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AN INVESTIGATION OF THE RELATIONSHIP BETWEEN PERSONALITY AND THE USE OF LEARNING DURING THE LIFE TRANSITIONS OF ADULTS

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Jackie R. Watson, B.S., M. Ed.

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Jackie R. Watson

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In a three stage investigation the relationship between personality type and the use of learning as a coping device during the life transitions of adults was studied. Based on the assumption that a paper and pencil device could be constructed to achieve the same or nearly the same results that have been achieved through interviews with adult learners, the first two stages of this investigation involved the construction and validation of an instrument, the Adult Development Learning Inventory (ADLI), to measure the use of learning during life transitions of adults. The inventory has five subsections: a demographic profile, Life Events, Coping Strategies, Learning Activities, and Adulthood Tasks.

Content validity of the ADLI was established through both the theory based in adult learning and developmental psychology and the panel of experts. Construct validation tools included principal component factor analysis and the Kruskal-Wallis ANOVA with age as the variable of discrimination. The instrument was capable of differentiating

among age groups' perception of the tasks in the adult life cycle. For internal consistency, reliability estimates ranged from .83 to .94 for the subsections of the ADLI.

Stage III of the investigation explored the relationship between the ADLI and personality as measured by the Myers-Briggs Type Indicator (MBTI) which was based on the typology suggested by Carl Jung. The findings suggested only limited relationships between personality and the extent of learning activities. Specifically adults with the dominant function of Intuition can be categorized as high activity learners. The results of limited relationships between learning and personality type can perhaps be attributed to the fact that overwhelmingly (98%) these adult samples were involved in some type of learning not in spite of their life circumstances but because of them.

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CHAPTER I

INTRODUCTION

Major studies on participation in learning activities by the adult population reveal that the majority are involved with learning in some manner (1, 15, 21, 27, 31). The exact percentage varies according to how the terms adult and learning experience are defined with the findings being as little as 12 percent (21) or as much as 98 percent (31), when self-directed learning is included.

The motivating factors, or "trigger events," that most often challenge the adult to seek learning are the transition points in the life cycle (3). According to Aslanian and Brickell (1980), eighty-three percent of adult learners state that some kind of transition or change occurring in their lives served as the impetus to participate in learning (3).

> The most profound educational change of this century is a change of attitude which no longer regards education as essentially preparatory but sees it as essentially a way of meeting the demands and aspirations of the present period of one's life (12, p.1).

The concept of adulthood as a period of transition and change, growth and development extending beyond adolescence, has received much attention not only in research and theory, but also in the popular literature. "People have become

concerned with how they, and those with whom they are connected, deal with change" (29, p.2).

The study by Anderson and Darkenwald (1979) mirrored many of the earlier findings on participation in adult learning, but found that only ten percent of the variance associated with participation could be attributed to socio-demographic variables such as age, sex, level of education, and income. Ninety percent of the variance of whatever leads adults to participate has not been identified by this or any other study (1, p.5). However, there are characteristics that identify adults who consistently participate in learning activities. Houle's typology of the adult learner (14) suggests that individuals are consistently motivated by characteristic orientations throughout life (8), as does Armstrong's (1971) studies on "learning-prone" personalities (2).

According to Neugarten (1977), a major line of inquiry in need of exploration is the relationship between personality and adaptation to transition or change (24). Little research can be found relating personality characteristics, adult learning, and transitions, although individually each area has been studied exhaustively. This study is designed to provide information about adult learning during transitions with personality as the variable of interest, in the hope of identifying those personality characteristics that predispose the adult to use learning as a means of coping

with life's inevitable transitions. It is no longer a question of who participates in adult learning in view of the evidence in the studies on participation, but of differences in the nature of who participates in terms of individual characteristics and the type and extent of that participation.

Statement of the Problem

The problem of this study is to examine the relationship between adult learning during transitions as measured by the Adult Development Learning Inventory (ADLI) and personality variables as measured by the Myers-Briggs Type Indicator (MBTI).

Purposes of the Study

The two major purposes of this study are: 1) to determine the extent of adult learning during life transitions as measured by the Adult Development Learning Inventory (ADLI); and 2) to relate the ADLI to personality variables as measured by the Myers-Briggs Type Indicator (MBTI). Secondary purposes include: 1) the construction and validation of a questionnaire (Adult Development Learning Inventory) to measure the extent of participation in learning activities during life transitions; and 2) the examination of the relationship between selected demographics and both the ADLI and the MBTI.

Questions formulated to achieve these purposes are as follows:

1. Is there a correlation between personality type as measured by the MBTI and the nature and extent of adult learning behavior during life transitions as measured by the ADLI?

2. Can individuals who utilize learning activities as a coping device during life transitions be differentiated on the basis of personality type?

3. In what ways do the personality types of "high" learners differ from "average" or "low" learners?

4. What are the demographic antecedents of "high," "average," and "low" learning behavior?

5. What influence does personality type have on each of the following:

   a. The mean number of learning projects per year,
   b. The mean number of learning projects during transitions,
   c. Selected demographics, and
   d. The individual factor scores identified in the factor analysis of the ADLI.

6. In what ways do the characteristics of the age groups of the sample (age cohorts in ten year spans, 35-65+) differ from each other on the major variables of personality and learning behavior and their perception of the life cycle?

Hypotheses

General hypotheses tested are as follows:

1. There is a relationship between the scores on the Adult Developmental Learning Inventory (ADLI) and the dominant functions of Intuition, Thinking, Feeling, or Sensing.

2. There is a relationship between the individual factor scores on the ADLI and the dominant functions of Intuition, Thinking, Feeling, or Sensing.

3. There is a relationship between scores on the ADLI and the psychological attitudes of extraversion, introversion, judging, or perception.

4. There is a relationship between the factor scores on the ADLI and the psychological attitudes of extraversion, introversion, and judging, or perception.

5. There is a relationship between the personality type or extent of learning behavior during transitions and each of the following:

    a. Different age groups.
    b. Males and females.
    c. Different income brackets.
    d. Different educational levels.
    e. Different types of learners (high, average, low).

Background and Significance

Research on transitions and the coping behavior of adults reveals that individuals differ in the ways in which they adapt to changes in their lives (29). In addition studies in adult learning suggest that the majority of the adult population is involved in some type of learning activity (7, 15, 21, 27, 31), and that much of this learning is prompted by life transitions (3). The major conclusion of the Aslanian and Brickell (1980) investigation of adult learning is that adults learn not so much because learning is a natural phenomenon, but because transitions, as an inevitable part of life, force changes in the lives of adults and that these changes require and challenge the adult to learn in order to cope with that change. The major task of this study is what then determines whether an individual utilizes learning, as a coping strategy, to adapt to transition and change.

One of the most startling discoveries of the Anderson and Darkenwald (1978) study, which mirrored many of the earlier findings on participation in adult learning, was that only ten percent of the variance could be accounted for by sociodemographic characteristics such as age, sex, race, and level of education (1). These researchers suggest that one of the priority areas of future investigations in adult learning, in which there has been inadequate conceptualization and explanation, is the psychological variables of the adult learner (pp. 7-8).

It has been assumed that once an individual progresses to ages 30 to 60, that he will settle into a relatively stable existence. This idea is "patently false" (28, p. 34). Change occurs continually in an adult's life to include normal expectable life events such as marriage, parenting, retirement, and unanticipated life events such as widowhood at an early age, illness or the death of a child (22, p. 18). "Adults carry around in their heads, whether they can verbalize it, a set of anticipations of the normal expectable life cycle" (p. 18). They set goals and make plans based upon this set of expectations. Change occurs in five main areas of an adult's life: vocation, family life, community life, leisure, and inner life (28). Some of these changes involve role increments such as marriage, birth of a child, or job promotion; while others involve role deficits such as divorce, retirement, and widowhood (18). Any change requires that the individual reassess and adjust to the new circumstances.

The timing of these transitions or life events has quickened over the last century (10, 23). While many models or theories of stress and adaptation have considered social structures, such as education, as potential strategies for coping, little attention has been given to the individual variations in personality as they affect the use of learning as a strategy. Any attempt at prediction must take into

account the perception of the individual and his translation of these perceptions into action (19, 4).

> People's coping repertoires and their access to and use of support systems are capable of blunting some of the distressful consequences of life problems. Thus, psychological functioning through the life course depends not only on the circumstances that impinge on people at any point in time or the changes that occur across time, but also on the adjustments and responses to these circumstances and changes (25, p. 58).

Most adults, rather than remaining passive during these transitions, actively seek ways to alleviate stress-producing conditions by using their own set of coping strategies, "calling upon resources" within their personalities, and establishing social support systems that may include participation in learning (p. 68).

Although growth and development have many meanings, they often imply "...a movement toward a higher, more differentiated, or more desirable state or end point" (23, p. 311). Some researchers have written that as adults age there is a developmental change as growth or actualization occurs. Others see adulthood as a decline, a biological model; while still others see the adult personality as a stable factor, accounting for change in terms of both biological and socio-cultural factors (p. 312-13). Armstrong (1971) discovered the existence of what can be termed "learning-prone" personalities (2). This study is unique because it looks at who participates in adult

learning by personality. "Few studies, of either self-directed learning or surveys of participation in organized learning, have done that. The opportunities are wide open and the need is great for further research on 'learning-prone' personalities" (8, p. 66). Personality differences, according to Cytrynbaum and others (1980), affect the manner and the capacity to cope with adaptation to life transitions (9). Further evidence exists that individual differences in adaptive styles are relatively stable through the life-span (33). The major conclusion of the Kansas City studies, undertaken by Havighurst and Neugarten over a twenty-two year period of time, was that "personality organization and coping style is the major factor in the life adjustment of the individual as he grows older" (11, p. 630).

In order to understand adaptation as an active process in which the adult must continually adapt to the conditions of his life, it is necessary to understand the adult personality variables that affect the perception and management of the transition. "The adaptation process is ruled, more or less actively and autonomously, by the ego or personality" (11, p. 630).

To restate the thesis of this investigation, adults continuously experience transitions in their lives, and in order to manage these transitions, learning activities are undertaken; personality type influences the degree to which an adult uses learning during transitions. A number of

major contributors to the fields of adult education and life-span developmental psychology have called for further research on the adult personality, the transition from adolescence to middle age to old age, and the interaction between these two variables and adult learning (1, 3, 5, 8, 11, 17, 32). This study constitutes an attempt to explore the possibility that personality influences the method by which individuals cope with the inevitable transitions in their lives. In order to provide a summary and a broad conceptualization of the interaction among the suggested variables, a model (Figure 1) was constructed. It should be understood that this is a tentative, explanatory model and that the research on developmental psychology and transitions has served as its basis (8, 9, 29). The personality differences that predispose an individual to use learning, a form of social support, are connected not only to one another, but also to the type of life event and the outcomes.

Definition of Terms

Personality was determined by scores on the Myers-Briggs Type Inventory (MBTI), developed by Isabel Briggs Myers and Katherine C. Briggs and based on the typology suggested by Carl Jung. The MBTI identifies four psychological attitudes: extraversion or introversion, judging or perception; and four dominant functions of orientation:

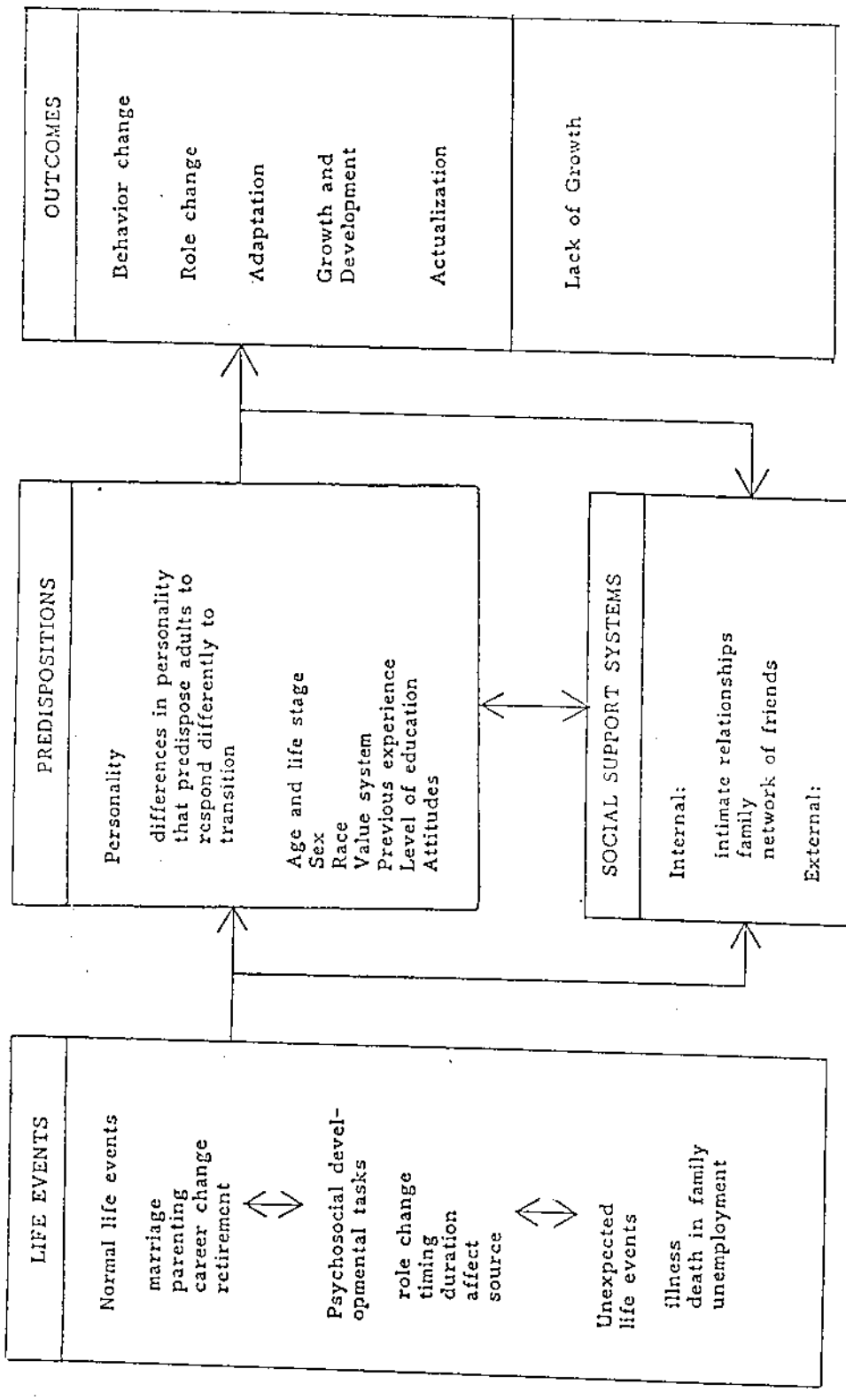

Figure 1. Variables Involved in Adult Transitions

sensation, thinking, feeling, or intuition. The four psychological attitudes combine with the four functions to form sixteen unique psychological types (20).

Adult learning during transition was determined by the summation scores as well as the scores obtained on each of the factors of the Adult Development Learning Inventory (ADLI). This inventory measures the extent of an individual's participation in learning activities during life transitions. The inventory, which was constructed for this investigation during the first two stages of the study, includes check-lists of an individual's learning during transitions and during the previous twelve months; a list of life events, modified from the Life Events Questionnaire (LEQ) (13); and a personal demographic profile. The primary sources of data for this inventory were the conceptual frameworks provided by research and theory in life span psychology, transitions and life events, and adult learning, as well as pertinent literature on test construction and measurement. The factor scores were determined by the factors that emerge through a principal components factor analysis with orthogonal rotation.

Adult is an individual 17 years of age or older.

Adult education is " ... any planned learning activity engaged in by and for anyone who possesses the biological, civil, and cultural characteristics of an adult" (17, p. 4).

This definition was chosen because it removes the agency and part-time restrictions imposed by other definitions (6, 30, 34).

Adult learning is "a sustained highly deliberate" learning activity (31), including self-education, by an adult in an effort to acquire knowledge, skills, or attitudes.

Degree of learning is determined by the number of learning projects during the last twelve months and the number of learning projects during transitions that emerge from the ADLI. These learners will be classified as "high", "average" or "low", dependent on the number of activities.

Coping is defined as " ... problem-solving efforts made by an individual when the demands he faces are highly relevant to his welfare and when these demands tax his adaptive resources" (5, p. 19).

Transition is " ... a turning point or boundary between two periods of greater stability" (16, p. 57). These life events bring about changes in the assumptions individuals make about themselves and therefore may require modification of behavior and relationships. Transitions include both normal life events such as marriage, parenting, and retirement and unexpected life events such as the death of a family member or illness (29).

Delimitations

The generalizability of this study is limited by several factors associated with the sample. In order to secure data in the detail required and for reasons of economy, it was necessary to limit the size of the sample. In addition, it may not be generalizable to all adult learners of similar background because, for reasons of accessibility, it was necessary to use volunteers who for the most part are residents of one geographic area. Because of the assumption that certain characteristics of life transitions can only be recognized and realized in the second half of life, State III of this study was limited to individuals ages thirty-five or older.

Assumptions

The major assumptions of this study are as follows:

1. There are certain personality characteristics that distinguish adults who use learning as a coping strategy during life transitions from those who use learning to a lesser degree.

2. Some means could be found of identifying the learning that takes place during transitions.

3. A paper and pencil device could be constructed to achieve the same or nearly the same results that have been realized through interviews with adult learners.

4. An individual's current participation in learning activities (within the past twelve months) is indicative of

the tendency to participate.

5. An individual's present learning can only be understood within a developmental perspective. "It is possible, true enough, to restrict oneself to an analysis of the present field of the person's inner and outer life; but learning and change cannot be understood without data on antecedent conditions" (26, pp. 610-11).

6. Adult learners are able to understand and articulate their behavior (32).

7. Certain characteristics of life transitions can only be recognized and realized in the second half of life (35+).

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CHAPTER II

REVIEW OF THE RELATED LITERATURE

According to L. I. Pearlin, "adulthood is not a quiescent stretch inter-spersed with occasional change; it is a time in which change is continuous, interspersed with occasional quiescent interludes" (62, p. 174). Beginning in the 1920's and continuing to the present, adulthood, its sociology and psychology have increasingly been considered a specialized field of study and inquiry (34, 76) with the primary interest being the patterned life processes that have emerged as the adult life cycle. In preparation for this literature review, the data bases in education and psychology, including dissertation abstracts, were searched. The search has produced several hundred abstracts, articles, texts, dissertations, and reports on adult developmental psychology, life events and transitions, and the adult personality. Based upon the problem of this study, the relationship between personality and the use of learning during adult transitions, literature was selected that appeared to analyze or conceptualize the related areas or that presented findings based on studies that investigated either adult learning, the adult personality, or adult transitions. Therefore, the literature review integrates

four separate strains of investigation: 1) adult developmental psychology; 2) transitions, life events, and coping; 3) the adult personality; and 4) these concepts as they relate to learning.

Developmental Psychology in Adulthood

The research on adult developmental psychology in adulthood increases the awareness of how adults are required to adapt to roles and tasks and the changes that accompany them as they move through the life cycle. The study of adult development is still in its "infancy" when compared to the study of adolescence and childhood (16, p. 35). Several major theoretical frameworks have been identified through which the various positions on the study of adulthood may be viewed (22,48). Influenced by the work of Freud and Piaget on childhood, the first major position is stage theory, a chronologically based series of phases in the life cycle. "...(W)hen stage theory is applied to adulthood, the implicit assumption is one of unfolding, of progression toward a more complex and wiser self" (22, p. 241). Members of this school of thought include Erikson, Gould, Kohlberg, Levinson, Loevinger, and, in the popular literature, Sheehy and Mayer. A second major framework, self-actualization or self-realization, also assumes that growth is occurring during adulthood, but implies no chronological stages or age-linked periods. "Rather, growth is an on-going process" (p. 241). Researchers in this area include Goldstein,

Allport, Maslow, Buhler, Massarik and Neugarten. Adult socialization ". . . points to the importance of external social and cultural influences on the temporal phasing of the life course" (48, p. 270). This perspective deals with the ways in which culture and other external influence shape "the roles and outlook of its members" (p. 271). The adaptation paradigm is used to study major life events and the part they play in the adult life cycle. This perspective assumes that the adaptation or coping response is determined by a specific stimulus such as an illness or a new job, the characteristics of the individual, and the external cultural or sociological forces. The first three paradigms deal with the "problem of temporal order in the life course", whereas the adaptation perspective does not (p. 273). The adaptation perspective is discussed in more detail in the second division of this literature review.

In Figure 2 a model is provided of the adult developmental theorists considered to be instrumental in the emergence of adult developmental psychology as a field of study. The proposed synthesis occurs across three broad phases: childhood and adolescence, adulthood, and old age. Dependent upon the different contributor's assumptions and interest, more emphasis may fall into one phase than another. Several contributors' models are supposedly not age-related; however, the similarities among viewpoints cast doubt upon their claims. Shakespeare's viewpoint on the

FIGURE 2

A COMPARATIVE VIEW OF THE MODELS OF DEVELOPMENTAL PSYCHOLOGY

CONTRIBUTOR	Shakespeare	Jung	Buhler	Erikson	Havig-hurst	Ortega y Gasset	Levinson	Gould	Sheehy	Kohlberg	Loevinger
I. Childhood and Adolescence	Infant Whining Schoolboy	Childhood	(Basic Tendency) Need Satisfaction Adaptive Self-Limitation	Basic Trust Autonomy Initiative Industry Identity	Early Childhood Middle Childhood Adoles-cence	Childhood (10-15)	Early Childhood Transition Childhood Adolescence	Leaving Our Parent's World (16-22)	Pulling Up Roots	(Moral Development) 0-Good is What I Want 1-Punishment/ Obedience 2-Instrumental Hedonism and Concrete Reciprocity	(Ego Development) Impulsive Self Protective Conformist
II. Adulthood	Lover Soldier Justice "...a world too wide... turning again toward childish treble..."	Youth (12-40) Maturity (40-65)	Creative Expansion Establish-ment of Inner Order Self-Fulfillment	Intimacy Genera-tivity	Early Adulthood Middle Adulthood	Youth (15-30) Initiation (30-45) Dominance (45-60)	Early Adult Transition Midlife Transition Middle Adulthood Late Adult Transition Late Adulthood	I'm Nobody's Baby Now (22-28) Opening Up What's Inside (28-34) Midlife Decade (35-45) Beyond Midlife	Trying 20's Catch-30 Rooting and Extending Deadline Decade (35-45) Renewal or Resignation Comeback Decade Freestyle 50's Selective 60's	3-Mutuality 4-Social Order, Rules Authority 5-Social Contract, Utilitarian Lawmaking 6-Higher Law and Conscience Orientation	Self Aware Conscientious Individual-istic Autonomous Integrated
III. Old Age	"...Second childishness and mere oblivion..."	Old Age		Integrity	Later Maturity	Old Age (60+)	Late, Late Adulthood		Thoughtful 70's Proud-to-be 80's	7-Universal Ethical Principle Orientation	
Source	"As You Like It"	Jung, 1971	Havighurst, 1973	Neugarten, 1968	Havighurst, 1973	Levinson, 1978	Levinson, 1978	Gould, 1978	Sheehy, 1976 Sheehy, 1981	Kohlberg, 1973	Chickering, 1981

life stages was added to provide historical continuity (72). It is hoped that by providing this framework for viewing the models that the similarities and differences among them can be more easily discerned. There seem to be five most obvious similarities: 1) typical ages can be predicted for the onset of phases; 2) the phases seem to occur in a fixed sequence; 3) the developmental stages follow an ascending order or hierarchy; 4) the contributors make qualitative judgments of the life experience of individuals under study; and 5) there is much similarity among researchers, allowing a case to be made for universality of the life stages (34, 49, 76). The task now is to discuss each of these contributors in some detail.

