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Adults as Students: Ego Development and the Influence of the Academic Environment

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ADULTS AS STUDENTS: EGO DEVELOPMENT AND THE INFLUENCE OF THE ACADEMIC ENVIRONMENT

by

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AN ABSTRACT OF THE DISSERTATION OF Shannon Moon Leonetti for the Doctor of Education in Educational Leadership presented October 9, 1989.

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This study was based on the premise that one outcome of education is ego development. The research was based on Jane Loevinger's theory that ego development is the central

frame-of-reference through which people view themselves and their relationships with others. The study looked for evidence of ego development in adult students and for contributing factors, including academic environments. It compared the ego levels of students aged 35 to 55 at two higher education institutes and some experiences that are common to most colleges.

The variables compared were based on Loevinger's levels of ego development and theories of academic environments of Moos, Pace, and Knefelkamp. The variables used were: ego development, type of school, background characteristics, relations with faculty, enthusiasm about school, opinions about academic environment and estimates of gains.

The study was done in two stages. Five hundred forty students responded to a questionnaire on background characteristics and selected portions of Pace's Measuring the Quality of College Student Experiences. From this group, 150 students were mailed Loevinger's Sentence Completion Test and 85 were returned. Study findings provided an opportunity to expand the knowledge about the ego levels of adult students.

Statistical analyses included chi-square and ANOVA. No statistically significant change in ego levels was found. No statistically significant differences were found between the ego levels of the students by schools or background

characteristics.

There were differences in how the two total populations responded to the questionnaire about school, environment and personal gains. Students attending the small liberal arts college indicated that they were more enthusiastic about college, felt that their school placed a stronger emphasis on both the subjective and objective outcomes of college. These students felt that their school placed a higher emphasis on interpersonal relationships.

The students from the small liberal arts college were more likely to say that they had gained the most personally. Personal gains included development of values and standards, understanding of self, and the ability to work with others. These are characteristics that are indicative of ego growth.

Recommendations included additional research into maximizing developmental environments of adult students and faculty education on adult development and learning styles.

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INTRODUCTION

The Carnegie Council on Policy Studies in Higher Education predicts a 23 percent decline in the traditional college bound group of 18-24 year olds by 1997; it maintains, however that the impact on colleges will be offset by increases in participation by students 25 and older (Carnegie Council on Policy Studies, 1980, p. 37). The Carnegie Council's (p. 54) prediction that 50 percent of the student population would be aged 22 and older, by the year 2000, has already been reached. Adult students, by their increasing presence, are creating a need for new accommodations in our institutions of higher education. Adults as a group of students, and as individuals, are very diverse and a challenge to traditional higher education (Chickering, 1980).

According to K. Patricia Cross (1982), the profession of adult education will be advanced if educators are encouraged to think about the special characteristics of adult learners and the context in which learning takes place. As colleges and universities attempt to serve the older student, Cross (1982) says that colleges will be

trying to identify: 1) the characteristics of the adult learners, 2) how education promotes their intellectual, moral or ego development, and, 3) how they can orient their curriculum, teaching practices, and support services to foster effective lifelong learning and development.

Arthur Chickering (Chickering & Marineau, 1982) says that the system of higher education should provide the setting that enables individuals to satisfy their individual developmental needs, to manage life transitions, and to find resources for necessary changes in their lives. Cognitive learning and the socialization process combine to promote personal development. According to Laurent Daloz (1986) only when education is understood to be this development of the whole person, rather than just the acquisition of textbook knowledge, will the central element of good teaching become the provision of caring for the student. Daloz (1986) defines a relationship between learning and development most succinctly:

> The proper aim of education is to promote significant learning. Significant learning entails development. Development means successively asking broader and deeper questions of the relationship between oneself and the world. This is as true for first graders as graduate students, for fledgling artists as graying accountants. (p. 236)

Considerable work has already been done to help educators understand why some individuals prosper in certain learning environments while others do not (Astin, 1967;

Centra & Rock, 1970; Moos, 1979; Pace, 1984; Stern, 1970). To date we know less about the dynamics of adult growth and development. And, as the diversity of the groups of learners expands, even greater demands will be placed upon educational institutions to improve both growth and learning opportunities.

Many institutions have responded to their expanding clientele creatively; they have expanded offerings in continuing education and created external degree programs. Only a few have looked at the logic of those efforts with the intent of designing environments that promote or support the development of their adult students. This is the real challenge, and it applies to traditional classroom instruction as well as other campus support systems (Chickering, 1980). Development, for the purpose of this study, is seen as a sequence of irreversible stages involving shifts in the process by which individuals perceive their world (Piaget, 1967). According to Erikson (1959), the developmental process takes place in a social context and results from interactions with parents, family, social institutions and one's culture. Therefore, an understanding of individual development also requires consideration of the external environment; in this case the external environment is the academic institution.

To provide curriculum and support services that are development-enhancing, three fundamental questions must be

answered: (1) What are the educational experiences that encourage various types of development (e.g. intellectual and ego)? (2) What other environmental factors interact to facilitate this development process? and (3) What activities or events can schools create or reinforce to provide the most development-enhancing experience?

BACKGROUND

Until recently, human development studies have not looked at the older student; development has focused on childhood, and more recently the traditional-age college student (Loevinger et al., 1985). Little scholarly work has been done on the relationships between adult education and adult development. Erikson (1968) led the way in asserting that adults can continue to develop. Theorists, such as Kohlberg and Perry, have previously attested that adult students are ready to, and do develop into the high stages of a world view and autonomous stages.

Jane Loevinger uses the concept of ego development to suggest the creation of a central frame of reference through which people view themselves and their relationships with others. Her developmental stages refer to the growth of the core personality (Loevinger, 1966). According to Loevinger, the educator who understands the conditions for development can successfully integrate cognitive and affective domains to create a growth-enhancing event.

Development is not a self-contained process. It has a great deal to do with the nature of the world in which we transact our lives' business. To understand human development, we must understand the environment's part, how it confirms us, contradicts us, and provides continuity (Daloz, 1986). The college is one of the influential environments of a student's world. The meaning of the events that occur there are influenced by a combination of the influences of physical environment and the quality of effort by both student and college administration and faculty (Pace, 1979).

While the concept of development as a result of some form of social interaction is not new, previous research has focused on the influence of traditional college activities, such as living and working on campus and campus-related social events (Pascarella and Terrenzini, 1983; Tinto, 1985). Research concerning adult students has been limited, primarily, to retention studies, but there is little research that designates what institutional characteristics might contribute to ego development as a result of their academic experience.

According to Loevinger (1985) we know little of why some adults continue to grow throughout life, while others cease their development at an earlier age. Until we learn more we, as educators, can do little to promote growth.

Knowledge about the relationship between adult development and academic environments can provide educators with ways to respond to a more diverse range of students, at different stages in their development.

In an attempt to gain more insight into adult students and potential development, a look at the research on the traditional student elicited two potentially important themes: 1) college students do continue to develop throughout college, and their environments play a significant part in that development; and, 2) students enrolled at small liberal arts colleges may achieve higher development levels than students at traditional universities (Billington, 1987). Also, in a group that included some non-traditional students, Redmore (1983) found some slight gains in ego development levels of a group of community college students, over a five-year period.

In summary, we know that adults can continue to change, or grow, and we know that environments play an important part in that development. And, we know that previous research has focused on academic achievement and has dealt, almost exclusively, with younger, traditional-aged students. There has been very little research that focuses on first time or re-entry adult students. (Re-entry students may have left school after high school or some college; they

went to work, got married, or both. They are now returning to vocational schools, community colleges, four-year colleges and universities.)

While we can benefit from existing research and we do not want to minimize its importance, there is more that can be learned. If we want a society of persons who can cope with life from high stages of ego development then we need to have a greater understanding of individuals, at all stages of their development and look for ways in which academic institutions can stimulate greater development.

The purpose of this study was to look for evidence of ego development in adult students, then to see if there was evidence that any change or growth in ego levels could be associated with one particular academic environment over another. And finally, the purpose was to see if there were any characteristics present in either of those environments that might generate or enhance ego development in adults. This study was designed to offer insights into how the educational system can better facilitate continued ego development in adult students.

SIGNIFICANCE OF THE STUDY

An important issue confronting educators today, is the choice of outcomes of the educational process. Many theorists now agree that development is a major outcome of

the post-secondary experience (Kohlberg & Mayer, 1972; Chickering, 1985; Erikson, 1968). If development is to be an outcome of education and the adult students are a significant presence in the academic population, then their development must be of as much concern to the educator as that of the traditional student.

Education is becoming a developmental intervention in many adult lives, and knowledge about how that intervention really works (or does not work) is limited. It is the objective of this study to add to the body of knowledge about ego development in adult students and gain further understanding of how various features of the academic institution might be impacting that development.

This study uses Loevinger's cognitive development stage theory known as ego development. The term ego development refers to a course of "development of the self" (Loevinger, 1985, p. 420). Previous research suggests that exposure to a challenging learning situation and to challenging and supportive interpersonal relationships can be influences in stimulating ego development (Weathersby, 1985). While the purpose of this study is to learn more about the ego levels of adult college students, the more specific objective is to learn more about the relationship between the ego development level of adult students and their primary

learning environments.

This study will investigate the ego development level of students according to Loevinger's scheme of ego development. Elements of two different post-secondary institutions, will be compared to see what characteristics might support or detract from that development.

The study will be limited to adult students between the ages of 35 and 55. The age range was selected for three primary reasons: 1) there were almost no studies on the ego development of adults in this age range, 2) there was little empirical evidence on whether or not education influences ego development, and 3) this is a population of students who is returning to college in large numbers. These students are often called "re-entry students" because they have been away from formal education since high school graduation or began college earlier but have dropped out and are now returning.

MAJOR RESEARCH QUESTIONS OF THE STUDY

Research Question One:

Do the ego development levels of adult students change while enrolled in college?

Research Question Two:

Is there a difference in the ego development levels of students enrolled in a small liberal arts college and students enrolled in an urban state university?

Research Question Three:

If there is change, when does that change take place?

Research Question Four:

Do ego levels vary by gender, age, academic major and/or long term educational goals?

Research Question Five:

Among students with high ego development levels, can a common set of college environmental characteristics be identified that may help to account for their ego development?

DEFINITIONS OF TERMS

Development is a sequential series of adaptations to the interaction between the organism and its environment. Development is the result of engaging with the world; a person becomes more discriminating in his or her ability to see that world in its own terms, or as others see it, and become more capable of making sense of it, even as it grows in complexity (Loevinger, 1976).

Cognitive Development is the change in general patterns of thinking about one's self and the world. One's thought structure differs as he or she develops; problem-solving and decision-making are examples of the structures that are affected as one develops.

Ego is the central element of the self which provides the frame of reference within which one perceives the world (Loevinger, 1976). It is that aspect of the personality that keeps things together by striving for coherence and assigning meaning to experience.

Ego Development "is a master trait, second only to intelligence in determining an individual's pattern of responses to situations. It is marked by a succession of turning points called milestone sequences, which represent broad patterns of change involving many aspects of the personality" (Loevinger, 1976, p. 26).

Environments are the individual's external relationships. They may consist of people, information or significant events. There are three commonly recognized environments (home, work and school), but school will be "the environment" at issue for the purpose of this study.

Non-traditional, re-entry students are those students who have re-entered the college or university after an extended absence. Their last educational experience may have been either high school or college and they are at least 35 years of age.

Stages are milestones of thought, fixed in a sequence of structures but theoretically independent of time. Movement is along a continuum from simple to complex (Kohlberg and/or Loevinger). Movement to the next higher stage of development involves exposure to that higher level

of thought and conflict requiring the active application of the current level of thought to problematic situations (Loevinger, 1976).

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter offers a summary of literature and research on adult student characteristics, adult development and how environmental characteristics can effect development. First, the characteristics particular to adult students are reviewed; then, there is a brief review of adult development theory. A more specific discussion of Jane Loevinger's theory of ego development is presented and includes an explanation of how that theory relates to adult growth and development as well as to adult education. Finally, related theory and research on the effect of environment on development is discussed.

CHARACTERISTICS OF ADULT STUDENTS

Age has traditionally been used to set apart the non-traditional or adult students. While demographics and personal characteristics are important, a review of more recent literature suggests additional, more significant characteristics that distinguish the non-traditional students from the traditional student. Three of these are (Wlodkowski, 1985): (1) multiple commitments, (2) not campus-focused, and, (3) a preference for informal learning.

The adult students are usually responsible for themselves, and, frequently, the well-being of others; there is probably a stronger commitment to personal needs rather than the educational program (Wlodkowski, 1985). It is this commitment to personal needs that frequently motivates the initial return to school. Personal needs might include a transition such as an empty nest or crises such as loss of job or spouse, divorce or unexpected need for a career move. As a result of these many "non-student" roles and responsibilities, the non-traditional students are less concerned with, nor do they have the time for, campus activities. Non-traditional students appear to be more influenced by experiences of informal education and base their future learning on previous life and work experiences (Wlodkowski, 1985).

The mere fact that older, new or returning students, did not follow a traditional, continuous, educational pattern suggests that they have had more opportunities for a variety of life experiences, and they come into the college classroom a more diverse collection of individuals than their younger counterparts (Knox, 1977). It has been shown that they are more diverse in motivation, cognitive style, conceptions of knowledge, conceptions of the locus of responsibility and role relationships involved in teaching and learning and in affective style and ways of coping with institutions (Knefelkamp, 1980). Therefore, a greater

diversity in areas such as classroom environment, methods, grouping, and guidance is probably necessary to meet these varied needs (Knefelkamp, 1980). An understanding of developmental or stage concepts, can help educators and administrators choose what approaches to take in regard to enhancing developmental change for their students. Programs can be consciously designed to promote development to the next higher stage along an identified sequence.

THEORIES OF ADULT DEVELOPMENT

Traditionally, psychologists have assumed that men and women arrive at a plateau in their development, in early adulthood, and remain stable throughout their middle age years. Psychologists, such as Jung (1971) and Erikson (1968), have offered theories suggesting that adults can and do continue to grow. Erikson (1968) described development as proceeding through a series of crises, each involving critical tasks which are embedded in the human life cycle. Successful resolution of each development task (e.g. intimacy versus isolation) allows a person the opportunity to develop into a more wholly functioning person.

There are two primary categories of contemporary theories concerning adult development: life phase theories and developmental stage theories. Both describe invariant sequences of development. A major difference between the two is that the life stage theory is based on the assumption that the stages are maturational and primarily age-related;

the developmental stages are hierarchical but not necessarily age-related.

The work of Erikson (1968) provides much of the framework for the life phase theories. Erikson (1968) describes development as proceeding through a series of crises or tasks that require mastering. Successful resolution of each task allows one the potential to develop into a wholly functioning person. Age linked periods of stability and transition are identified throughout the life cycle. Some examples are leaving one's parental home, taking on adult roles in work, marriage and parenthood, and, facing old age.

Developmental stage theories are based on an assumption that each higher stage of development represents a more comprehensive understanding of the world than that of prior stages. This more comprehensive understanding is the result of a greater understanding of the self. The stages are age related only by the fact that one cannot move into a higher stage without the requisite understanding; age does not insure movement to another stage (Loevinger, 1976). While experience may not insure growth, it does enhance the opportunities for experientially-promoted changes.

The different stages represent different frames of reference, or ways of looking at one's world. The stages set the parameters within which a person views his or her reality. These parameters serve to filter and evaluate

experiences, and orient the person for decision-making. Billington (1987), in her own research on development stages, described the process in this manner:

> Movement from one stage to another can be compared to walking up a mountain; you walk on a path through the woods at the lower levels, seeing only the immediate surroundings. As you climb a little higher on the mountain, there are fewer trees and you can gain a wider perspective as you glimpse a valley below. As you continue up, your view expands to a 180 degree panorama of the valley, surrounding land, and mountains in the distance. Only when you reach the top of the mountain, above the trees, can you see the entire landscape in all directions, from deserts in one direction to mountains in another to the sea in another. As in walking through the woods, at lower levels of ego development one sees only the immediate environment, maybe a small stream in one spot, a waterfall in another, but cannot discern the relationship between them--that the stream is the source of the waterfall. Most people never climb to the top of the mountain; they travel only part of the way up, for the journey involves effort, risk and discomfort (p.24).

Allowing for variations due to personal and social histories, developmental stage theorists, such as Kohlberg and Perry, have shown that adult students are ready to develop into self-actualized or more autonomous persons. Kohlberg (Kohlberg & Mayer, 1972) claims that development depends on experience, whether naturally or as a result of a planned educational program. Research has shown that only half of the adult population reaches the higher stages of that development (Kohlberg, 1972) and Kohlberg uses this fact to support his argument that while people do develop naturally, continuous growth is not inevitable but depends on planned experience (1972). The types of experiences

leading to development must be viewed in terms of a stimulation that is general in nature, not content-specific (Kohlberg, 1972).

Piaget's work laid the foundation for developmental stage theories (Piaget in Tanner & Inhelder, 1960). Piaget saw development as the result of the act of continuous balancing, by an individual, of the events in his or her world. Learning (experiential, not rote) occurs through a physical and mental interaction between the self and the environment (Tanner & Inhelder, 1960). A person assimilates past experiences into a frame of reference for reasoning new situations.

An adult's sense of personal competence and worth relies, in large measure, upon how work and life situations are handled; a person uses past experiences to act on the next events. According to Neugarten (1968), the cognitive interpretation of life and the discerned use of one's developed strategies compose the central theme of adulthood. Formal education can be an important developmental intervention in adult lives.

Carol Gilligan (1982), in her research on human growth and development, has identified both a catalyst for growth and signs that growth had occurred. Citing Piaget (Gilligan, 1982, p. 108) she says that "conflict is the harbinger of growth." She says that a crisis breaks a cycle of repetition and this crisis (or the transition that

results from the crisis) may signal a return to a missed opportunity for growth. One example of a missed opportunity would be education.

According to Gilligan (1982), this growth or development is exhibited by an increasing self-confidence or a feeling of being in control. As a person grows, he or she becomes more reflective and gives more credence to personal needs. "The critical experience is the awareness of 'choice'" (Gilligan, 1982, p. 164).

During the developmental process, changes occur in a person's relationships to oneself and to an external world (Gilligan, 1982). The individual experiences the merits of being assertive and personal relationships change from those of dependency to ones of interdependency. These inter-dependent relationships are marked by cooperation, generosity and real caring.

This concept of crisis or transition as a catalyst for growth was supported by the research done for Women's Ways of Knowing (Belenky, Clinchy, Goldberger, & Tarule, 1986). Here it was asserted that growth comes from "a crisis of trust" (Belenky et al., 1986, p. 58). People in transitions can no longer rely on the authorities in their lives, but on persons they trust: themselves, their friends, and people they see as like themselves. The intuitive process serves as both a tool and as evidence of this change in reliance.

