again!

Sincerely, Charles Schroeder
and Morris Le May
APPENDIX B

Dear New Student:

Would you please help us? Enclosed is a short questionnaire which will take but a few minutes of your time. We are asking over 500 of the new freshmen men and women living in single-sex and co-ed residence halls to participate. Hopefully, the results of this study will help us improve the quality of residence hall living for O.S.U. students.

Your response to the questionnaire will be held in strictest confidence. We are interested in the total response of the men and women in the two different types of residence halls. Thus, we are not analyzing individual scores.

It is very important that you carefully read the instructions printed on the front of the booklet. Please don't forget to:

1) Use a pencil, and erase completely any answer you wish to change.

2) Try to make some answer to every statement.

3) Make sure that the number of the statement in the booklet agrees with the number on the answer sheet.

Once you have completed the questionnaire, you may return the answer sheet and booklet to the resident assistant on your floor.

Because the success of this project is primarily dependent on your cooperation, won't you please give us your help? If you should have any questions regarding the study, feel free to phone extension 1124. Your willingness to participate is truly appreciated.

Sincerely,

Charles Schroeder
Graduate Student

Morris Le May, Ed.D.
Director, Counseling Center
APPENDIX C

To: R.A.'s

From: Charles Schroeder and Dr. Morris Le May

Subject: Distribution and Collection of Research Materials

During new student week you were a tremendous help in handling the testing materials for the first phase of our research project. Now the time has come to complete the study by collecting information on the same students a second time. Enclosed you will find a list of the students on your floor who were chosen to participate in the study. Please contact all of the students on the list and give each of them a test packet (cover letter, booklet, answer sheet).

In distributing the materials be sure to remind the students to carefully read the cover letter and to fill in their name on the answer sheet. In addition, please follow these guidelines:

1) Ask the student to complete the questionnaire within a 24 hour period.

2) If the booklet and answer sheet have not been returned to you within this 24 hour period, contact the student and encourage him to complete the questionnaire as soon as possible.

3) When a student returns the booklet and answer sheet, please skim the answer sheet. If the student has left 10 or more items unanswered, please return the booklet and answer sheet to him and request that he answer the omitted items.

4) After collecting the booklets and answer sheets, place them in the original envelope and mark off the students name on your list.

5) Since the booklets and answer sheets are extremely expensive and difficult to replace, please collect all of these materials.

I will come by your room shortly after the end of the 24 hour period and collect the materials.
Since we have lost a number of students from our original sample (due to transferring, bad grades, etc.): we must get 100 percent response from the remaining students. You did a fantastic job in the fall - we hope you will give us that much assistance again.

Thanks again for your help in making this project a success.

With sincere gratitude,

Charles Schroeder and
Morris Le May
Dear Student:

We need your help again! As you may recall, during new student week you were selected to take a short questionnaire. Your participation at that time was extremely helpful in the first phase of our project. Now, we are attempting to finish our study by requesting that the same men and women take a few minutes of their time to complete the questionnaire once again. Hopefully, the results of this project will help us improve the quality of residence hall living for O.S.U. students.

Your response to the questionnaire will be held in strictest confidence. We are interested in the total response of men and women in single-sex and co-ed residence halls. Thus, we are not analyzing individual scores.

It is very important that you carefully read the instructions printed on the front of the booklet. Please don't forget to:

1) Use a pencil, and erase completely any answer you wish to change.

2) Try to make some answer to every statement.

3) Make sure that the number of the statement in the booklet agrees with the number on the answer sheet.

Once you have completed the questionnaire, you may return the answer sheet and booklet to the resident assistant on your floor.

Because the success of this project is dependent on your cooperation, won't you please give us your help? Once the project is complete, we will be glad to share the results with you. If you should have any questions regarding the study, feel free to phone extension 1124. Your willingness to participate is truly appreciated.

Sincerely,

Charles Schroeder
Graduate Student

Morris Le May, Ed. D.
Director, Center for Research on Student Life