Carl G. Jung. Levinson has called Jung the founding father of adult developmental psychology (49, p. 4). In a paper, first published in 1930 and later rewritten as the "Stages of Life" in 1933, Jung postulates four stages (39). He views each stage as an evolution toward consciousness. Every problem that is faced " . . . forces us to greater consciousness and separates us even further from the paradise of unconscious childhood" (p.5). With the onset of puberty, Jung begins his second stage of life, termed Youth (ages 12 to 40). Prior to this time, an individual has been primarily governed by instinct. "It is only the adult human being who can have doubts about himself and be at variance with himself" (p. 8). In childhood, the individual has not

yet acquired an "ego-complex," but in the transition into the second stage, becomes dualistic, " . . . the widening of the horizon of life . . ." (p. 10). Achievement and utility are the ideals toward which individuals strive during this second stage. Jung sees a transition, occurring usually between ages 35 and 40, in which individuals examine whether or not they are on the right life course and possess values and ideals with which they are comfortable. The third stage, maturity, encompasses the years 40 to 65. In the first half of life, "unequal use is made" of the masculine and feminine sides of an individual's nature. The masculine and feminine functions of nature are termed animus and anima. To Jung the integration of the animus and anima is a prerequisite for further individuation. As the forty-fifth year approaches, "(m)an's values, and even his body, do tend to change into their opposites" (p. 16).

> The worst of it all is that intelligent and cultivated people live their lives without even knowing the possibility of such transformations. Wholly unprepared, they embark upon the second half of life. Or are there perhaps colleges for forty-year-olds which prepare them for their coming life and its demands as the ordinary colleges introduce our young people to a knowledge of the world? No, thoroughly unprepared we take the step into the afternoon of life; worse still, we take this step with the false assumption that our truths and ideals will serve us hitherto. But we cannot live the afternoon of life according to the programme of life's morning; (p. 16-17).

As individuals move further into this third stage, they become increasingly preoccupied with self, a necessary condition to the unfolding of self. The second stage of

life, with its preoccupation on achievement, does not have carry-over effects into this third stage without endangering the development of the individual. Jung's last stage, old age, finds individuals once again, as they had in childhood, submerged in the unconscious. It is only in the second and third stages of life that individuals are aware of "conscious problems," according to Jung, and therefore the ones with which he devotes consideration in most of his life work (p. 22).

Charlotte Buhler. Beginning in 1933 in Vienna, while working on child development, Buhler became interested in studying the entire life span. Based on the collection of the life histories of a number of elderly individuals, five age linked periods were suggested: 1) childhood -- birth to 14; 2) youth -- 14 to 25; 3) adult I -- 25 to 45-50; 4) adult II -- 45-50 to 65-70; and 5) aging -- 70+. Two sets of life events, biological and biographical, were identified and placed on age curves with a sharp drop on the biological curve at age 50 and a high plateau on the biographical curve from early adulthood to age 55-65. Later, Buhler identified five basic life tendencies, all of which are active to some extent throughout the entire life span (10, 34). These tendencies "have periods of dominance in determining the life style of the individual" (34, p. 7). These basic life tendencies, in order of dominant magnitude in the determination of behavior, include: need-satisfaction; adaptive

self-limitation (adjustment); creative expansion; establishment of inner order; and self-fulfillment. She combined these tendencies with her five age-linked periods to subdivide the life span into 10 periods (10, 34).

A protege of Buhler, Else Frenkel-Brunswik did research at the Institute of Child Development, Berkeley, California, beginning in the 1930's (10). Studying the social adjustment of individuals in their 60's, she studied their behavior through the five age-linked periods suggested by Buhler. Activities identified during her study include:

1. Period I -- a child living at home; narrow interests that center around home, school, and family.
2. Period II (16-28) -- entrance into a self-chosen activity; independently acquired personal relationships.
3. Period III (26-48) -- final and definite choice of occupation; establishment of home; most fruitful period of professional and creative work.
4. Period IV (48-64) -- a decrease in activity; an appearance of "negative" dimensions (sickness, loss of associations, death of loved ones); changes in type of work; psychological and biological crises.
5. Period V (65+) -- decline in vital processes; retirement from a profession; decrease in factual and social dimensions; retrospection; premonitions of death; preoccupation with religious questions (54, pp. 77-84).

Erik Erikson. Erickson sees life as sequential levels of achievement in which success or failure have supportive or damaging effects on the ego. He postulated eight stages of ego development. Each stage is phase specific and follows a chronology without arbitrary age limits. The first four are childhood, the fifth is adolescence, and the last three, adulthood. The eight stages are: 1) birth to one year (early infancy), development of trust; 2) one to three years (later infancy), the growth of a sense of autonomy; 3) early childhood, development of initiative versus a sense of guilt; 4) middle childhood, a sense of industry versus a sense of inferiority; 5) adolescence, the development of ego identity (self-confidence, belongingness, sex role, values) versus role confusion; 6) early adulthood, development of intimacy (mutuality, procreation, recreation) versus ego isolation; 7) middle adulthood, generativity (ego expansion and a sense of future contribution) versus stagnation; and 8) late adulthood, ego integrity (a sense that life is meaningful) versus despair (6, 20, 34, 54). "In Erickson's theory, a different psychological issue constitutes the nuclear conflict or crisis for the ego at each developmental stage, but the same issue is also present in preceding and later stages" (54, p. 85). Hope, will, purpose, and competence are virtues developed in childhood with each developing in an evolutionary manner, dependent on each other and on successful movement through

the sequential stages. Fidelity emerges in adolescence; love, care, and wisdom in adulthood (20). Love, the first virtue developed in Erikson's adulthood and termed "the greatest of human virtues," has evolved from the first contact with a trustworthy person through adolescence to its emergence at this time. "Love, then, is mutuality of devotion forever subduing the antagonisms inherent in divided function" (p. 129). Care, which corresponds to the stage of generativity, deals with the quality that is necessary for the "psychosocial evolution" of society - the teaching, sharing, transforming nature of man. To avoid self-absorption, it is necessary that individuals expand their concern beyond themselves to generativity or "selfless caring" (p. 131). Wisdom, the last stage, "is detached concern with life itself" (p. 133). It arises out of the conflict between integrity and despair, the realization that life is limited and the maintenance of the integrity of experience.

> Human strength, then, depends on a total process which regulates at the same time the sequence of generations and the structure of society. The ego is the regulation of this process in the individual (p. 152).

Robert J. Havighurst. Havighurst's theory of developmental tasks, based on both "biological development and social expectations," conceives of the life span as change imposed by these internal and external forces that offer guidance and force to personality development (34, p. 11).

These developmental tasks are "the physiological, psychological, and social demands a person must satisfy in order to be judged by others and to judge himself or herself to be a reasonably happy and successful person" (14, p. 25). These developmental tasks provide "teachable moments," a time when the individual is ready and that culture requires that the individual achieve the task. The "teachable moment" arrives when the individual is most ready to learn; any attempt at education prior to this time would have been in vain (33, p. 5). Making use of Erikson's psychosocial tasks, he divides the life cycle into six age periods: 1) early childhood; 2) middle childhood; 3) adolescence; 4) early adulthood; 5) middle adulthood; and 6) later maturity. Each of these periods is determined by both biological changes in the body and societal expectations. The individual must adapt to the expected and changing roles that both age and society demand (34). Early adulthood is the most ripe with "teachable moments" and consists of such tasks as selecting a mate, learning to live with a marriage partner, starting a family, rearing children, managing a home, getting started in an occupation, taking on civic responsibility, and finding a congenial social group (33). Middle age, "the peak of influence on society," is the period when society is making the most demands on the individual (p. 84). It includes the tasks of achieving

civic and social responsibility, establishing and maintaining an economic standard of living, assisting teenage children to become happy and responsible, developing adult leisure time activities, relating to one's spouse as an individual, accepting and adjusting to physiological changes, and adjusting to aging parents. Later maturity differs in only one way from the other ages - "holding on to life rather than seizing more of it" (p. 92). The tasks of this stage are adjusting to decreasing physical strength and health, adjusting to retirement and reduced income, adjusting to the death of a spouse, establishing an affiliation with one's age group, meeting social and civic obligation, and establishing satisfactory living arrangements (pp. 70-98).

Jose Ortega y Gasset. Gasset, the Spanish philosopher, in his 1958 publication, Man and Crisis, conceived of generations of not only the life cycle, but also the history of society (25). The five generations are:

1. Childhood, ages 0-15.
2. Youth, ages 15-30. Extending from an early adult transition through the "novice" part of early adulthood, individuals in this generation are occupied with making a place for themselves in society.
3. Initiation, ages 30-45. Including mid-life transition and the end of early adulthood, this is an intermediary stage in which individuals " . . . . are not yet fully responsible participants in adult society . . . "

4. Dominance, ages 45-60. This generation " . . . has the main burdens and satisfactions of senior leadership and authority." Supplying the Initiation generation with ideas, values, and knowledge, this generation serves as the governing body of a society, creating new goals and ideas.

5. Old age, (Over 60).

"At any given moment in history . . . the Initiation and Dominant generations are the two crucial ones, and the relations between them are fateful for the future of society." Even as in the 1960's the Youth generation played a dramatic part in society, it is the Initiation and Dominance generations that produce the historic results (49, pp. 28-9).

Daniel J. Levinson. Levinson conceives of adulthood as an individual evolutionary life structure. "This perspective creates a space in which personality, career socialization, and marker events can be examined cojointly within a more encompassing view of the life course" (48, p. 277). Studying forty men from four diverse occupations, each telling his life story, Levinson "reconstructed" each life course, looking for both commonalities and differences. Using these life histories, it was determined that there was "a relatively orderly sequence" of phases in adulthood. Further, he suggested that these periods actually shaped the life course of these adults (p. 279). Alternating periods

of "structure building" and transition make up the life course. During the structure-building periods, an individual forms a life structure and enhances his life by making key choices and pursuing goals and values. Each of these periods lasts 6-10 years. A transitional state evolves when these life structures are terminated and the possibility of creating a new one exists. The tasks at this juncture include reappraising self and society, exploring new possibilities, and making a commitment to new choices that will be the basis for a new life structure. These transitional periods are usually five years in length. Levinson sees these transitions as major periods in and of themselves (49). The primary components of the life structure are ones' relationships with self, other individuals, groups, and institutions. "Each relationship is like a thread in a tapestry; the meaning of a thread depends on its place in the total design" (48, p. 280).

The major periods of Levinson's (49) scheme are as follows:

1. Preadulthood (birth-22) -- rapid bio-psycho-social growth; development of abilities that will allow an individual to function as an independent adult.
2. Early Adulthood (17-45) -- greatest productive period as well as the period of greatest stress and contradiction; peak biological years (20's and 30's).
3. Middle Adulthood (40-65) -- "the dominant generation;"

responsibility for own work and that of others; development of the younger generation (Erikson's generativity); more comfortable and concerned with and for the inner self; characteristics which include compassion, love, and reflection.

4. Late Adulthood (Over 65).

Roger Gould. Gould views the life cycle as the "progressive liberation from childhood myths" (76, p. 13). By liberating oneself from a series of childhood assumptions, an individual can, through challenge and contradiction, move successfully through a series of sequentially related phases. His scheme, like Erikson's, is based on "an ordered set of social involvements that parallel and indeed precipitate the different phases of adult development" (p. 14). Transformation, his basic concept, is synonymous with growth. As individuals continually define themselves, they move through alternate periods of security and conflict, the process of transformation (29). As the modification of childhood ideas and assumptions continue, the mind is freed to allow a larger range of ideas and activities. Studying young and middle adulthood, Gould conceives of five phases: 1) leaving our parent's world (ages 16-22); 2) I'm nobody's baby now (ages 22-28); 3) opening up to what's inside (28-34); 4) mid-life decade (35-45); and 5) beyond mid-life (28). The life stages are influenced by the age-linked roles that are demanded by culture. He postulates that the

steps and stages in this transformation process are the "adult dilemma of choice, safety, and self" (p. 42). "Growth is like a river; you can dam it up, slow it up, divert it, but you can't ever stop it" (p. 322).

Gail Sheehy. Sheehy, in her book Passages (73), popularized the ideas of developmental psychology and the predictability of the patterns of aging in adulthood. Her three major objectives were: 1) to discover the inner changes that occur in the individual as the life cycle emerges; 2) to compare and contrast the developmental stages of men and women; and 3) ". . . to examine the predictable crises for couples" (p. 22). Rather than use the word "crisis" for major life events and transitions, she chose the word passages "for the critical transitions between stages" (p. 23). Collecting the life histories of 115 individuals, "healthy, motivated people" in the middle class, she determined four stages of middle adulthood: pulling up roots, the trying twenties, Catch-30, deadline decade (35-45). Every event that occurs in the life cycle affects what will then happen -- marriage, childbirth, job loss, death of significant others, etc. "These marker events are the concrete happening of our lives" (p. 29). A developmental stage, however, according to Sheehy, will occur regardless of whether or not this marker event is present, because of an underlying impulse or desire to change.

Lawrence Kohlberg. In addition to the models proposed for adult development, there exists the studies of Kohlberg that describe the hierarchical development of rules, universal concepts, and moral values throughout life. "This view of adulthood moral stages linked to experience of personal choice suggests a reapproachment between Erikson's stage theory of adult development and a more cognitive-structural stage theory" (43, p. 180). Using a "cognitive-developmental" approach to the study of moral and social processes, he views the sequential nature of moral development as universal and undirectional (4). New moral stages are the result of the life experience of the adult. In adulthood there seems to be two major experiences that are important to moral development: leaving home and entering the college community. The individual is confronted with conflicting value systems that involve him/her in questioning and commitment. This questioning, conflict, and finally commitment are necessary for movement to Stage 5. In Stage 5, the individual becomes committed to society and to relationships. Corresponding to Erikson's stage of generativity is Kohlberg's Stage 6, the process of becoming an ethical man. Stage 7, a more philosophical than concrete stage, is roughly equivalent to Erikson's integrity, a stage of moral development not often reached (43). In his studies on moral development, women were found to be at a "lower" moral stage than men. The studies of Carol Gilligan,

however, assert that his autonomy-oriented scales do not apply to women, rather women's orientation toward relationships may be as high a moral stage as autonomy (27).

Jane Loevinger. Using her own theoretical base and a measurement system, Loevinger originated the study of ego development. She incorporates concepts from areas of moral, psychosexual, and intellectual development, as well as the development of self-concept (4). Ego development is a method that assigns meaning to experience, "a sequence, cutting across chronological time, of interrelated patterns of cognitive, interpersonal, and ethical development that form unified, successive, and hierarchical world views" (82, p. 52). She calls it a "master trait," second only to intelligence. Her stages of ego development are: 1) impulsive; 2) self-protective; 3) conformist; 4) conscientious - conformist; 5) conscientious; 6) individualistic; 7) autonomous; and 8) integrated. An individual advances from one level to the next, with each stage denoting a higher capability (82). She assumes that the higher stages are better, thus their hierarchical nature (81). Three conditions facilitate ego development in adulthood: varied, direct experiences and roles; meaningful achievement; and relative freedom from anxiety and pressure (82).

Bernice Neugarten.

> In all societies, age is one of the important factors in determining the ways people behave toward each other. Certain biological and social

> events come to be regarded as significant punctuation marks in the life line and to signify the transition points from one age status to the next (54, p. 5).

According to Bernice Neugarten, societies define their age status systems through certain institutions: the family, the economic system, and the legal, political system. The family cycle has quickened since 1900 with the lowering of the age for marriage -- parenting, empty nest, and grandparenting are all occurring at an earlier age. Additionally, an individual's socioeconomic status affects the timing of the family cycle -- the higher the social class the later these events occur: leaving home, marriage, birth of first and last child. Marriage and the family cycle, however, do not necessarily correspond to economic maturity. Both the first part of life and the last are periods of economic dependency. Within the first period of dependency comes a time of preparation and training for an economic role. Following this come the productive periods' stages: rise, peak, and decline. With each stage, new roles emerge, each role bringing a status change. Sex differences in economic maturity also exist: the male economic period has shortened with an increased period of dependency because of lengthening of the educational period and "the truncation of economic productivity at the other end" (p. 10); for most women the changing societal patterns have brought a trend in the opposite direction, an extension of the number of years in the labor force. Age norms are the "prescriptive time-

table for the ordering of major life events": marriage, parenting, or retirement. (p. 22). Neugarten calls them the "prods and brakes upon behavior" (p. 22). "(A)ge norms become formalized through the legal institutions of the society. The laws come to reflect, both directly and indirectly, the extent to which age differentiations are regarded as important, and the points in the life line at which these differentiations are made" (p. 18).

Neugarten points out that middle age is perceived as a distinctive stage in the life cycle. "Generally, the middle-ager sees himself as the bridge between the generations, both within the family and within the wider contexts of work and community. At the same time he has a clear sense of differentiation from both the younger and older generations" (p. 94). Other interesting data reported in these studies include:

1. Women perceive their age status in relationship to the timing of the family cycle.
2. Men, on the other hand, perceive the onset of middle age in the work context, a close relationship between the life line and the career line.
3. Health changes are more of a marker event as to the onset of middle age for men than for women.
4. The most pervasive characteristic identified for women was an increased sense of freedom in middle age.
5. "Life is restructured in terms of time left-to-live rather than time-since-birth" (p. 97).

6. One of the most prevalent themes reported is that middle adulthood is "the period of maximum capacity and ability to handle a highly complex environment and a highly differentiated self" (p. 97).
7. Seldom was the desire to be young again expressed.
8. Mentally, middle age is a time of increased introspection, and structuring and restructuring of experience, the processing of new information in light of experience.
9. Middle-aged adults feel that they create their own rules and norms and manipulate their own social environments.

Marjorie Fiske Lowenthal and others (52), in extensive research on adults facing transition, have determined that there are differences in the reported life stages between significant portions of the society. Rather than growth occurring in the stages suggested by other researchers, it appears that these stages do not occur in the lower socioeconomic class of adults. Growth is stunted due to the differing life experience and educational and occupational level. "It is probable that more complex and autonomous people can grow old gracefully and comfortably in our time only if they belong to a more privileged class where lifestyle options remain open" (76, p. 240). The literature of adult developmental psychology serves as a basis for the theories and research that encompass transitions, the life

events that precipitate them, and the coping mechanism necessary for passage through them into a period of stability.

Transitions, Coping, and Life Events

> The psychological dynamics of adult transition are thus determined by the same general type of internal conflict that accompanies all transitions between developmental periods. On the one hand, persons are drawn ahead by the promise of new meanings and gratifications; on the other, they hang back because of reluctance to abandon present satisfactions and fear of the uncertainities associated with change. Yet despite vast individual differences in this respect, culture cracks the whip propelling all of us forward (65, p. 107).

Transitions from one relatively stable period to another are not unlike the "paradigm shifts" described by Thomas Kuhn as necessary precipitators of scientific revolutions. These revolutions are generally preceded by a growing sense that existing commitments have ceased to meet the problems posed (46). Levinson, who sees transitions as bridges between stages or eras in the life cycle, contends that they are major periods in and of themselves, in which movement is slow and requires a "reweaving" of the tapestry of life (49). These are periods in which an adult may seem to lose his way and must struggle to regain it.

The life cycle concerns itself with two different types of life events that precede these transitionary times: 1) . . . "the timing of transitions over an individual's career, particularly the balancing of entry into and exit from

different roles;" and 2) " . . . the synchronization of seemingly individual transitions" that are for the most part non-scheduled (31, p. 6). Transitions are both influenced and defined by these life events, their timing, their interaction with demographic, social, and economic factors, and the cumulative impact of earlier life events (31). Scheduled events are those that are normally experienced in the life cycle, such as marriage, parenting and retirement. Nonscheduled life events involve " . . . crises, eruptive circumstances . . . that are not the consequence of life cycle transitions" (62, p. 178). This differentiation between types of life events has also been termed voluntary and involuntary life change (51); normal expectable life events which are non-trauma producing and unanticipated life events (57); and events that are on or off schedule in terms of what is considered normative (51). Adults set goals and make plans along a "time-line" that is defined by the schedule of life events that he and society have anticipated that his life will take (57). In a study of life issues undertaken by Kolb and Wolfe (1981) in an investigation on career development, several clusters of life events emerged: 1) career, which included financial aspirations and attaining success in a chosen line of work; 2) competence, learning a specialized set of knowledge or skills; 3) career development, a combination of career and competence; 4) family life; 5) personal well-being or coping with and

dealing with change and maintaining physical well-being; 6) self-awareness which was defined as getting in touch with one's feelings, changing goals to fit self-image, and being one's own person; and 7) generativity, attaining a broad perspective and making contributions to society, community, and the next generation (44). Life events have also been categorized as career, family, leisure, health, religious, and citizenship factors (3).

The transition from one life stage to the next can be signaled by these life events, a significant change in the life circumstance of the individual, or by internal changes, an impulse to rearrange attitudes or goals. This signal to rearrange one's relationships, environment or feelings has been referred to as "marker events" by Levinson (48), "trigger events" by Aslanian and Brickell (3), and "teachable moments" by Havighurst (33). Within each of the life stages, the individual is in a state of relative equilibrium; while in the transition from one stage to the next he experiences some discontinuity, not always dramatic, but at least a disruption in which he must make adjustments and respond to new developmental tasks. When the change is traumatic, abrupt, and pervasive, the transition can be anxiety-producing, painful, and disorienting (85). Warnat (1980) contends that life events, both the normal and the trauma-producing, are the major "learning lessons" of life and as such facilitate change and contribute to the growth

of human beings (80). When the life event occurs, as in systems theory, it affects the total life system. She suggests three critical dimensions of coping with life events: 1) as individuals progress through the life-span, they develop consistent patterns of response and that over time these responses are reinforced; 2) this pattern of response toward life events has interchangeability and transferability; and 3) individuals refine their range of alternative responses into a select few. The very "essence of learning" is " . . . based on the personal response to life events" (p. 32). The number of life course events declines across successive stages with a sharp drop between young adulthood and middle age and only a slight drop thereafter (52). Lowenthal and others, in their study of 216 adults facing transition (52), operated under the assumption that all life events that provoke change are stressful; and therefore a change that brings a positive emotional outcome may be just as stressful as ones with negative emotional overtones.

> Ease of adaptation to a transition depends on one's perceived and/or actual balance of resources to deficits in terms of the transition itself, the pre-post environment, and the individual's sense of competency, well-being, and health (69, pp. 7-8).

This proposition, similar to McCluskey's power-load-margin theory (50), suggests why a person may react differently at different times, ". . . partially because the resources-deficits balance changes: at one point, resources outweight

deficits, so adaptation is relatively easy," with the reverse also holding true (69, p. 8). The individual who has "margin," in McCluskey's terminology, has greater power of choice over alternatives. "A person has margin when he has a broad field of life space, and is able to move autonomously within it" (50, pp. 17).