Growth, according to Belenky is the process of becoming "one's own authority" (Belenky et al, 1986, p. 54).

LOEVINGER'S MODEL OF EGO DEVELOPMENT

The concept of ego development falls into the category of a developmental stage theory; it not only unites cognitive and affective functioning, but it views them as inseparable (Loevinger, Wessler & Redmore, 1970). Jane Loevinger's research on ego development is based on the assumptions found in the works of developmental stage theorists who minimize demographic and personal factors when defining growth or development. She conceptualizes stage-related differences in students' definitions of knowledge, the uses and origins of knowledge, motives for education, conceptions of learning process, teacher and student roles, and the function of an educational institution (Loevinger et al., 1970).

Influenced by the work of Kohlberg, Loevinger worked out a sequence of six broad stages of ego development; her scheme runs from early stages characterized by impulsive and self-protective orientations through middle positions typified by conventional morality to higher, more autonomous stages. Loevinger uses the phrase "ego development" to describe the inter-related progressions of cognitive, interpersonal and ethical development into a hierarchical world view.

Loevinger (1976) views ego development on a continuum, stressing the process rather than the state of development. The stages are additive, and achievement is interpreted as the ability to cope with increasingly complex problems.

Loevinger's developmental stages can be seen as synonymous with the growth of a core personality (Cross, 1982). She uses the concept of ego development to suggest the creation of a central frame of reference through which people view themselves and their relationships with others. Ego, in this context, is the aspect of the personality that "keeps things together" by striving for coherence and assigning meaning to experience (Weathersby, 1985). Ego development stems from Adler's concept of "style of life," which he equates with self, unity of personality, or one's method of facing problems.

The ego stages, or frames of reference, are the guidelines for making meaning of one's experiences. Each learning experience is absorbed and affects, or is reflected in, future actions and decision-making.

Loevinger considers the term ego development to be an abstraction; it is related to and based upon observable behavior but is not itself directly observable. She proposes no formal definition of ego development, but refers to the "milestones" of that development (Loevinger, 1966). Because of the difficulty in defining the concept of ego

development, the best way to understand it is through a careful description of the stages, themselves.

In Loevinger's scheme, there is a succession of milestone sequences. These milestone sequences represent broad patterns of change involving many aspects of personality. Milestone sequences are the observable behaviors that rise to prominence as one moves through a specific stage of ego development. The behavior, then, falls off as one moves to the next stage.

Loevinger uses the term "milestone" to differentiate from the polar variables that are aspects of one's development. For example, conformity is considered a milestone sequence; it continues to a certain point in one's ego development (the Conformist stage), then falls off. But, a behavior such as the tendency to stereotype, is a polar variable; it moves along a linear line. As a person develops, the tendency to stereotype decreases (Loevinger, 1966). She moves away from measuring polar (or dualistic) variables toward defining and measuring qualitative shifts in a trait that mark steps in a continuous progression (Knefelkamp, 1980).

Loevinger's stages (See Table I) progress as follows (Loevinger, 1982): Presocial (I-1) stage -- very infantile and entirely oriented toward the gratification of needs; Impulsive (I-2) stage -- characterized by children being

TABLE I

SOME MILESTONES OF EGO DEVELOPMENT

Stage	*Code*	*Impulse Control, Character Development*	*Interpersonal Style*	*Conscious Preoccupations*	*Cognitive Style*
Presocial			Autistic		
Symbiotic	I-1		Symbiotic	Self vs. non-self	
Impulsive	I-2	Impulsive, fear of retaliation	Receiving, dependent, exploitative	Bodily feelings, especially sexual and aggressive	Stereotyping, conceptua confusion
Self-Protective	Δ	Fear of being caught, externalizing blame, opportunistic	Wary, manipulative, exploitative	Self-protection, trouble, wishes, things, advantage, control	
Conformist	I-3	Conformity to external rules, shame, guilt for breaking rules	Belonging, superficial niceness	Appearance, social acceptability, banal feelings, behavior	Conceptual simplicity stereotypes, cliches
Conscientious-Conformist	I-3/4	Differentiation of norms, goals	Aware of self in relation to group, helping	Adjustment, problems, reasons, opportunities (vague)	Multiplicity
Conscientious	I-4	Self-evaluated standards, self-criticism, guilt for consequences, long-term goals and ideals	Intensive, responsible, mutual, concern for communication	Differentiated feelings, motives for behavior, self-respect, achievements, traits, expression	Conceptual complexity, idea of patterning
Individualistic	I-4/5	*Add:* Respect for individuality	*Add:* Dependence as an emotional problem	*Add:* Development, social problems, differentiation of inner life from outer	*Add:* Distinction of process and outcome
Autonomous	I-5	*Add:* Coping with conflicting inner needs, toleration	*Add:* Respect for autonomy, interdependence	Vividly conveyed feelings, integration of physiological and psychological, psychological causation of behavior, role conception, self-fulfillment, self in social context	Increased conceptual complexity, complex patterns, toleration for ambiguity, broad scope, objectivity
Integrated	I-6	*Add:* Reconciling inner conflicts, renunciation of unattainable	*Add:* Cherishing of individuality	*Add:* Identity	

Source: Adapted from Loevinger, 1982, pp. 24-25.

able to assert themselves with the word "no"; a transitional stage called Self-Protective (Delta), where rules come into focus; Conformity (I-3) stage - representative of the level of ego development of the majority of the population (the transition between conformity and conscientious stages is demonstrated as rules begin to have exceptions or hold only in certain contingencies).

A major transitional stage is titled Self-awareness (I-3/4); while it is theoretically a transitional stage, it is the modal level for adults in our society and many people live out their lives at this level. Conscientious (I-4) stage -- marked by heightened sensitivity to self and interfeelings and to the feelings of others (here, one's motives and consequences become more important than the rules per se). What characterizes the transitional stage, from conscientious to autonomous, is the awareness that even when one is no longer physically and financially dependent on others, one remains emotionally dependent, relations are deeper and more intensive; Autonomous (I-5) stage -- marked by individuals recognizing their own and other peoples' need for autonomy (here, moral dichotomies are replaced by a feeling for the complexity and multifaceted character of real people and real situations). The autonomous person has a broader scope; he is concerned with social problems and tries to be realistic and objective about himself and others; Integrated (I-6) stage -- representative of highest

development that, according to Loevinger, is attained by only about 1% of the population, and correlates with Mazlow's level of self-actualization.

Ego levels are both frameworks for experiencing and backdrops for interpreting experiences and solving dilemmas. People at the Pre-social, Impulsive and Self-Protective stages are concerned with control and advantage in relationships. These people follow rules opportunistically, often reason illogically and think in stereotypes. The person at the self-protective stage tends to see life as a zero-sum game and externalize blame to other people or to circumstances. Such a person, according to Loevinger, interprets "education" as a "drag." It is a "thing one gets in school and then has." This person would have a great difficulty succeeding in college.

An adult at the Conformist stage is concerned with appearances and social acceptability. He or she tends to think in stereotypes and cliches, is particularly moralistic and concerned with conforming to external rules. This person behaves with superficial niceness. Emotions will be described in undifferentiated terms that demonstrate little introspection. Differences are perceived solely in terms of "groups of people;" external characteristics such as age, race and nationality are the only perceived variables between persons. There is almost no sensitivity to individual differences. Education, for the conformist, is

interpreted as school attendance and is valued for its practical use. It's credibility is depicted by an acceptable number of years spent in school.

According to Loevinger (1982), the average American adult is at the Conscientious-Conformist or self-aware stage. The conscientious-conformist is the transition between the conformist and conscientious stages. The adult begins to see him or herself apart from, but still in relationship with the group of which he or she has been a part. One gradually begins to see social responsibility in terms of "helping"; there is now an ability to deal with multiple possibilities of situations.

At the Conscientious stage an individual lives by self-evaluated standards in relation to society; rules are no longer absolute. The conscientious adult recognizes that exceptions and contingencies exist and reasoning becomes more complex, using analytical patterns. A student at this stage is concerned about responsibility and mutuality in relationships. This person sees people as having individual choices over their destiny, values achievement highly, and is concerned with self-respect. He or she now prepares long term goals and ideals, and has a tendency to look at events in societal terms, or in a broad social context. Education is an experience that affects a person's inner life. It will make a person's life more worthwhile and enjoyable.

Education is now viewed as a constant process that happens both in an out of the classroom. The majority of the 18-to-22-year-old college students are found in the conformist and conscientious-conformist stages; adult students exhibit a broader diversity of stages.

The transition from Conscientious to Autonomous is the Individualistic stage. In addition to the qualities of the Conscientious (I-4) stage, this person has gradually developed a respect for individuality in others. Emotional dependence is important and it is now separate from the needs for physical or financial support.

The Autonomous stage represents a major shift. Here a world view is achieved; the conventional is transformed to a post-conventional view and one can step back and analyze or critique one's own social group, other social systems, and make choices and commitments as a result of that new awareness. Another hallmark of the autonomous stage is the ability to acknowledge inner conflict. There is a respect for others' autonomy while valuing interdependence.

A student at the autonomous stage takes an expanded view of life as a whole and tends to be both realistic and objective about him- or herself and others. Ideas that appear as incompatible opposites to those at lower stages can now be united or integrated and would have a cognitive style characterized by complexity and a high tolerance for ambiguity. Self-fulfillment becomes an important concern

and more conventional notions of achievement are less valued. At this stage, education is viewed not only as an ongoing process but something that leads to creativity, self-fulfillment and deeper values. Education is a value in itself and is not identified solely with intellectual achievement.

The highest stage is called the Integrated stage. There is an intensity of the characteristics from the Autonomous stage plus a new ability to reconcile inner conflicts in a more consolidated sense of identity.

Loevinger's model is holistic and interactive; it is based on the assumption that the parts of the whole student cannot be treated separately. The various areas of the self (intellectual, interpersonal and personal concepts) do not exist separate from each other and movements toward maturity are synergistic in the way that they affect the whole. As a person develops, the self-concept moves from one of a dependent personality towards that of a self-directing human being.

Signs of different levels of development appear when people are exposed to the same situation or material; each person will approach it from a different frame of reference. This frame of reference differentiates the way people react to the world, whatever their age or stage (Schlossberg, 1984). To carry this explanation further, if a group of adults, all 50 years of age, were enrolled in the same

educational program, each would react to that program, from his or her own frame of reference; a frame of reference that is based on one's level of development.

Based on Loevinger's criteria, the ego stages are sequential and hierarchical, one cannot skip a stage to advance to another, and between each stage are half stages that are transitional stages from one stage to the next. Not only does cognitive learning take place within these stages, but educational programs will be experienced differently by adults at different life stages because of the different perspectives and priorities these stages embody (Weathersby, 1980). Accompanying change in self-concept is a readiness, or eagerness, to learn; the knowledge desired is increasingly oriented towards the developmental tasks of that person's social roles and the immediacy of application.

The results of research, based on Loevinger's concept, indicates that ego level increases with age, and becomes relatively stable in adult life (Loevinger, 1976, Weathersby, 1980). According to Loevinger (1985) people do differ in their rate of growth and the age at which growth stops. Weathersby (1977), in her study of adults returning to college, found the modal stage for her subjects to be the Conscientious Stage (I-4), one level higher than Loevinger's estimate of the modal age for American adults.

While based on a slightly different set of assumptions, Loevinger's theory does parallel historical research on the life cycle and the process of how an individual's ability to adapt to the events and realities of life stages changes. According to Kohlberg (Kohlberg & Mayer, 1972), a focus on "growth" using life transitions forges greater personal integrity and effectiveness in the world. He says that it has become apparent that there are some general conditions that aid and support development. Examples include the following: a supportive community; a chance to try out new behaviors and new ways of thinking in a non-judgmental environment; an opportunity to explore alternatives; and a sense that risk-taking is a valued activity, including the chance to explore various commitments and to reshape their meanings.

To summarize, researchers have used Loevinger's work to show a progression in one's views of knowledge. The person develops from experiencing knowledge as a means to concrete, instrumental ends, to a means of gaining stature and approval in valued social roles, to self-knowledge and the capability for comprehending a complex world. "Concomitant with these views, the teacher's role changes from demonstrating and enforcing, to revealing truth as an authority, to being a role model and evaluator of students' competencies, to being a facilitator for students' emerging levels of insight" (Knefelkamp, 1980).

EGO DEVELOPMENT AND EDUCATION

According to Loevinger (1976), there is agreement that development in cognitive and moral realms promotes ego development. Kohlberg (Kohlberg & Mayer, 1972) said that ego, cognitive and moral development were all part of a "broader unity." Weathersby (1977) found that development occurred simultaneously across many dimensions in adult college students. She says that intellectual development cannot be separated from ego development, but intellectual development alone is not a sufficient condition for attainment of a higher ego stage.

Development through ego stages parallels many other goals of higher education and tacitly informs our judgments about "what's good" and "what's next" for students while they experience their education (Table II). According to Rita Weathersby, "ego development is an implicit aim of higher education and can be one of its most significant results" (Weathersby in Chickering, 1985, p.51). Stages of that development reflect distinct views of the meaning and value of education, as well as characteristic styles of coping with the tasks of lifelong learning.

Erikson (1968) said that there are conditions that are enhancing for the ego development. He says that ego identity gains real strength only from wholehearted

TABLE II

PERCEPTIONS OF EDUCATION BY EGO STAGES

Ego Stage	*Characteristic Responses to Sentence-Completion Stem "Education"*
Impulsive and Self-Protective Stages Education is viewed as a *thing* that you get in school and then have. Positive remarks are undifferentiated. There are also expressions of distaste for education, or of not getting along in school.	Education . . . . . . *is fun and hard.* . . . *is a very good thing.* . . . *is OK.* . . . *is very nice to have if you ain't got it you can't get a job.* . . . *and me don't get along too good.* . . . *is useless and a lot of bother.* . . . *is good for finding a job.* . . . *is a drag but important.* . . . *is good, although I hate it, because where would the world be without it?*
Conformist Stage Education is generally interpreted as school attendance, which has practical usefulness; one can get a better job with it than without it. An uncritical, idealized view of education is expressed, in which the current number of years of schooling is considered necessary for everyone.	. . . *is of the utmost importance.* . . . *is a very important and useful thing today.* . . . *is a necessity for all U.S. citizens.* . . . *is very important for children.* . . . *I think everyone should graduate high school.* . . . *is an essential requirement in acquiring a good job.* . . . *helps everyone.* . . . *is the greatest thing on earth.* . . . *I had ten and one half years of schooling and someday I will get that last year. Because that's important.*
Self-Aware Stage Education's importance is viewed in terms of one's life or future. There is a shift away from thinking of education as a concrete entity toward thinking of it as a goal and an asset.	. . . *is a very important step in life.* . . . *is a preparation for life.* . . . *is very important and invaluable to one's future.* . . . *should be a prized possession.* . . . *is very desirable and a goal for all members of my family.*
Conscientious Stage Education is viewed as an experience that affects a person's inner life. It is no longer merely a prescribed number of years of useful schooling. Its importance lies in intellectual stimulation and enrichment. It influences a person's whole life, making it more worthwhile and enjoyable. Education is an opportunity that should be available to everyone. It is seen as being a significant force in improving society, though the educational system may be seen as needing improvement as well.	. . . *is the standard for a strong America.* . . . *seldon lives up to its goals.* . . . *will get quite poor if the type and quality of teachers does not improve.* . . . *is not just what they teach at school.* . . . *is very important, and worth working for.* . . . *is a privilege and not a right.* . . . *should be provided with equal opportunity for all.* . . . *is a challenge but also a necessity.* . . . *is a constant process not limited to a classroom.*

TABLE II

PERCEPTIONS OF EDUCATION BY EGO STAGES (Continued)

Ego Stage	*Characteristic Responses to Sentence-Completion Stem "Education"*
Conscientious Stage (Continued)	Education . . . . . . *is a source of satisfaction in the present and for the future.* . . . *is essential in gaining maturity.* . . . *helps one acquire insight into problems.* . . . *is the most important thing along with being able to love.* . . . *is the foundation for a socially and secure life.*
Individualistic Stage This view has an element of both the conscientious and autonomous perspectives; conscientious themes are more fully elaborated, and the focus is shifting to education as a lifelong process essential for a full life.	. . . *is a lifelong process.* . . . *you can never have enough of it. Life should be a process of learning as much as you can about anything at all.* . . . *opens new avenues of thought and produces more joy in living.* . . . *is a must because the more I learn, the more I enjoy life.* . . . *is necessary now but the general trend of education should be training for life not a profession.* . . . *is necessary. What we learn is not as important as the fact that we are learning to think for ourselves.*
Autonomous and Integrated Stages Education is seen as leading to a deeper understanding of oneself and others, as helping to cope with life, as leading to creativity, self-fulfillment, and deeper values; hence, education is intrinsically valuable. It is not a thing one has or gets, once and for all, nor is it identified solely with school and intellectual achievement apart from interpersonal relations and emotional involvements.	. . . *seems valuable in itself.* . . . *will help me through life. I am not being educated because I have to, but education is a wonderful thing.* . . . *can be a means or an end depending on other characteristics of those who pursue it.* . . . *is learning to solve problems in a better way—to know what needs doing and when and how to do it.* . . . *means a lot to me, I'll stagnate if I never do anything creative.* . . . *is a necessary part of my development as a unique individual.* . . . *is the development of the entire man, mental, physical and spiritual.* . . . *is rewarding only if you learn to see things in a variety of ways and can have feelings for other people's beliefs.*
Autonomous and Integrated Stages (Continued)	Education . . . . . . *is both a stimulation to growth and method for accumulating knowledge for future use.* . . . *is a many splendored thing. It is also a necessity, a responsibility and at times a trouble, a sadness.*

Source: Adapted from Weathersby, in Chickering, 1985, pp. 60-61.

achievement that gives meaning to our social reality. One's "sense of self" (Loevinger's 'autonomous stage) increases when placed in situations that bring awareness to personal preferences and inner self. This happens when there is reinforcement from personal experience, rather than outside judgment. The person at the autonomous stage no longer struggles for individuality, but can now relax and cherish it; this person no longer thrives primarily on strokes from others and also respects another's individuality. Ego development is the result of: being placed in social roles that require new responses; having to make decisions concerning what roles one is going to take; and, learning from experience that some roles are more suited than others to one's interests and needs. In other words, development is the result of any situation that brings awareness to one's real preferences and inner continuities (Weathersby, 1985). And conversely, one sign that development has occurred it that knowledge is no longer absolute (Gilligan, 1982). The learner is no longer dualistic when making decisions, but uses knowledge in its most subjective or ambiguous sense.