Adaptation is a process that is actively ruled by the adult personality (35) - the adult must continually adapt to transitions and life events. Adjustment through coping is a product of that adaptation. The set of responses, or "coping repertoires," that individuals use to deal with transition and change enable them to alleviate some of the effects of life's problems (62). Coping responses are the problem solving activities which individuals undertake in order to manage transitions (9). George Vaillant (79), in a longditudinal study of ninety-five Harvard graduates, suggests that an individual's method of reacting to problems is analogous to an oyster who, when confronted with a grain of sand, creates a pearl. "Humans too, when confronted with conflict engage in unconscious but often creative behavior" (p. 7). Adaptive mechanisms of the ego include dissociation, displacement, sublimation, projection, and others (79). Learning, as an adaptive mechanism, often serves to help the adult ease life transitions. If an adaptive or coping style is to be judged as "healthy", then it must allow that individual to continue growing (p. 105).

> The first point to be made about the adult life cycle is that, as in childhood, the metamorphosis of aging alters belief systems, instinctual, expression, even the brain; indeed, the passage of time renders truth itself relative . . . How then may we obtain truth about the adult life cycle? Clearly, it must be studied prospectively. It is all too common for caterpillars to become butterflies and then to maintain that in youth they had been little butterflies. Maturation makes liars of us all (pp. 195-197).

There are four major variables that affect adaptation to transition and life events: 1) opportunities that are available and obstacles that are encountered, as influenced by sociodemographic variables; 2) investments that an individual makes on his own behalf; 3) sources of support and guidance; and 4) personal resources that the individual can command (p. 202). The dominant conclusion from the Grant Study by Vaillant is that sustained loving relationships with people account for the successful passage through the life cycle, not the isolated traumatic events. Like Freud (76), Vaillant's criteria for mental health are working and loving; he sees them as the goals of society. " . . . (A)daptation must reflect the vigorous reaction to change, to disease, and to environmental imbalance" (p. 363).

The Adult Personality

Personality can be defined as the " . . . characteristics and tendencies that provide continuity across specific times and situations and enable the individual and others to predict likely thoughts, feelings and actions"

(42, pp. 316-17). Most of the literature on personality concerns adolescents and children with a "modest" number of reports on the adult personality. Throughout life there is a conflict between differentiation and integration of personality (42). Erikson's tension between two polarities in the search for identity across successive life stages is an example of this conflict (20). The varied life roles of the adult perpetuates this tension. Within the shifting themes of the adult personality the individual attempts to maintain a "sense of self" throughout the life cycle (42). The components of the adult personality include, in addition to self-concept, the executive function of decision-making, autonomy, locus of control, attitudes, moral development, and adaptation to life circumstances (pp. 317-381).

Theories of personality include ego psychology, which is the study of the sense of identity that emerges from adolescense and thereafter produces consistency of behavior and stability of personality; socio-psychology, which contends that personality is the interaction among social experiences, social roles, and self concept with stability of personality arising from the consistency and congruency of these; and developmental psychology, in which the investigation centers on "orderly and irreversible changes" that are age-related and account for the individual differences in the personality of adults (55, pp. 314-18). This last theory is an attempt to move away from the global theories

of personality such as those attributed to Freud, Jung, or the trait theory of Allport (6). Other specific theories of the adult personality include those of Thomae who deals with personality as change and adjustment as it arises out of perception, Neugarten who will be discussed in some detail, and disengagement theory (6). Four levels of personality theory in adulthood have been identified: 1) conceptual schemes such as those of Jung or Freud; 2) systems of classification as in a taxonomy; 3) hypothetical-propositional statements of relationships like the S-R theories; and 4) interpretive theories of explanation which see culture as a determinant of personality (23).

Knox (1977) has summarized the main generalizations about the changes that occur in the adult personality across the life span.

1. The rate of personality change between adolescence and middle adulthood is great enough to allow growth and adaptation but not enough to threaten the individual's sense of security. This varies across certain aspects of personality as some factors such as values, aggressiveness, and vocational interest tend to be more stable.
2. Stability of some of the personality characteristics such as passivity, anger, and dependence are a product of societal expectations regarding the male/female role.

3. The extent of change will vary with differing personality characteristics.
4. Middle adulthood brings a reversal of some personality traits; for example women become more aggressive and men become more nuturing and passive.
5. Increases in both differentiation and integration of the sense of self occur between young and middle adulthood. Increased introspection and concern for meaning occur in middle age.
6. Due to the various rates of personality change and adaptation, a wide variety of personality patterns are present in old age.
7. Although often there is a shift from "active to passive mastery" from middle to old age, adaptation patterns remain relatively stable (42, pp. 326-328).

Neugarten's personality theory is that adults age in no single pattern, the ways in which individuals age is consistent with their earlier lifestyles. Personality is predictable when an individual's manner of coping, personality structures, success at adaptation, and life expectations are known. She theorizes that adults in their forties view the environment as one that rewards boldness and risktaking. They possess energy that is congruent with their view of the outer world. In contrast, adults in their sixties see the environment as complex and dangerous and themselves as conforming with the outer world. Adults in

their sixties move from active to passive mastery and from an outer to an inner world orientation (54).

The executive processes of the personality are self-awareness, selectivity, manipulation and control of the environment, mastery, competence, and a wide array of cognitive strategies (58, p. 139). Neugarten contends that these executive processes are the essence of the ego, the factors that account for growth, control of self, creativity, competence, and the maintenance of these personality aspects through the life cycle (56). Although age differences may exist with other personality characteristics, this executive function or ego shows no such change over the life span (58). With the onset of middle-age, the adult shows evidence of increased introspection, stocktaking, and reflection; structuring and restructuring life experience, the use of knowledge and experience in tandem for achieving goals; and "the handing over to others or guarding for oneself the fruits of one's experience" (p. 139). A shift occurs in previously suppressed characteristics with men becoming more passive, nurturant, and affiliative, while women are becoming more aggressive, independent, and egocentric (39, 48, 58). The ego functions turn internally, termed "interiority," with decreased concern for the external and an increased need for reflection, introspection, contemplation, and self-evaluation (58, p. 139-141). There is a change in time perspective, with time redefined as

time-left-to-live rather than time-since-birth (56). The change in time perspective plus the increased introspection are viewed as the "manifestation" of Erikson's generativity phase to include a heightened sense of self-understanding and sense of expertise (p. 381). Because of an increased sense of physical vunerability, Neugarten also suggests that middle-age adults engage in a form of "body monitoring" in which they devise strategies to maintain the body (56).

Disengagement is defined as the gradual withdrawal in later adulthood from attachments to people and things. It includes less desire for approval, increased freedom of choice, and a greater tendency to engage in activities that give immediate gratification. It is the inevitable and mutual withdrawal between the aging individual and the social system to which he belongs. Because disengagement is developmental as age increases, this process moves at different rates and patterns for different people in different environments and will have different outcomes in terms of the individual's concept of his well-being (54).

The activity theory of aging and personality, in contrast to disengagement, holds that there is little difference between middle age and old age in terms of social and psychological needs with the exception of biological and health changes (37). Havighurst and others propose that "personality is the pivotal dimension" with regard to patterns of aging (p. 174). Their data would support both

theories: neither disengagement nor activity theory alone is sufficient to explain aging patterns. As adults age, two value sets are in operation: one is to stay active and the other is to pursue a more leisurely, contemplative life. Neither theory takes both these value systems into account. The relationship between activity level and life satisfaction is influenced by personality type, particularly the degree of integration of which the individual is capable. Disengagement may lie in the freedom that individuals feel once they are relatively free of role obligations, leaving them able to pursue other activities and ideas. It is doubtful that adults disengage from role activities, internalized values, and personality patterns that were held in middle adulthood (pp. 173-177).

Normal men and women, those with no sharp discontinuities in personality, show increased consistency of personality with age. In fact, "patterns of overt behavior" are likely to be increasingly consistent with "underlying personality needs and desires" (p. 177). In addition to increased consistency of personality there is also decreased complexity of personality. As aging occurs, personality alters, but in a limited fashion (6, 18, 40, 54). Woodruff and Birren (1972) (86), in a study in which age changes were separated from cohort changes, conclude that differences in personality are more a function of a changing world than of aging people. The most stable of all the personality

characteristics is the "style of cognitive engagement" which includes verbal fluency, unconventional thought, interests, intellectual level and objectivity (30), those factors similar to Neugarten's executive functions. The activity level, as a function of personality, in general, whether physical or intellectual, shows considerable stability (6).

There are those theorists who see adult personality development as synonymous with adult developmental psychology (64, 70), as set forth in the first section of this literature review. Personality is defined as the interaction between the individual and the environment or adaptation to change (64, p. 436). In early adulthood, the personality is having to accommodate changing self-concepts. Middle adulthood tasks in personality development include development and assignment of meaning, commitment to working and loving, growth, generativity, and critical self-assessment. Old age personality development contains the accumulation of meaning and dependent upon successful adaptation, either satisfaction or stress with aging (64).

Personality differences in the ability to cope with the adaptive requirements through the life span are influenced by the manner in which previous developmental stages or tasks have been mastered (20, 39, 49). According to Vaillant (79), individual differences in adaptive styles are relatively stable. Personality, that set of interrelated structures that includes cognitive, affective, and adaptive

components, is embedded in both interpersonal networks and society.

The Learning Connection

This portion of the literature review is subdivided into three sections: 1) learning as it affects life stages or adult developmental psychology; 2) learning as it affects the transitions of adults; and 3) personality as it affects learning. Each of these will be discussed separately to include the empirical studies within each area.

Learning across the Lifespan. Different stages of life actually call for different learning tasks and abilities (71).

> Education has uses in every stage of the life cycle . . . Every stage in the life cycle in modern society requires people to learn new things if they are to live up to their own aspirations and the expectations that others have of them (36, p. 331).

Movement through the life phases may bring either minor or dramatic changes, and may coincide with either a great deal or a minor amount of growth and development. The adult can adapt to the new circumstances or remain relatively unchanged. Often the change brought about by the new life phase brings an opportunity for new personal growth. The difference between simply readjusting to the new circumstances and growth is a function of the learning that occurs prior to, during, or through the experience. These learning experiences can occur in almost any setting and continue throughout life (85).

Houle has suggested that continuing education across the life span falls within four age related periods. In young adulthood (ages 20-35), learning will be concerned with sexual and family life, finding an occupation and other work related issues, and finally with the establishment of the community and joining groups. In early middle age (ages 35-55), adults are involved in learning activities that offer them "broader horizons" or deeper insight into themselves. The stressors of middle age bring many people into learning activities who had previously not been involved in their attempt to re-examine and cope with life issues. Early old age, 55-76, finds the chief concerns being "disengagement and re-engagement" with new interests and activities. Successfully readjusting to the life circumstances which confront this age group often require new learning activities. Later old age (75 +) is the period when learning has to do with a personal need for dignity and self control, contribution to society, interaction with the community and the younger generation, and maintenance of the "vitality of body and mind" (38, pp. 430-446).

These "teachable moments" that coincide with the phases of the life cycle and the developmental tasks that accompany them "differ in the degree to which they require . . . learning . . . for successful achievement" (36, p. 333). Tasks that require an "instrumental" type of learning activity include such things as preparing for an occupation,

rearing children, or adjusting to bodily changes; whereas tasks such as choosing a marriage partner or becoming a member of a social group may not require learning for successful adaptation.

In addition to helping ease the psychological issues of the various life stages, learning activities increase an adult's understanding that these stages are natural and inevitable and serve as a means of legitimizing an adult's efforts to continue development (81). Learning activities have also been described as a means of keeping the options or alternatives open as adults move through the life cycle (53). Age-related educational needs include 1) job-related aims, ages 22-29; 2) redefinition of life aims, ages 29-32; 3) upgrading of professional skills and leisure activities, ages 32-39; 4) social support while re-examining and questioning choices, ages 39-43; and 5) opportunities to explore neglected interest, ages 43-50 (81, p. 40).

Citing the 1971 Carnigie Commission on Higher Education which stated that "(s)ociety would gain if work and study were mixed throughout a lifetime," Birren and Woodruff make a case for the "usefulness" of a life-span perspective for educators in a time when there are great social, cultural, and economic demands and changes (5, p. 306). They suggest a number of strategies that stem from this life span perspective. First, programming should correspond to the periods and transitions that are age-linked to the life

stages. The focus for these learning activities should be on affective experiences and motivation rather than exclusively on cognitive areas, a shift that would require familiarity with life-span psychology. Finally courses should include ones directed at "specific developmental tasks" and should be flexible enough to meet the needs of the different styles, interests, levels, and motivations of the adult learners (pp. 323-337).

Intellectual development continues throughout life, and actually increases with age, contrary to earlier studies (71). "When the individual has mastered cognitive skills to the point of attaining role independence - - satisfactory identity and self-sufficiency -- he must then move on, motivated by biological and societal pressures, to assume responsibility for others" (p. 126). There are five needs of the adult learner that can be discerned from these studies on cognitive development by Shaie and Parr: 1) help in understanding body changes and behavior changes that occur as age increases; 2) help in understanding social and technical changes; 3) the personal consequences of these changes; 4) new vocational skills for career changes or new goals; and 5) guidelines for meaningful retirement roles (p. 131).

Vocational developmental theory assumes that careers fluctuate as phases of psychological growth and development evolve, not as isolated events in and of themselves (8, 14,

44). It is an orderly sequential progression of psychosocial tasks toward maturity, a "fulfillment and investment of self in work" (14, p. 213). Blocker and Rapoza conceive of a typology of the older student as related to learning needs and careers:

1. Vertical changers seek lifelong education to proceed along clearly defined career paths to which they are committed and are satisfied. They need information, renewal of skills, and support for risk taking.
2. Voluntary changers seek greater satisfaction through mid-life career changes. They need help with clarification of goals and values and with career exploration.
3. Involuntary changers are forced to change careers due to altered economic and social circumstances; they need psychological services and emotional, financial, and practical assistance in using educational services (14, p. 221).

Learning and Transitions. The aim of an educational program during transition is to "help the individual master the challenges of distress-inducing situations" (83, p. 226). Education or learning as a social support system during transition has been described as a means of mitigating the effects of stressful events or as a vehicle to aid in coping with life cycle transitions (11, 19, 24). Gardner and Reismann in their 1974 publication The Service Society and the Consumer Vanguard include within their broad

definition of social services and the "phenomenon of the service society" the idea of lifelong learning and its relationship with transitions (24, p. 145-6). The use of learning during transition has also been conceived of as an adaptive strategy during transition (9, 15, 21, 31). As an adaptation strategy, learning and information gathering allow the individual to effectively cope with the transition.

Transition points in the life cycle have been described as providing particularly high motivation for learning (3, 18, 77), in a range from thirty-three percent (78) to eighty-three percent (3) of the respondents. In a national telephone survey (N = 1500) in 1981, Aslanian and Brickell reported that eighty-three percent of their respondents, adults age twenty-five or older, named a transition as the motivation for learning. Over half of their respondents had participated in one or more learning topics in the past year, a participation rate that translates to over sixty million adults. This learning often occurs in institutions whose function is not primarily educational, such as places of employment, churches, libraries, and others with many adults learning completely on their own. This learning can precede, accompany, or follow life transitions. These "trigger events", a specific event that signalled the need to change and learn, were identified by type with these results: career, fifty-six percent; family, thirty-six

percent; health, four percent; religion, two percent; and citizenship, one percent (p. 57). Aslanian and Brickell summarized the differences in adult learners as follows:

1. Men learn more often than women because of career changes, while women learn more often than men because of family, leisure, or health transitions.
2. Adults under age 65 learn chiefly because of career transitions, while adults over 65 learn chiefly because of leisure and family transitions.
3. Adults who are single, married, or divorced learn mainly because of their careers, while widowed persons learn mainly because of their leisure and family activities.
4. Adults who have attended four-year colleges learn most often for their careers, while adults who have attended high schools or two-year colleges learn most often for other reasons - primarily reasons regarding family and leisure activities.
5. As incomes rise, adults learn more often for career reasons.
6. Workers and students learn primarily to make career transitions, while homemakers and retired persons learn primarily to make leisure and family transitions.

7. As occupational level rises, adults learn more often for career reasons (p. 96).

The relationship between motivation for learning, either graduate or continuing professional education, and transition has been the subject of several studies with results cited in a range from no relationship (2) to limited or significant ones (12, 13, 59, 63). Regan and others (1980), in a study of life and work transitions and the subsequent re-entry into education, indicate that not only were these individuals in life transitions, but also in transitions in their career. Most of their respondents (N = 400) were actively involved in planning for change and were equally divided among age groups in both life and work transitions. "People's perceptions of their situations are important indicators" (p. 38) of how active they are in planning the change; those individuals actually in transition were the most active planners and were more likely to use community resources for learning (66). Parks (1983), in a study to determine how adults experiencing transition perceive that the learning experience is facilitating the transition, states that educational experiences do not facilitate transitions to the same extent for the different life phases, nor for the developmental tasks of a particular phase. Early and late adulthood transitions, rather than middle adulthood, are eased to a greater degree by learning experiences (60).

Learning and Personality. The relationship between personality and adult learning has had limited investigation (18). "Few studies, of either self-directed learning or surveys of participation in organized learning" have investigated the idea of "learning-prone" personalities (p. 66). Further evidence exists that individual differences in adaptive styles are relatively stable through the life-span (79). The major conclusion of the Kansas City studies, undertaken over a twenty-two year period of time, was that "personality organization and coping style is the major factor in the life adjustment of the individual as he grows older" (35, p. 630). If then, as it seems apparent that personality is a major factor in coping with transition and that learning is often chosen as a strategy for coping with transition, it would follow that the relationship between personality and learning is of primary importance to this investigation. Personality probably determines the degree to which persons avail themselves of potential support systems, such as education (11). Individual differences that account for the way adults cope with stress are those " . . . personality characteristics that differentiate among persons who vary in their coping skills" (47, p. 158).

Shipp and McKenzie (1981) derived a profile of the psychographic characteristics of the adult learner using demographic characteristics as indicators. In this study (N = 232) profiles of both the learner and the non-learner

emerged. The non-learner possesses these characteristics: a time orientation that is past and present rather than future; a short time perspective that has been conditioned by this life style; an emphasis on emotional responses; a marginal sense of freedom and choice; unwillingness to take risks; concreteness in thought; reliance on family and friends for advice; and an action-orientation. The learner, on the other hand, exhibits almost the exact opposite frame of reference in terms of psychographic characteristics: a future time orientation; a long time perspective; an emphasis on rational responses; a sense of personal freedom and choice; willingness to take risk; abstract thought patterns; reliance on professionals for advice; and routine rather than action orientation (75).

Termed a unique study because it examines who participates in adult learning by personality and uncovers the existence of "learning-prone" personalities (18), Armstrong's investigation (1971) correlates certain personality dimensions with the extent of educative behavior. Those individuals termed high learners were described as reliable, tenacious, independent; were more open to new experiences, more systematic, self-confident, sociable and energetic. High learners have a higher self-regard, a greater self/ideal discrepancy, and a much clearer conception of themselves as learners than do low level learners. They also exhibit a more stable work history, have

spouses who feel positively about learning, and are usually members of learning groups. Low-level learners were described as warm, friendly, conformist, and complacent or resigned to their life situations. These learners aspire to become what the high learner has already become and few report any enduring interest area. The learning projects that attract the low learner are designed to fulfill low level needs and were precipitated by crises or chance. These projects are usually poorly planned and are not regarded as important to the learner's self-concept (1).

There have been a number of investigations that examined the personality differences between individuals who persist and those who drop out of learning programs (7, 41, 68, 84, 87). Wilson (84) described dropouts as more rebellious, hostile, assertive, and impulsive; less socialized; and less willing to give prolonged effort. Persisters were more sensitive, supportive, stable and exhibit less risk-taking behavior. Although Boshier (7) reported few significant personality differences, he was able to predict, on the basis of personality scores, those individuals who would drop out prior to a course. Kuh and Ardailo (45) examined the differences in the personality characteristics of adult learners and traditional age college freshmen. The adult learners had a higher degree of development on some intellectual and on most social-emotional personality dimensions.

Several investigations have been conducted on the relationship between personality and participation rate (17, 26, 32, 67). Harvey (32) examined the relationship between personality characteristics and Houle's typology of the adult learner. Goal-oriented learners rated themselves as competent, aggressive, exacting, and assertive; and felt the outcome of the class would be affected by their contribution and influence. Activity-oriented learners were submissive, warm, talkative, and original and believed their personal values would affect the class outcome. Learning-oriented individuals were more ambitious and held high personal values; these individuals wanted to continue learning and did not feel that the class outcome depended on their contributions.

Summary

Several obvious themes have emerged from the review of the literature that have significance to the problem under investigation.

1. A comprehensive life cycle can be described with personality development occurring in chronological, hierarchical stages.
2. During transition, a time of disequilibrium created by both internal and external forces, individuals seek to adapt through various coping strategies.
3. Coping with life events that may be normative or the

result of a crisis may produce either positive or negative outcomes - individuals may grow and develop or may merely readjust.

4. Individuals develop consistent patterns of response to transition and life events.
5. Transition points in the life cycle provide particularly high motivation for engaging in learning activities.
6. Personality probably determines the degree to which persons avail themselves of potential support systems.
7. Adaptation is a process that is actively ruled by the adult personality.
8. Although the extent of change will vary with differing personality characteristics, the rate of personality change in adulthood is great enough to allow growth and adaptation, but not enough to threaten an individual's sense of security.

These themes will serve as guidelines in the continuing development and implementation of this investigation. In the words of Erik Erikson on the promise of lifelong development:

> . . . but now I have only one minute left to indicate what an adult is . . . . From the point of view of development, I would say: In youth you find out what you <u>care to do</u> and who you <u>care to be</u> - even in changing roles. In young adulthood you learn whom you <u>care to be with</u> - at work and in private life, not only exchanging intimacies but sharing intimacy. In adulthood, however, you learn to know what and whom you can <u>take care of</u>. I have said all of this in basic American before; but I

must add that as a principle it corresponds to what in Hinduism is called the maintenance of the world, that middle period of the life cycle when existence permits you and demands you to consider death as peripheral and to balance its certainty with the only happiness that is lasting: to increase, by whatever is yours to give, the good will, and the higher order in your sector of the world. That to me, can be the only adult meaning of that strange word happiness as a political principle (16, p. 33).

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CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

The problem of this investigation was to search for relationships between personality and the use of learning during life transitions in adults. The study involved two separate procedures, the development and validation of the Adult Development Learning Inventory (ADLI) and the correlation of the ADLI and the Myers-Briggs Type Indicator (MBTI), the instrument chosen as the measure of personality. The research design, sample selection, instrumentation, and treatment of the data are discussed separately in the sections to follow.

Research Procedures and Design

The basic research design for this investigation was field research which utilized correlational methods. Field studies are "expost facto inquiries" which seek to examine relationships among variables "in real social structures" (10, p. 405). In correlational studies an attempt is made to either discover or clarify relationships among variables by using correlational coefficients; however there is no implied cause and effect relationship (1). Its principle advantage is that it permits the simultaneous measurement of

a number of variables and relationships and the degree of the relationships. This research design is especially useful when the study is exploring areas in which little previous research has been conducted (pp. 475-79).

The first procedure of this investigation was to construct an inventory that would ascertain the degree of adult learning during transition. This portion of the study was provoked by the need for an instrument that could describe this learning in some detail with the outcome being a well-constructed instrument to help adult education researchers and professors determine the degree to which adults use learning as a coping strategy during transitions. Several significant steps were defined toward construction of the inventory, based on the assumptions that 1) some means could be found of identifying adult learning during transitions and 2) a paper and pencil device could be constructed to achieve the same or nearly the same results that have been achieved through interviews with adult learners.