Similarly, sound ego identity rises out of situations that are free from circumstances that force one to cling to earlier ego development. According to Erikson (1968), there are three basic conditions that foster ego development:

(1) varied direct experiences and roles, (2) meaningful achievement, and (3) relative freedom from anxiety and pressure.

Chickering (1980) states, unequivocally, that college environments have sufficient power to make a difference in adult development. With traditional-aged students, Chickering emphasizes the role of challenge and support; he explains that "the role of the environment is to provide the challenges or stimulation which encourages new responses and ultimately brings about developmental changes." (Widick, Parker, & Knefelkamp, 1978, p.21). He argues for taking adult development as the organizing purpose to strengthen the integration of career education and liberal learning, and, theory and practice (Chickering, 1980). He posits that practitioners should be informed about how adults learn, why they learn and how these elements are distinctive.

According to Perry, how the student interprets and makes sense of the classroom environment can be developmentally enhancing. Individual development is made possible, or enhanced, by an environment that provides the appropriate elements or balance of challenge and support (Knefelkamp, 1980). Educators communicate their understanding of the student, to that student, by designing the classroom environments that match the cognitive levels of the students and enabling the students to relate academic issues to their personal issues (Knefelkamp, 1980).

Academic achievement has been shown most likely to occur in a class with warm and supportive relationships, with an emphasis on specific academic tasks and goals, and a clear, orderly atmosphere (Moos, 1979). When instructors exhibit a high level of expectation from their students and demand performance, creativity and personal growth seem to be enhanced (Moos, 1979).

Just as cognitive and affective components of the real world do not exist separately, they do not exist separately in the classroom. Different students will have different meanings for different experiences and, for this reason, learners must have frequent opportunity to communicate with the teacher and to adapt the system to meet their own needs (Gates, 1982).

As a student moves higher in stages of ego development, views of the valuable educational methods shift from the need to be shown how things should be done, to a desire to be provided with information and a certification of a level of internalization of that learning (Kohlberg & Mayer, 1972). Similarly, it would appear that with a need for opportunities for skills development and certification, will come the desire to foster personally generated insight; this insight would grow from faculty and peers who assist by posing questions, highlighting dilemmas, and the opportunities from new experiences.

Educators who understand more about adult developmental and learning processes, will be able to take a more proactive part in when and how that learning will take place (Merriam, 1987). To be part of a student's development, it is important for faculty to know when to move in and when to step back, when to support and when to challenge. It is valuable to grant students more initiative than some teachers might prefer. In other words, the potential to assist in adult development depends in part on the ability of college faculty and administrators to alter the learning environment, in a knowledgeable manner (Chickering, 1980).

Knowles (1970), Erikson (1968), and Chickering (1976) all stress the role of experience, freedom to make judgments and responsibility for the consequences of choices and actions, on behalf of the adult student. Adult students need educators who are more sensitive to individual variation when we design formal educational experiences. "Experiences" are the events that occur in the college environment (Pace, 1979). Understanding development requires a knowledge of the intervening experiences and events that are intended to facilitate it. Adults have experienced many more of those intervening experiences than the traditional-aged student.

> Overall, an educational institution provides a setting for assembling and changing one's life structure. Choices about work, relationships, family, leisure - can be influenced by the ideas, practical knowledge and skills, and opportunities provided, whether for building a life structure or

> making a transition. As with other institutions in society, we have organized education primarily around the developmental tasks of early adulthood. (Weathersby & Tarule, 1980, p. 21).

Knefelkamp (1975), in response to the developmental work of Perry, asserts that education cannot coerce students into intellectual and ethical development; but, teaching and curricula can be optimally designed to invite, encourage, challenge and support students in their development. Knefelkamp's theory posits that a teacher's creation of a "community" is necessary, to foster the highest levels of development (Perry, 1985). Classroom experiences can be created so that they validate the student's experiences and modes of thought.

COLLEGE ENVIRONMENT AND EGO DEVELOPMENT

Several theories have been advanced to explain the relationship between a student and the academic environment (Daloz, 1986; Gates, 1982; Knefelkamp, 1980; Kohlberg & Mayer, 1972; Pace, 1979). Pace (1979) defines environment in this manner:

> The institution is an environment. The facilities it provides, the expectations it communicates, the behavior it rewards, the way its members relate to one another and its policies, procedures and programs create an atmosphere intended to exemplify its purposes. To the extent that this image or ethos is clearly perceived, it is a shaping force or stimulus for student development. With respect to the major goals of this environment--such as scholarship, critical-mindedness, aesthetic awareness, and vocational development--the emphases range along a scale from

> strong to weak. With respect to the nature of interpersonal relationships the environment can be placed on a scale ranging from friendly, congenial and supportive to cool, distant, and impersonal. These environmental characteristics make up the institutional context and the stimulus for the amount, scope, and quality of students' effort (p. 128).

It is Pace's firm belief that college makes an impression on all students (Pace, 1979). The college experience consists of the experiences one encounters in college and those experiences are influenced by both the efforts of the students and certain features of the academic environment. It is the combined influences of environment and effort that lead to student development (Pace, 1979). Environment is also a subjective environment; it includes the student's view of significant persons in their lives, as well as ideas, memories, events and information. Environments respond to individuals as a person responds to them (Daloz, 1986). There is an interplay between them, constantly in search of, but never reaching a perfect balance. The environment serves to confirm, contradict or provide a level of continuity in a person's life.

The academic institution is just one of the environments where the adult learner is involved (home and work are examples of other primary environments). The facilities it provides, the expectations it communicates, the behavior it rewards, the way its members relate to one another and the students, create an atmosphere intended to exemplify its purposes (Pace, 1979). The characteristics

can provide the stimulus for the scope and quality of the student's effort.

According to Perry (1970), individuals advance through the stages of life by encountering and negotiating greater diversities of events in their lives. Many adult students have a higher need for meaning or relevance and may refuse to cooperate in academic environments where the tasks or substantive information are devoid of functional utility. When a student can easily relate any substantive information to their individual needs, the opportunity for development is greater, and the chance of dropping out is less. College environments that strive for a more humanistic education stand on the premise that the autonomy of the learner is fundamental; the learner must be involved in every stage of the educational process.

Table III shows a progression of an individual's views on knowledge: what it is, its uses, its sources, and some motives for education. The progression is one of movement toward self-directedness. There are general implications for higher education institutions that will accommodate adult learning needs. Researchers and educators can begin to develop a general framework for identifying conditions that are conducive to individuals' growth or ego development (Chickering & Marineau, 1982). They can look for the events, created in particular environments, that are productive or debilitative.

TABLE III

IMPLICATIONS OF EGO STAGE FOR ADULT EDUCATION

Ego Development	*What is knowledge?*	*What use is knowledge?*	*Where does knowledge come from?*	*Motive for education*
Self-protective	A possession which helps one to get desired ends; ritualistic actions which yield solutions	Means to concrete ends; used to obtain instrumental effects in world; education to *get X*	From external authority; from asking how to get things	Instrumental; to satisfy immediate needs
Conformist	General information required for social roles; objective truth, revealed by Authority	Social approval, appearance, status used to meet expectations and standards of significant others, education to *be X*	From external authority; from asking how things work	To impress significant others; to gain social acceptance and entry into social roles
Conscientious	Know-how; Personal skills in problem solving; divergent views resolved by rational processes	Competence in work and social rules, used to achieve internalized standards of excellence and to act on or change world; education to *do x*	Personal integration of information based on rational inquiry; from setting goals, exploring causal relationships and asking why things work	To achieve competence relative to standards of excellence
Autonomous	Personally generated insight about self and nature of life; subjective and dialectical; contradiction and paradox as central	Self-knowledge; self development; used to transform self and the world; education to *become x*	Personal experience and reflection; personally generated paradigms, insights, judgments; from asking if things are as they appear	To deepen understanding of self, world, and life cycle; develop increasing capacity to manage own destiny

	Institutional Function	*Learning Process*	*Teacher Role*	*Student Role*
Self-protective	To enforce learning by providing examples, showing how things should be done	*Demonstration:* showing how to	*Enforcer:* Teacher as agent who focuses attention and shows how; focus: showing	Student acts as imitator of activity
Conformist	Provide pre-packaged general experience or basic information; to certify level of information internalization	*Revelation:* of truth by expert authority; if conflict between ideas is perceived, one element is incorrect	*Instructor:* Teacher as presenter of information (often in impersonal group mode, e.g. lecture); focus: verbal presentation	Student as subordinate in frequently impersonal relation with teacher, student internalizes and parrots information
Conscientious	To provide structured programs which offer concrete skills and information, opportunities for rational analysis, and practice, which can be evaluated and certified	*Discovery* of correct answer through scientific method and logical analysis; multiple views acknowledged but congruence and simplicity sought	*Role Model and Evaluator:* Teacher models skills, poses questions, outlines forms of discourse, evaluates analytic abilities and skill competencies; focus: apprenticeship, internship	Student as subordinate in substantial personal interaction with teacher; student analyzes and critiques information, practices competence
Autonomous	To provide new experiences, to ask key questions; to pose key dilemmas; to foster personal experience and personally generated insight; to highlight significant discontinuities and paradoxes	*Emerging levels of insight:* learning entails reorganizing past insight into new personally generated paradigms through new experiences. Learning follows dialectical process in which contradiction and multiplicity of views itself is of interest	*Facilitator:* Teacher sets up experience and reflective observation by students,is a resource for planning and evaluation; focus: facilitating	Student defines purposes in collegial relationship with teacher as equal participant; emphasis is on personal experience, creating own interpretations and meanings, transforming meanings

Source: Adapted from Weathersby & Tarule, 1980, p. 32.

Researchers have identified campus environment-related conditions that facilitate ego growth and development. Centra and Rock examined the relationship between college characteristics and individual student learning (Centra and Rock, 1970). They reported that a college environment most effective in fostering learning had the following characteristics: frequent student-faculty interaction, with faculty perceived as being interested in teaching and treating students as individuals; a relatively flexible curriculum in which students had freedom in selecting courses; and an academically challenging program with a stress on intellectual matters rather than social ones. These findings were reconfirmed in later studies of institutions which were particularly effective in influencing student development (Pascarella, 1985). The Centra and Rock (1970) findings were also complemented by the research of C. Robert Pace (1979) who has developed a "Path for Student Development" as it is impacted by campus events (see Figure 1).

Moos (1979, p. 272) argues for the importance of awareness of the institutional environments because "every institution in our society attempts to provide social environments which maximize certain patterns and directions of personal growth and development." And, individuals who are members of a particular social environment will tend to change in the direction of reducing differences between

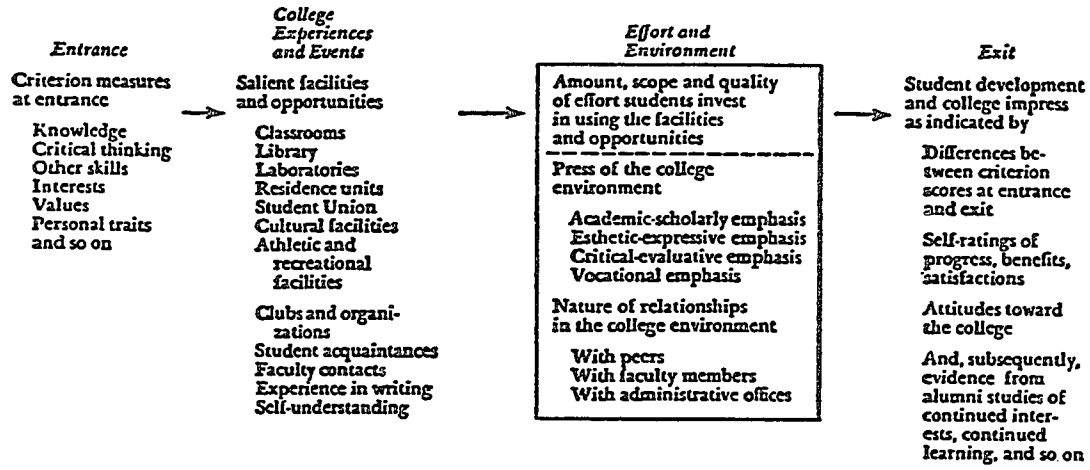

Figure 1. Path for a student development and college impress model by Pace (1979).

themselves and the normative behaviors of that environment (Pascarella, 1985).

Loevinger parallels growth or development in ego levels with changes in how an individual sees the world (one's frame-of-reference). This frame-of-reference, or way of knowing, about that world is intertwined with a person's self-concept (Belenky et al., 1986). And as previously stated, colleges are powerful interveners that can promote or hinder a person who is struggling to redefine his or her frame-of-reference (Chickering, 1980).

In Women's Ways of Knowing, the authors assembled characteristics on maximum growth-inducing environments. Belenky et al. (1986) found that people learned the most

from relationships with friends, not academics; people readily listen to friends. From these relationships comes the confirmation of the self-worth that encourages ego development, as Loevinger defines it. Personal, or internal, authority rises and the power of experts and their expertise diminishes (Belenky et al., 1986).

According to Belenky et al. (1986), if people are only recipients of knowledge, and not the sources of it, they will never be able to do original work. Reliance on authority for a single truth will be detrimental to someone trying to meet the needs of a complex society. The most significant knowledge is first hand, usually out of school, not in out-of-context classroom learning. The true learning process moves from merely listening and emulating, to observing oneself and others. From these observations, they begin to draw comparisons between their own and others' experiences. Exposure to cultural pluralism and the impact of liberal education results in a shift from dualism to multiplicity (Perry in Belenky et at., 1986). In other words, diversity of opinion is a catalyst for development.

As ego levels develop and personal authority increases the need or want for teacher authority decreases. According to Gilligan (1982), temporary inequality between teacher and student encourages development; the incentive to remove the disparity between the authority figure and the student fosters development; and there should come a moment when it

is obvious that there is no need for the inequality to continue. Steitz calls this position more authoritative than authoritarian. The teacher focuses on where the student is coming from, yet sets standards and notions of adequacy, value and truth (Steitz, 1985). There will always be some students who retain a trust in authority if they sense that the authority 'meant well'; this is dogma that is interpreted, by these students, as expressions of concern (Belenky et al., 1986, p. 90).

The most trustworthy of knowledge is that which comes from personal experience. Growth is that attempt to reclaim the self by integrating intuitive knowledge with the knowledge they have learned from others. Good teachers do not tell a person what to think; they do not offer answers, only techniques for constructing answers. And that while the learner is constantly looking for affirmation, it does not have to come from the teacher but as least as often from fellow students (Astin, 1977; Belenky, 1986).

Belenky et al. (1986) completed over one hundred interviews and admit that there are no simple answers. But the goal is definable and there are observable characteristics that make that goal approachable. From their interviews, Belenky et al. (1986) did learn that while too many institutions ignore the subjective voices of the students (feelings and intuition) it is possible to become so submerged in relationships that the students begin

searching for more procedural knowledge. All persons interviewed wanted some form of structure for learning (1986). The absence of some structure at progressive institutions was regarded as an excuse for self-indulgence and lack of seriousness (1986). Students admitted to becoming passive because teachers were too nurturant.

Belenky et al. (1986) characterized the most growth-producing institution as the one where the teachers and staff paid attention to the students while the system itself remained impersonal. Some responsibility eliminates chances of either the institution or the student from abdicating responsibility. Even the process of evaluation did not subvert education -- only impersonal evaluation. Evaluation was seen as beneficial when constructed in collaboration with the students (Belenky et al., 1986).

To be growth-enhancing, teaching would be more personal and objective. Teaching would be more than impartial; it would be an attempt to really understand a student's perspective. The expert teachers were capable of examining the needs and capacities of the learner and compose a message that was courteous to that learner; the expert teacher would be helping the student learn in his or her terms (Belenky et al, 1986). Teachers would become models of thinking human beings. Students indicated that they wanted teachers to promote their learning to think for

themselves. Students needed the opportunity to see their teachers solve problems and to fail to solve problems.

The developmental environment created by teachers would be one of community, where everyone nurtures everyone else' thoughts. This community (class) learned and grew through consensus, not conflict; from mutual respect and sharing, not power plays and dogma. It is the sharing, feed-back and consensus that enables each individual to try out a new consciousness level, to hear where other students are and to grow as a result of this sharing.

Examples of external signs of development or growth are displays of trust, acceptance of the knowledge that is gained from others and a shift in the pronouns they used, from "it" to "I". And finally, the answers to all questions would begin to vary, depending on the context in which they were asked and the 'frame-of-reference' of the both the questioner and the answerer.

CURRENT RESEARCH ON EGO DEVELOPMENT AND EDUCATION

Loevinger's research (Loevinger & Wessler, 1970) puts the majority of late adolescents and adults at the Conformist or Conscientious Stages. (See Table I.) She estimates that the transition between these two stages is the modal stopping place for adults in our society. A longitudinal study at Worcester Polytechnic Institute found that traditional-age students move from the Self-Aware Stage

to about the Conscientious Stage between the beginning of their freshman and the end of their sophomore year. At the end of their senior year they test the same as at the end of their sophomore year (Weathersby in Chickering, 1985).

Various research projects have suggested that ego level differences vary with age and type of institution. One example of more predictable results were that 18-year-olds scored higher than 16-year-olds and undergraduate adults scored still higher (Weathersby, 1977).

Loevinger's Sentence Completion Test was used at a small liberal arts college in New England, as a measure of personal growth (Goldberger, 1977). There was no consistent relation between academic ability or achievement and ego level. But, students who were identified at levels above Conformist were more serious about their studies, were the leaders on campus, were more responsive in values seminars and tended to have more psychological problems than students below the Conformist stage (Goldberger, 1977).

Students who were attending an Ivy League school scored beyond the conformist stage in twice as many instances as did the students attending other institutions. The research reports concluded that age made a difference up to the middle stages of development; the two adult program samples had substantial proportions (38 to 49 percent) of students who scored at the Individualistic, Autonomous and Integrated Stages. These scores were considered rare for students of traditional college age (Weathersby, 1985). (See Table IV.)

TABLE IV

EGO-STAGE SCORES OF COLLEGE STUDENTS OF VARYING AGES AT DIFFERENT TYPES OF INSTITUTIONS

Traditional-Age High School Students (16 years old)	*Preconformist Stages (2)*[a]	*Conformist Stages (3, 4)*	*Conscientious Stage and Above (5, 6, 7, 8)*
National Survey	32%	61%	7%
Simon's Rock Early College	14%	60%	20%
Selective Prep School	3%	78%	19%
Traditional-Age College Freshmen (18 years old)			
National Survey	16%	52%	31%
Ivy League College	7%	25%	68%
Urban University	8%	45%	47%
Engineering School	13%	48%	39%
Teacher's College	10%	56%	34%
Adult Undergraduates (21-81 years old)			
Goddard College Adult Degree Program	3%	16%	81%
Vermont State Colleges External Degree	–	30%	70%

Source: Adapted from Weathersby in Chickering, 1985, p. 58.