I. Stage One

   A. A review of the literature in adult developmental psychology, transitions, and life events

   B. Construction of a preliminary inventory

   C. Selection of a panel of experts

   D. Validation by panel of experts

II. Stage Two

A. Item review and revision

B. Assembly of final inventory

C. Administration of final inventory

D. Factor analysis

E. Estimation of inventory characteristics

The final procedure was to explore the relationship between the ADLI and the measure of personality, the Myers-Briggs Type Indicator (MBTI). This procedure is outlined below.

III. Stage Three

A. Identification of a sample

B. Administration of the ADLI and the MBTI

C. Correlation of the ADLI and the MBTI

D. Organization and analysis of demographic data

The Sample

Over a four month period 400 Adult Development Learning Inventories were distributed in a "purposive non-probability random sampling" procedure (10, p. 129), which requires a minimum of three subjects per item. Various academic, social, business, professional, and community service organizations were asked to provide volunteers. The majority of the subjects were recruited from intact community groups which reflected a cross section of age and sexual balance. In addition the majority of the sample live in the

Dallas/Ft. Worth area, which includes four counties and approximately two million people. Of the 400 instruments distributed 161 were returned and included in subsequent analyses (response rate = .40). The demographic variables for the 161 respondents are presented in Table 1 (Appendix A).

In Stage III both the Adult Development Learning Inventory and the Myers-Briggs Type Inventory were distributed in a purposive sampling procedure. Every effort was made to maximize heterogeneity of the sample for both demographic and criterion variables. Of the 50 correlates distributed over a two month period, 38 were returned and included for analysis (response rate = .76). The demographic variables of these 38 subjects are presented in Table 2 (Appendix A).

Both samples were stratified into age cohort groups by ten year intervals with an age range from 25 to 65 plus. Comparison groups, set a decade apart, "allow some rough estimates of 'normal' developmental changes . . . (A)ge, however, is probably decreasingly correlated with developmental stages as age increases" (17, p. 619). In Stage III the subjects were delimited to include only adults age 35 and over. It is an assumption of this study that certain aspects of transitions, personality, and developmental stages can only be recognized, realized, and articulated in the second half of life. "Even while decremental physical

changes are occurring, increments in judgmental power and in social wisdom may take place" (17, p. 611).

Instrumentation

The Adult Development Learning Inventory (ADLI), which was constructed and validated during the first two stages of this investigation, measures the extent of an adult's participation in learning activities during life transitions. The ADLI, a self-report instrument, consists of four subsections and a personal demographic profile: Life Events, Coping Strategies, Learning Activities, and Adulthood Tasks. Peck (1975) has suggested that it is necessary to include both the developmental aspects of individuals and an analysis of present activities when researching the adult (17).

In Stage I of this investigation, an initial pool of items was identified from the literature review for the Learning Activities and Adulthood Tasks subsections. These items were based on existing theory in adult learning and developmental psychology in order to give them an adequate empirical base. The initial item pool consisted of 72 items. The items were randomly arranged with a five point Likert-type summated rating scale and accompanying directions for presentation to the panel of experts. Twelve expert raters were chosen for their skill and experience in adult education or learning, continuing education, or adult psychology. They were asked to rate each item on the

five-point scale in terms of how well they believed the item measured either the concept adult learning or identified the developmental tasks involved in the life cycle of the adult. Of the twelve experts, nine provided the requested ratings (response rate = .75). The ratings were averaged to provide a mean rating score for each item (Analysis A). A decision criterion, mean = 3.5 ($p \leq .01$), was established in order for an item to be retained. In addition the experts were asked to make suggestions or comments for inclusion in the final instrument. The cover letter and initial pool of items are presented in Appendix B. The demographic data and credentials of the experts are found in Table 3 (Appendix C).

The final Learning Activities subsection consists of 34 dichotomous items (Yes/No). The Adulthood Tasks subsection contains 50 items with two response sets: 1) How important is the task at this time in your life (a five-point Likert type scale) and 2) Have you been involved in a learning activity as a result of this task (Yes/No). In the assembly of these two subsections careful attention was given to the clarity of instructions to insure validity of responses. In the Adulthood Task subsection no arbitrary stage or age classifications were suggested by the placement of items, rather the 50 items were placed randomly so as not to have set responses or age-suggested relationships among the items.

The Life Events subsection is based on the work of Holmes and Rahe (1967) and the adaptations suggested by Chiriboga and Cutler (1980) (9,5). The information that this subsection provides has proven "to be relevant for life span analysis and significantly related to adaptation," but defines stress strictly in terms of life events (5, p. 354). Participants are asked to indicate which of a list of events have happened to them. The 42 items use standardized weights to assess the degree of change required. The 42 items and their respective weights are presented in Table 4 (Appendix D). "The occurrence of each event usually evoked, or was associated with some adaptive or coping behavior on the part of the involved individual" (9, p. 46).

The Coping Strategies subsection consists of 12 items, adapted from those suggested by Chiriboga and Cutler (5) with the addition of Item 12 which reads: I spent more time reading, observing, learning. Participants are asked to respond to a list of ways people cope with life events and its degree of application to them. The final form of the entire inventory is presented in Appendix E.

The final version of the inventory was administered to 161 subjects during Stage II of this investigation and submitted to a number of analyses. The SPSS (15) programs were used to estimate the parameters of this inventory and to select items requiring revision (Analyses B - G). Content validity of the inventory was established by both

the panel of experts and the literature review. Kerlinger views factor analysis as a construct validity tool, with validity defined as "common factor variance" (10, p. 685). Construct validity seeks understanding or "meaning" of the construct through relationships with other constructs (Analysis E). The reliability of the ADLI was determined using Cronbach's alpha (Analysis H).

The Myers-Briggs Type Indicator (MBTI), developed by Isabel Briggs Myers and Katherine C. Briggs and based on the typology suggested by Carl Jung, served as the measure of personality for this investigation. This paper and pencil self-report questionnaire deals with the way an individual uses his perception and judgment. There are four dichotomous scales as shown below:

E	Extraversion	-	Introversion	I
S	Sensation	-	Intuition	N
T	Thinking	-	Feeling	F
J	Judging	-	Perceiving	P

The four psychological attitudes (E, I, J, P) combine with the four functions (T, F, S, N) to form sixteen unique psychological types (13). The MBTI consists of 166 items, that may be stencil or machine-scored. Each component of the pairs is scored separately, based on the rationale "that each Jungian polarity represents a 'true dichotomy'" (2, p. 974). First published in 1962 by Educational Testing Service, the MBTI has been used in 692 studies to date (4).

The psychological attitudes of introversion and extraversion have undergone the closest scrutinization of all the dimensions in Jungian typology (7, p. 114), to include studies on physiological reactions, affiliation needs, stress reactions and others (4). The psychological functions (T, F, S, N) have also been the frequent subject of investigation and include studies on occupational preference, teaching/learning styles, success, counseling outcomes, and social perception and action (4).

A major assumption of Jung's theory of type is that "much apparently random variation in human behavior is actually quite orderly and consistent, due to certain basic differences in the way people approach life" (3, p. 461). Each individual has a well-developed method for perception, either Sensing (S) or Intuition (N), and a well-developed mode of decision-making, Thinking (T) or Feeling (F) (11). The underlying assumption is that each individual has preferred or superior functions and that the alternate functions are underdeveloped and distrusted (6). In addition to the four functions (S, N, T, F), the individual directs his attention toward the outer world or toward his own inner mental world, with these two attitudes being termed either Extraversion (E) or Introversion (I) (5). "...(T)he extravert emerges as a person who values the outer world, ...seeks for social approval, ...is sociable, makes friends easily, and trusts other people." The introvert, on

the other hand, "...is mainly in the mental and intellectual sphere, ...is changeable, likes new things, new people, ...(and) is relatively insensitive, impersonal, experimental, materialistic and toughminded" (p. 21). The dimensions of Judging (J) and Perceiving (P) were not specifically defined as independent attitudes by Jung and are only implied in Jungian theory (3). Myers (1962) has written descriptions of the various types and preference which are reproduced in Figure 3, Parts I and II (12) (Appendix F).

The reliabilities of the MBTI have been reported for internal consistency in a range from .60 to .90 (2, 3) and for stability, using test-retest, from .69 to .83 (2, 3). It has been suggested that the MBTI has moderate predictive validity in certain areas (3). Based on the substantial body of data collected from a number of vocational and academic groups and on the correlations and group differences, a case can be made for the construct validity of the test (2,3). The validity for the preferences of Judging (J) and Perceiving (P), the manner in which an individual deals with the environment, however, is questionable (2). Evidence of the content validity of the MBTI seems well established (2, 3, 12).

Procedures for Treatment of Data

Due to the variety of the data of interest, the analysis utilizes several procedures and statistical techniques.

The Statistical Package for the Social Sciences (SPSS) (15) was used for all statistical computations. Given the exploratory nature of this study, .05 was set as the acceptable level of significance for most analyses. Treatment of data is discussed separately for each stage of the study.

Stage I. The preliminary form of the ADLI was submitted to a panel of experts (N = 9). The panel consisted of representatives from three areas of involvement with adult learning: 1) professors of adult education; 2) psychologists and ministers involved with adults across the lifespan; and 3) adult educators in the field who have frequent contact with adult learners. Credentials and demographic data of the experts are presented in Table 3 (Appendix C). The ratings, based on a five point Likert-type scale, were averaged to provide a mean rating score for each item (Analysis A). A decision criterion of 3.5 ($p \leq .01$) was established in order for an item to be retained. In addition, the experts were asked to comment on the items; these comments and suggestions were considered when the final inventory was assembled. Initial item review and revision involved input from both a technical standpoint in terms of measurement principles, the editorial correctness of the format, and grammatical and semantic considerations. This review and assembly of the ADLI into its final format was facilitated by the pretryout of the instrument (N = 10).

Stage II. After final assembly, the ADLI, was administered to 161 respondents. Several analyses of the data were included in this second stage (Analyses B-H). Analysis B included the descriptive statistics for all sections of the ADLI: frequencies, means, and standard deviations.

In Analysis C the relationships among the demographic variables and those variables concerned with the participant's current learning effort, chief motivation for participation in learning, and change status were examined. The change status items explored whether the participant was involved in a change or transition in his life and his perception of the size of the change. Chi-square tests of statistical significance were conducted to determine if there were systematic relationships between variables. Small values of chi-square imply an absence of a relationship or statistical independence. A large chi-square, however, means that a relationship exists between the variables (15, pp. 223-4). The strength of those relationships, if significant, were determined by either Tau b or Pearson's product-moment correlation coefficients, selection dependent on the level of measurement.

Data obtained in the Adulthood Tasks subsection was analyzed using a nonparametric one way analysis of variance test, the Kruskal-Wallis, in Analysis D. This test first ranks all sums in a single series, computes a rank sum for each group, and then calculates the Kruskal-Wallis H

statistic, which approximates the chi-square distribution (16, p. 237). In this manner, the Kruskal-Wallis can be used to determine whether significant differences exist among rank-ordered means of two or more subgroups. One of the secondary purposes of this study was to determine if differences exist among age groups of ten year spans in their perceptions of the tasks associated with the life cycle. Analysis D sought to explore these differences.

In Analysis E two separate factor analyses were conducted on the Learning Activities and Adulthood Tasks subsections of the ADLI. Factor analysis functions to reduce data by grouping variables that are moderately or highly correlated with one another. From each factor that emerges, a variable can be derived, called factor scores, and used in subsequent analysis (1). The Varimax rotated factor matrix with an R-type matrix of correlations between variables was used in the calculations (11). This is a principal components factor analysis procedure with orthogonal rotation. Spurious factors were eliminated through application of the scree test, a visual criteria or method of plotting the eigenvalues, which is used to empirically determine the relevant number of terminal factors (11). A criterion eigenvalue of 1.00 was established for this exploratory analysis.

Multiple regression is used to determine whether two or more of the variables in a study can be combined to predict better than any one of the predictors can alone (1). Among

its advantages are the ability to estimate the effects of several independent variables simultaneously, to readily handle nominal predictors, and to present results in an easily interpretable manner. Analysis F used stepwise multiple regression to test for the effects of age, sex, educational level, work area and income on the criterion variables, the subtests of the ADLI.

In Analysis G correlation coefficients were computed to test for linear relationships among the subtests of the ADLI, the Adulthood Tasks factor scores, and several demographic variables. The demographic variables included were age, sex, income, and educational level. A decision criterion for correlational significance ($p \leq .05$) was established. Cases with missing data were excluded from analyses.

Cronbach's alpha, a widely used reliability coefficient, was used in Analysis H to establish the reliability of the ADLI subtests. The standardized item alpha, which is found by dividing the observations on the item by the standard deviation of the item, was also calculated (16, p. 256).

Stage III. Descriptive statistics of the ADLI were again calculated to include the mean, standard deviations, and frequencies of the various subtests for the sample in Stage III (N = 38) in Analysis I. Sample demographics and characteristics were also summarized within this analysis.

Stepwise multiple regression was deployed to summarize the linear dependence of various criterion variables on several independent variables (Analysis J). The independent variables of age, sex, income, and educational level were paired with the criterion variables of the Myers-Briggs Type Indicator. The criterion variables of the MBTI were the EI continuous score, the SN continuous score, the TF continuous score, and the JP continuous score. The MBTI functions of Thinking, Feeling, Sensing, and Intuition have often been paired in other studies to form four subgroups: ST, SF, NT, and NF (14). These subgroups were formed and also included in the multiple regression analysis as well as subsequent analyses. A second stepwise multiple regression was computed with the MBTI criterion variables becoming the independent variables. The criterion variables for this regression analysis were the subtests of the ADLI.

Pearson's correlation coefficients were calculated to determine the relationships between the subtests of the ADLI, the Adulthood Tasks factor scores, and the scores on the MBTI. The MBTI variables for inclusion in Analysis K were Preferences 1-8, the EI continuous score, the SN continuous score, the TF continuous score, the JP continuous score, and the subgroups of ST, SN, TF, and NF.

Discriminant analysis, similar to multiple regression, allows the formation of homogeneous subgroups to uncover relationships that are obscured when correlations are

computed on the total sample. It is a special case of multiple regression in which a person's group membership is the criterion (1, pp. 474-515). In this portion of the investigation (Analysis L) the group membership of interest is personality type, the subgroups, ST, SN, TF, NF. The question being asked is whether group membership can be predicted based on scores on the subtests of the ADLI (Life Events, Learning Activities, and Adulthood Tasks).

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CHAPTER IV

RESULTS

This study sought to identify prevalent personality types among the adult learning population and to examine some of the demographic antecedents. Overwhelmingly the results suggest that most adults do not remain passive in the face of change, rather they actively seek ways to alter the situation. The results will be presented separately in terms of the three stages of this investigation.

Stage I

Stage I of this investigation involved the development and revision of the Adult Development Learning Inventory. The initial pool of 72 items for the Learning Activities and Adulthood Tasks Subsections, based on existing theory in adult learning and developmental psychology, was presented to the panel of nine experts.

Analysis A. Of the 32 items in the initial item pool for the Learning Activities subsection, 31 met the decision-to-retain criterion, having a mean expert rating of 3.5 ($p \leq .01$). The highest ranked items in order of magnitude were: 1) involved in independent study (4.78); 2) learned something completely on my own through reading, observing,

or other channels (4.56); and 3) went to a conference, institute, or workshop (4.5). Of the 50 items in the initial pool for the Adulthood Tasks subsection, 49 met the 3.5 decision-to-retain criterion ($p \leq .01$). The highest ranked items in this section were: 1) accepting physical limitations (4.67); 2) moving to a new job; adapting to a changing job (4.56); 3) coping with stress (4.56); 4) dealing with change in my life (4.56) and 5) attaining wisdom; seeing "the big picture" (4.56). A decision was made to retain the two items not meeting the criterion value through Stage II to determine if these items were perceived by adults in the sample in the same manner as the experts (mean ratings = 3.39, 3.44). The mean ratings for all items are presented in Table 5 (Appendix G). All expert's comments were carefully considered when the final inventory was assembled. In addition to the personal demographic profile, the Life Events and the Coping Strategies sections, one item was added to the Learning Activities subsection based on the comments and suggestions of the experts: participated in some form of counseling or therapy, either as an individual or in a group. Comments of the experts are summarized in Appendix H.

Stage II

Over a four month period, 400 Adult Development Learning Inventories were distributed to various academic, social, business, professional and community service

organization. One-hundred, sixty-one instruments were returned and included in Analyses B-H (response rate = .40).

Analysis B. This analysis includes the descriptive statistics for all sections of the ADLI: means, standard deviations, and frequencies. The item frequencies for those items dealing with current learning effort and change or transition status are presented in Table 6 (Appendix I). 35.4 percent of the sample were enrolled as students: 6.2 percent full-time and 29.2 percent part-time. Under the item which asks the participants to describe their current learning effort, 19.3 percent were not involved in any learning at this time; 19.9 percent were learning alone; 24.2 percent in a course for credit; and 28 percent at work, church, library, or some other organization. Chief motivations for learning were reported for the sample as job-related concerns (45.3%) and personal growth (35.4%). 89.4 percent of the sample were either involved with making an appraisal of their life situation, making a definite change, or had just passed through a major transition period. Only 3.7 percent of the sample described the change as small or unimportant.

The Life Events subsection had a mean of 164.5, a minimum of 9 and a maximum of 684, with the total score based on the weights found in Appendix D, Table 4. Those events experienced by more than 35% of the sample were: 1) a big change in work or school (51.9%); 2) the death of a

parent, brother, or sister (43.5%); 3) taking on a large loan (42.2%); 4) a move to another town, city, state, or country (40.4%); 5) hospitalization of a family member for serious illness (39.8%); 6) arguments with spouse (37.9%); 7) separation from a close friend (36.6%); and 8) divorce, or breakup with a lover (35.4%). Frequencies for all Life Event Items are presented in Table 7 (Appendix I).

The Coping subsection, presented in Table 8 (Appendix I), had a mean of 8.91 with a minimum score of 0 and a maximum of 24. Scoring followed those procedures suggested by Chiriboga and Cutler (1). The three strategies that participants identified as most helpful were: 2) I sought increased emotional support from others (46.4%); 2) I tried to talk to others about the event (34.8%); and 3) I spent more time reading, observing, learning (28%).

In the past twelve months, 98.8% of the sample participated in at least two learning activities: mean number of learning activities = 13.57 with a minimum report of no learning activities (1.2%) and a maximum of 29 activities. The items mentioned most frequently were: 1) read, observed or listened with the main purpose to gain knowledge or skill (91.3%); 2) learned something completely on my own through reading, observing or other channels (87%); and 3) attended a meeting of a group or organization to learn or discuss things (82%). The frequencies for all items within the

Learning Activities subsection are found in Table 9 (Appendix I).

Descriptive statistics for both response sets were calculated for the Adulthood Tasks subsection and are presented in Table 10 (Appendix I). Those tasks which had the highest frequencies of learning activities as a result of the task are: 1) learning new skills and ideas (85.7%); 2) being successful in my career (77.6%); 3) further developing my specialized knowledge and skills (73.3%); and 4) advancing in my career (71.4%).

Analysis C. The results of the Chi-square analysis of the relationship between selected demographics and the items dealing with the current learning and change or transition status are presented in Table 11 (Appendix J). Age is positively related to all four variables, whereas no significant relationships were found between income and the four variables. The table also reveals a significant negative relationship between educational level and current learning effort. In addition, sex is positively related to current learning effort; work area is positively related to the participant's perception of the size of the transition.

Analysis D. The results of the Kruskal-Wallis analysis of variance test to determine whether significant differences exist among 10 year cohort age groups in their perception of the tasks in adulthood are presented in Table 12

(Appendix K). Of the 50 items 25 are positively related to age. The most important tasks in order of magnitude, as ranked by the age cohort groups, are presented in Table 13 (Appendix K). Of the 10 items ranked highest by the age group 25-34, nine were significant at the .05 level or lower. For the age groups 35-44 and 45-54 six of the highest ranked items were positively related to age. The significance of age decreased as age increased: 4 of 10 and 2 of 10 respectively; however, the highest ranked tasks for each of these latter age groups correspond to those suggested by the literature in developmental psychology (3).

Analysis E. After 24 iterations the Varimax rotation of the Learning Activities subsection failed to converge. The single factor solution suggests that various learning activities cannot be partitioned into multiple source variables. It would seem then that learning was conceived as a global concept by these adult learners.

Fourteen factors for the Adulthood Tasks subsection met the criterion eigenvalue of 1.00 (Table 14, Appendix L), and accounted for 67.3 percent of the variance. The Varimax rotation matrix for these 14 factors (based on 50 items and 161 cases) can be found in Table 15 (Appendix L). The factor loadings of all 50 items are presented in Table 16 (Appendix L). The table lists the items having the highest loading on the factor, in descending order of the loadings. Each of the 14 factors is briefly described below.

Factor 1, Achievement, as shown in Table 16, loads highest on variables reflecting career/work goals or otherwise on learning as it relates to some goal-oriented behavior. Factor 2, Adaptation, loads highest on measures concerned with adjustment to life events or with feelings of introspection, a restructuring of experience, or the processing of information in light of life experience.

The variables that comprise Factor 3, Self-awareness, consist mainly of measures that relate to internal conflicts or discontinuities, new meanings, and their related responses. Implicit in this grouping of variables was the connotation of the shifting of themes, an internal response to change and adjustment.

Factor 4, Health, loads highest on preoccupations with personal health. This factor also includes items on adjustment to physiological changes and Havinghurst's task in later maturity of establishing an affiliation with that age group (3).

Factors 5, 6, and 8 are concerned with family life. Factor 6, Family, deals with the normal timing of life events within marriage and family, whereas Factor 5, Redefinition of Family, includes primarily negative family preoccupations, or a realignment of previous familial relationships. Factor 8, Parenting, loads highest on those items dealing with children, both in terms of relationships and adjustments.

Factor 7, Attachment, includes variables that deal with a connection to society, a concern beyond self. This factor is similar to Erickson's virtue of care - the teaching, sharing, transforming nature of man (2).

Factor 9, Philosophy, loads on only two items that dealt with feelings of both inner harmony and, as in Factor 7, a concern beyond self. This factor concerns then both reflection and generativity. Life events that are concerned with retirement comprise Factor 10, Retirement, a readjustment both in terms of income and perception of achievement.

Life events concerning the outer world of interests and social groups comprise Factor 11, Sociability; whereas Factor 12, which loads on only one item, contributing to community affairs. Factor 13 was termed Constraints because like Factor 2, Adaptation, it deals with some sort of adjustment to life events, but there was also the connotation of some sort of either time or relationship conflict or stress.

Variables comprising Factor 14, Career Development, also load fairly high on Factor 1, Achievement (.26406, .37197, respectively). Again, this factor concerns some goal-oriented, job-related behavior.

Analysis F. In this analysis multiple regression was used to examine the relationships between the subtests of the ADLI and the selected independent variables: age, sex,

educational level, work area, and income. The stepwise option was exercised in this analysis where independent variables are entered only if they meet certain statistical criteria. The order of inclusion is determined by the contribution of each variable to the variance explanation (4, p. 345). The results of these regression analyses are presented in Tables 17-18 (Appendix M). As can be seen in Table 17, only age met the criterion for inclusion with the Life Events subsection ($p \leq .01$). R^2 is used to explain the overall accuracy of the regression equation, or the proportion of the variation explained by the variables included in the regression equation (4, p. 336). Age explains or is accountable for only four percent of the variation in the Life Events subsection.

Four variables can be used for prediction in the Learning Activities subsection (Table 18). In order of inclusion they are: educational level, work area, sex, and income ($p \leq .0001$). These four variables account for approximately 22 percent of the variation of this subtest. None of the selected independent variables met criteria for inclusion to enter the stepwise regression analysis for the Adulthood Task Learning subsection.

Analysis G. Several correlation coefficients were computed for the ADLI subtests, the Adulthood Tasks Factors, and selected demographic variables using the Pearson-

product-moment coefficients (Appendix N). The correlation matrix for the ADLI subtests is presented in Table 19. The relationships between the Learning Activities sections and Life Events were non-significant. The table reveals significant relationships between Adulthood Task Learning and all other subsections ($p \leq .01$).

Several demographics were selected for correlation with the Adulthood Tasks Factors: age, sex, income, and educational level (Table 20). There was a highly significant inverse relationship between age and Factor 1, Achievement ($p \leq .0001$). Correlations between age and factors termed Health, Attachment, and Philosophy were .29, .39, and .29, respectively ($p \leq .05$). As would be expected, a significant positive relationship was found between age and the factor, Retirement ($p \leq .001$).

There were significant correlations between sex, or being female, and several of the factors: Self-awareness, Health, Redefinition of Family, Family, Sociability, Citizenship, and Constraints ($p \leq .05$). Significant relationships were also found between income and 10 of the factors ($p \leq .05$ to $p \leq .001$), with the correlation between Health and income equal to -.57 ($p \leq .0001$). The table reveals a significant relationship ($p \leq .05$) between educational level and the Achievement factor, while inverse relationships were obtained between educational level and Health, Attachment, Parenting, and Retirement.

Correlations were also computed between the ADLI subtests and the Adulthood Tasks factors (Table 21). The only significant relationships found between Life Events and the factors were Achievement and Redefinition of Family ($p \leq .05$). Significant findings were obtained between Learning Activities and two of the factors, Achievement and Citizenship; while an inverse relationship was found between Attachment and Learning Activities when that section is partitioned by high, medium and low level learners.

Analysis H. To determine the reliability or internal consistency of the ADLI, Cronbach alpha coefficients were calculated for the Learning Activities subsection and the Adulthood Task subsection for both response sets. As Table 22 (Appendix O) shows, the reliability estimates range from .83 to .94. Total measure reliability was .90.

Stage III

The final procedure of this investigation was to explore the relationship between the Adult Development Learning Inventory and personality as measured by the Myers - Briggs Type indicator. Of the 50 correlates distributed over a two month period, 38 were returned and included in Analyses I-L (response rate = .76).

Analysis I. The descriptive statistics, including the mean, standard deviation, and frequencies of both the ADLI and MBTI are presented in Appendix P. As shown in Tables 23-28, results obtained in these descriptive analyses of the

ADLI are similar to the results obtained for the adult sample in Stage II. The few differences of note are:

1. There were fewer part-time/full-time students in sample in Stage III.

2. While 89 percent of the sample in Stage II was involved in a transition or change status, the percentage in Stage III was 80 percent.

3. All death categories in the Life Events events subsection increased. This increased percentage is perhaps due to the mean age difference of the two samples (Stage II = 39.58 years; Stage III = 49.53 years).

4. One-hundred percent of the sample in Stage III were involved in at least four learning projects in the previous twelve months, while 98.8% of Stage II participants were involved in at least two learning projects.

5. Based on the item means, the importance of tasks that dealt with job and career seemed to be ranked somewhat lower for the participants in Stage III. This again may be due to the increased mean age of the sample.

6. When participants were asked about their involvement in learning as a result of the task, an increased percentage of the Stage III sample responded affirmatively to the items that concerned "empty nest", accepting care of aging parents, and preparing for retirement. Again this would seem to be an age artifact.

Data on the sample characteristics for the Myers - Briggs Type Indicator are presented in Table 29 (Appendix P). The breakout for the four subgroups that are used in several analyses are: ST = 26.3 percent; SF = 36.8 percent; NF = 18.4 percent; NT = 18.4 percent. Two of the sixteen personality types are not represented in the sample, INFJ and ISTP. The mean scores on the ADLI subsections are presented in Table 30 for the four MBTI subgroups.

Analysis J. Two separate stepwise multiple regression analyses were computed for this analysis. The independent variables of age, sex, educational level, and income were paired with the dependent MBTI continuous score of the four preferences. The results of this analysis are presented in Table 31 (Appendix Q). None of the selected demographic variables met the stepwise criterion for the EI preference. Educational level met the criterion for inclusion for the SN preference, explaining 15 percent of the variance. For the TF preference, R^2 was equal to .42007 ($p \leq .0001$) with sex as the predictor, suggesting a highly significant sex difference for these MBTI functions. Educational level met the criterion for inclusion with the JP preference, explaining 17 percent of the variation.

With the MBTI preference as the predictor variable and the ADLI subsections as the dependent variables, no MBTI variables met the criterion for inclusion in the stepwise regression analysis.

Analysis K. The results of the correlation (Pearsons) matrix between the ADLI subsections and the continuous scores for the MBTI preferences are presented in Table 32 (Appendix R). A significant relationship was obtained between Learning Activities and for only one of the preferences, SN ($p \leq .05$). Correlations between Life Events and the SN preference were also significant, with an inverse relationship between Life Events and the JP function ($p \leq .05$). No significant relationships were found between Adulthood Tasks and the four continuous preference scores.

Correlation coefficients were also obtained for each of the eight MBTI functions separately and the subsections of the ADLI. As shown in Table 33 (Appendix R), a positive significant relation was found for the Intuition function and both the Life Events and Learning Activities subsection ($p \leq .05$). There are inverse relationships between Feeling and the Adulthood Task Learning subtest ($p \leq .05$) and Introversion and the Learning Activities section ($p \leq .05$).

Low but significant correlations were found between the eight MBTI functions and the several of the Adulthood Task Factors ($p \leq .05$) as shown in Table 34 (Appendix R). These relationships are briefly enumerated below:

1. No significant relationships were found for Extraversion; and only one for Introversion, .23 with the Constraint factor.

2. There was a negative relationship between Achievement and Sensing; and positive correlations with Sensing and the factors of Health, Family, Attachment, Parenting, Philosophy, and Constraints. The exact reverse of the above listed relationships with the factors was obtained for the Intuition function.

3. Significant negative relationships were obtained between the Thinking functions and factors of Redefinition of Family, Sociability, and Constraints. A positive correlation was found between the Retirement factor and Thinking.

4. Feeling was positively related to the factors of Adaptation, Self-awareness, Redefinition of Family, Family, Sociability, and Constraints.

5. The only significant relationship between the factors and the Judging and Perception functions was the factor, Citizenship.

The final correlation analysis of interest was the correlation matrix of the ADLI subtests and the Adulthood Task factors. As seen in Table 35 (Appendix R), a significant relationship was obtained between Achievement and Learning Activities ($p \leq .01$), as had occurred in Stage II, however there were no significant results obtained in Stage III between Citizenship and Learning Activities. As indicated in the table, significant relationships between the Life Events section and the factors of Achievement,

Adaptation, and Self-awareness, with an inverse relationship with Citizenship.

Highly significant positive relationships were obtained between the Adulthood Task Learning subtest and all but one of the factors ($p \leq .0001$). These findings suggest that a case can be made for the construct validity of this subtest.

Analysis L. Discriminate analysis uses quantifiable attributes to differentiate among groups. The subgroups used in this analysis were ST, SF, NF, and NT of the MBTI. The question of concern was whether these groups could be differentiated on the basis of of their scores on the subtests of the ADLI. The ADLI variables were selected for stepwise entry into analysis on the basis of their relative discriminating powers in terms of Wilk's lambda (4, p. 442). Wilk's stepwise procedure results in the most optimal set of variables; therefore a variable is selected only if the F value is large enough for entry. As shown in Table 36 (Appendix S), none of the ADLI subtests met this criterion. There is apparently much overlap among the groups. The discrimination is not statistically significant because the groups are not clearly separated. This overlap becomes clear when looking at Table 37 (Appendix S). The classification routine was able to correctly identify only 38.8% of these cases as members of the group to which they actually belong.

To restate the hypotheses of this investigation:

1. There is a relationship between the scores on the Adult Developmental Learning Inventory (ADLI) and the dominant functions of Intuition, Thinking, Feeling, or Sensing.

2. There is a relationship between the individual factor scores on the ADLI and the dominant functions of Intuition, Thinking, Feeling, or Sensing.

3. There is a relationship between scores on the ADLI and the psychological attitudes of extraversion, introversion, judging, or perception.

4. There is a relationship between the factor scores on the ADLI and the psychological attitudes of extraversion, introversion, judging, or perception.

5. There is a relationship between the personality type or extent of learning behavior during transitions and each of the following:

a. Different age groups.

b. Males and females.

c. Different income brackets.

d. Different educational levels.

e. Different types of learners (high, average, low).

Hypothesis Number One. The correlational analysis revealed significant relationships between the Learning Activities and Life Events subsections of the ADLI and the Intuition function ($p \leq .05$). The only other significant

finding was an inverse relationship between the function of Feeling and the Adulthood Task Learning subsection ($p \leq .05$).

Hypothesis Number Two. Significant relationships were found between the functions and 13 of the 14 Adulthood Task Factors ($p \leq .05$) (Table 34).

Hypothesis Number Three. The only significant finding between the ADLI subtests and the MBTI attitudes was an inverse relationship between Learning Activities and Introversion ($p < .05$).

Hypothesis Number Four. No significant relationships were found between Extraversion and the factors. Introversion was related to only one of the factors, Constraints. ($p \leq .05$). Citizenship was the only factor having a significant relationship with the attitudes of Judging and Perception.

Hypothesis Number Five. Age, work area, income, and educational level all had significant relationships with the Learning Activities subsection of the ADLI ($p \leq .0001$). No significant relationships were found between selected demographic variables and the Adulthood Tasks Learning section, although significant relationships were found between several of the Adulthood Tasks factors and the selected demographics.

None of the demographic variables were related to the EI preference, while only educational level was related to the SN preference ($p \leq .05$). There was a highly significant

relationship between sex and the TF function ($p \leq .0001$). Ecucational level was the only variable significantly related to the JP preference ($p \leq .05$). No significant relationships were found between personality and learning activities when partitioned by type (high, average, low).

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CHAPTER V

SUMMARY, DISCUSSION, RECOMMENDATIONS AND CONCLUSIONS

The major purposes of this study were to construct and validate an instrument that would determine the extent of learning during the life transitions of adults and to identify prevalent personality types among this adult learning population. The results revealed that, as suggested by Pearlin, adults actively seek ways to "reshape the forces in a way that reduces the threat" to their lives and "to establish devices that enable them to live with the stress rather than be overwhelmed by it" (22,p.68). An apparent vehicle for this regrouping of forces was involvement in a variety of learning activities, as well as learning as a result of the transition or life task itself. The present study also provided further support for the notion that no single phase of adulthood has a monopoly on change (12). In addition, the results demonstrated the advantage of considering adult learning activities from a more developmental perspective than afforded by an examination of present learning activities alone. Perhaps because of the overwhelming involvement of most adults in both samples in some sort of learning activity, only limited relationships

were found between personality type and extent of learning activities. Consistent with the findings of Tough and Armstrong, it no longer is a question of who participates in adult learning; change and life events compel adults to adapt and learn (3,25).

Interpretation of Results and Implications

The findings of this study support the unique characteristics and adaptation patterns of the adult population. Before engaging in a discussion of the results, a general characteristic of the data and the adults in both samples needs to be reiterated: overwhelmingly adults are engaged in some type of learning activity, regardless of their life situations. In addition, the majority of the sample in both of the latter stages of this study reported that they were in some sort of change or transition status. Each of the major analyses will be discussed separately.

The participants in both Stage II and III reported engaging in learning activities for work related reasons (56 to 61 percent) or for personal growth (21 to 36 percent). The other categories of motivation received only minimal frequencies. The results obtained here are similar to those reported by both Cross and Aslanian and Brickell (5,4). The latter study also found that 83 percent of adult learners were involved in some life transition status. In the present study 80 to 90 percent of the participants reported some change or transition at the present time in their

lives, with only 3.7 percent stating that this change was small or unimportant. A significant positive relationship was found between transition status and age. As adults age, they perceive or experience these transitions as both substantial and of central importance in their lives. No relationships were found between income level or sex and motivation for learning or transition status. This is contrary to the findings of Aslanian and Brickell who reported both sex and income differences (4). As educational level rises, the results suggest that adults learn more often for career reasons; as they age, however, adults appear to learn more for personal growth than for career reasons. One somewhat surprising finding within this section of the ADLI was that 19 percent of the sample reported that they were not involved in any learning at the time. Given the rather consistent finding of between 98 and 100 percent of the participants involved in some type learning activity, this result might be best attributed to the individuals' perception or definition of learning. The Learning Activities section defines learning in broad terms, whereas often an adult's perception of learning may connote a school or involvement with other educational institutions.

Lowenthal and others (13) have suggested that the number of life events experienced by adults declines across the life span. The results for the Life Events section provides support for this idea, however only four percent of

the variance associated with this subsection could be attributed to age. The life events selected by the participants most frequently seemingly fall into two categories: relationships, which include such items as the death categories, hospitalization of family members, separation from a close friend, arguments with spouse, and divorce; and alteration of career circumstance, such as a change in work or school, taking on a large loan, or a move to another town or city. The Life Events section was significantly correlated with both the Achievement factor and the Redefinition of Family factor of the Adulthood Tasks subsection. These factors contain items similar in meaning to those selected most frequently in this ADLI subsection. Lowenthal reported that death was a source of stress for the young as frequently as the old. In the present study all death categories contained higher frequencies in Stage III when the mean age also increased (39.5 to 49.5 years).

The dominant conclusion of the Vaillant Grant Study was that sustained loving relationships with people account for the successful passage through the life cycle, not the isolated, traumatic events (26). The two items in the Coping Strategies subsection selected most frequently by both samples (40 to 60 percent) were seeking emotional support from others and talking to others about the event. These results would seem consistent with the Vaillant findings in that these were the strategies that adults

perceive as most helpful when confronted with some trauma or stress producing event. Support for the idea that learning is often used as a coping strategy is the finding that it was the third most often chosen coping strategy: spending more time reading, observing, and learning. Selection of this item as a coping strategy is consistent with one of the major assumptions of this study, that adults perceive learning as a vehicle for change.

Weathersby has suggested that learning is a way of keeping options open as adults move through the life cycle (29). The results of both the Learning Activities and Task Learning subsections would certainly support this contention. Percentages of the samples involved in at least two learning activities in the previous twelve months ranged from 98 to 100 percent, with the self-directed learning categories being the largest: read or observed to gain knowledge or skill and learned something completely on my own through reading or observing (80 to 100 percent). The other items that were most often selected concerned job or career type learning (60 to 80 percent) consistent with the earlier reported finding that adults are most often motivated to participate in learning activities for career reasons. Anderson and Darkenwald concluded that only 10 percent of the variance for participation in learning activities by adults could be accounted for by demographic variables (1). In the present study 22 percent of

the variance associated with the Learning Activities section was accounted for by the demographic variables of age, sex, educational level, and income ($p \leq .0001$). This difference with the aforementioned study is a meaningful one, assuming that this result is not based on some unrealized limitation of the present study.

Significant positive relationships were found between extent of learning activity and the Achievement and Self-awareness factors of the Adulthood Task section. The Achievement factor contains variables that reflect career-/work goals or on learning as it relates to some goal-oriented behavior. The Self-awareness factor consists of items that relate to internal conflicts or discontinuities, new meanings and their related responses, some internal response to change and adjustment. That significant relationships were found between extent of learning and these two factors would be consistent with the notion that learning is used not only as a way of keeping options open, but also as a means of dealing with stress and change. As the number of learning activities increase, an inverse relationship was obtained between learning and the Attachment Factor. This factor includes variables that deal with a concern beyond self, the teaching/sharing nature of man (7); rather than obtaining knowledge or skill, the sharing of knowledge or skill with another is indicative of this relationship. The only other factor in which a significant

relationship with extent of learning was obtained was with the Citizenship factor; however this factor contains only one item.

All items that accounted for the largest percentage of learning as a result of the adulthood task (71 to 86 percent of the two samples) were variables which loaded highest on the Achievement factor of the Adulthood Task subsection. In addition, in Stage III, there was a large percentage of the sample who reported learning as a result of the tasks that comprised the Health factor, which is concerned with preoccupations with personal health or adjustment to physiological changes. This factor was significantly related to age; the mean age of the sample increased 10 years in Stage III. The experts in Analysis A also ranked the items within this factor significantly higher (mean age of th experts = 48, similar to that of the sample in Stage III). Aging, it seems, not only forces preoccupation with health, but requires some attendant learning. However, none of the demographic variables were related to the Adulthood Task Learning total scores. Significant relationships were obtained between the total scores and the scores of both the Learning Activities and Life Events subsections. No significant relationship, however, was found between the Life Events section and the Learning Activities section, which measures the extent of learning in the last 12 months. Havighurst distinguished between tasks that require

learning, an "instrumental type" learning, such as career development and adjusting to bodily changes and other tasks (9). He suggested that tasks such as choosing a marriage partner or social group may not require learning for successful adaption. The results of the Task Learning section would suggest that adults perceive the need for learning as a result of a particular adulthood task in much the same manner, that there are those tasks which require an "instrumental type" learning and others that do not.

The rankings of the Adulthood Tasks identified by 10 year age cohort groups are consistent with the tasks identified in the theoretical literature in developmental psychology as important for successful passage through the life cycle for each of these age groups (Table 13). For example, the young adults, ages 25-34, included the tasks of 1) starting a family, 2) advancing in my career, 3) learning to live with a marriage partner, and 4) further developing my specialized skills and knowledge. Middle age, as suggested by Gasset and others, brings special responsibilities (8). Those items ranked highest by the age group 35-44 included: 1) accepting care of aging parents; 2) assisting teenage children to become responsible, happy adults; 3) contributing to community affairs; and 4) changing goals in order that they reflect my life. When respondents over 65 were asked about the importance of the task, the highest ranked items included: 1) adjusting to physical limitations,

2) using my leisure meaningfully, 3) adjusting to health problems, 4) becoming reconciled to death, 5) sharing my knowledge with others, 6) preparing for retirement, and 7) adjusting to death of spouse. "With the possible exception of adolescence, there is no other period in the life span which calls for more adjustments than old age" (,p.137).

In the Merriam and Mullins study of Havighurst's developmental tasks in adulthood which asked age groups to rank tasks that were categorized as age/stage defined items, no significant relationships were found between age and the tasks (16). In the Kruskal-Wallis analysis of variance in the present study, 25 of the 50 items were significantly related to age. The fact that in the present study no arbitrary age or stage categories were implied by the placement of the items and that respondents were asked to indicate how important the task was "at this time in your life" may account for the inconsistency of the two studies. Those items not found significantly related to age in this analysis, however, were often ranked highest by those age groups that the literature suggests would be important or critical for successful passage through the stage. Theorists in developmental psychology can be positioned into three basic categories: 1) life span theorists such as Holmes and Rahe or Dohrenwald who are opposed to life stages and prefer to look at the impact of life events and their mediating variables; 2) transition theorists such as

Lowenthal and Chiriboga who are concerned with stages in the life cycle, not age, and study balance of resources to deficits and its effect on stress; and 3) age theorists such as Levinson and Havighurst who see life as an "invariant sequence" of age related events and study the life structure of adults (23). The results of the present study would suggest a merging of these theories in that only certain tasks are age or stage related and that others are best conceived strictly in terms of life events.

The Varimax rotation of the Learning Activities section of the ADLI failed to converge. The single factor solution suggests that various learning activities cannot be partitioned into multiple source variables and that learning is conceived as a global concept.

The fourteen factors that provide support for the factor analytic validity of the Adulthood Tasks section are: Achievement, Adaptation, Self-awareness, Health, Family, Redefinition of Family, Parenting, Attachment, Philosophy, Retirement, Sociability, Constraints, and Career Development. These factors were found to be essentially independent of linear correlation. One of the major reasons that factor analysis is such a powerful technique is that it is relatively free of the respondent's own categorizations (20). Thus, a conclusion of the study is that the Adulthood Tasks section of the ADLI provides a valid measure of the

selected tasks as a general construct.

Achievement, the factor which consists of items reflecting career or work goals and on learning as it relates to goal-oriented behavior, as would be expected was significantly related to educational level. Apparently, as age increases, adults are decreasingly concerned with career and goal-oriented behavior; a highly significant negative correlation of -.57 was obtained between age and the Achievement factor.

Rather than all the variables which dealt with family clustering under one factor, three separate factors emerged. The Family factor includes those items which concern the normal timing of events within marriage and family. Redefinition of Family consists of primarily negative familial relationships, those events that require some change or adjustment on the part of the individual, a realignment of previous familial relationships. The third family factor is Parenting which includes those items concerning children, both in terms of relationships and adjustments. There was a sex difference in the Redefinition of Family factor, with women reporting these variables as more important than men. There was also a negative relationship between educational level and the parenting factor, which suggests that as educational level increases, respondents rank items dealing with parenting as less important.

Three of the factors deal with responses to life problems and situations, a reaction to changing circumstances. Self-awareness concerns change in terms of internal conflicts or discontinuities and the required responses for adjustment. Implicit in this grouping of items is the connotation of a shifting of themes. Whereas the Self-awareness factor deals with an internal response to change and adjustment, the Adaptation factor is concerned with adjustment to external life events and the accompanying feelings of introspection, responding to life experiences through the processing of information and restructuring of that experience. The Constraint factor is similar to Adaptation in that it concerns adjustment to external life events, however implicit within this grouping of variables is some kind of time pressures or relationship stress. There were sex differences for both the Self-awareness and the Constraints factors with women ranking these tasks higher than men.

Erikson's stage of generativity finds adults possessing an increased introspective nature, a heightened sense of understanding, a changing time perspective, and a sense of expertise (7). Evidence of each of these characteristics are found in the items which comprise the Attachment and Philosophy factors. The Attachment factor deals with a connection to society, a concern beyond self. Erikson's virtue of care, which develops during the generativity phase

of life, concerns the teaching, sharing, transforming nature of man. This virtue would seem implicit within this factor. The Philosophy factor deals with not only a concern beyond self, but also in terms of Erikson's generativity, feelings of inner harmony and introspection. As age increased, participants ranked items within these two factors as more important. This finding, coupled with the Kruskal-Wallis analysis, would provide further evidence for the age-relatedness of these variables.

Neugarten has reported that as adults age, there is an increased sense of physical vulnerability, and that adults engage in a form of "body monitoring" (19). Consistent with this idea, a highly significant correlation was found between age and the factor termed Health, which includes items on preoccupations with personal health and adjustment to physiological changes. As educational level increases, the items within this factor are ranked somewhat lower, i.e. better educated adults are less concerned with these health issues.