Rita Weathersby responded to the results of her own research by raising a question about how far beyond the conventional stages of development adult students can venture. "Data from adult students in nontraditional undergraduate programs suggest that they can move far beyond the level of development that is representative of the general adult population" (Weathersby, 1985, p. 74). Weathersby goes on to say that "data are scarce and that... potentially promising information could come from a

comparison of scores across a range of age, sex and institutions" (Weathersby, 1985, p. 74).

A recently completed dissertation on ego development in adult learners asked two basic questions: "Can adults continue to grow (growth was defined as development of the whole person) throughout the lifespan?" and "If so, what factors contribute to that growth?" This study found that adults can, and do, experience significant ego development at mid-life, if within the proper environment (Billington, 1987).

Billington used a cross-sectional design to investigate ego development in adult men and women, ages 37 to 48, in traditional and non-traditional doctoral programs. Sixty subjects were included in the project. In the Billington dissertation, a revised questionnaire and a revised version of the Personal Orientation Inventory (testing for Maslow's definition of self-actualization) were used to supplement the results of the SCT. The results of Billington's research showed that greater ego development occurred when:

1. Learning was self-directed,

2. There was a combination of intellectual and interpersonal stimulation,

3. Students felt the presence of acceptance and emotional support.

Chickering's (1980) findings show that in college environments where lectures predominate, autonomy, impulse

expression and complexity increased less. Where students argued openly with one another and with the instructor, and where students more often participated in making decisions about course content and procedures, autonomy, impulse expression and complexity increased more. At colleges where teachers typically lectured in class, the students usually invested substantially more of their class preparation time in memorizing than in the more complex mental activities. Where the predominant reasons for study were intrinsic there were greater increases in autonomy and complexity. At colleges where out-of-class contacts with faculty were frequent autonomy and complexity increased; the amount of time spent with faculty was less important than the frequency or diversity of those contacts.

In reconfirming the previously mentioned ideas of community, faculty support and interaction, Astin (1977) found that student-faculty interaction had a stronger relationship to satisfaction with the college experience than any other involvement. Student involvement, according to Astin, increases the chances of persistence, satisfaction and personal development.

Pascarella (1985) says that interactions with the major agents of socialization on campus (i.e. faculty and peers) are a particularly important source of influence on student development. But, Pascarella (1985) points out, less

attention has been paid to environmental influences that impact this development.

The cognitive and affective components of the learning process do not have clear and separate existences (Gates, 1982). When we accept Loevinger's concept of ego development as a premise for defining a person's overall frame-of-reference, it is necessary to realize that educational experiences will have different meanings to individual students and "the different meanings are in direct relation to their current level of ego development" (Gates, 1982, p. 90).

As people move to higher stages there is an increase in their individuality, their understanding of the contradictions in themselves, and their orientation towards achievement. According to Gates (1982):

> Educators "can facilitate ego development by carefully structuring the students' environment, by challenging them in a Socratic fashion, by guiding them through discovery, by providing them with world views that are a single step ahead of their present conceptualizations, then seducing them with a more comprehensive view" (p. 92).

SUMMARY

There is a growing bank of information showing the existence of a progressive relationship between ego development levels and use of education (See Table II). And there is some theory and research that suggests that educational environments can be facilitative and responsive

in helping the adult student move toward self-directedness and assume an increasing responsibility for creating significant meaning out of that educational experience.

But, there are gaps in that knowledge. What we do know is any situation that brings awareness to one's real preferences and inner continuities helps to establish sound ego identity (Weathersby in Chickering, 1985). In a global sense this sense of self occurs when one is placed in social roles that require new responses, has to make decisions concerning what roles one is going to take, and, learns from experience that some roles are more suitable to a person's personal interests and needs. Weathersby (Chickering, 1985) summarizes by saying that "there seem to be three basic conditions that foster ego development: (1) varied direct experiences and roles, (2) meaningful achievement, and (3) relative freedom from anxiety and pressure" (p. 56).

There is not enough research showing where the adult student is in terms of ego development levels. And while there is evidence that growth is the result of what a person learns from an experience and the increasing ability to incorporate that knowledge into the next experience or decision, it is not clear how the college environment can facilitate this meshing.

According to Weathersby (1985), we do not have enough knowledge of the dynamics of transition, or the conditions that promote development, or the impact of college, to

establish highly structured programs geared toward ego development. Familiarity with patterns of ego development will create profound differences in faculty attitudes and behavior towards students.

It appears that institutions might, inadvertently, put ceilings on development. According to Weathersby, colleges and universities should provide opportunities for students to constantly push the limits of their current ways of thinking and living.

> "For example, very little of our current formal education is designed to help students reorganize past conceptions on the basis of new experience and develop personally generated insights and paradigms, although these are the learning processes that reflect higher stages of ego development" (Weathersby in Chickering, 1985, p. 73).

Based on previous research and theory, it appears that there are many criteria that can be considered in creating and maintaining an ego developmentally-enabling environment. Building on that research and recognizing there are gaps in the necessary methods to create developmental events, the criteria of an enabling environment might include:

1. A campus-wide mission of ego development as a legitimate outcome of higher education.

2. Faculty who are sensitized to major stage-related orientations, so they can understand and act on individual differences in personalities, cognitive styles and interpersonal relationships.

3. Faculty who are sensitive to students'

frames-of-reference, and to their reasons and feelings about certain situations.

4. Faculty and administration policies that allow negotiations in types of learning experiences, goal-setting and evaluation.

5. Faculty who would assume the role of asking questions, suggesting strategies for problem-solving, and increasing the use of small group activities to allow for feedback from peers.

6. An instructional system that is based on lectures and exams for students at Conformist stages but that at the same time requires decision-making, discussion and active participation by individual students at middle and higher stages of development.

7. Faculty who are more facilitating and less judgmental of students who do not fit certain traditional roles.

8. The development of teaching practices which would maintain a maximum productive level of push so that students will constantly be growing.

CHAPTER III

PROCEDURES

The purpose of this study was to look for evidence of ego development in adult college students; then, to see if there were aspects in their particular academic experiences or environments that influenced those levels of development. This chapter describes the study in detail, including the design, subjects, settings, variables, instrumentation, data analysis, pilot studies, and limitations.

The research questions, posed in the first chapter, were: In a group of adult college students:

1. Do the ego development levels change while enrolled in college?

2. Is there a difference in the ego development levels of students enrolled in a small liberal arts college and students enrolled at an urban state university?

3. If there is change (Question 1), when does that change take place?

4. Do ego levels vary by gender, age, academic major and/or long-term educational goals?

5. Among students with high ego development levels, can a common set of environmental characteristics be

identified that may help to account for that ego development?

The study was conducted in two stages. The first stage consisted of a general background and opinion questionnaire mailed to all potential subjects (see Subjects). The second stage consisted of the mailing of an instrument for measuring ego development levels. This instrument was sent to a small, select group of subjects who responded to the first questionnaire. The original plan was to follow-up with interviews of students who demonstrated high levels of ego development.

RESEARCH DESIGN

This was an exploratory study designed to identify levels of ego development among a group of adult college students and to identify elements of certain academic environments that might be influencing the ego development of adult students. A cross-sectional design was used, and the ego levels of students from two institutions were compared. The use of a cross-sectional design allowed both a comparison of students at two different institutions and at different stages of their academic progress. Independent variables such as attitudes about the school, their campus, and involvement with faculty, were used to identify perceived differences in the academic environments.

A cross-sectional research design was used to compare the consequences of exposure to two different environments. While a longitudinal study might have been a preferred design, with more opportunities for control, the amount of time, staffing, and money necessary precluded this as an option. A similar cross-sectional design was used by Clinchy, Lief, and Young (1976) to determine differences in stages of cognitive and moral development among sophomores and seniors in traditional and progressive high schools.

SETTINGS

Two schools were selected; both schools serve a population of students where the age of the majority is over the traditional college ages of 18 to 22. These schools are both urban schools, serving commuting students from the same urban area. The two specific environments were selected because not only do they have the previously mentioned similarities but they have significantly different missions. This study was based primarily on the assumption that differences in missions might foster enough differences in the environments to facilitate differing levels of ego development in the students.

School One is a middle-sized urban university, with a diverse population. In the 1987 academic year, 47% of the students were of the traditional age category (18-25) and the balance (53%) were over 25 (School One, 1987). Even

though over 50% of the student population is over 25 years old, this school maintains a focus on the traditional student. The school actively recruits adult students, but it does not give special mention to this student in the mission statement. The instructional system appears to be based on a traditional lecture and exam format and aims primarily to provide individuals with access to certification, information and increased cognitive skills. The majority of the faculty appear to use traditional classroom techniques, teaching methods, and adhere to the historical requirements for program completion.

School Two is a small liberal arts college that has focused its mission towards promoting lifelong learning, growth and development. With the majority of its students over 25 years of age, School Two has made every effort to be an innovator in educational programs for adults. While providing a small, nurturing campus environment, School Two has overtly sought to provide a mature student body paths to use the knowledge and expertise that it brought to the campus. It appears to accomplish its mission through the use of student-designed programs, credit for prior learning, and preparation of its faculty for its adult clientele.

SUBJECTS

All students between the ages of 35 and 55, who were enrolled full time or had graduated in Spring or Summer of

1988, were asked to participate. This age range was selected for three primary reasons: 1) There were almost no studies on the ego development of adults in this age range; 2) There was little information on whether or not education influences ego development, and 3) This is a population of students who are returning to college in large numbers. These students are often called "re-entry students" because they have been away from formal education since high school graduation or began college earlier but have dropped out and are now returning.

The sample population was limited to undergraduates for three reasons: 1) The studies of traditional students have shown that the greatest change in ego levels takes place by the end of the sophomore year; 2) There was no way to separate the influences of previous undergraduate education on graduate students; and, 3) The size and scope of the study had to be narrowed to be feasible.

The participants were recruited by obtaining names of potential subjects from the Registrar's Offices at both schools. The sample groups, except incoming freshmen, were selected from among students who had completed at least two terms or semesters at their respective schools. Using the Fall 1988 data, from both schools, there were 829 students at School One and 639 students at School Two who met the population critera. The initial contact was a letter of introduction to the project, the questionnaire, consent form

and a stamped self-addressed return envelope. (See Appendix.) The subjects were originally contacted during November and December, 1988. All subjects were guaranteed confidentiality.

There were 321 (38.7%) usable questionnaires returned from the students at School One and 210 (32.9%) returned from the students at School Two (See Table V). Forty-seven letters mailed from School One were returned for incorrect addresses. The envelopes used for School Two students listed the School's own return address, not the researcher's; and the School did not keep a record of returns and undeliverables. A total of twenty-four students from both schools declined to participate further. Twelve, who returned the questionnaire, were disqualified because they did not fit the age classification.

TABLE V

QUESTIONNAIRES MAILED AND RESPONSE RATE
By Number and Percent
(n = 1468)

	Questionnaires Mailed	Returned	Percent Returned
School One	829	321	38.7
School Two	639	210	32.9
Did not Indicate School		9	
Total	1468	540	36.5

From this group of respondents, the Washington University Sentence Completion Test (SCT) was mailed to a carefully selected group of students. This second mailing was sent to 75 students from each school who (in Mailing One) had consented to participate in further studies.

Of the 540 respondents, 495 (91.7%) had attended some previous form of post-secondary school. While this research study could not erase or evaluate the influence of that experience, the information made it possible to select only those with minimal or no exposure to other schools, for the second mailing. To achieve a representative sample, criteria for the second selection were as follows:

1. Seventy-five students were to be selected from each school. This was an arbitrary number, based on the researcher's confidence that there would be a high return rate (respondents had previously agreed to answer further questions). The SCT's take about four hours each to score and this had to be taken in to consideration when deciding on the number sent out. (Total n - 150.)

2. All students who had attended only Schools One and Two. There were 42 persons who had not attended any other colleges (42 of 150).

3. Representation by gender and age that was similar to the total populations in the study. There were 100 females and 50 males (including 30 females and 12 males from the 42 in #2.)

The age breakdown was:

55 - age group 1 (35-39)

80 - age group 2 (40-49)

15 - age group 3 (50-55)

As will be shown later in this chapter the results on the Sentence Completion Test (SCT), did not indicate that a larger sample would have resulted in different findings.

VARIABLES FOR THE STUDY

Dependent Variable

Ego development is defined as a master trait of the personality that is responsible for the organizing and synthesizing processes of the individual (Loevinger and Wessler, 1970). Ego levels were measured by the Sentence Completion Test (SCT) and change, or growth, was determined by the differences between the ego levels of freshman, sophomore, junior and senior and/or just-graduated students. (See Limitations, #5.)

Independent variables

The independent variables identified were:

1. Type of academic environment: "Traditional, urban, state university"; "non-traditional, smaller, private college".

2. Time in school: Self-identified classifications of "freshman", "sophomore", "junior" or "senior/just-graduated".

3. Age. "35 - 45," "40 - 49," or "50 - 55."

4. Gender. "Male" or "Female."

5. Stated motivation, defined by educational goal. "Four-year degree," "Two-year degree," "Take a few classes," "Specialty license or certificate," or "Earn an advanced degree."

6. Academic Major. "Arts and Humanities," "Biological or Physical Sciences," "Business and Communication," "Education," or "Liberal arts or general studies."

7. Level of commitment to major, defined by whether or not major was formally declared.

8. Interpersonal relations with faculty. "Had student talked with faculty member outside of class?"; if so, "Was that meeting informal or with an appointment?"; and, "Had the student discussed long term plans with faculty?"

INSTRUMENTATION

Questionnaire

The initial contact with the subjects included a questionnaire designed to elicit information on the independent variables listed above. (The questionnaire is included in the Appendix.) The questionnaire solicited information about subjects' background, relationships with

faculty, attitude about school and environment, and personal estimates of gains.

The first part (questions 1 - 10) was designed to gain the necessary background information about the respondents. These questions requested information regarding student background and educational goals. Included were their names, addresses, phone numbers, age, gender, field of interest and long term educational plans. They were assured confidentiality; all questionnaires were number coded and the names and addresses were only used for those who received the second mailing. These were also number coded, and no names were retained with the inventories.

Names and addresses were requested in order to send out the second mailing; phone numbers were requested if the analysis indicated a need to contact for follow-up interviews. The actual inventories were coded and kept separate for confidentiality purposes. Age had to be known in order to reconfirm that the students fell into the 35 to 55 year age group. Knowledge of gender was necessary to assign the proper form of the SCT (forms are gender related). Majors and long term educational goals were identified as independent variables relating to both commitment to education and ego development levels.

Subjects were asked the dates they entered their particular school in an attempt to verify the actual length of time to complete their program. But, some students used

the date that they originally started any post-secondary education. Use of this information was consequently abandoned. Entry dates were recovered, however, for the smaller group who responded to the SCT.

The Sentence Completion Test (SCT)

Loevinger's method for assessing ego levels is the Washington University Sentence Completion Test (SCT). This instrument is a projective instrument for measuring ego development. It has been carefully constructed, revised and standardized in form. Form 11-68, the most recently revised version of the Sentence Completion Inventory was administered.

Loevinger's sentence-completion method assesses ego development by an objective series of ratings. The test is administered in paper-pencil form; seven forms are available, with each composed of 36 sentence stems. The test manual provides objective ratings and an exhaustive source of examples of completed sentence stems for all ego levels. The key to Loevinger's method is in this carefully detailed manual for rating the ego development levels.

Measuring how far persons have proceeded in any developmental sequence is complicated and is best accomplished in a longitudinal study that can trace a person's full course of development. The rationale for the Sentence Completion Test is that ego development is, or reflects, the person's frame-of-reference. Therefore, an

unstructured test, permitting the respondent to supply his or her own frame of reference, is appropriate (Loevinger, 1979). At the same time, by providing 36 discrete answers and partially restricting the domain of the answers, the test is psychometrically simpler than other tests.

Scoring. The SCT scoring system is designed to detect milestones of ego development, reflected through sentence completions. Each response can be reliably assigned to a specific level of ego development. The task of the examiner is to read the scoring manual and render objective scoring for each sentence. Each sentence is rated independently of every other item. After all thirty-six responses have been rated, a cumulative frequency distribution is calculated. To determine what the total rating is, the scorer adds up the cumulative frequency of the scores and compares it to tables in the test manual. According to the scoring methods set forth by Loevinger, the scores are assigned on a basis of the whole test, only. This score is called a Total Protocol Rating, or TPR.

The SCT was administered to three different groups, prior to the scoring of the inventories used in the study. They were done for the purpose of this researcher gaining experience in the area of reading and scoring this particular instrument and to use as baseline information regarding this study (See Preliminary Studies, later in this Chapter).

Validity. According to Loevinger (1976), the evidence for validity relies on the underlying construct; there is substantial evidence that it does measure the theory from which it is derived (Kishton, Starrett & Lucas, 1984). There are over 100 published and unpublished studies on the relation between ego development and various cognitive, affective, behavioral and social processes (Hansell, Sparacino, Ronchi & Stodtbeck, 1984).

The original data used to evaluate the relative validity were obtained from three large samples (Loevinger, 1985). The origin of these samples was not revealed to the scorers to insure the validity of cross-validation. The original testing included 543 women and girls. It was followed by samples using both high school and junior high boys. In 1983, Nettles and Loevinger studied adult couples (100 couples) and found that the ego levels of similar adults were identical for the two sexes. She also has studied several groups of cohorts at a technical university and a liberal arts university (Loevinger, 1985). She found that ego levels tended to rise slightly except among women at the liberal arts university, for whom there was a slight but consistent loss; and, that both men and women appeared to gain more at the technical institute than at the liberal arts university.

Loevinger gives reference to item validity, correlating the item rating and the rating of the protocol on which the

response occurred. She does not refer to construct validity or a correlation with an outside criterion.

Completed studies on the sentence completion test have related it to age and supported results with professional interview ratings. Loevinger's conception is that underlying the qualitative changes in ego development there is an ordered quasi-quantitative variable or dimension. The test correlates positively with other measures of ego development, such as moral development, mental health and self-actualization as measured by other personality instruments.

Loevinger does not assume that there is any overt behavior related to levels of ego development. One may not find any external criterion (predictive validity) that identifies those students at each stage in their ego development. There is evidence that the methods by which a person approaches education, jobs and other social contacts, may reflect these levels. For example, desires for conformity, the ability to take responsibility, and the willingness to help others may indicate or predict one's ego level (Hauser, 1976).

Reliability. As in any projective test, there are many sources of unreliability. Loevinger (1976), herself stresses that the SCT is not error free. But the SCT has both high interrater reliability, about 0.85, and high

internal consistency, coefficient alpha about 0.90 (Loevinger and Wessler, 1980).

The most recent version of the scoring manual was based on 8 samplings (5 original samplings and 3 new ones). The three later samplings included a sealed random sampling of 543, a selected sampling of 100 school girls and a group of 150 adult subjects who were identified when they applied for aid to dependent children funds.

The manual, with its self-training exercises, is sufficiently clear so that high agreement can be maintained across different scorers. Loevinger has compared professionally trained raters with those who have learned the rating system by the book and found no significant difference among them. The interrater reliability ranged from .78 to .85 for the trained and the self-trained raters, combined. Only from 3 to 12 percent of the disagreements between two raters were greater than one half step (Loevinger, 1985).

The tests were mailed to the subjects; this minimized the situational factors that might arise if given at school, during registration, or in an atmosphere that would make the subject uncomfortable. Tests given at such times are less likely to give accurate readings, because the atmosphere may not be conducive to a cooperative attitude (Loevinger, et al., 1985).

The scoring of the SCT was to have been followed by interviews with students who demonstrated high levels of ego development. As will be shown in Chapter IV, there was insufficient evidence to warrant interviews, additional available information was used instead.

Because this was an exploratory study and because information about academic environments and how adult college students perceive their environments is limited, questions from C. Robert Pace's Measuring the Quality of College Student Experiences (1984) were included in the original instrument. While this information was not to be used in this study, the researcher wanted to take advantage of this opportunity to gain as much additional information as possible to ensure that she was not overlooking something that mattered. The results were to be regarded as both a foundation for future research and to suggest a format for any follow-up interviews for the initial research. (The information from this part of the questionnaire is found in Chapter IV.)

Questions 11 through 33 were adapted from Pace (1984). Pace's instrument was selected for two primary reasons. Pace (1984), in his own research, has found that there are three important elements to a developmental environment: personal development elements (those that support the main purpose of the environment); interpersonal relations (especially the extent to which people in the environment

are supportive of one another); and, organizational elements (flexible, adaptive vs. rigid, rulebound). These elements are similar to those that have been identified as ones that promote ego development.

Not all questions were used. The questions were selected from the more extensive questionnaire because of their focus on students' enthusiasm about education, their attitudes about faculty and administration, and their perceptions of their academic gains (cognitive and affective). The researcher selected these questions in order to see the extent to which any of these characteristics were present at either school. A more complete explanation is included in Part 2 of Chapter IV.

DATA ANALYSIS

Statistical analysis of the research data was generated using (SPSS) Statistical Package for the Social Sciences. The following analytical methods were used for the study questions.

1. Frequencies were examined (See Chapter IV) on the biographical information in all questionnaires (n=540). Frequencies were also run on all questions in the second part of the questionnaire (See Chapter IV, Part 2).

2. 85 (of 150) students returned the Sentence Completion Test. The SCT's were scored and each was assigned a Total Protocol Rating (TPR).

3. The data were cross-tabulated by the dependent variable (ego development) with each of the independent variables which were formed from the background information collected on the survey instrument.

Chi-square, goodness of fit test, was chosen to measure the overall difference between the observed frequencies and ego development.

4. Analysis of Variance (ANOVA) was used to test for significant differences between the dependent variable on the background variables.

ANOVA was used to test for significant differences between the variable "school attended" on the independent variables which were formed from the questions in Part Two of the questionnaire.

ANOVA was also used to test for significant differences between categories of the variable "school attended" on the variables defined by six questions called "Estimate of Gains" in Part Two of the questionnaire.

The acceptable level of significance for all statistical tests was set at $p \leq .05$.

LIMITATIONS

1. A major limitation of this study was the fact that there was not a clear measurement of the students' exposure to their particular environments. A majority of these adult students had attended some previous form of post-secondary

school and this research method could not erase or control for the influence of that previous experience.

2. When using a cross-sectional design there is no way to eliminate the potential influence of personal relationships and events outside of the campus environment, occurring while the student is attending college.

3. The narrow age of the subjects limits the ability to generalize this study to a larger population of adults.

4. The registration records were not available until late in the term. The mailings, therefore, did not go out until November and December. Because the subjects were contacted later in the school terms than originally planned, some maturation may have occurred and affected the SCT scores.

5. The population available for the SCT was limited by the population that chose to reply to the initial questionnaire.

6. Although it was not an issue in this study, it should be noted that there is a problem with the use of self-reported gains if they are to be used for any predictive measures (Pascarella, 1985). Research is still inconclusive on the ability to predict more concrete measures such as achievement or cognitive development.

7. Part-time students account for an ever increasing percent of the total population, however, only full-time students were used in this study.

8. The total number of students who responded to the original questionnaire was less than desired and the length of time needed to score the SCT required that sample also be small. Smaller samplings narrow the oppotunity for a wide range of ego levels.

PRELIMINARY STUDY

Prior to the administration and scoring of the Sentence Completion Test for this research study, it was administered to three separate groups of women. The purposes were twofold: to obtain practice in scoring the instrument and to develop a baseline of information about adults in a similar age group, but not currently enrolled in a four-year institution. All subjects were women.

Two of the groups were women currently enrolled in a pre-employment training program at a local community college. They were in the process of making decisions about their future, but had not yet decided whether to return to school, to go to work, or to stay at home. Of these 55 women, 3 had college degrees, but they had been out of school over five years.

For the 55 women who took the inventory, their Total Protocol Ratings (TPR's) are reported in Tables VI and VII.

TABLE VI

EGO LEVELS OF WOMEN IN A PRE-EMPLOYMENT PROGRAM
(By Number and Group)

EGO LEVEL		TOTAL N	Group 1	Group 2
I-3	Conformist	2	1	1
I-3/4	Conscientious/ Conformist	32	8	24
I-4	Conscientious	21	8	13
I-4/5	Individualistic	0	0	0
I-5	Autonomous	0	0	0
I-6	Integrated	0	0	0

The third group was a group of women who would describe themselves as professional women. Some of them were currently employed, others were involved in either volunteer work or work in their homes. All had some college education, 20 of the 24 had college degrees. The TPR's of this group were as follows:

TABLE VII

EGO LEVELS OF PROFESSIONAL WOMEN

EGO LEVEL		N=24
I-3	Conformist	0
I-3/4	Conscientious/ Conformist	3
I-4	Conscientious	10
I-4/5	Individualistic	7
I-5	Autonomous	4
I-6	Integrated	0

SUMMARY

This chapter explained the procedures used in this study. It described the study design, the settings, the criteria for subjects, and how the subjects were recruited. Information was also provided on the questionnaire and the SCT. Next followed a description of the statistical analysis of the research questions. Chapter IV describes the results of the study.

CHAPTER IV

FINDINGS

This study examined the ego levels of adult college students. It examined the differences between those ego levels and two college environments. The study examined the differences of ego levels at various stages in the students academic progress. Finally, this study examined the differences in adult student perceptions of their campus environment, and their personal estimate of gains while in college.

This chapter presents the findings associated with the research study questions and the supplemental questionnaire items. Discussion and conclusions will be found in Chapter V.

To simplify the analysis process, the data were separated into three sets of findings. Part 1 includes the first two sets of findings, and responds directly to the five study questions. The first set of findings describes the populations who responded to the questionnaire. The intention was to glean a picture of the composite population and of the populations of each school. School One was the larger, more traditional urban university; School Two was a smaller, liberal arts college, with a stated mission focused

on adult students. The second set of findings were those associated with the actual research questions. The questions related to ego development change or growth were examined using the Total Protocol Ratings (TPR's) of the 85 students who responded to the Sentence Completion Test. And lastly, because the results in Set 2 were less than desired, the researcher decided to incorporate the findings from the supplementary questions (introduced in Chapter III) with the rest of the findings. The responses to these supplementary questions were analyzed and are explained in Part 2 of this chapter.

PART 1

Characteristics of Students Responding to Questionnaire

Five hundred forty (540 of 1468 mailed, or 36.5%) students responded to the questionnaire. Frequencies were examined for background characteristics and are shown in Table VIII.

The composite picture of the students who responded is primarily female (73.1%) and between the ages of 40 and 49 (49.1%). The majority of students were transfer students (91.7%) and had been out of school for five years or more (50.4%).

The two populations were different on some characteristics. There was a larger population of students in the 35-39 age category at School One. Forty-three

percent of the transfer students at School One had transferred from a community college, while at School Two only 21.9% had transferred from a community college. A larger number of students attending School Two had been out of school 5 years or more than those attending School One.

The students attending School One were further along in their studies and they indicated their educational goal as a four-year degree. The students at School Two were a little older in age and not as advanced in their academic careers but indicated that they were aspiring to advanced degrees.

TABLE VIII

BACKGROUND CHARACTERISTICS OF RESPONDENTS
(n=540)

Characteristics	Total N	Total %	School 1 N	School 1 %	School 2 N	School 2 %
	540	100.0*	321	59.4	210	38.9
Background						
Age						
35-39	238	44.1	170	53.0	66	31.4
40-49	265	49.1	141	43.9	120	57.1
50-55	36	6.7	10	3.1	23	11.0
No Answer	1	.2	0	0	1	.5
Gender						
Male	145	26.9	91	28.3	52	24.8
Female	395	73.1	230	71.7	158	75.2
Transfer Student						
Yes	495	91.7	294	91.6	192	91.4
No	42	7.8	25	7.8	17	8.1
No answer	3	.5	2	.6	1	.5

TABLE VIII

BACKGROUND CHARACTERISTICS OF RESPONDENTS
(n=540)
(continued)

Characteristics	Total N	Total %	School 1 N	School 1 %	School 2 N	School 2 %
If transfer student, from						
Voc. Sch.	39	7.2	25	7.8	14	6.7
Com. Col.	186	34.4	140	43.6	46	21.9
Fr-yrSch.	128	23.7	50	15.6	78	37.1
2 & 3	135	25.0	81	25.2	54	25.7
1 & 2	12	2.2	12	3.7	0	0
1 & 3	3	.6	3	.9	0	0
No answer	37	6.9	10	0	18	8.6
Length of time between schools						
<One year	74	13.7	46	14.3	28	13.3
1-2 years	84	15.6	56	17.4	27	12.9
3-4 years	72	13.3	47	14.6	24	11.4
>5 years	272	50.4	149	46.4	116	55.2
No answer	38	7.1	23	6.9	15	7.1
Educational Level						
Freshman	31	5.7	9	2.8	21	10.0
Sophomore	37	6.9	22	6.9	15	7.1
Junior	154	28.5	98	30.5	54	25.7
Sen/Grad	292	54.1	187	58.3	100	47.6
No answer	26	4.8	5	1.6	20	9.5
Educational Goal						
4-yr deg.	226	41.9	143	44.5	79	37.6
Adv. deg.	235	43.5	123	38.3	107	51.0
No answer	79	14.6	55	17.1	24	11.4
Major						
Art/Music	38	7.0	12	3.7	25	11.9
Bio. Sci.	8	1.5	5	1.6	2	1.0
Business	125	23.1	62	19.3	61	29.0
Comm.	41	7.6	8	2.5	32	15.2
Comp. Sci.	8	1.5	7	2.2	1	.5
Education	53	9.8	50	15.6	2	1.0
Engnring	7	1.3	7	2.2	0	0
Hlth Sci.	13	2.4	13	4.0	0	0
Humanities	33	6.1	23	7.2	9	4.3
Gen'l St.	47	8.7	26	8.1	21	10.0
Soc. Sci.	119	22.0	80	24.9	37	17.6
Phy. Sci.	99	.6	3	.9	0	0
Comb.	42	7.8	24	7.5	18	9.5
No answer	3	.6	1	.3	2	1.0

TABLE VIII

BACKGROUND CHARACTERISTICS OF RESPONDENTS
(n=540)
(continued)

Characteristics	Total		School 1		School 2	
	N	%	N	%	N	%
Formal Declaration of Major						
Yes	496	91.9	301	93.8	186	88.6
No	18	3.5	10	3.1	8	3.8
No, But	22	4.1	9	2.8	13	6.2
No answer	4	.5	1	.3	3	1.4

*(9 students did not identify themselves or which school they school they had attended.)

Findings Related to Ego Development

The research questions focused on the dependent variable ego level. 150 students were sent Sentence Completion Tests; 85 were returned. The majority of respondents were female and in the 40 to 49 years age category. The majority of the responding group was older than the total population and were more diverse in where they were academically. Twenty-three of the 85 respondents had not attended another post-secondary school. Students from School Two were more advanced academically. The background characteristics for this smaller select group are found in Table IX.

TABLE IX

BACKGROUND CHARACTERISTICS FOR RESPONDENTS TO SCT
(n = 85)

Characteristics	Total N	Total %	School 1 N	School 1 %	School 2 N	School 2 %
	85	100.0	34	40.0	49	57.6
Background						
Age						
35-39	27	31.8	14	41.2	13	26.5
40-49	46	54.1	17	50.0	28	57.1
50-55	12	14.1	3	8.8	8	16.3
Gender						
Male	24	28.2	10	29.4	13	26.5
Female	61	71.8	24	70.6	36	73.5
Transfer Student						
Yes	61	71.8	17	50.0	42	85.7
No	23	27.1	17	50.0	6	12.2
No answer	1	1.2	0	0.0	1	2.0
If transfer student, from						
Voc.Sch.	3	3.5	2	5.9	1	2.0
Com.Col.	20	23.5	6	17.6	13	26.5
Fr-yr S.	16	18.8	3	8.8	13	26.5
Mil.Ser.	0	0	0	0	0	0
2 & 3	16	18.8	3	8.8	12	24.5
1 & 2	4	4.7	3	8.8	1	2.0
1 & 3	2	2.4	3	8.8	2	4.1
3 & 4	0	0	0	0	0	0
No answer	24	28.2	17	50.0	7	14.3
Length of time between schools						
<One yr.	10	11.8	4	11.8	6	12.2
1-2 yrs.	7	8.2	4	11.8	3	6.1
3-4 yrs.	10	11.8	4	11.8	5	10.2
>5 yrs.	37	43.5	7	20.6	29	59.2
No ansr.	21	24.7	15	44.1	6	12.2
Educational Level						
Freshman	14	16.5	4	11.8	9	18.4
Soph.	16	18.8	11	32.4	5	10.2
Junior	20	23.5	10	29.4	10	20.4
Sr/Grad	31	36.5	9	26.5	21	42.9
No ansr	4	4.7	0	0	4	8.2

TABLE IX

BACKGROUND CHARACTERISTICS FOR RESPONDENTS TO SCT
(continued)

Characteristics	Total N	Total %	School 1 N	School 1 %	School 2 N	School 2 %
Educational Goal						
4-yr deg.	41	48.2	14	41.2	23	46.9
2-yr deg.	0	0	0	0	0	0
Take cls	2	2.4	0	0	2	4.1
License	1	1.2	1	2.9	0	0
Adv.Deg.	40	47.1	16	47.1	18	36.7
No ansr	9	0	3	8.8	6	12.2
Major						
Art/Music	5	5.9	0	0	3	6.1
Bio. Sci.	3	3.5	1	2.9	0	0
Business	15	17.6	5	14.7	9	18.4
Comm.	11	12.9	0	0	9	11.8
Comp.Sci.	1	1.2	0	0	1	2.0
Educ.	8	9.4	4	11.8	0	0
Engnrg	2	2.4	2	5.9	0	0
Hlth Sci.	0	0	0	0	0	0
Human's	9	10.6	2	5.9	4	8.2
Gen'lSt.	14	16.5	4	11.8	10	20.4
Soc.Sci.	17	20.0	8	23.5	7	14.3
Phy. Sci.	0	0	0	0	0	0
No Answer	0	0	8	23.5	6	12.2
Formal Declaration of Major						
Yes	71	83.5	30	88.2	40	81.6
No	5	5.9	3	8.8	2	4.1
No, But	7	8.2	1	2.9	6	12.2
No ans.	2	2.4	0	0	1	2.0

*2 did not indicate school

Ego levels were measured by using the Sentence Completion Test (SCT). The test is scored by rating each item (36 sentences) separately, using the scoring material to assign categories of ego level to each response. The 36

items are scored then assigned a numerical rating called a Total Protocol Rating (TPR) (See Table X). The majority of these students were assigned TPR's at the Conscientious level (I-4). The analysis of this information is used to respond to the first five research study questions.

TABLE X

EGO LEVELS (TPR'S) RESULTS OF THE SENTENCE COMPLETION TEST (n=85)

Ego Level		Frequency	Percent
I-3	Conformist	1	1.2
I-3/4	Conscientious - Conformist	5	5.9
I-4	Conscientious	68	80.0
I-4/5	Individualistic	9	10.6
I-5	Autonomous	2	2.4
I-6	Integrated	0	0

Ego Growth. Research questions One and Three dealt with the question of change in ego development levels. Question One asked if there was evidence of change in ego levels of adult students while in college. Question Three was a follow-up question; if there was evidence that change had occurred, when, considering length of time in school, did the change happen? In other words, was that change from freshman to sophomore, junior or senior? Change would have been indicated if the TPR's of senior or graduating adult

students were higher than those of entering freshmen. The frequencies of the various ego levels, by class, are shown in Table XI.

TABLE XI

FREQUENCIES OF EGO LEVELS BY CLASS

(By Number and Percent)
(n = 85)*

Ego Level	Freshman	Sophomore	Junior	Senior
I-3	1 (6.7%)	0	0	0
I-3/4	1 (6.7%)	0	2 (11.1%)	2 (6.7%)
I-4	13 (86.6%)	17 (94.4%)	11 (61.1%)	23 (76.6%)
I-4/5	0	1 (5.6%)	5 (27.8%)	3 (10.0%)
I-5	0	0	0	2 (6.7%)

*4 did not indicate class

Table XII shows the number of freshman (In) and senior (Out) subjects at each school by ego level. Measurement of any real developmental sequence was limited because this study was cross-sectional, and not longitudinal, but it is important to note the upward trends. Freshmen at School One, had ego levels of I-3, I-3/4 and I-4 and seniors were I-4, I-4/5 and I-5. At School Two the freshman were all I-4's but there were two seniors that were I-3/4.