The Merriam and Mullins study of Havighurst's developmental tasks reported that the tasks have the greatest application to women and middle income adults (16). Lowenthal has suggested that the lower socio-economic groups do not experience the life stages in the same manner as other economic groups (13). As she stated, it is difficult to grow old" in our time" unless "... they belong to a more

privileged class where lifestyle options remain open" (p. 240). Six of the 14 factors in the present study contained sex differences with women ranking the tasks within these factors as more important: Self-awareness, Health, Redefinition of Family, Sociability, Citizenship, and Constraints. Ten of the fourteen factors were significantly related to income. However, unlike the two previously reported studies, as income level increased, the respondents ranked the tasks as less important. Given the rather consistent finding of the relationship between income and developmental tasks reported by Lowenthal and Merriam/-Mullins, the results in the present study might best be attributed to the select nature of the sample studied. It will be important to include samples of lower income adults in future validation of the ADLI.

Before leaving the discussion of the ADLI as an instrument, it is interesting to note some typical comments made by the respondents. Throughout these comments, there is a sense of growth and development during the life cycle, a continual reexamination in terms of both feelings and external events, regardless of life circumstances.

> SS # 34, a 39 year old female: Reading books, counseling and other independent learning efforts are methods by which I answer questions concerning my life, my job, and problems which arise. These efforts are often short term to meet the needs of the moment. I have become ... less active in conventional social/educational structured organizations following (a) major transition.

These comments reinforce the importance of removing the agency restrictions when defining adult learning. The same perception of adult learning is also apparent in the comments of a 39 year old female, who had been involved in 16 learning activities in the previous twelve months, most of which were outside an agency type structure.

> SS # 45: Life is learning, I think. I examine all my experiences for potential learning.

Comments were also expressed which were indicative of the individual's life stage.

> SS # 10, a 49 year old female: I have done a lot of soul searching these past few years. My children are all grown and out on their own .... Now I find myself employed and enjoy this time of life with my husband. Everything unto its time.
>
> SS # 142, a 26 year old male: My main concerns at this point in my life are my upcoming marriage, my job, and my relationships with other family members. Any other concerns, such as community needs, are never even considered. Learning more about, and excelling in my main concerns, is a 24-hour a day task.
>
> SS # 62, a 61 year old male: My youngest child is 29 - our family is close-knit and caring .... Many of the (tasks) mentioned above came up in our lives 10 years ago. We are now looking forward to retiring and enjoying the remainder of our lives.

The idea that human beings are continually goal seeking, regardless of life circumstance, was perhaps best expressed by a 74 year old widow. Involved in some sort of violent act, as well as having been hospitalized within the past six months, this woman was involved in learning activities at the hospital, in her community center with a hobby-related activity and in self-directed learning activities.

SS # 3: At 74, widowed 10 years, I'm content, happy and keep on truckin' - thank you.

What a wonderful attitude and life perception was expressed by this woman. Life's stresses certainly did not prevent her from moving on with her life in a positive manner. "But if one copes effectively, as people typically appear to do, then life strains may even have a positive contribution to one's development through the adult portion of the life span" (21, p. 188).

Although significant correlations between the ADLI and the personality variables of the MBTI were low, the findings demonstrated that some of the functions described by Jung can be used to differentiate among adult learners. Specifically adults with the dominant function of Intuition can be categorized as high activity learners. This finding supports the studies of McCaulley who reports that Intuitives have a gift for reading and enjoy educational activities (14, 15) and Myers who states that Intuitives "face life expectantly, craving inspiration" (17 p. 63). They constantly explore opportunities and possibilities and possess a future orientation, rather than pay "attention to the art of living in the present" (p. 63).

This profile of the Intuitive as learner matches those psychodemographic profiles of the learner suggested by both Armstrong (3) and Shipp/McKenzie (24). Armstrong's study described the learner as open to new experience and having a higher self-regard. Shipp and McKenzie stated that the

learner, in contrast to the non-learner, possessed a future time orientation, a sense of personal freedom, and abstract thought patterns. A significant relationship was also obtained between the Intuition function and the Life Events section of the ADLI. In addition, then, to the learning orientation of the Intuitive, because of the greater number of life events affecting these individuals, they may choose learning activities as a means of coping with the event and its associated stress.

Intuitives, however, "(p)refer the joy of enterprise and achievement and pay little or no attention to the art of living in the present" (17, p. 63). This characteristic would explain the finding in the present study of a positive relationship with the Achievement factor of the Adulthood Tasks section of the ADLI, which concerns career/goal-oriented behavior and goal-oriented learning; while inverse relationships were found between Intuition and the factors of Health, Family, Parenting, Attachment, and Constraints. All of these factors require an awareness of the external environment, a characteristic of the Sensing types, that function opposite of Intuition. As suggested by the dichotomous nature of these functions, not only were significant positive correlations obtained between Sensing and the factors of Health, Family, Parenting, Attachment and Constraints, a negative relationship was found between the Sensing function and the Achievement function. Sensing

types "(p)refer the art of living in the present to satisfactions of enterprise and achievement" (p. 63).

As in previous studies using the MBTI, the Feeling types were more often women than men. The theoretical contentions of Jung (10) and the studies of both Myers (18) and Von Franz (27) suggest that Feeling types are the most adept at adapting to other people's feelings and values. This attribute is validated in the present study by a significant relationship between Feeling and the factors of Adaptation, Self-awareness, Redefinition of Family, Sociability and Constraints with Feeling types ranking the tasks within these factors as more important than did the other types. Because the Feeling function includes those persons who are not only more aware of others feelings and values, but area also "stronger in the social arts", it would follow that they would consider more important those tasks that require these attributes.

The Thinking types prefer impersonal objective analysis and are often uncomfortable when dealing with the feelings of others (15, 18). They are more often "(s)tronger in executive ability than in the social arts (17, p. 68). Indicative of these characteristics was the finding of negative relationships with the factors of Redefinition of Family, Constraints, and Sociability.

An inverse relationship was obtained between the extent of learning activities and the Introversion attitude.

Negative correlations were also obtained between Introversion and the Constraints factor, which concerns adjustment to external life events that have some type of relationship or time stress. These negative relationships can best be explained by the theory that introverts are more reserved and "more at home in the world of ideas than in the world of people and things" (17, p.56). According to Jung, introverts prefer safe and predictable environments (10).

Limitations of the Study

This was an exploratory study that focused first upon the construction and validation of an instrument to measure adult learning during transition and secondly on the relationship between personality and learning during transition. The design was cross-sectional and only limited longitudinal information is included for the instrument, the Adult Development Learning Inventory.

Since the samples consist of volunteers, it is possible that persons with low motivation for learning declined to participate more often than persons with high motivation. Although the samples are quite comprehensive in terms of demographic characteristics, most of the respondents live in one geographic area and report at least some college experience. In addition, lower income adults are under represented in the sample, with the majority of respondents falling into the middle income categories. The sample also suffers from the special characteristics of adult education

research: it focuses on the adult period of life which is complicated by its relative length and its attendant variables (11).

Because this study was largely correlational in nature, no causal inferences should be drawn from these results. Finally, this study contains those artifacts that can generally be associated with self-report data: subjects may misreport or distort their feelings, behavior, and experiences.

Recommendations for Further Research

The results of the analyses reported here suggest that the ADLI may be a useful research tool. Support for the usefulness of the scale is provided by the findings showing that adult learning can be measured using a paper and pencil device, giving information about current learning efforts as well as a developmental perspective on the use of learning during life cycle transitions. In addition the measure is capable of differentiating among different age groups. Construct validity of Adulthood Tasks section seems well established by both the factor analysis and the Kruskal-Wallis analyses with age as the variable of discrimination. In addition high correlations were obtained between the factors and Task Learning in Stage III.

In considering the assessment of the relationship between personality and its effect on individual learning, it would seem necessary to take into account the role of

other variables in addition to personality. For example, Dohrenwald and Dohrenwald have suggested that the effects of stress during the life cycle differ from one individual to another dependent upon an individual's characteristics (6). While some persons may be affected by even moderate levels of stress, others are very little affected by even high levels. If this is the case, then it may be reasonable to expect correlations of low magnitude, as obtained by this study, between personality and learning activities. Perhaps moderator variables, such as the social support systems suggested by Valliant and others, also affected these results. Considering the assessment of these relationships and its affect on individual learning, it would seem necessary to take into account the role of other moderator variables in addition to personality in future studies, not only in future validation of the ADLI, but also in motivation for adult learning. The ADLI, which possesses sufficient reliability and correlations with a variety of relevant dependent variables, could be used in studies to facilitate the identification of moderator variables and their effect.

Four audiences might find use for the Adult Development Learning Inventory. First adult educators might use the information to understand and improve the training and counseling of their students. Second, adult learners themselves might use the information in making life plans.

Third, researchers might use the information and the theory for generating more productive research hypotheses and for interpreting research findings in adult learning. Finally, educators, psychologists, and researchers might find the inventory valuable as a validation tool for adult learning theories.

In summary, this study contributes a research tool with demonstrated validity and reliability. Content validity of the ADLI was established by both the panel of experts and the theory based in adult learning and developmental psychology. Factor analysis served as the tool for the establishment of the construct validity of Adulthood Tasks section of the ADLI. Validity was further reinforced by both the Kruskal-Wallis analysis and the highly significant correlations between Adulthood Task Learning and the 14 factors in Stage III ($p \leq .0001$). For internal consistency reliability estimates for the ADLI ranged from .83 to .94. Future research on the ADLI should include further construct validation and instrument standardization, with modifications based on the results of future studies and on the limitations of the present study. Further studies need to be conducted on the reliability, discriminant validity of other moderator variables, and predictive possibilities of the inventory.

Conclusions

This exploratory study sought to identify those elements that are intertwined with and give direction to adult's lives. It is no longer a question of whether an individual participates in learning activities, but differences in the nature of who participates and the extent of that participation. Learning activities seem to arise as a function of the interaction between the adult and the life situation. The individual must modify the life situation in order to achieve a new state of equilibrium. Learning often facilities the achievement of this transition.

This study also sought to identify prevalent personality types among the adult learning population and to compare types with preferences. While further research needs to be done, the findings suggest only limited relationships between personality and the extent of learning activities. These results can perhaps be attributed to the fact that overwhelmingly adults are involved in some type learning not in spite of their life circumstances but because of it.

As in systems theory, when life events and transitions occur, they affect the "total life system" (28). Life events and transitions, then, serve as the major learning lessons and as facilitators of change in the adult life cycle, and as such contribute to the continuing growth and development of the individual. According to Warnat, the very "essence of learning" may be based on a personal

response to life events (28). The experience gained in conducting this investigation gives a positive feeling about an adult's ability to cope effectively with life strains. Adults continue to grow and develop not so much in spite of these inevitable events and transitions, but because of them and their accompanying stresses.

The practical application is perhaps the realization of the complexity of the adult personality and the case for adult educators to become very familiar with adult development. The enhancement of lifelong learning for all individuals is a goal toward making us all more productive and growth oriented. Value shifts, technology, demographic characteristics, and the demands on the individual force a new view of adulthood and of the learning that will be required for coping with change and its impact. Perhaps, through adult developmental psychology and its influence on adult education, Jung's dream of a "college" that eases the transition from one stage of life to the next is a possibility.

> Among the billions of things that move, only man moves to carry out his will. Solar systems and galaxies travel in interminable space for eons of time without knowing that they exist and without willing their movements .... If we accept the endlessness of the night as well as our possibilities we shall not stop lighting candles, we shall not desist from learning, we shall not accept inequality, injustice, or whatever infringes upon our freedom and individuality. When the invisible speck, tossed by the waves of time and the result of incalculable combinations, become endowed with spontaneous movements that culminate in the will of man, the possibility was open for breaking the chains, for spreading our wings (2, p. 254).

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APPENDIX A

TABLE I

Stage II - Sample Demographics

(N = 161)

Age

Minimum	Maximum	Mean	Standard Deviation
20	82	39.58	12.8

Age in 10-year intervals

Under 25	n = 9
25 - 34	n = 58
35 - 44	n = 49
45 - 54	n = 25
55 - 64	n = 6
65 + ...	n = 13

Sex

	Percent of sample (%)
Male	45.3
Female	54.7

Marital Status

	Percent of sample (%)
Never married	16.1
Married	57.1
Divorced	18.6
Separated	2.5
Widowed	3.7
Engaged	1.9

Level of Education

	Percent of sample (%)
Less than high school	.6
High school/GED	9.9
Some college	22.4
Associate Degree	16.8
Bachelors Degree	26.7
Masters Degree	16.8
Doctors Degree	5.6
Other	1.2

Primary Work Area

	Percent of sample (%)
Health/Personal Services	13.0
Law/Public Services	5.6
Education/Research	13.7
Art/athletics	..
Business	40.9
Mechanical	3.1
Agriculture	..
Homemaker/Student/Retired/Volunteer	4.3
Clerical	7.5
Other	11.2

Primary Work Level

	Percent of sample (%)
Executive	20.5
Supervisor	26.1
Worker	34.8
Independent	16.8

Income

	Percent of sample (%)
under $10,000	7.5
$10,000 - 19,000	19.9
$20,000 - $30,000	34.2
$31,000 - 45,000	18.6
$46,000 - 65,000	10.6
$65,000 +	6.8

Parent

	Percent of sample (%)
Yes	57.1
No	42.9

Years Employed

	Percent of sample (%)
less than 3	6.2
3 - 5	8.1
6 - 9	17.5
10 - 15	28.0
16 - 20	15.5
Over 20	24.1

APPENDIX A

TABLE II

Stage III - Sample Demographics

(N = 38)

Age

Minimum	Maximum	Mean	Standard Deviation
35	75	49.53	11.65

Age in 10-year intervals

35 - 44 . . . . n = 13

45 - 54 . . . . n = 15

55 - 64 . . . . n = 3

65 + ... n = 7

Sex

	Percent of sample (%)
Male	39.5
Female	60.5

Marital Status

	Percent of sample (%)
Never married	2.6
Married	76.3
Divorced	15.8
Separated	..
Widowed	5.3
Engaged	..

Level of Education

	Percent of sample (%)
Less than high school	..
High school/GED	13.2
Some college	28.9
Associate Degree	2.6
Bachelors Degree	42.1
Masters Degree	7.9
Doctors Degree	5.3
Other	..

Primary Work Area

	Percent of sample (%)
Health/Personal Services	15.8
Law/Public Services	2.6
Education/Research	15.8
Art/athletics	..
Business	42.1
Mechanical	..
Agriculture	..
Homemaker/Student/Retired/Volunteer	15.8
Clerical	5.3
Other	2.6

Primary Work Level

	Percent of sample (%)
Executive	31.6
Supervisor	23.7
Worker	18.4
Independent	21.1

Income

	Percent of sample (%)
under $10,000	16.1
$10,000 - 19,000	9.7
$20,000 - $30,000	12.9
$31,000 - 45,000	19.4
$46,000 - 65,000	22.6
$65,000 +	19.4

Parent

	Percent of sample (%)
Yes	78.9
No	21.1

Years Employed

	Percent of sample (%)
less than 3	..
3 - 5	5.4
6 - 9	5.4
10 - 15	21.6
16 - 20	21.6
Over 20	45.9

APPENDIX B

Expert's Cover Letter and Questionnaire

Thank you for your time and assistance with my doctoral dissertation. Motivated by the recent research into the relationship between adult life stages and adult learning activities, I am attempting to develop an instrument that will measure an adult's use of learning during life transitions. Research in adult education has most often been conducted using the interview as the primary research technique. Two of the major assumptions of this study are that the learning which occurs during transitions could be identified and that a paper and pencil device could be constructed to achieve the same or nearly the same results that have been realized through interviews with adult learners.

Based upon a review of the literature, I have identified a number of variables that are associated with the constructs, adult learning and developmental tasks in adulthood. The attached form attempts to identify some of these variables and contains statements that constitute the initial pool of items for the Adult Developmental Learning Inventory. You are one of a group of raters chosen for your expertise in either the field of adult psychology or adult learning. Your anonymous responses are essential in achieving the objectives of this study.

I know that you have much to do and that other surveys put demands on your time, but the importance of this study will justify the time you give it. It should take approximately 20 minutes of your time. I hope that you will find it interesting to answer and that you will complete and return your responses to me within ten days.

With my thanks for your cooperation.

Sincerely,

Jackie R. Watson
Ph.D. Candidate,
Adult/Continuing Education
North Texas State University

Adult Developmental Learning Inventory
Initial Pool of Items

Instructions: Please rate each of the following items in terms of your degree of agreement/disagreement with the item's relevance to either the variable, adult learning or developmental tasks in adulthood, using the 5-point scale to the left of each item. Any additional comments or suggestions you have about the inventory or the study in general would be greatly appreciated. In particular, if you feel something important about adult learning or developmental tasks has been left out, please let me know. The demographic and professional information requested will be used for rater description and interpretation of potential inter-rater differences. Thank you again for your time and assistance with this project.

Use the following code:

1. Strongly disagree
2. Disagree with reservations
3. Undecided or neutral
4. Agree with reservations
5. Strongly agree

Adult Learning

SD	D	N	A	SA		
1	2	3	4	5	1.	Attended a meeting of a group or organization to learn or discuss things.
1	2	3	4	5	2.	Went to a conference, institute, or workshop.
1	2	3	4	5	3.	Took a correspondence or home study course.
1	2	3	4	5	4.	Took a course at a university, college, community college, or high school for credit.
1	2	3	4	5	5.	Took a course at a university, college, community college, or high school for no credit.
1	2	3	4	5	6.	Learned something from doctor, dentist, lawyer, counselor, tax advisor, or specialist/expert.

Adult Learning Cont.

SD	D	N	A	SA		
1	2	3	4	5	7.	Read an academic, technical or professional magazine.
1	2	3	4	5	8.	Attended a public lecture.
1	2	3	4	5	9.	Took a guided tour.
1	2	3	4	5	10.	Attended a labor union short course or meeting.
1	2	3	4	5	11.	Took a course or attended a lecture through a community organization or government program.
1	2	3	4	5	12.	Involved in a learning activity through a museum or art gallery.
1	2	3	4	5	13.	Involved in a learning activity through a club, YMCA or professional organization.
1	2	3	4	5	14.	Involved in independent study.
1	2	3	4	5	15.	Learned something completely on my own through reading, observing, or other channels.
1	2	3	4	5	16.	Took private or individual instruction such as music lessons or lessons from a golf or tennis professional.
1	2	3	4	5	17.	Involved with apprenticeship or vocational school course.
1	2	3	4	5	18.	Reading, observing, or listening with the main purpose to gain knowledge or skill.
1	2	3	4	5	19.	Participated in self-development groups/classes.
1	2	3	4	5	20.	Involved with programmed textbook or computer-aided instruction.
1	2	3	4	5	21.	Attended a class or training session through a hospital or other health organization.

Adult Learning Cont.

SD	D	N	A	SA		
1	2	3	4	5	22.	Participated in some form of human relations training such as stress management or creative problem solving.
1	2	3	4	5	23.	Participated in social skills training such as assertiveness training or communication skills.
1	2	3	4	5	24.	Participated in civic education or volunteer training.
1	2	3	4	5	25.	Participated in some type of personal development training to include: a. consumer education/ homemaking skills b. time/leisure use c. career preparation d. money management e. nutrition/health f. values clarification g. pre-retirement workshops
1	2	3	4	5	26.	Participated in a workshop class or study group or other learning activity dealing with family relationships such as a. marriage counseling/workshops b. parenting education c. divorce or singles workshops
1	2	3	4	5	27.	Participated in workshops/classes or other learning activity related to occupational information, career exploration, mid-career change, values clarification, job updating.
1	2	3	4	5	28.	Participated in a class/course or other learning activity related to a hobby or craft.
1	2	3	4	5	29.	Followed a class/course on TV, radio or cassette tape.
1	2	3	4	5	30.	Took a class or workshop at work or because of something related to my job.

Adult Learning Cont.

SD	D	N	A	SA		
1	2	3	4	5	31.	Participated in a class, study group, or course at a church.
1	2	3	4	5	32.	Participated in a class, study group, or course through the library.

Developmental Tasks in Adulthood

SD	D	N	A	SA		
1	2	3	4	5	1.	Learning new skills and ideas.
1	2	3	4	5	2.	Finding a congenial social group.
1	2	3	4	5	3.	Starting a family.
1	2	3	4	5	4.	Learning to live with a marriage partner.
1	2	3	4	5	5.	Moving to a new job; adapting to a changing job.
1	2	3	4	5	6.	Advancing in my career.
1	2	3	4	5	7.	Managing shifts in family income or expenses.
1	2	3	4	5	8.	Becoming more in touch with my feelings and values.
1	2	3	4	5	9.	Further developing my specialized knowledge and skills.
1	2	3	4	5	10	Changing goals in order that they might reflect my life and what I want out of it.
1	2	3	4	5	11.	Developing a variety of interests.
1	2	3	4	5	12.	Having more time to myself.
1	2	3	4	5	13.	Being successful in my career.
1	2	3	4	5	14.	Contributing to society.
1	2	3	4	5	15.	Having a good family life.

Developmental Tasks in Adulthood Cont.

SD	D	N	A	SA		
1	2	3	4	5	16.	Using my leisure meaningfully.
1	2	3	4	5	17.	Sharing my knowledge; being helpful to younger friends and associates.
1	2	3	4	5	18.	Accomplishing a few important things in the time I have left.
1	2	3	4	5	19.	Maintaining warm relationships.
1	2	3	4	5	20.	Being a parent; raising my children.
1	2	3	4	5	21.	Maintaining a vital relationship with my mate.
1	2	3	4	5	22.	Achieving my financial and material goals.
1	2	3	4	5	23.	Maintaining my physical health and well-being.
1	2	3	4	5	24.	Living in harmony with my religious beliefs and feelings.
1	2	3	4	5	25.	Coping with stress.
1	2	3	4	5	26.	Dealing with change in my life.
1	2	3	4	5	27.	Contributing to community affairs.
1	2	3	4	5	28.	Attaining wisdom; seeing "the big picture".
1	2	3	4	5	29.	Finding an appropriate partner or mate.
1	2	3	4	5	30.	Redefining and reassessing relationships with partner.
1	2	3	4	5	31.	Redefining and reassessing family relationships.
1	2	3	4	5	32.	Adjusting to health problems.
1	2	3	4	5	33.	Accepting physical limitations.

Developmental Tasks in Adulthood Cont.

SD	D	N	A	SA		
1	2	3	4	5	34.	Adjusting to "empty nest"; reworking attitudes, accepting children leaving home.
1	2	3	4	5	35.	Accepting care of aging parents; handling increased demands of older parents; adjusting to role reversal with parent.
1	2	3	4	5	36.	Reexamining work/career choice; revising career plans.
1	2	3	4	5	37.	Choosing and establishing a career.
1	2	3	4	5	38.	Adjusting to single life.
1	2	3	4	5	39.	Preparing for retirement.
1	2	3	4	5	40.	Adjusting to death of parents.
1	2	3	4	5	41.	Adapting to a changing time perspective.
1	2	3	4	5	42.	Managing a home.
1	2	3	4	5	43.	Developing an ethical system.
1	2	3	4	5	44.	Searching for meaning.
1	2	3	4	5	45.	Becoming reconciled to death.
1	2	3	4	5	46.	Expanding vocational interests.
1	2	3	4	5	47.	Establishing an explicit affiliation with one's age group.
1	2	3	4	5	48.	Assisting teenage children to become responsible, happy adults.
1	2	3	4	5	49.	Adjusting to the death of a spouse.
1	2	3	4	5	50.	Adjusting to retirement and reduced income.

Expert Information

1. Highest level of formal education you have completed?
   ___ High school
   ___ Associate degree
   ___ Bachelor's degree
   ___ Master's degree
   ___ Doctor's degree
   (PhD, JD, MD, EdD)
   ___ Other_____

2. ___ Your age.