TABLE XII

EGO LEVELS OF FRESHMEN AND SENIORS
n = 45

Ego Level	School 1		School 2	
	In	Out	In	Out
I-3	1	0	0	0
I-3/4	1	0	0	2
I-4	9	15	4	8
I-4/5	0	1	0	2
I-5	0	1	0	1
I-6	0	0	0	0

As a follow-up, the four classes were collapsed into two groups (freshman/sophomore and junior/senior). This time a statistically significant difference was found: junior/senior students showed higher ego levels than the freshmen/sophomores, as a group (Fr/Soph vs Jr/Sr, $X^2 = 5.988$, df = 2, p =.0501).

School Type. The second research question asked if there was a difference in the ego development levels of students enrolled in two different types of schools. The frequencies of the ego levels by school are shown in Table XIII.

TABLE XIII

EGO LEVELS BY SCHOOL

(By Number and Percent)
(n = 85)*

EGO LEVEL		SCHOOL 1 (n=34)	SCHOOL 2 (n=49)
I-3	Conformist	1 (2.9%)	0
I-3/4	Consc.-Conf.	1 (2.9%)	4 (8.2%)
I-4	Consc.	29 (85.3%)	37 (75.5%)
I-4/5	Individ.	2 (6.0%)	7 (14.3%)
I-5	Autonomous	1 (2.9%)	1 (2.0%)

*2 did not indicate school

No statistically significant difference (See Table XIV) was found in the ego development levels of those enrolled in a small liberal arts college and those students enrolled at an urban state university. There was no statistically significant difference (See Table XIV) found between the ego development levels on the variable class level (Edlevel).

Background variables. Research Question Four asked if there were statistically significant associations between ego development levels and variables other than type of school attended. These were background variables that included gender, age, whether the student had transferred from another school, if so, from where (Ifyes), how long the student had been between schools (Timeout), academic major

and long term educational goals (Edgoal). If significant differences had existed, it would have been important to acknowledge any influences related to characteristics rather than to the influence of the academic environments.

Chi-Square tests were used. No significant associations (See Table XIV) were found between the variable ego development and the background variables.

TABLE XIV

ASSOCIATION OF EGO DEVELOPMENT LEVELS WITH SELECT CHARACTERISTICS (n = 85)

Characteristic	X^2	df.	Significance
School	1.00	2	(N.S.)
Age	2.59	4	(N.S.)
Gender	.08	2	(N.S.)
Transfer	2.28	2	(N.S.)
Ifyes	4.87	6	(N.S.)
Timeout	9.51	6	(N.S.)
Edlevel	7.55	6	(N.S.)
Edgoal	.003	2	(N.S.)
Major	15.09	14	(N.S.)
Faculty	2.59	6	(N.S.)
Appoint	6.16	6	(N.S.)
Discuss	10.60	6	(N.S.)

Environmental Variables. Question Five asked if the students with high ego levels could identify a common set of environmental characteristics that might account for that higher ego development. The original intent of the researcher was to conduct interviews with students who demonstrated high levels of ego development, to look for these characteristics. The results of the SCT did not detect high levels of ego development, so it was decided that interviews would not be appropriate.

In order to supplement these results and to follow through on Question Five, two additional steps were added. First, the 85 respondents to the SCT were divided into 2 groups: all students with TPR's of I-3, I-3/4 and I-4 were one group (labelled "lower ego") and the students with TPR's of I-4/5 and I-5 were the second group (labelled "higher ego"). There were 9 students who were identified at the I-4/5 Level (Individualistic) and 2 students who were at the I-5 Level (Autonomous).

Chi-square tests were used to look for associations between lower and higher ego levels and both the background characteristics and relationships with faculty. No statistically significant differences (See Table XV) were found between lower ego level and higher ego level on the background variables or on those relating to relations with faculty.

TABLE XV

ASSOCIATIONS OF LOW AND HIGH EGO LEVELS WITH SELECT CHARACTERISTICS (n = 85)

Characteristic	X^2	df.	Significance
School	.43858	1	(N.S.)
Age	1.14684	2	(N.S.)
Gender	.00000	1	(N.S.)
Transfer	.87510	1	(N.S.)
Ifyes	2.95876	3	(N.S.)
Timeout	4.66782	3	(N.S.)
Edlevel	2.98892	1	(N.S.)
Edgoal	.00000	1	(N.S.)
Major	8.85266	9	(N.S.)
Faculty	1.11013	3	(N.S.)
Appoint	2.53270	3	(N.S.)
Discuss	5.42625	3	(N.S.)

Next, the researcher introduced the questions from the second part of the questionnaire (the questions from Pace's instrument), and one-way ANOVA's were used to test for significant differences (See Table XVI) between these same ego levels on the variables relating to attitudes about school, school environment and estimate of gains. The F-ratios were inspected and no significant differences were detected. The variables used for analysis are displayed in

the following table. The text of each question can be found in the Appendix.

TABLE XVI

MEANS AND STANDARD DEVIATIONS FOR VARIABLES USED FOR ANALYSIS (n = 85)

Source of Variable	Mean	SD	F Ratio	F Prob
Question 14 (Student is enthusiastic about college) (1 = High, 5 = Low)				
Low Ego	1.3649	.8037	1.0912	(N.S.)
High Ego	1.6364	.8090		
Question 15 (Student takes initiative to get benefit) (1 = High, 5 = Low)				
Low Ego	1.5479	.6245	3.0990	(N.S.)
High Ego	1.9091	.7006		
Question 16 (Student feels faculty interested in her/him) (1 = High, 5 = Low)				
Low Ego	2.0270	1.0976	.7430	(N.S.)
High Ego	1.7273	.9045		
Question 17 (School emphasizes scholarly qualities) (7 = High, 1 = Low)				
Low Ego	5.2297	1.4098	.0091	(N.S.)
High Ego	5.2727	1.2721		
Question 18 (School emphasizes creativity) (7 = High, 1 = Low)				
Low Ego	4.9595	1.6671	1.2098	(N.S.)
High Ego	5.5455	1.5076		
Question 19 (School emphasizes analytical abilities) (7 = High, 1 = Low)				
Low Ego	4.8919	1.4765	.0524	(N.S.)
High Ego	5.0000	1.3416		
Question 20 (School emphasizes vocational competence) (7 = High, 1 = Low)				
Low Ego	4.4247	1.7944	1.3767	(N.S.)
High Ego	5.0909	1.4460		

TABLE XVI

MEANS AND STANDARD DEVIATIONS FOR VARIABLES USED FOR ANALYSIS (continued)

Source of Variable	Mean	SD	F Ratio	F Prob
Question 21 (School emphasizes personal relevance of courses) (7 = High, 1 = Low)				
Low Ego	5.1781	1.8734	.0000	(N.S.)
High Ego	5.1818	1.6011		
Question 22 (School emphasizes interpersonal relationships) (7 = High, 1 = Low)				
Low Ego	4.8219	1.6444	.4608	(N.S.)
High Ego	5.1818	1.6011		
Question 23 (School emphasizes faculty/student relations) (7 = High, 1 = Low)				
Low Ego	5.4595	1.6318	1.1253	(N.S.)
High Ego	6.0000	1.0954		
Question 24 (Administration helpful, flexible) (7 = High, 1 = Low)				
Low Ego	5.3333	1.6359	.9011	(N.S.)
High Ego	5.8182	1.0787		
Question 25 (Student developed values and standards) (1 = Very much, 4 = Very little)				
Low Ego	2.1781	1.0047	.0847	(N.S.)
High Ego	2.2727	1.0090		
Question 26 (Student gained understanding of self) (1 = Very much, 4 = Very little)				
Low Ego	1.8767	.8651	.1865	(N.S.)
High Ego	2.0000	1.000		
Question 27 (Student gets along better with others) (1 = Very much, 4 = Very little)				
Low Ego	2.2740	.9612	.8113	(N.S.)
High Ego	2.0000	.7746		

TABLE XVI

MEANS AND STANDARD DEVIATIONS FOR VARIABLES USED FOR ANALYSIS (continued)

Source of Variable	Mean	SD	F Ratio	F Prob	
Question 28 (Student can function as a team member) (1 = Very much, 4 = Very little)					
Low Ego	2.6986	.9956	1.7018		(N.S.)
High Ego	2.2727	1.1037			
Question 29 (Student can think logically and analytically) (1 = Very much, 4 = Very little)					
Low Ego	2.2500	.7645	.2266		(N.S.)
High Ego	2.3636	.5045			
Question 30 (Student can look at macro-picture) (1 = Very much, 4 = Very little)					
Low Ego	2.0694	.8612	.5825		(N.S.)
High Ego	2.2727	.4671			
Question 31 (Student can learn on own) (1 = Very much, 4 = Very little)					
Low Ego	1.9444	.9021	.0363		(N.S.)
High Ego	2.0000	.8944			

PART 2

Associations of Characteristics Specific to Each School

As previously mentioned, the researcher had not intended to use the second part of this questionnaire in this study. It was intended to be the grounding for future studies. Because of the nature of the results of this research, it was decided to incorporate those results into the body of the dissertation. Some of those results were already shown in relationship to Study Question Five (Table XVI).

The second part of the questionnaire (questions 11 -33) was adapted from C. Robert Pace's Measuring the Quality of College Student Experiences (1984). This instrument was selected for two primary reasons. Pace (1984), in his own research, has found that there are three important elements to a development-enhancing environment: personal development elements (those that support the main purpose for being in that environment); interpersonal relations (especially the extent to which people in the environment are supportive of one another); and, organizational elements (flexible, adaptive vs rigid, rulebound). These elements are similar to those that have been identified as ones that promote ego development. Not all questions were used; the questions were selected from the more extensive questionnaire because of their focus on students' enthusiasm about education, their attitudes about faculty and administration, and their perceptions of their academic gains (cognitive and affective). The researcher selected these questions in order to examine the extent to which any of these characteristics were present at either school.

The selection of this particular instrument was also influenced by Pace's concern with reliability (Pace calls it "confidence") in the instrument, itself. Pace (1984) has demonstrated how each measure deals with a specific aspect of college life, its statistical reliability, and the

congruency with prior research and theory. The original instrument was also discriminating and valid (Pace, 1984). Pace explains in great detail both reliability and the intercorrelations of the items in each scale. Although the questions used were only part of a larger survey, they were selected because they appeared congruent with research and theory about academic environments and student development.

It was the reasoning of this researcher that if the total adult populations from both schools were studied, a more informative picture might be presented about the relationship between adult students, their ego development and the academic environment. As mentioned in Chapter III, it was intended that this information would add to the current knowledge of the developmental stages of adult students and their attitudes and perceptions about higher education, regardless of ego levels.

The questions that were to be looked at here were: (1) Do students commonly identify any characteristics that may be significant when looking for ways to reaffirm or improve the developmental environment? (2) If there were strong similarities or differences, what were they?

The questions selected were presented in three categories. These were (a) opinions about college, (b) opinions about the college environment, and (c) estimate of gains. Likert-type scales were used to simplify coding and scoring, and some changes in wording were made for

institutional purposes. (Frequencies and percentages are found in Table XVII.)

Academic stimulation is both an ingredient in and a result of ego development (Kohlberg & Mayer, 1972). The purpose of the section "opinions about college" was to identify signs of that stimulation present on either campus. Pace (1984) indicated that his instrument measured stimulation by the student's stated enthusiasm about college in general, the student's stated attitude about personal initiative, and students perception of interest shown by faculty (Questions 14-16).

Sensitivity to one's particular campus was to be indicated by an evaluation of certain academic services and environments. Students assessed the amount of emphasis college placed on academics, aesthetics, analytical ability, vocational skills, practical values, relationships with faculty, and relationships with administration.

The final section (Estimate of Gains) asked the students to self-report progress while in college. According to Pace (1984), these self-reported gains can be regarded as an indication of the extent to which students believe they are achieving the important objectives of their college education.

The items in this category are similar to elements found in the higher levels of Loevinger's ego development stages. Any relationships found between high ego

development levels and student recognition that they have gained in certain areas had the potential of either validating evidence from the SCT or refining that information. If information here contradicted the results from the SCT, further research would be suggested to understand the gap between what the student identified as personal gains and their own ego development levels.

The gains were measured using a self-evaluation of gains, reported on a sliding scale from "very little" to "very much." The items included development of values, understanding of others, ability for team work, ability to think logically, ability to see relationships, and ability to work alone.

TABLE XVII
FREQUENCIES OF ENVIRONMENTAL AND
SITUATIONAL CHARACTERISTICS AND ESTIMATES OF GAINS
(n = 540)

Characteristics	Total		School 1		School 2	
	N	%	N	%	N	%
Communication with Faculty Members (Questions 11 - 13)						
Questions 11 (Talked with Faculty Member, out of class)						
4 &>4	197	36.5	128	39.9	65	31.0
2-3 tms	172	31.9	103	32.1	67	31.9
1 time	139	25.7	76	23.7	61	29.0
Never	25	4.6	11	3.4	13	6.2
No ans.	7	1.3	3	.9	4	1.9
Question 12 (Made a formal appointment with faculty member)						
4 &> 4	49	9.1	30	9.3	18	8.6
2-3 tms	136	25.2	104	32.4	32	15.2
1 time	269	49.8	143	44.5	120	57.1
Never	79	14.6	40	12.5	37	17.6
No ans.	7	1.3	4	1.2	3	1.4
Quesiton 13 (Discussed career plans with faculty)						
4 &>4	47	8.7	27	8.4	20	9.5
2-3 tms	111	20.6	67	20.9	43	20.5
1 time	268	49.6	143	44.5	120	57.1
Never	105	19.4	79	24.6	23	11.0
No ans.	9	1.7	5	1.6	4	1.9
Opinions about College (Questions 14 - 24)						
Question 14 (Student enthusiastic about college)						
Str.agr.	310	57.4	166	51.7	140	66.7
Agree	168	31.1	112	34.9	53	25.2
Neutral	47	8.7	33	10.3	12	5.6
Disagree	8	1.5	6	1.9	2	1.0
Str. dis.	1	.2	3	.9	1	.5
No answer	2	.4	1	.3	2	1.0

TABLE XVII

FREQUENCIES OF ENVIRONMENTAL AND SITUATIONAL CHARACTERISTICS AND ESTIMATES OF GAINS (continued)

Characteristics	Total		School 1		School 2	
	N	%	N	%	N	%
Question 15 (Benefit of college related to initiative)						
Str.agr.	284	52.6	188	58.6	90	42.9
Agree	215	39.8	113	35.2	99	47.1
Neutral	29	5.4	15	4.7	14	6.7
Disagree	8	1.5	2	.6	6	2.9
Str. Dis.	1	.2	1	.3	0	0
No Answer	3	.6	2	.6	1	.5
Question 16 (Faculty took interest in student)						
Str. Agr.	128	23.7	26	8.1	101	48.1
Agree	224	41.5	131	40.8	89	42.4
Neutral	113	20.9	96	29.9	14	6.7
Disagree	52	9.6	48	15.0	3	1.4
Str. Dis.	16	3.0	16	5.0	0	0
No Answer	7	1.3	4	1.2	3	1.4
Question 17 (Emphasis on Academics)						
Very Str.	78	14.4	18	5.6	58	27.6
Strong	139	25.7	79	24.6	60	28.6
Somewhat	167	30.9	113	35.2	52	24.8
Neutral	95	17.6	64	19.9	28	13.3
Somewhat	36	6.7	30	9.3	6	2.9
Weak	20	3.7	14	4.4	4	1.9
Very Weak	3	.6	3	.9	0	0
No answer	2	.4	0	0	2	1.0
Question 18 (Emphasis on Creativity)						
Very Str.	81	15.0	9	2.8	71	33.8
Strong	103	19.1	34	10.6	69	32.9
Somewhat	108	20.0	64	19.9	40	19.0
Neutral	128	23.7	109	34.0	16	7.6
Somewhat	63	11.7	56	17.4	7	3.3
Weak	42	7.8	36	11.2	5	2.4
Very weak	13	2.4	13	4.0	0	0
No answer	2	.4	0	0	2	1.0

TABLE XVII

FREQUENCIES OF ENVIRONMENTAL AND SITUATIONAL CHARACTERISTICS AND ESTIMATES OF GAINS (continued)

Characteristics	Total		School 1		School 2	
	N	%	N	%	N	%
Question 19 (Emphasis on Analytical Ability)						
VeryStr.	60	11.1	19	5.9	40	19.0
Strong	128	23.7	68	21.2	59	28.1
Somewhat	147	27.2	99	30.8	46	21.9
Neutral	117	21.7	74	23.1	40	19.0
Somewhat	53	9.8	36	11.2	17	8.1
Weak	21	3.9	15	4.7	4	1.9
Very Weak	9	1.7	8	2.5	1	.5
No answer	5	.9	2	.6	3	1.4
Question 20 (Emphasis on Vocational Skills)						
Very Str.	66	12.2	17	5.3	48	22.9
Strong	88	16.3	42	13.1	45	21.4
Somewhat	110	20.4	65	20.2	42	20.0
Neutral	136	25.2	99	30.8	34	16.2
Somewhat	60	11.1	42	13.1	18	8.6
Weak	46	8.5	31	9.7	14	6.7
Very Weak	26	4.8	22	6.9	4	1.9
No answer	5	.9	3	.9	5	2.4
Question 21 (Emphasis on Values)						
Very Str.	105	19.4	19	5.9	84	40.0
Strong	106	19.6	46	14.3	59	28.1
Somewhat	99	18.3	64	19.9	33	15.7
Neutral	119	22.0	96	29.9	22	10.5
Somewhat	54	10.0	45	14.0	7	3.3
Weak	35	6.5	31	9.7	3	1.4
Very Weak	15	2.8	15	4.7	0	0
No answer	7	1.3	5	1.6	2	1.0
Question 22 (Emphasis on Group Activities)						
Very Str.	75	13.9	15	4.7	59	28.1
Strong	119	22.0	58	18.1	59	28.1
Somewhat	103	19.1	58	18.1	43	20.5
Neutral	115	21.3	81	25.2	33	15.7
Somewhat	54	10.0	44	13.7	9	4.3
Weak	48	8.9	42	13.1	5	2.4
Very Weak	21	3.9	20	6.2	0	0
No answer	5	.9	3	.9	2	1.4

TABLE XVII

FREQUENCIES OF ENVIRONMENTAL AND SITUATIONAL CHARACTERISTICS AND ESTIMATES OF GAINS (continued)

Characteristics	Total		School 1		School 2	
	N	%	N	%	N	%
Question 23 (Faculty were approachable)						
Very Str.	118	21.9	31	9.7	85	40.5
Strong	170	31.5	91	28.5	78	37.1
Somewhat	107	19.8	74	23.1	29	13.8
Neutral	75	13.9	63	19.6	11	5.2
Somewhat	32	5.9	29	9.0	3	1.4
Weak	20	3.7	18	5.6	2	1.0
Very weak	14	2.6	13	4.0	0	0
No answer	4	.7	2	.6	2	1.0
Question 24 (Administration was Helpful)						
Very Str.	78	14.4	16	5.0	61	29.0
Strong	121	22.4	49	15.3	71	33.8
Somewhat	103	19.1	56	17.4	44	21.0
Neutral	82	15.2	63	19.6	18	8.6
Somewhat	63	11.7	57	17.8	6	2.9
Weak	39	7.2	34	10.6	4	1.9
Very Weak	43	8.0	40	12.5	1	.5
No answer	11	2.0	6	1.9	5	2.4
Estimate of gains (Questions 25 - 31)						
Question 25 (School influenced development of ethics and values)						
VeryMuch	131	24.3	66	20.6	62	29.5
QiteAbit	163	30.4	96	29.9	64	30.5
Some	154	28.5	93	29.0	60	28.6
Very Ltle	84	15.6	62	19.3	20	9.5
No answer	8	1.5	4	1.2	4	1.9
Question 26 (School influenced understanding of self)						
VeryMuch	168	31.1	82	25.5	83	39.5
QiteAbit	215	39.8	127	39.6	85	40.5
Some	125	23.1	89	27.7	33	15.7
Very Ltle	25	4.6	19	5.9	6	2.9
No answer	7	1.2	4	1.2	3	1.5

FREQUENCIES OF ENVIRONMENTAL AND SITUATIONAL CHARACTERISTICS AND ESTIMATES OF GAINS (continued)

Characteristics	Total		School 1		School 2	
	N	%	N	%	N	%
Question 27 (School influenced relations with others)						
Verymuch	125	23.1	62	19.3	61	29.0
QiteAbit	175	32.4	95	29.6	76	36.2
Some	181	33.5	116	36.1	62	29.5
Very Ltle	51	9.4	43	13.4	8	3.8
No answer	8	1.5	5	1.6	3	1.5
Question 29 (School influenced ability to be a team member)						
Verymuch	75	13.9	33	10.3	41	19.5
QiteAbit	137	25.4	78	24.3	56	26.7
Some	209	38.7	121	37.7	84	40.0
Very Ltle	75	13.9	86	26.8	26	12.4
No answer	6	1.1	3	.9	3	1.5
Question 30 (School influenced ability to think logically)						
Verymuch	109	20.0	62	19.3	45	21.4
QiteAbit	239	44.3	146	45.5	91	43.3
Some	156	28.9	93	29.0	58	27.6
Very Ltle	28	5.2	16	5.0	12	5.7
No answer	8	1.5	4	1.2	4	1.9
Question 31 (School influenced thinking skills)						
Verymuch	147	27.2	78	24.3	66	31.4
Qiteabit	221	40.9	134	41.7	85	40.5
Some	144	26.7	94	29.3	47	22.4
Very Ltle	20	3.7	13	4.0	6	2.9
No answer	8	1.5	2	.6	6	2.9
Question 32 (School influenced ability to learn on own)						
Verymuch	203	37.6	116	36.1	84	40.0
Qiteabit	191	35.4	115	35.8	73	34.8
Some	113	20.9	69	21.5	42	20.0
Very ltle	26	4.8	18	5.6	7	3.3
No answer	7	1.3	3	.9	4	1.9

Analysis of variance was used to test for significant differences between schools on, opinions about college (questions 14, 15, and 16), opinions about college

environment (questions 17 - 24), and estimates of personal gains (questions 25 - 31). F-ratios were examined where school was the independent variable. Eighteen of the twenty-one items showed statistical significance (See Table XVIII).

Statistically significant differences were found for the following variables:

Student attitudes about college (Questions 14 - 16). Students from School Two were more likely than students at School One to be enthusiastic about school, $F(1, 527) = 12.14$, $p<.01$. School Two students were more likely to say that their faculty took an interest in them and their education, $F(1, 522) = 181.82$ $p<.01$. The students from School One were more likely to say that the benefits of college were related to the amount of their personal initiative, $F(1, 526) = 12.59$, $p<.01$.

Student attitudes about their college environment (Questions 17 - 24). Students from School Two were more likely to say that their school placed a strong emphasis on academic qualities, $F(1, 527) = 52.03$, $p<.01$. Similarly, students from School Two were more likely to say that their school placed a stronger emphasis on aesthetic and creative abilities, $F(1, 527) = 243.63$, $p<.01$. Students at School Two were more likely to say that their school placed a stronger emphasis on analytical abilities, $F(1, 524) = 25.23$, $p<.01$.

Students from School Two were more likely to indicate that their school placed a stronger emphasis on development of vocational competence, than School One, $F(1, 521) = 47.67$, $p<.01$. Students from School Two were more likely to say that their school placed a greater emphasis on the personal relevance of their courses, $F(1, 522) = 180.90$, $p<.05$

Students from School Two were more likely to state that their school placed a stronger emphasis on their relationships with other students, $F(1, 524) = 116.79$, $p \leq .01$. Students from School Two were more likely to say that the faculty members of their school were very approachable and helpful, $F(1, 525) = 118.53$, $p<.01$. Students from School Two were more likely to say that the administrative personnel at their school were more helpful and considerate, $F(1, 518) = 177.27$, $p<.01$.

Estimate of gains (Questions 25 - 31). Students from School Two were more likely to say that they had made more progress in developing their own values and standards, $F(1, 522) = 8.53$, $p<.01$). Students from School Two were more likely to say that the college experience had a greater influence on their understanding of self, $F(1, 523) = 14.83$, $p<.01$. Students from School Two were more likely to say that their ability to understand and get along with others had increased, $F(1, 522) = 16.00$, $p<.01$. Students from School Two were more likely to say that they had made

progress in their ability to function as a team member during school, $F(1, 524) = 15.22$, $p<.01$.

No significant differences (See Table XVIII) were found between schools concerning whether the school influenced ability to think logically (question 29), developed thinking skills (question 30) or improved the ability to think on their own (question 31).

TABLE XVIII

MEANS AND STANDARD DEVIATIONS FOR VARIABLES USED FOR ANALYSIS OF ENTIRE SAMPLE (n = 540)

Source of Variable	Mean	SD	F Ratio	F Prob
Question 14 (Student is enthusiastic about college) (1 = High, 5 = Low)				
School 1	1.6667	.8648	12.1443	.0005
School 2	1.4183	.6902		
Question 15 (Student takes initiative to get benefit) (1 = High, 5 = Low)				
School 1	1.4796	.6482	12.5863	.0004
School 2	1.6938	.7219		
Question 16 (Student feels faculty interested in her/him) (1 = High, 5 = Low)				
School 1	2.6751	.9961	181.8213	.0001
School 2	1.6087	.6802		
Question 17 (School emphasizes scholarly qualities) (7 = High, 1 = Low)				
School 1	4.8037	1.2458	52.0319	.0001
School 2	5.5962	1.2160		

TABLE XVIII

MEANS AND STANDARD DEVIATIONS FOR VARIABLES USED FOR ANALYSIS OF ENTIRE SAMPLE (continued)

Source of variable	Mean	SD	F Ratio	F Prob
Question 18 (School emphasizes creativity) (7 = High, 1 = Low)				
School 1	3.9751	1.3668	243.6368	.0001
School 2	5.7981	1.2228		
Question 19 (School emphasizes analytical abilities) (7 = High, 1 = Low)				
School 1	4.6332	1.3529	25.2320	.0001
School 2	5.2367	1.3355		
Question 20 (School emphasizes vocational competence) (7 = High, 1 = Low)				
School 1	4.0943	1.5353	47.6699	.0001
School 2	5.0634	1.6151		
Question 21 (School emphasizes personal relevance of courses) (7 = High, 1 = Low)				
School 1	4.1930	1.5026	180.8976	.0001
School 2	5.8750	1.2292		
Question 22 (School emphasizes interpersonal relationships) (7 = High, 1 = Low)				
School 1	4.0975	1.6024	116.7859	.0001
School 2	5.5337	1.2999		
Question 23 (School emphasizes faculty/student relations) (7 = High, 1 = Low)				
School 1	4.7680	1.5325	118.5286	.0001
School 2	6.0817	1.0206		

TABLE XVIII

MEANS AND STANDARD DEVIATIONS FOR VARIABLES USED FOR ANALYSIS OF ENTIRE SAMPLE (continued)

Source of variable	Mean	SD	F Ratio	F Prob
Question 24 (Administration helpful, flexible) (7 = High, 1 = Low)				
School 1	3.8635	1.7331	177.2740	.0001
School 2	5.7171	1.2199		
Question 25 (Student developed values and standards) (1 = Very much, 4 = Very little)				
School 1	2.4763	1.0297	8.5267	.0037
School 2	2.2077	1.0289		
Question 26 (Student gained understanding of self) (1 = Very much, 4 = Very little)				
School 1	2.1420	.8726	14.8253	.0001
School 2	1.8413	.8785		
Question 27 (Student gets along better with others) (1 = Very much, 4 = Very little)				
School 1	2.4430	.9561	15.9950	.0001
School 2	2.1058	.9265		
Question 28 (Student can function as a team member) (1 = Very much, 4 = Very little)				
School 1	2.8176	.9489	15.2160	.0001
School 2	2.4808	.9974		
Question 29 (Student can think logically and analytically) (1 = Very much, 4 = Very little)				
School 1	2.1987	.8083	.0030	(N.S.)
School 2	2.2029	.9017		
Question 30 (Student can look at macro-picture) (1 = Very much, 4 = Very little)				
School 1	2.1317	.8289	3.4245	(N.S.)
School 2	1.9902	.8911		

TABLE XVIII

MEANS AND STANDARD DEVIATIONS FOR VARIABLES USED FOR ANALYSIS (continued)

Source of variable	Mean	SD	F Ratio	F Prob
Question 31 (Student can learn on own) (1 = Very much, 4 = Very little)				
School 1	1.9654	.8997	.8866	(N.S.)
School 2	1.8889	.9255		

CHAPTER V

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to address three basic questions: 1) Do adult students continue to develop while in college? 2) If they do, is there evidence that there is more growth at a small non-traditional liberal arts college than at a more traditional, urban university? and, 3) Do students identify any common characteristics that might be more growth-producing than others?

This study was based on the assumption that many adult students have the potential to develop into more self-actualized or more autonomous persons. It was also based on the assumption that development results from experiences and that these experiences are either natural or the result of a planned educational program (Kohlberg, 1972).

The findings of the study were not conclusive, and were, in some cases, contradictory. I used two instruments: Loevinger's Sentence Completion Test (SCT) to measure ego development stages and a questionnaire (adapted, partially, from CUES by C. Robert Pace). The questionnaire was designed to be both demographic and to learn how students

would assess their campus environment and personal gains while in school.

The results of the questionnaire did show very different profiles of the two campuses. Campus Two (the smaller liberal arts college) was described, by its students, as having characteristics that correspond to the qualities of an environment that should encourage ego development. The two groups of students reported significantly different profiles of their personal gains. Students at one school reported stronger personal gains. And, while I did not find change in ego development stages, as measured by the Sentence Completion Test, these gains were consistent with characteristics of higher levels of ego development. The students who reported the strongest personal gains attended School Two; this was the same school that appeared to have a developmentally-enhancing environment.

To summarize, I used two different measures with two different sets of results. While ego development was not measured by the Sentence Completion Test there were significant differences between the environments of the two campuses and how the students reported their personal gains while in school. The results of the questionnaire suggest that ego development was actually taking place in the students who were attending School Two. This chapter will include a discussion of these ambiguous findings in light of

the literature, some conclusions, implications for practice, and recommendations for future research.

DISCUSSION

One of the primary intentions of this study was to contribute to the validation of Loevinger's concept of ego development. Loevinger and others (1976) have reported that although ego development in mid-life is not the norm, a transition can precipitate development and it can be enhanced by exposure to quality encounters with exceptional schools or teachers. The results of the previous research of Loevinger and others, as a premise to this study, made it reasonable to expect some growth. This study neither supported nor contradicted Loevinger's theory and cannot be used to draw conclusions about ego growth. The findings did not show growth in stages of ego development as measured by the SCT, either across academic levels or across academic environments.

Previous research suggested that a greater measurable relationship between ego development and environment might exist. Loevinger (Loevinger et al., 1985) cites other research on how growth and maturity are encouraged by new experiences such as diversity of curriculum and student body. Although she has not done extensive research on ego and academic environments, Loevinger does caution her audience that if ego development is the result of diversity

and challenge, then the narrowing of the curriculum as a student declares a major or focuses on one particular field of study may have the adverse effect and place a ceiling on growth.

While the total change in ego levels (TPR's) was less than might have been expected and not statistically significant, some trends were observed. The ego levels of these students (as a group) were higher than those of the persons in a sample group who had not yet decided to return to school. And, the students' ego levels (TPR's) were lower than those of the sample group of professional women. These results are consistent with the concept that ego levels are the result of experiences that cause the individual to stretch beyond current levels of thought and abilities. The students sampled may have had more demanding or varied experiences than the pre-employment program women. Among the students measured, the higher ego levels were all with the students who had completed the most education (juniors and seniors had higher ego levels than freshmen and sophomores). And, lastly, the sample of professional women had higher ego levels than the students; again, these higher ego levels were probably due to exposure to greater and more varied experiences.

Taking the results of just the SCT, one could conclude that no significant ego growth would result from exposure to college itself, or from exposure to a particular campus

environment for adult students. But, as mentioned, there were trends of growth from the freshman/sophomore group to the junior/senior group and the results of the SCT were inconsistent with the results of the questionnaire. The responses on the questionnaire show a difference in the environments and a corresponding difference in personal gains. The responses to the questionnaire provide evidence that one particular environment might indeed have been growth-enhancing.

To recap some of the differences, in the environments as described by the students, the students from School Two (the smaller, liberal arts school) were more likely to be enthusiastic about school. They said that their faculty took a greater interest in them and their education and that both faculty and staff were helpful and approachable. Students from School Two were more likely to say that their school placed a strong emphasis on academic qualities, on aesthetic and creative abilities, on analytical abilities and that their school placed a stronger emphasis on development of vocational competence, on the personal relevance of their courses and, on interpersonal relationships.

These are examples of the characteristics of a growth-inducing environment. School Two appeared to have the characteristics necessary to induce ego development in its students. While the students from School One were more

likely to say that the benefits of college were related directly to personal initiative, they did not see their environment as supportive as did those who attended School Two.

Consistent with these results, the students from School Two indicated the greatest personal gains. The personal gains were indicated by items referring to the development of an ability to function as a team member, of one's own values and standards and of an understanding of both one's self and others.

The students from School Two were more sure of personal changes in their ways of knowing and ways of dealing with the world. According to Pascarella (1985), persons change toward their environment in a normative fashion; faculty and other students present a new set of options for dealing with the world and the students, in question, use these new options for their own decision-making and change. The estimates of personal gains are characteristics of growth and are consistent with Loevinger's description of advancement toward the autonomous stage (the sense of one's self). This kind of change is made possible when a person is placed in an environment that brings awareness to personal preferences and the inner self.

The students from School One indicated that they did not have as positive perceptions of their campus experience and environment (as those attending School Two), and this is

important when considering that they also indicated less personal gains. This provides evidence that the two campuses may actually have had different impacts on the ego development of their students.

It is important to note several limitations of the study that may have influenced the results as well as the importance of the results, regardless of these limitations.

First and foremost, it is possible there was no ego development and that the inconsistent responses were the result of the use of two instruments that measured vastly different characteristics. No relationship between what these two instruments measure has yet been established. But, when looking at the characteristics that the two instruments purport to measure, there appears to be face validity.

The findings may also have been influenced by the populations used. First, the opportunity to measure any significant ego growth may have been greater if there had been a larger first time group of freshman students. This would have provided more opportunities for a wider variety of entering ego levels as well as the chance to see if adult students with no previous post-secondary experience were at the same ego level as those students with other academic experiences.

Also, the SCT score distribution was skewed. The fact that the scores were not more normally distributed may have

been the result of the following: (a) the subjects were too close in age, (b) the primary motivations for returning to school were not transition or crisis, (c) the characteristics of those who chose to respond to the research were different than the non-respondents, and/or, (d) the adults in these groups were already at a high level of ego development and further development would be very slow or very minimal.

There was a constricted, higher range of freshman ego levels among this group of older adults. According to Loevinger, most college freshmen are at the Conformist (I-3) or the Conscientious-Conformist (I-3/4) stages; in this study there were only two freshman at the I-3 and I-3/4 stages (one each), while there were 13 at the I-4 (Conscientious) stage. The lack of adults at the lower levels of ego development automatically narrowed the range of potential growth. The significance of a large number of high ego levels (I-4) is worth mentioning; the transition from I-3 to I-4 is the passage to a stage where morality is internalized and internal rules gain supremacy over peer pressure (Billington, 1987). A concern for authentic communication with others and a capacity for self-criticism characterize this stage (Billington, 1987).

The cross-sectional study, while necessary here, did not result in the measurement of actual growth or change in ego levels. A longitudinal study may have compensated for

the weakness of the SCT to measure change or slower growth in adult students. If a single population of students could have been tested throughout their career, even slight changes of levels of development may have been verified. Paralleling this, the study, did not include a mechanism to learn if any of the students were at their maximum ego levels at entry; nor was it designed to measure for possible regression.

A majority of the students had attended other post-secondary schools and the design of the study did not isolate the effects of these two particular environments. Also, a longitudinal study may have been able to control for the effect of events external to the students' academic lives, would have detected change as it occurred within these two environments and detected any regression that might have occurred during school careers.

Finally, the relationship between ego development and the effects of the environment may have been more complex than what was measured by either the Sentence Completion Test or the questionnaire; this, too may have been uncovered in longitudinal study or one that involved a more qualitative or participant observation type of research.

Putting all this information together, the strongest explanation for the inconsistency is that ego development occurred at Campus Two but the SCT was too gross a measurement to detect it. While the SCT is valid and

reliable when measuring existing ego levels, it may not be precise enough to measure the change in adults; especially in persons who are already at higher ego levels than the norm, or when the change might be very minute. And, while there is research that shows ego growth can occur in very short time spans (less than one year) (Loevinger, 1986), there is reason to believe that significant growth in adults or persons already at higher than average ego levels, may take a longer time. A longitudinal study or a cohort sequential design, for instance, may have achieved different results.

CONCLUSIONS

There were two primary purposes to this study. These purposes were to examine the developmental influences of educational environments and to advance the body of literature about Loevinger's theory of ego development. Because of the nature of the study's sample and the limitations within the research design, the findings must be interpreted with some reservation and should not be overgeneralized to other educational settings.