3. Sex
   ___ Male
   ___ Female

4. Current marital status
   ___ Single
   ___ Married

5. Are you a parent?
   ___ Yes
   ___ No

6. ____ Total years in professional occupation.

7. Current professional work activities:
   Job
   Title_____

   Primary work area
   ___ Therapist/counselor/psychologist/psychiatrist
   ___ Health/personal services
   ___ Education/research/academic
   ___ Business
   ___ Law/public services
   ___ Pastoral counselor/minister
   ___ Other_____

8. Would you like a copy of the results of this study?
   ___ Yes
   ___ No

   If yes, address to be sent_____
   _____
   _____

Additional comments/suggestions_____
_____
_____
_____

APPENDIX C

Table III

Expert's Credentials and Demographics

N = 9

	Ph. D.	D. Min.	MS
Highest Degree	5	2	2

	Minimum	Maximum	Mean	Standard Deviation
Age	35	63	47.67	10.9
Years in Profession	10	39	22.8	10.35

	Male	Female
Sex	5	4

	Yes	No
Marital Status	8	1
Parent	8	1

Primary Occupation Area	Psychologist	Health/ Personal Services	Minister	Professor	Continuing Education
	1	1	2	3	2

APPENDIX D

TABLE IV

Life Events and Equivalent Weights

(Combined Age and Sex Groups)

	Within 0-1 mo.	Within 1-6 mo.	Within 6-12 mo.	Within 1-2 years	Over 2 years
Death of a child or spouse (husband, wife or mate)?	90	81	67	50	32
Death of a child or spouse (husband, wife or mate)? (2nd)	90	81	67	50	32
The death of a parent, brother or sister?	79	70	51	34	22
The death of a parent, brother or sister? (2nd)	79	70	51	34	22
The death of a parent, brother or sister? (3rd)	79	70	51	34	22
Loss of close friend or important relationship by death?	70	53	36	22	12
Loss of a close friend or important relationship by death?(2)	70	53	36	22	12
Legal troubles resulting in being held in jail?	82	65	51	37	27
Financial difficulties?	60	43	26	13	7
Being Fired or laid off?	68	46	27	16	8
A miscarriage or abortion (self or spouse)?	71	53	31	18	11
Divorce, or a breakup with a lover?	76	63	45	29	16
Separation from spouse because of marital problems?	75	61	41	24	14
Court appearance for a serious violation?	70	41	23	13	5
An unwanted pregnancy (self, wife or girlfriend)?	72	57	42	25	15
Hospitalization of a family member for serious illness?	69	46	26	14	8

	Within 0-1 mo	Within 1-6 mo	Within 6-12 mo	Within 1-2 years	Over 2 years
Unemployment more than one month (if regularly employed)?	57	42	20	10	6
Illness/injury kept in bed for week or more, hosp. or emerg room?	65	48	25	12	5
An extra-marital affair?	62	50	37	25	17
The loss of a personally valuable object?	47	26	13	8	5
Involvement in a lawsuit (other than divorce)?	61	41	23	13	7
Failing an important examination?	62	37	19	9	5
Breaking an engagement?	65	47	27	14	7
Arguments with spouse (husband, wife or mate)?	59	40	26	17	11
Taking on a large loan?	42	29	20	14	10
Troubles with boss or other workers?	50	23	9	4	3
Separation from a close friend?	49	36	24	16	10
Taking an important examination?	45	12	5	2	2
Separation from spouse because of job demands?	65	51	38	26	15
A big change in work or in school?	49	30	16	9	5
A move to another town, city, state or country?	46	32	20	10	5
Getting married or returning to spouse after separation?	60	45	34	23	18
Minor violations of the law?	31	15	7	3	2
Moved home within the same town or city?	25	13	7	3	2
The birth or adoption of a child?	52	39	26	18	15
Spouse unfaithful?	68	55	40	27	19
Attacked, raped or involved in violent acts?	72	57	42	25	18

APPENDIX E

ADULT DEVELOPMENT LEARNING INVENTORY

This inventory deals with the events, tasks, and growth that occurs during adulthood. Most responses will only require a check ✓ in the appropriate space. All responses will be kept confidential. Space is provided at the close for any additional thoughts or comments. Thanks for your thoughtful attention and participation.

Participant Information

(1-4)

(5-6) **Your age**

_____ years

(7) **Your sex**

___ 1. Male
___ 2. Female

(8) **Current marital status**

___ 1. Never married
___ 2. Married
___ 3. Divorced
___ 4. Separated
___ 5. Widowed
___ 6. Engaged

(9) **Highest level of formal education**

___ 1. Less than high school
___ 2. High school/GED
___ 3. Some college/technical
___ 4. Associate degree
___ 5. Bachelor's degree
___ 6. Master's degree
___ 7. Doctor's degree
___ 8. Other

(10) **Spouse's level of formal education**

___ 1. Same as mine
___ 2. Higher than mine
___ 3. Less than mine

(11) **Primary work area**

___ 1. Health/personal services
___ 2. Law/public services
___ 3. Education/research
___ 4. Arts/athletics
___ 5. Business
___ 6. Mechanical
___ 7. Agricultural
___ 8. Homemaker/student/retired/volunteer
___ 9. Clerical
___ 0. Other

(12) **Primary work level**

___ 1. Executive
___ 2. Supervision
___ 3. Worker
___ 4. Independent

(13) **Current income per year**

___ 1. Under $10,000
___ 2. $10,000 - $19,000
___ 3. $20,000 - $30,000
___ 4. $31,000 - $45,000
___ 5. $46,000 - $65,000
___ 6. $65,000 +

(14) **Are you a parent?**

___ 1. Yes
___ 2. No

(15) **Total number of years employed since leaving school**

___ 1. Less than 3
___ 2. 3 - 5
___ 3. 6 - 9
___ 4. 10 - 15
___ 5. 16 - 20
___ 6. 20 +

(16) **Years in present position**

___ 1. Less than 1
___ 2. 1 - 4
___ 3. 5 - 9
___ 4. 10 - 14
___ 5. 15 - 19
___ 6. 20 +

(17) **Spouse employment status**

___ 1. Employed full time
___ 2. Employed part-time
___ 3. Not employed

(18) Are you currently enrolled as a student

___ 1. Yes, full-time
___ 2. Yes, part-time
___ 3. No, I am not enrolled

(19) Which of the following statements applies to your current learning efforts (choose one)?

___ 1. I am essentially learning alone.
___ 2. I am working with one or two others.
___ 3. I am enrolled in a course for credit.
___ 4. I am enrolled in a course for no credit.
___ 5. I am learning at work, church, the library or organization.
___ 6. I am not involved in any learning at this time.

(20) If you have been involved in a learning activity in the last twelve (12) months, what was your chief motivation for participation (choose one)?

___ 1. Job related concerns
___ 2. Family/relationships concerns
___ 3. Personal growth
___ 4. Health/physical well-being
___ 5. Religious concerns
___ 6. Community interests
___ 7. Leisure activities
___ 8. None of these/not applicable

(21) Choose one.

___ 1. Not much has changed for me in the last several years and I don't see any reason or circumstance for change.
___ 2. I am making an appraisal of my present life to see if I should make any changes.
___ 3. I am definitely making some changes in my life or work.
___ 4. I have just come through a major transition period in my life or work.

(22) Which response comes closest to describing the size and importance of your change or intended change?

___ 1. A huge or enormous change, or of central importance in my life.
___ 2. A fairly large and important change.
___ 3. A definite change with some relevance and importance in my life.
___ 4. Small, trivial, petty, or unimportant.
___ 5. Not applicable.

LIFE EVENTS

The checklist below consists of events which are sometimes important experiences. Read down the list until you find events that have happened to you personally. Check the box under the column which indicates how long ago the event happened. For deaths mark the additional boxes if more than one occured. For events that continued for a long period, such as pregnancy, check the beginning and ending date and then check the boxes in between. Check all events that apply. If you can't remember the exact dates, just be as accurate as you can.

(23-33)	Within 0 - 1 mo.	Within 1 - 6 mo.	Within 6 - 12 mo.	Within 1 - 2 years	Over 2 years
Death of a child or spouse (husband, wife or mate)?					
Death of a child or spouse (husband, wife or mate)? (2nd)					
The death of a parent, brother or sister?					
The death of a parent, brother or sister? (2nd)					
The death of a parent, brother or sister? (3rd)					
The loss of close friend or important relationship by death?					
The loss of a close friend or important relationship by death? (2nd)					
Legal troubles resulting in being held in jail?					
Financial difficulties?					
Being fired or laid off?					
A miscarriage or abortion (self or spouse)?					

(34-54)	Within 0 - 1 mo.	Within 1 - 6 mo.	Within 6 - 12 mo.	Within 1 - 2 years	Over 2 years
Divorce, or a breakup with a lover?					
Separation from spouse because of marital problems?					
Court appearance for a serious violation?					
An unwanted pregnancy (self, wife or girlfriend)?					
Hospitalization of a family member for serious illness?					
Unemployment more than one month (if regularly employed)?					
Illness/injury kept in bed for week or more, hosp. or emerg. room?					
An extra-marital affair?					
The loss of a personally valuable object?					
Involvement in a lawsuit (other than divorce)?					
Failing an important examination?					
Breaking an engagement?					
Arguments with spouse (husband, wife or mate)?					
Taking on a large loan?					
Troubles with boss or other workers?					
Separation from a close friend?					
Taking an important examination?					
Separation from spouse because of job demands?					
A big change in work or in school?					
A move to another town, city, state or country?					
Getting married or returning to spouse after separation?					
Minor violations of the law?					
Moved home within the same town or city?					
The birth or adoption of a child?					
Spouse unfaithful?					
Attacked, raped or involved in violent acts?					

Below is a list of ways people sometimes cope with life events. Please read and decide how each applies to you (DOES NOT APPLY, DOES APPLY, DOES APPLY AND WAS VERY HELPFUL). Please answer each item by checking one of the boxes.

(60-71)	DOES NOT APPLY	DOES APPLY	DOES APPLY AND WAS VERY HELPFUL
1. I sought increased emotional support from others.			
2. I tried to find new interests.			
3. I looked for a person who could provide direction for me.			
4. I tried to find some other outlets, like sports, cooking or gardening, to relieve some of the feelings I had.			
5. I tried to talk to others about the event.			
6. I sought some form of counseling or therapy.			
7. I tried to find others who had experienced the event to see how they dealt with it.			
8. I tried to devote myself to work.			
9. I spent more time in nature, listening to music, with art or writing.			
10. I sought consulation in philosophy or religion.			
11. I attended self development groups or classes, sought social skills training or academic/vocational counseling.			
12. I spent more time reading, observing, learning.			

LEARNING ACTIVITIES

This section consists of a list of learning activities in which adults engage. When I say "learn," I don't just mean the sorts of things that people learn in schools or colleges. Any deliberate effort that you made to learn something or learn how to do something should be included. Think back over the last twelve (12) months as you read over the list and check all those activities that apply to you. Anything at all can be included, regardless of whether it was easy or hard, big or little, important or otherwise, serious or fun, so long as it involved at least a few hours of your time. Please answer each item by checking one of the boxes.

Dup 2 (1-4) (5-16)	YES	NO
1. Attended a meeting of a group or organization to learn or discuss things.		
2. Went to a conference, institute, or workshop.		
3. Took a correspondence or home study course.		
4. Took a course at a university, college, community college, or high school for credit.		
5. Took a course at a university, college, community college, or high school for no credit.		
6. Learned something from a doctor, dentist, lawyer, tax advisor, or specialist/expert.		
7. Read an academic, technical or professional magazine.		
8. Involved in a learning activity through a museum or art gallery.		
9. Involved in a learning activity through a club, YMCA or professional organization.		
10. Involved in independent study.		
11. Attended a labor union short course or meeting.		
12. Took a course or attended a lecture through a community organization or government program.		

		YES	NO
13.	Read, observed, or listened with the main purpose to gain knowledge or skill. (16-54)		
14.	Participated in self-development groups/classes.		
15.	Involved with programmed text or computer-aided instruction.		
16.	Attended a class or training session through a hospital or other health organization.		
17.	Participated in some form of human relations training such as stress management or creative problem solving.		
18.	Participated in social skills training such as assertiveness training or communication skills.		
19.	Participated in civic education or volunteer training.		
20.	Participated in some type of personal development training to include: a. consumer education/homemaking skills		
	b. time/leisure use		
	c. career preparation		
	d. money management		
	e. nutrition/health		
	f. value clarification		
	g. pre-retirement workshops		
	h. other		
21.	Took private or individual instruction such as music lessons or lessons from a golf or tennis professional.		
22.	Learned something completely on my own through reading, observing, or other channels.		
23.	Participated in a workshop class, study group or other learning activity dealing with family relationships such as: a. marriage counseling/workshops		
	b. parenting education		
	c. divorce or singles workshops		
	d. other		
24.	Participated in workshops/classes or other learning activity related to occupational information, career exploration, mid-career change, values clarification, job updating.		
25.	Participated in a class/course or other learning activity related to a hobby or craft.		
26.	Took a class or seminar at work or because of something related to my job.		
27.	Participated in a class, study group, or course at a church.		
28.	Participated in a class, study group, or course through the library.		
29.	Followed a class/course on TV, radio or cassette tape.		
30.	Attended a public lecture.		
31.	Took a guided tour.		
32.	Involved with apprenticeship or vocational school course.		
33.	Participated in some form of counseling or therapy, either as an individual or in a group.		
34.	Other (please specify)		
35.	Other (please specify)		
36.	Other (please specify)		
37.	Other (please specify)		
38.	Other (please specify)		
39.	Other (please specify)		
40.	Other (please specify)		

ADULTHOOD TASKS

Below is a list of tasks or responsibilities commonly encountered by adults. Some of the tasks are important to some people; others are of little importance. Decide how important the task is for you **at this time in your life** and check the appropriate box (UNIMPORTANT, OF LITTLE IMPORTANCE, MODERATELY IMPORTANT, IMPORTANT, VERY IMPORTANT).

Also for each item below, please indicate if you are/were involved in a learning activity as a result of the task (YES, NO). Remember that learning activities are not just those things people learn in school or in a class. Many adults learn completely on their own. Any effort that you made to learn anything at all should be included when answering this section, so long as it involved **at least a few hours** of your time.

How important is this task at this time in your life?						**Have you been involved in a learning activity as a result of the task?**		
						Dup 3 (1-4) (5-80)	YES	NO
Unimportant	Of little importance	Moderately important	Important	Very important				
					1.	Learning new skills and ideas.		
					2.	Finding a congenial social group.		
					3.	Starting a family.		
					4.	Learning to live with a marriage partner.		
					5.	Moving to a new job; adapting to a changing job.		
					6.	Advancing in my career.		
					7.	Managing shifts in family income or expenses.		
					8.	Becoming more in touch with my feelings and values.		
					9.	Further developing my specialized knowledge and skills.		
					10.	Changing goals in order that they might reflect my life and what I want out of it.		
					11.	Developing a variety of interests.		
					12.	Having more time to myself.		
					13.	Being successful in my career.		
					14.	Contributing to society.		
					15.	Using my leisure meaningfully.		
					16.	Sharing my knowledge; being helpful to younger friends and associates.		
					17.	Accomplishing a few important things in the time I have left.		
					18.	Maintaining warm relationships.		
					19.	Being a parent; raising my children.		
					20.	Maintaining a vital relationship with my mate.		
					21.	Achieving my financial and material goals.		
					22.	Maintaining my physical health and well-being.		
					23.	Living in harmony with my religious beliefs and feelings.		
					24.	Coping with stress.		
					25.	Dealing with change in my life.		
					26.	Attaining wisdom; seeing "the big picture".		
					27.	Finding an appropriate partner or mate.		
					28.	Redefining and reassessing relationships with partner.		

How important is this task at this time in your life?						Have you been involved in a learning activity as a result of the task?		
Unimportant	Of little importance	Moderately important	Important	Very important		Dup 4 (1-4) (5-34)	YES	NO
					29.	Redefining and reassessing family relationships.		
					30.	Adjusting to health problems.		
					31.	Adjusting to physical limitations.		
					32.	Adjusting to "empty nest"; reworking attitudes, accepting children leaving home.		
					33.	Accepting care of aging parents; handling increased demands of older parents; adjusting to role reversal with parents.		
					34.	Reexamining work/career choice; revising career plans.		
					35.	Preparing for retirement.		
					36.	Adjusting to death of parents.		
					37.	Adapting to a changing time perspective.		
					38.	Managing a home.		
					39.	Developing an ethical system.		
					40.	Searching for meaning.		
					41.	Becoming reconciled to death.		
					42	Expanding vocational interests.		
					43.	Choosing and establishing a career.		
					44.	Adjusting to the death of a spouse.		
					45.	Adjusting to retirement and reduced income.		
					46.	Establishing an explicit affiliation with my age group.		
					47.	Assisting teenage children to become responsible, happy adults.		
					48.	Contributing to community affairs.		
					49.	Having a good family life.		
					50.	Adjusting to single life.		

Additional comments, concerns, or thoughts _____

Thank you for your time and attention. I hope it was interesting and thought-provoking to answer.

Sincerely,

Jackie Watson

Cover Letter

Thanks for your time and thoughtful participation in the research for my dissertation. You will be answering two (2) different questionnaires. It should take 1-2 hours to complete both forms. The Adult Development Learning Inventory was designed for this study and may be answered on the form itself. An answer sheet is provided with the Myers-Briggs Type Indicator, a "personality" type test that tells us how we prefer to use our powers of perception and judgment. The instructions for the MBTI tell you to put your name on the answer sheet. Only do this if you wish for me to give you your type information. In this manner you may remain anonymous if you prefer. All answers and analysis will kept confidential.

Try to get the two completed forms back to me in the next week or ten days. Again thanks for agreeing to participate in this study.

Sincerely,

Jackie Watson

APPENDIX F
Figure 3, Part I

Comparison of Preference and Judgement
Myers-Briggs Type Indicator

	ST	SF	NF	NT
People who prefer	SENSING + THINKING	SENSING + FEELING	INTUITION + FEELING	INTUITION + THINKING
focus their attention on	Facts	Facts	Possibilities	Posibilities
and handle these with	Impersonal analysis	Personal warmth	Personal warmth	Impersonal analysis
Thus they tend to be	Practical & matter-of-fact	Sociable & friendly	Enthusiastic & insightful	Intellectually ingenious
and find scope for their abilities in	Production Construction Accounting Business Economics Law Surgery Etc.	Sales Service Customer relations Welfare work Nursing Gen.Practice Etc.	Research Teaching Preaching Counselling Writing Psychology Psychiatry Etc.	Research Science Invention Securities analysis Management Cardiology Etc.
Recognized by				
Thurstone as interested in	Business	People	Language	Science
Gudlach & Gerum as	Technical	Social	Creative	Intellectual
Spranger as	Economic	Social	Religious	Theoretical
Murray as	Practical, skeptical, down-to-earth		Imaginative, subjective, human	

THE THEORY: DOMINANT AND AUXILIARY FUNCTIONS FOR EACH TYPE

According to Jung's theory of psychological types, everyone uses all four *functions* (S, N, T, F), and adopts all four *attitudes* (E, I, J, P). The types are called *preference types* because people in each type *prefer* one of the two *perceptive functions* (S or N), and one of the two *judgment functions* (T or F). These preferences appear in the 2 middle letters of the type formula. Types also differ in the functions they prefer to use when in the introverted or extraverted attitudes.

The most preferred, or favorite, or *dominant function*, is extraverted in E types and introverted in I types. The second favorite or *auxiliary function* is introverted in E types and extraverted in I types. The type table below shows these relationships for each of the 16 MBTI types.

ISTJ INTROVERTED SENSING with Thinking Sensing is dominant and introverted Thinking is auxiliary and extraverted	**ISFJ** INTROVERTED SENSING with Feeling Sensing is dominant and introverted Feeling is auxiliary and extraverted	**INFJ** INTROVERTED INTUITION with Feeling Intuition is dominant and introverted Feeling is auxiliary and extraverted	**INTJ** INTROVERTED INTUITION with Thinking Intuition is dominant and introverted Thinking is auxiliary and extraverted
ISTP INTROVERTED THINKING with Sensing Thinking is dominant and introverted Sensing is auxiliary and extraverted	**ISFP** INTROVERTED FEELING with Sensing Feeling is dominant and introverted Sensing is auxiliary and extraverted	**INFP** INTROVERTED FEELING with Intuition Feeling is dominant and introverted Intuition is auxiliary and extraverted	**INTP** INTROVERTED THINKING with Intuition Thinking is dominant and introverted Intuition is auxiliary and extraverted
ESTP EXTRAVERTED SENSING with Thinking Sensing is dominant and extraverted Thinking is auxiliary and introverted	**ESFP** EXTRAVERTED SENSING with Feeling Sensing is dominant and extraverted Feeling is auxiliary and introverted	**ENFP** EXTRAVERTED INTUITION with Feeling Intuition is dominant and extraverted Feeling is auxiliary and introverted	**ENTP** EXTRAVERTED INTUITION with Thinking Intuition is dominant and extraverted Thinking is auxiliary and introverted
ESTJ EXTRAVERTED THINKING with Sensing Thinking is dominant and extraverted Sensing is auxiliary and introverted	**ESFJ** EXTRAVERTED FEELING with Sensing Feeling is dominant and extraverted Sensing is auxiliary and introverted	**ENFJ** EXTRAVERTED FEELING with Intuition Feeling is dominant and extraverted Intuition is auxiliary and introverted	**ENTJ** EXTRAVERTED THINKING with Intuition Thinking is dominant and extraverted Intuition is auxiliary and introverted

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Figure 3
Understanding the Type Table: Part II

THE 4 COLUMNS: COMBINATIONS OF PERCEPTION AND JUDGMENT

SENSING PLUS THINKING	SENSING PLUS FEELING	INTUITION PLUS FEELING	INTUITION PLUS THINKING
ST	**SF**	**NF**	**NT**
PRACTICAL AND MATTER-OF-FACT	SYMPATHETIC AND FRIENDLY	ENTHUSIASTIC AND INSIGHTFUL	LOGICAL AND INGENIOUS
Like using abilities in	Like using abilities in	Like using abilities in	Like using abilities in
TECHNICAL SKILLS WITH FACTS AND OBJECTS	PRACTICAL HELP AND SERVICES FOR PEOPLE	UNDERSTANDING & COMMUNICATING WITH PEOPLE	THEORETICAL AND TECHNICAL DEVELOPMENTS
for example in	for example in	for example in	for example in
Applied science Business Production Construction and many more	Patient care Community service Sales Teaching and many more	Behavioral science Research Literature & art Teaching and many more	Physical Science Research Management Forecasts & Analysis and many more

THE 4 QUADRANTS: COMBINATIONS OF ATTITUDE AND PERCEPTION

INTROVERSION AND SENSING	INTROVERSION AND INTUITION
IS	**IN**
KNOWLEDGE IS IMPORTANT TO ESTABLISH TRUTH	KNOWLEDGE IS IMPORTANT FOR ITS OWN SAKE
"THOUGHTFUL REALISTS"	"THOUGHTFUL INNOVATORS"
EXTRAVERSION AND SENSING	**EXTRAVERSION AND INTUITION**
ES	**EN**
KNOWLEDGE IS IMPORTANT FOR PRACTICAL USE	KNOWLEDGE IS IMPORTANT FOR CREATING CHANGE
"ACTION-ORIENTED REALISTS"	"ACTION-ORIENTED INNOVATORS"