The findings of this study did not evidence, using the SCT, whether adult students do grow to higher levels of ego development. The rationale for expecting more ego growth in one particular environment was: (a) previous research, (b) that one school had a designated mission to assist adults,

and (c) this same school seemed to have the characteristics that would have foster high ego development. The limitations of a cross-sectional study, a narrow range of subjects, an inadequate control over the length of time the students actually attended these particular schools, and only face validity between the two instruments, prevented the researcher from drawing some of the more specific conclusions that were anticipated.

The results of the study did suggest that the Sentence Completion Test is probably not a suitable instrument to measure change in the ego levels of adult students. The study did, however, demonstrate that the SCT can be used to provide additional information about adult students. In this study, for example, it was learned that the majority of these students were at relatively high levels of development.

While it was complimentary to the students that they were at relatively high levels of development, the resulting narrow range of ego levels in this study limited the chances of finding statistically significant relationships between ego development and the other variables (i.e. type of school, amount of exposure, background characteristics or the interaction with faculty).

More significant, however, was evidence that one campus was more ego growth-enhancing than another, regardless of the results of the SCT. The research methods did not

contain a precise measure of exposure to environment but the greater personal gains were indicated at School Two. The students identified School Two as having high emphasis on the necessary competencies for their future (academic, aesthetic and creative) and a highly positive interpersonal relationship with both faculty and administration. And, these gains occurred in an environment (School Two) that either created or was able to sustain a high level of enthusiasm on the part of the students.

Self-directed learning and self-evaluation are two examples of classroom methods that have been related to facilitating growth in adults. These are teaching practices that appear to be in greater use at School Two (the small liberal arts college). And, the students at School Two indicated in their response to the questionnaire, that change had occurred on the characteristics that seem to be directly related to ego growth.

And finally, the results of the Sentence Completion Test did produce some other important information. The study did identify the various ego stages of this group of students. Adult students were re-entering academe at the Conscientious (I-4) stage. This is higher than the ego levels of most traditionally-aged students and higher that the modal level for society (according to Loevinger's speculation).

Loevinger views development as a search for meaning and the ego as a process rather than a finished thing, (Loevinger, 1976). The ego stops or remains stable when people settle below their potential maximum level or when a person's environment merely matches personal expectations. And, when environments challenge expectations, growth occurs.

This has implications for teaching practices. Students at higher ego levels may have different motivations for learning and need different methods to absorb and assimilate their new knowledge. Some of the students may no longer have need for traditional subject-centered classes but, instead, need faculty who are prepared to pose questions, develop the students' skills, analytical abilities and be a resource for planning. For educators to challenge these students to the Autonomous stage, they must become facilitators or equal partners. They no longer merely present information, but ask questions and provide dilemmas that help the students reorganize their past experiences into new meaning. This is important information because when educators have an understanding of the developmental stages of their students, programs can be consciously designed to promote development to the next higher stages. In other words, higher ego levels imply that different teaching practices may be necessary for adult students.

The information provided by the results of the Sentence Completion Test is valuable in the development of classroom techniques and the assessment of academic environments. This researcher still believes that knowledge of ego levels, their characteristics and how they are affected by the academic environment is vital to the curriculum and culture of the campus. Furthermore, the faculty designing the educational settings and experiences may be at ego levels different from their students. The SCT is a tool that can be used to systematically identify the various stages (characteristics) of both the students and the faculty; this information can be used to adapt class focus, discussion and assignments to the needs of the students. And, while the SCT may not measure change, it can be used in conjunction with other environmental measures to inform faculty and administrators to create a development-enhancing environment for adult students.

IMPLICATIONS FOR HIGHER EDUCATION

There are specific institutional and goal strategies to ensure a positive environment for adult student ego development that can be implemented. These strategies should begin with an institutional self-assessment of the environment being provided for the adult student.

Any assessment should result in:

a. a definition or profile of the adult learner on that particular campus; this profile should include both demographics (e.g. age and educational history), an understanding of needs, responsibilities, motivations, and the ego level or developmental stages of the students,

b. an assessment of both the academic and developmental needs of the students,

c. an assessment of the institution's commitment to adult development, and

d. an assessment of the faculty and staff attitudes toward the adult student.

One tool for appraising the academic environment is the Postsecondary Education Institutions and the Adult Learner: A Self-Study, Assessment and Planning Guide, developed in 1984 by the Commission on Higher Education and the Adult Learner.

Other strategies to enhance the potential for ego development are:

a. an assessment of how each school specifically tries to foster ego development in its students, from the perspective that it is a legitimate outcome of education (self-directed learning and self-evaluation).

b. administering the SCT to all entering adult freshmen, in order for faculty and administrators to understand where their students are in their ego development stages, and tracking change or growth. The SCT should also

be given to a sampling of all traditional-aged students to maintain a baseline group for comparative purposes.

c. conducting a longitudinal study, measuring this same group of students at the end of their sophomore, junior and senior years; this would help to identify both regression and growth and at what stages of the academic ladder.

d. implementation of workshops by the colleges to assist faculty and administration in recognizing different levels of development, what those levels imply for the meaning, motivation and process of education, and how to work in classes with students at a variety of ego development levels.

e. development and administrations of an exit questionnaire to identify student attitudes about environment, faculty and administration, and their personal estimates of gains. This would enable faculty and staff to see which environmental characteristics are consistent with high ego development.

RECOMMENDATIONS FOR FUTURE RESEARCH

The results of this study raise numerous questions for future research. We need to learn more about the relationship between the SCT and Pace's questionnaire, and if they do measure similar characteristics. We need to develop new instruments that can measure change or

development, as defined by Loevinger, and how that development can be specifically enabled by the campus environment. While Pace's questionnaire, in its entirety, appears to rely on too many activities of the traditional student and the residential campus, it may still be usable as a foundation to study the campus environmental effects on adult students. Therefore, it is recommended that future research include:

1. Research that begins with a series of intensive interviews with adult students to document their experiences on campus. This would be done in conjunction with tools such as the SCT. The purpose of this research would be to learn the adults' perceptions of their own growth, their opportunity to create meaning from their experiences and their perception of how the academic environment helped or hindered their growth. This information would either assist in identifying existing tools that are appropriate or in the creation of new instruments.

2. Research involving dropouts, to learn if those who drop out tend to be of lower ego levels and/or if there were certain characteristics of the campuses that encourage a negative response.

3. Extensive institutional assessments, not only to assess current situations but to recommend institutional strategy for the development of adult students.

4. Redesigning of this study using multiple measures of development and the campus environment and a broader base of students and institutions.

A. Any future research would include the student's motivations for returning to school and their choice of institutions.

B. The instruments could include the SCT, the Personal Orientation Inventory by Shostrom, the Test of Thematic Analysis and the Postsecondary Education Institutions and the Adult Learner: A Self-Study Assessment and Planning Guide.

C. The sampling would include:

1. a more substantial group of first time freshmen,

2. a more clearly identified sampling of sophomore, juniors and seniors, by length of time in a particular school environment and majors,

3. a more precise baseline group of adults either not enrolled in school or in adult education or vocational programs,

4. faculty, to understand where the differences are between the ego levels of adult students and adult faculty,

5. students in wider age ranges than 35-55, including those younger than 35.

D. Other academic environments included would be community colleges and/or vocational schools.

5. Research that focused on the faculty of the various campuses. It would be interesting to learn what levels of ego development choose what types of teaching environments and if campuses with faculty with high ego levels attract students with higher ego levels or encourage greater growth in their students.

SUMMARY

Although the results of this study were inconclusive, it is still the belief of this researcher that adults can continue to develop to higher stages of ego development and that the academic environment can play a vital role in that development. Many adults enter college as the result of a crisis or transition in their lives; a time when they are ready for more growth. It is important to remain conscious of the role that education and educational environments play as supportive environments in these transitions. It is one task of educators to understand the stages of ego development and to facilitate individual growth through the environment that they create.

This study found that students enrolled in college may already be at a higher than average stage of ego development. Because of this, further development may require different, more personalized, challenges and roles

from the faculty and institution. Specific accommodations may be necessary to students by faculty and staff if there is to be further ego development.

The students attending the two different schools had different, yet internally consistent opinions about their schools and what the schools had to offer in interpersonal ways. Only by continuing to learn about how adults grow and how that growth is allowed or encouraged through the academic environment can we provide the opportunity for those individuals to fulfill their potential.

The literature supports the concept that there are some general conditions that aid and support development. Some examples are: a structured but supportive community; a chance to try out new behaviors and new ways of thinking in a non-judgmental environment; an opportunity to explore alternatives with non-judgmental feedback; and a sense that risk-taking is a valued activity, including the chance to explore various commitments and to reshape their meanings.

> "The structure of ego development is the framework of consciousness wherein learning occurs. Everyone involved--students, faculty and administrators--affects the process of learning. The ego level of the institution, the administration, and the faculty may place ceilings on the ability of the student to benefit from a particular learning environment" (Billington, 1987, p. 286).

It is possible for faculty members to attend to the adult students's high need for meaning and relevance regarding procedures as well as subject matter to be

learned. They can develop a sensitivity to the context of power and authority and to the need of adult students to voice relevant experiences, academic standards and receive feedback (Steitz, 1985).

The ability to create settings that support development does not invalidate traditional views of academic substance, but adds a process component. Within the academic environment there are many criteria to be considered in creating and maintaining a developmentally enabling environment. The system of higher education should provide the setting that enables individuals to satisfy their individual developmental needs, to manage life transitions, and to find resources for necessary changes throughout lives.

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APPENDIX

C. Robert Pace
UCLA Graduate School of Education
Center for the Study of Evaluation
145 Moore Hall
Los Angeles, CA 90024

Dear Sir,

This letter is a follow up to the conversation I had with your office (June 1, 1989) regarding the questions from Measuring the Quality of College Student Experiences that I would like to adapt to the research I am conducting for my dissertation through Portland State University. (The chairperson for my dissertation committee is Dr. Mary Kinnick.)

I will be measuring adult students at two local colleges for growth in ego levels (using Loevinger's Sentence Completion Test) and will be adapting 14 of your questions to supplement my preliminary information about the students and their academic environments.

I will be using 3 activities "Experiences with Faculty", 5 activities from "College Environment", and 6 activities from "Estimates of Gains."

I will be happy to share any of the results with you after they are compiled.

I thank you very much for giving me the opportunity to use some of your material.

Sincerely,

Shannon Moon Leonetti
6406 S.W. View Point Terrace
Portland, OR 97201

Date

Dear Student (at School Two):

The purpose of this letter is to ask you to participate in a research study of personal development of adult college students.

The information obtained will be valuable in helping college administrators and instructors to know more about the needs of the college student. This research is not designed to make any decisions about the character or ability of any individual student. This research is part of a doctoral dissertation at Portland State University and has been approved by (the President of School Two).

You may be interested in knowing about the procedure of the study. If you agree to participate in the study, you will receive, by mail, a questionnaire and the Washington University Sentence Completion Test. The questionnaire will ask about yourself. and the sentence completion will ask you to express how you feel or what you think about certain people or events in your life. The entire procedure will take no more than an hour of your time.

Some of you will be asked to meet with me at a later date for follow-up interviews. The purpose of these interviews will be to get a more in-depth understanding of your likes and dislikes about the college environment.

You will be free at any time to end your participation in the study. Any information gathered will remain strictly confidential. All personal identification will be removed from research materials and data will be filed by code number only. No student identities will be revealed in any description or publication of this research.

Would you please fill out the attached form and return it with your signature, in the return envelope enclosed. If you have any questions about this research project, please feel free to contact me at 246-4952 (home).

Your agreement to participate will be greatly appreciated.

Sincerely,

Shannon Leonetti
Doctoral Student
Portland State University

Date

Dear Student (at School One):

The purpose of this letter is to ask you to participate in a research study of personal development of adult college students. The information obtained will be valuable in helping college administrators and instructors to know more about the needs of the college student. This research is not designed to make any decisions about the character or ability of any individual student. This research is part of a doctoral dissertation at Portland State University and has been approved by (School One).

You may be interested in knowing about the procedure of the study. If you agree to participate in the study, you will receive, by mail, a questionnaire and the Washington University Sentence Completion Test. The questionnaire will ask about yourself. and the sentence completion will ask you to express how you feel or what you think about certain people or events in your life. The entire procedure will take no more than an hour of your time.

Some of you will be asked to meet with me at a later date for follow-up interviews. The purpose of these interviews will be to get a more in-depth understanding of your likes and dislikes about the college environment.

You will be free at any time to end your participation in the study. Any information gathered will remain strictly confidential. All personal identification will be removed from research materials and data will be filed by code number only. No student identities will be revealed in any description or publication of this research.

Would you please fill out the attached form and return it with your signature, in the return envelope enclosed. If you have any questions about this research project, please feel free to contact me at 246-4952 (home).

Your agreement to participate will be greatly appreciated.

Sincerely,

Shannon Leonetti
Doctoral Student
Portland State University

Name_____
Address_____
_____
Phone_____
Best Hours for phone contact_____

Background Information

1. SCHOOL Date Enrolled_____
   [1]
   [2]

2. AGE
   [1] 35 - 39
   [2] 40 - 49
   [3] 50 - 55

3. GENDER
   [1] Male
   [2] Female

4. Have you attended another post-secondary school?
   [1] Yes
   [2] No

5. If yes, was it
   [1] Vocational school
   [2] Community college
   [3] Four year college or university
   [4] Military school
   [5] Other_____

6. How long has it been since you left that other school?
   [1] Less than one year
   [2] 1 to 2 years
   [3] 3 to 4 years
   [4] 5 or more years

7. What is your classification in college?
   [1] Beginning freshman
   [2] Sophomore
   [3] Junior
   [4] Graduating senior or finished with program

   Approximate number of credit hours accumulated are_____.

8. What is your educational goal?
   [1] Earn a four-year degree
   [2] Earn a two-year degree or certificate
   [3] Take a few classes
   [4] Earn a specialty license or certification
   [5] Earn an advanced degree, beyond B.A.

9. Which of the following comes closest to describing your major field of study?

[1] Art or Music
[2] Biological sciences
[3] Business or Management
[4] Communications
[5] Computer Science
[6] Education
[7] Engineering
[8] Health-related
[9] Humanities
[10] General Studies or Interdisciplinary
[11] Social Sciences
[12] Physical Sciences

10. I have formally declared a major
[1] Yes
[2] No
[3] No, but I have a specific major in mind.

The following statements are about various aspects of academic life. Please indicate the extent of your how often you have done each of the following. Indicate your response by filling in one of the spaces to the right of each statement.

11. I have talked with a faculty member, out of class
[1] 4 or more times a term
[2] 2 -3 times a term
[3] 1 time a term
[4] never

12. I have made an appointment to meet with a faculty member in his/her office
[1] 4 or more times a term
[2] 2 -3 times a term
[3] 1 time a term
[4] never

13. I have discussed my career plans and ambitions with a faculty member
[1] 4 or more times a term
[2] 2 - 3 times a term
[3] 1 time a term
[4] never

Opinions About College

14. What is your opinion about the following statement:
"I am very enthusiastic about college?"
[1] Strongly agree
[2] Agree
[3] Neutral
[4] Disagree
[5] Strongly disagree

15. What is your opinion about the following statement:
"If students expect to benefit from what this college has to offer, they have to take the initiative."
[1] Strongly agree
[2] Agree
[3] Neutral
[4] Disagree
[5] Strongly Disagree

16. What is your opinion about the following statement:
"The faculty at this school take an interest in me and my education."
[1] Strongly agree
[2] Agree
[3] Neutral
[4] Disagree
[5] Strongly disagree

The College Environment

Colleges differ from one another in the extent to which they emphasize various aspects of students' development. Thinking of your own experience at this college, to what extent do you feel that each of the following is emphasized? The responses are numbered from 7 to 1, with the highest and lowest points described. Fill in the space of whichever number best indicates your impression on this seven-point rating scale.

17. Emphasis on the development of academic scholarly, and intellectual qualities.

Strong Emphasis 7 6 5 4 3 2 1 Weak Emphasis

18. Emphasis on the development of aesthetic expressive, and creative qualities.

Strong Emphasis 7 6 5 4 3 2 1 Weak Emphasis

19. Emphasis on being critical, valuative, and analytical.

Strong Emphasis 7 6 5 4 3 2 1 Weak Emphasis

20. Emphasis on the development of vocational and occupational competence

Strong Emphasis 7 6 5 4 3 2 1 Weak Emphasis

21. Emphasis on the personal relevance and practical values of your courses

Strong Emphasis 7 6 5 4 3 2 1 Weak Emphasis

22. Relationship with other students, student groups and activities

Friendly, Supportive, Sense of Belonging 7 6 5 4 3 2 1 Competitive, Uninvolved Sense of alienation

23. Relationships with Faculty Members

Approachable, Helpful, Understanding, Encouraging 7 6 5 4 3 2 1 Remote, discouraging, Unsympathetic

24. Relationships with Administrative personnel and offices

Helpful, Considerate, Flexible — Rigid, Impersonal, Bound by regulations

7 6 5 4 3 2 1

Estimate of Gains

In thinking over your experiences in college, to what extent do you feel you have gained or made progress in the following respects? Indicate your response in one of the spaces to the right of each statement.

25.	Developing your own values and ethical standards.	[1] Very much [2] Quite a bit [3] Some [4] Very little
26.	Understanding yourself - your abilities, interests and personality.	[1] Very much [2] Quite a bit [3] Some [4] Very little
27.	Understanding other people and the ability to get along with different kinds of people.	[1] Very much [2] Quite a bit [3] Some [4] Very little
28.	Ability to function as a team member.	[1] Very much [2] Quite a bit [3] Some [4] Very little
29.	Ability to thing analytically and logically.	[1] Very much [2] Quite a bit [3] Some [4] Very little
30.	Ability to put ideas together, to see relationships, similarities and differences between ideas.	[1] Very much [2] Quite a bit [3] Some [4] Very little
31.	Ability to learn on your own, pursue ideas, and find information you need.	[1] Very much [2] Quite a bit [3] Some [4] Very little

PLEASE RETURN BY DECEMBER 18, 1988.

9 January 1989

Dear Student,

Thank you very much for consenting to help me with my research project. Attached is the last form you will be asked to fill out. It should take you about 20 minutes to complete.

I am asking you to complete the Washington University Sentence Completion Test. As you will see from the instructions there are no right or wrong answers. The accumulative score, to your responses, will help me understand more about you as adult students. If I can understand better your individual levels of self-esteem, then I will be able to further understand the effects that different types of university campuses may have on that self-esteem.

If you have any questions or concerns, please feel free to call me (246-4952). Again, thank you very much for your help and support. Please return the questionnaire in the enclosed envelope.

Sincerely,

Shannon Leonetti
enc.