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APPENDIX G

TABLE V

Expert Ratings

ADLI Initial Item Pool

ADLI Learning Activities

Item	Mean	Standard Deviation
1. Attended a meeting of a group or organization to learn or discuss things.	4.44	.53
2. Went to a conference, institute, or workshop.	4.50	.50
3. Took a correspondence or home study course	3.89	1.05
4. Took a course at a university, college, community college, or high school for credit.	4.22	.97
5. Took a course at a university, college, community college, or high school for no credit.	4.00	1.00
6. Learned something from doctor, dentist, lawyer, counselor, tax advisor, or specialist/expert.	3.78	.44
7. Read an academic, technical or professional magazine.	4.11	.33
8. Attended a public lecture.	3.72	.83
9.* Took a guided tour.	3.39	.70
10. Attended a labor union short course or meeting.	3.89	.78
11. Took a course or attended a lecture through a community organization or government program.	4.22	.67

Item	Mean	Standard Deviation
12. Involved in a learning activity through a museum or art gallery.	4.06	.73
13. Involved in a learning activity through a club, YMCA or professional organization	4.06	.73
14. Involved in independent study.	4.78	.44
15. Learned something completely on my own through reading, observing, or other channels.	4.56	.53
16. Took private or individual instruction such as music lessions or lessons from a golf or tennis professional.	4.11	.78
17. Involved with apprenticeship or vocational school course.	3.78	.44
18. Reading, observing, or listening with the main purpose to gain knowledge or skill.	4.33	.71
19. Participated in self-development groups/classes.	4.22	.67
20. Involved with programmed textbook or computeraided instruction.	3.89	.93
21. Attended a class or training session through a hospital or other health organization.	4.22	.97
22. Participated in some form of human relations training such as stress management or creative problem solving.	4.00	.50
23. Participated in social skills training such as assertiveness training or communication skills.	4.00	.50
24. Participated in civic education or volunteer training.	3.94	.63

Item	Mean	Standard Deviation
25. Participated in some type of personal development training to include: a. consumer education/ homemaking skills b. time/leisure use c. career preparation d. money management e. nutrition/health f. values clarification g. pre-retirement workshops	4.44	.73
26. Participated in a workshop class or study group or other learning activity dealing with family relationships such as a. marriage counseling/workshops b. parenting education c. divorce or singles workshops	4.11	.93
27. Participated in workshops/classes or other learning activity related to occupational information, career exploration, mid-career change, values clarification, job updating.	4.44	.73
28. Participated in a class/course or other learning activity related to a hobby or craft.	3.83	.94
29. Followed a class/course on TV, radio or cassette tape.	3.56	.53
30. Took a class or workshop at work or because of something related to my job.	4.22	.83
31. Participated in a class, study group, or course at a church.	4.28	.44
32. Participated in a class, study group, or course through the library.	3.89	.93

Item	Mean	Standard Deviation
Adulthood Tasks		
1. Learning new skills and ideas.	4.22	.67
2. Finding a congenial social group.	3.89	.93
3. Starting a family.	4.22	.67
4. Learning to live w/ a marriage partner.	4.44	.53
5. Move to a new job;adapt to a changing job	4.56	.58
6. Advancing in my career.	4.11	.78
7. Managing shifts in family income or Expenses.	4.11	.60
8. Becoming more in touch with my feelings and values	4.06	.95
9. Further developing my specialized knowledge and skills	4.17	.50
10. Changing goals in order that they might reflect my life and what I want out of it.	4.22	.67
11. Developing a variety of interests.	3.89	.78
12. Having more time to myself	3.89	.93
13. Being successful in my career.	3.89	.78
14. Contributing to society.	4.33	.71
15. Having a good family life.	3.78	.97
16. Using my leisure meaningfully.	4.11	.93
17. Sharing my knowledge; being helpful to younger friends and associates.	4.33	.71
18. Accomplishing a few important things in the time I have left.	4.22	.67
19. Maintaining warm relationships.	4.00	.87
20. Being a parent; raising my children.	4.00	1.12

Item	Mean	Standard Deviation
21. Maintaining a vital relationship with my mate.	4.22	.83
22. Achieving my financial and material goals.	3.94	.81
23. Maintaining my physical health and well-being.	4.17	.94
24. Living in harmony with my religious beliefs and feelings.	4.17	.94
25. Coping with stress.	4.56	.73
26. Dealing with change in my life.	4.56	1.01
27. Contributing to community affairs.	3.78	.67
28. Attaining wisdom; seeing "the big picture".	4.56	.58
29. Finding an appropriate partner or mate.	4.22	.97
30. Redefining and reassessing relationships with partner.	4.11	.93
31. Redefining and reassessing family relationships.	4.22	.67
32. Adjusting to health problems.	4.11	.60
33. Adjusting to physical limitations.	4.67	.50
34. Adjusting to "empty nest"; reworking attitudes, accepting children leaving home.	3.89	1.05
35. Accepting care of aging parents; handling increased demands of older parents; adjusting to role reversal with parent.	4.11	1.05
36. Reexamining work/career choice; revising career plans.	4.44	1.01

	Item	Mean	Standard Deviation
37.	Choosing and establishing a career.	4.11	.78
38.	Adjusting to single life.	3.78	.97
39.	Preparing for retirement.	4.33	1.00
40.	Adjusting to death of parents.	4.22	1.30
41.	Adapting to a changing time perspective.	4.44	1.01
42.	Managing a home.	4.11	.60
43.	Developing an ethical system.	4.11	1.05
44.	Searching for meaning.	4.11	1.27
45.	Becoming reconciled to death.	4.22	.97
46.	Expanding vocational interests.	4.11	.60
47.*	Establishing an explicit affiliation with my age group.	3.44	1.01
49.	Assisting teenage children to become responsible, happy adults.	3.78	.83
50.	Adjusting to the death of a spouse.	4.11	.78
47.	Adjusting to retirement and reduced income	4.00	.87

* Did not meet the $\leq$ 3.5 criterion

APPENDIX H
Summary of Comments of Experts

Expert 3:

"I am aware of different stages in adulthood which require different developmental tasks. This distinction might require recognition in your survey. My particular interest is in the tasks which older adults need to accomplish, many of which you include."

Expert 2:

Suggested that such task items as "Having more time to myself," "Being successful in my career," and "Having a good family life" were ideals, not tasks.

Suggested these additional items:

1. Accepting limitations of freedom and responsibility
2. Spent time in individual or group therapy.

"I felt conflict on items suggesting that commitment to one partner or job is an essential life task."

Expert 8:

"This kind of instrument is really needed."

Expert 6:

"I have believed that life is a learning experience and death is graduation - now I feel clearer about how this is true."

Expert 4:

Suggested the inclusion of an item dealing with counseling or therapy under the subhead, Learning Activities.

Expert 7:

"My own life trajectory does and does not follow a model like Erikson's or Maslow's - not such clear stage foci. It's generally an increase in internal integration ... and more desire for self-direction."

Expert 5:

"Because of the pressure of time, I gave up replying to questionnaires some time ago, but your letter is so genuine and persuasive that I simply have to respond ... I know that social experience gained by attending classes -- almost any kind, almost any subject-- is helpful to people, particularly those in a crisis .... All to say, that anyone is better off getting ideas and guidance from people who know what they are talking about and have the subjects interest at heart. Such helpful people are not necessarily professionally trained in counseling fields ... and all courses, even those in churches, do not assist the seeking person to find or change a value system that is not serving him or her well."

Expert 9:

"Career change just might be the single most important matter adults have to face, and I am glad that you are working to serve the whole person rather than segmenting out training or retraining only."

APPENDIX I

Stage II - Descriptive Statistics

TABLE VI

Sample Characteristics

(N = 161)

Item	Percent of Sample (%)	N
Are you currently enrolled as a student?		
Yes, full-time	6.2	10
Yes, part-time	29.2	47
No	64.6	104
Current learning effort		
Learning alone	19.9	32
With one or two others	6.2	10
Course for credit	24.2	39
Course for no credit	1.9	3
At work, church, library	28.0	45
Not involved in any learning	19.2	31
Chief motivation for learning		
Job	45.3	73
Family	1.9	3
Personal growth	35.4	57
Health	1.9	3
Religion	1.9	3
Community interests	1.2	2
Leisure activities	1.2	1
Not applicable/None of these	10.6	17
Transition or change status		
Not much has changed	10.6	17
Appraisal of my life	21.1	34
A definite change	44.7	72
A major transition	23.6	38
Transition or change size		
Huge change of central importance	17.4	28
Large/important change	30.4	49
Definite change with some importance	34.8	56
Small/unimportant	3.7	6
Not applicable	11.2	18

APPENDIX I

Stage II - Descriptive Statistics

TABLE VII

ADLI

Life Events

(N = 161)

	Cummulative Percentage	Within 0-1 mo. N(%)	Within 1-6 mo. N(%)	Within 6-12 mo. N(%)	Within 1-2 years N(%)	Over 2 years N(%)
Death of child or spouse (husband, wife or mate)?	8.7					14 (8.7)
Death of child or spouse (husband, wife or mate)? (2nd)	2.5					4 (2.5)
The death of a parent, brother or sister?	43.5		3 (1.9)	2 (1.2)	9 (5.6)	56 (34.8)
The death of a parent, brother or sister? (2nd)	17.4			2 (1.2)	3 (1.9)	23 (14.3)
The death of a parent, brother or sister? (3rd)	5.0				1 (.6)	7 (4.3)
Loss of close friend or important relationship by death?	36.6	3 (1.9)	9 (5.6)	6 (3.7)	11 (6.8)	30 (18.6)
Loss of a close friend or important relationship by death?(2)	8.7		2 (1.2)		3 (1.9)	9 (5.6)
Legal troubles resulting in being held in jail?	5.0		2 (1.2)	2 (1.2)	1 (.6)	3 (1.9)
Financial difficulties?	25.5	9 (5.6)	10 (6.2)	3 (1.9)	7 (4.3)	12 (7.5)
Being fired or laid off?	10.6	1 (.6)	2 (1.2)	3 (1.9)	2 (1.2)	9 (5.6)

	Cummulative Percentage	Within 0-1 mo. N(%)	Within 1-6 mo. N(%)	Within 6-12 mo. N(%)	Within 1-2 years N(%)	Over 2 years N(%)
A miscarriage or abortion (self or spouse)?	16.9			4 (2.5)		23 (14.3)
Divorce, or a breakup with a lover?	35.4	2 (1.2)	7 (4.3)	7 (4.3)	3 (1.9)	38 (23.6)
Separation from spouse because of marital problems?	20.5		7 (4.3)	2 (1.2)	5 (3.1)	19 (11.8)
Court appearance for a serious violation?	4.3		2 (1.2)	1 (.6)	1 (.6)	3 (1.9)
An unwanted pregnancy (self, wife or girlfriend)?	8.1	1 (.6)	2 (1.2)		10	(6.2)
Hospitalization of a family member for serious illness?	39.8	7 (4.3)	14 (8.7)	9 (5.6)	9 (5.6)	25 (15.5)
Unemployment more than one month (if regularly employed)?	17.4	1 (.6)	2 (1.2)	3 (1.9)	5 (3.1)	17 (10.6)
Illness/injury kept in bed for week or more, hosp. or emerg. room?	26.1	1 (.6)	4 (2.5)	9 (5.6)	10 (6.2)	18 (11.2)
An extra-marital affair?	12.4	3 (1.9)	1 (.6)	1 (.6)	1 (.6)	14 (8.7)
The loss of a personally valuable object?	18.0	3 (1.9)	1 (.6)	3 (1.9)	6 (3.7)	16 (9.9)
Involvement in a lawsuit (other than divorce)?	6.8	1 (.6)	3 (1.9)	3 (1.9)		4 (2.5)
Failing an important examination?	8.7	3 (1.9)	3 (1.9)	1 (.6)	1 (.6)	6 (3.7
Breaking an engagement?	5.0	1 (.6)	1 (.6)		1 (.6)	5 (3.1)
Arguments with spouse (husband, wife or mate)?	37.9	24 (14.9)	17 (10.6)	7 (4.3)	4 (2.5)	9 (5.6)
Taking on a large loan?	42.2	7 (4.3)	17 (10.6)	7 (4.3)	21 (13.0)	16 (9.9)
Troubles with boss or other workers?	23.0	11 (6.8)	11 (6.8)	6 (3.7)	2 (1.2)	7 (4.3)

	Cummulative Percentage	Within 0-1 mo. N(%)	Within 1-6 mo. N(%)	Within 6-12 mo. N(%)	Within 1-2 years N(%)	Over 2 years N(%)
Separation from a close friend?	36.6	11 (6.8)	11 (6.8)	8 (5.0)	13 (8.1)	16 (9.9)
Taking an important examination?	31.7	19 (11.8)	13 (8.1)	2 (1.2)	6 (3.7)	11 (6.8)
Separation from spouse because of job demands?	13.0	1 (.6)	5 (3.1)	5 (3.1)	3 (1.9)	7 (4.3)
A big change in work or in school?	51.9	11 (6.8)	18 (11.2)	13 (8.1)	20 (12.4)	21 (13.0)
A move to another town, city, state or country?	40.4	2 (1.2)	2 (1.2)	5 (3.1)	11 (6.8)	45 (28.0)
Getting married or returning to spouse after separation?	18.6		2 (1.2)	4 (2.5)	3 (1.9)	21 (13.0)
Minor violations of the law?	13.7	2 (1.2)	7 (4.3)	2 (1.2)	7 (4.3)	4 (2.5)
Moved home within the same town or city?	17.4	1 (.6)	2 (1.2)	3 (1.9)	8 (5.0)	14 (8.7)
The birth or adoption of a child?	18.6	2 (1.2)	3 (1.9)	1 (.6)	2 (1.2)	22 (13.7)
Spouse unfaithful?	7.5		1 (.6)	1 (.6)		10 (6.2)
Attacked, raped or involved in violent acts?	3.1			3 (1.9)		2 (1.2)

Mean = 164.5
Minimum = 9
Maximum = 684

APPENDIX I

Stage II - Descriptive Statistics

TABLE VIII

ADLI

Coping Strategies

(N = 161)

	Does Not Apply Percent(%)	Does Apply Percent (%)	Does Apply & was very Helpful Percent (%)
1. I sought increased emotional support from others.	29.2	23.6	46.6
2. I tried to find new interests.	31.7	42.2	26.1
3. I looked for a person who could provide direction for me.	49.1	32.9	18.0
4. I tried to find some other outlet, like sports, cooking or gardening, to relieve some of the feelings I had.	35.4	37.3	27.3
5. I tried to talk to others about the event.	32.3	32.9	34.8
6. I sought some form of counseling or therapy.	62.7	13.7	23.0
7. I tried to find others who had experienced the event to see how they dealt with it.	55.3	25.5	19.3
8. I tried to devote myself to work.	46.0	40.4	13.7
9. I spent more time in nature, listening to mustic, with art or writing.	65.2	20.5	14.3
10. I sought consulation in philosophy or religion	64.0	18.6	17.4

		Does Not Apply Percent(%)	Does Apply Percent (%)	Does Apply & was very Helpful Percent (%)
11.	I attended self development groups or classes, sought social skills training or academic/ vocational counseling.	75.2	18.0	6.8
12.	I spend more time reading, observing, learning.	34.8	37.3	28.0

Mean = 8.91
Standard deviation = 5.03
Minimum = 0
Maximum = 24

APPENDIX I

Stage II - Descriptive Statistics

TABLE IX

ADLI

Learning Activities

(N = 161)

	Item	Percent of Sample
1.	Attended a meeting of a group or organization to learn or discuss things.	82.0
2.	Went to a conference, institute, or workshop.	72.7
3.	Took a correspondence or home study course	8.7
4.	Took a course at a university, college, community college, or high school for credit.	34.5
5.	Took a course at a university, college, community college, or high school for no credit.	16.8
6.	Learned something from doctor, dentist, lawyer, tax advisor, or specialist/expert.	72.7
7.	Read an academic, technical or professional magazine.	77.0
8.	Involved in a learning activity through a museum or art gallery.	24.8
9.	Involved in a learning activity through a club, YMCA or professional organization	34.8
10.	Involved in independent study.	55.3
11.	Attended a labor union short course or meeting.	6.8

Item	Percent of Sample
12. Took a course or attended a lecture through a community organization or government program.	26.7
13. Read, observed, or listened with the main purpose to gain knowledge or skill.	91.3
14. Participated in self-development groups/classes.	36.6
15. Involved with programmed textbook or computer-aided instruction.	42.9
16. Attended a class or training session through a hospital or other health organization.	11.8
17. Participated in some form of human relations training such as stress management or creative problem solving.	34.2
18. Participated in social skills training such as assertiveness training or communication skills.	25.5
19. Participated in civic education or volunteer training.	14.9
20. Participated in some type of personal development training to include:	
a. consumer education/ homemaking skills	12.4
b. time/leisure use	23.6
c. career preparation	31.7
d. money management	23.0
e. nutrition/health	24.8
f. values clarification	11.2
g. pre-retirement workshops	5.0
h. other	25.5
21. Took private or individual instruction such as music lessions or lessons from a golf or tennis professional.	13.0

Item	Percent of Sample
22. Learned something completely on my own through reading, observing, or other channels.	87.0
23. Participated in a workshop class or study group or other learning activity dealing with family relationships such as	
a. marriage counseling/workshops	13.7
b. parenting education	11.2
c. divorce or singles workshops	5.0
d. other	12.4
24. Participated in workshops/classes or other learning activity related to occupational information, career exploration, mid-career change, values clarification, job updating.	40.4
25. Participated in a class/course or other learning activity related to a hobby or craft.	23.0
26. Took a class or seminar at work or because of something related to my job.	60.2
27. Participated in a class, study group, or course at a church.	26.1
32. Participated in a class, study group, or course through the library.	6.8
29. Followed a class/course on TV, radio or cassette tape.	23.0
30. Attended a public lecture	35.4
31. Took a guided tour.	36.6
32. Involved with apprenticeship or vocational school course.	3.7

Item	Percent of Sample
33. Participated in some form of counseling or therapy, either as an individual or in a group.	28.0

Mean = 13.57
Standard deviation = 6.1
Minimum = 0
Maximum = 29

Frequencies by Thirds

Classification	Number of Learning Activities	Percent of Sample
Low	2 - 10	33.0
Medium	11 - 16	34.7
High	17 - 29	31.1

APPENDIX I

Stage II - Descriptive Statistics

TABLE X

ADLI

Adulthood Tasks - Response Set 1

(N = 161)

Percent of Sample						
How important is this task at this time in your life?						
A (%)	B (%)	C (%)	D (%)	E (%)	Item	Item Mean
4.3	3.1	9.9	35.4	47.2	1. Learning new skills and ideas.	4.18
13.7	18.0	24.2	24.2	19.9	2. Finding a congenial social group.	3.19
52.8	6.8	10.6	9.3	20.5	3. Starting a family.	2.38
24.2	6.8	8.7	15.5	44.7	4. Learning to live with a marriage partner.	3.5
28.0	8.7	16.8	17.4	29.2	5. Moving to a new job; adapting to a changing job.	3.11
10.6	4.3	14.3	21.7	49.1	6. Advancing in my career.	3.94
16.8	9.9	11.8	24.2	37.3	7. Managing shifts in family income or expenses.	3.56
7.5	6.8	18.0	21.7	46.0	8. Becoming more in touch with my feelings and values.	3.92
6.2	1.9	13.7	31.7	46.6	9. Further developing my specialized knowledge and skills.	4.11

Percent of Sample							
How important is this task at this time in your life?							
A (%)	B (%)	C (%)	D (%)	E (%)		Item	Item Mean
12.4	6.2	11.2	28.0	42.2	10.	Changing goals in order that they might reflect my life and what I want out of it.	3.81
11.2	13.7	24.8	31.7	18.6	11.	Developing a variety of interests.	3.33
12.4	13.0	25.5	26.1	23.0	12.	Having more time to myself.	3.34
5.6	1.9	8.1	34.8	49.7	13.	Being successful in my career.	4.21
6.8	10.6	23.0	34.2	25.5	14.	Contributing to society.	3.61
4.3	7.5	24.2	39.1	24.8	15.	Using my leisure meaningfully.	3.73
3.1	4.3	18.6	43.5	30.4	16.	Sharing my knowledge; being helpful to younger friends and associates.	3.94
8.1	9.3	19.3	31.1	32.3	17.	Accomplishing a few important things in the time I have left.	3.70
2.5	1.2	11.8	31.1	53.4	18.	Maintaining warm relationships.	4.32
25.5	7.5	6.8	12.4	47.8	19.	Being a parent; raising my children.	3.5
17.4	5.6	3.1	13.7	60.2	20.	Maintaining a vital relationship with my mate.	3.94

Percent of Sample						
How important is this task at this time in your life?						
A (%)	B (%)	C (%)	D (%)	E (%)	Item	Item Mean
10.6	2.5	14.9	31.7	40.4	21. Achieving my financial and material goals.	3.89
3.1	1.9	9.3	23.0	62.7	22. Maintaining my physical health and well-being.	4.40
8.7	5.6	14.3	25.5	46.0	23. Living in harmony with my religious beliefs and feelings.	3.94
6.2	4.3	12.4	31.1	46.0	24. Coping with stress.	4.06
7.5	5.6	12.4	28.0	46.6	25. Dealing with change in my life.	4.01
8.7	2.5	16.1	34.8	37.9	26. Attaining wisdom; seeing "the big picture".	3.91
46.0	3.7	6.8	11.2	32.3	27. Finding an appropriate partner or mate.	2.80
23.0	8.1	13.7	15.5	39.8	28. Redefining and reassessing relationships with partner.	3.41
15.5	6.2	16.1	26.1	36.0	29. Redefining and reassessing family relationships.	3.61
27.3	12.4	13.7	24.8	21.7	30. Adjusting to health problems.	3.01
28.6	17.4	18.0	17.4	18.6	31. Adjusting to physical limitations.	2.80

Percent of Sample							
How important is this task at this time in your life?							
A (%)	B (%)	C (%)	D (%)	E (%)		Item	Item Mean
57.1	10.6	5.0	13.7	13.7	32.	Adjusting to "empty nest"; reworking attitudes, accepting children leaving home.	2.16
43.5	10.6	10.6	17.4	18.0	33.	Accepting care of aging parents; handling increased demands of older parents; adjusting to role reversal with parent.	2.56
19.9	6.2	17.4	29.2	27.3	34.	Reexamining work/ career choice; revising career plans.	3.38
36.6	9.9	18.6	19.3	15.5	35.	Preparing for retirement	2.68
52.8	9.3	6.2	16.8	14.9	36.	Adjusting to death of parents	2.32
35.4	13.0	24.8	19.9	6.8	37.	Adapting to a changing time perspective.	2.50
20.5	8.7	20.5	26.1	24.2	38.	Managing a home.	3.25
28.6	10.6	18.0	26.1	16.8	39.	Developing an ethical system.	2.92
27.3	10.6	19.9	23.6	18.6	40.	Searching for meaning.	2.96
36.0	15.5	18.6	17.4	12.4	41.	Becoming reconciled to death.	2.55
26.1	14.3	24.2	22.4	13.0	42.	Expanding vocational interests.	2.82

Percent of Sample							
How important is this task at this time in your life?							
A (%)	B (%)	C (%)	D (%)	E (%)		Item	Item Mean
34.8	10.6	14.3	20.5	19.9	43.	Choosing and establishing a career.	2.80
68.9	7.5	2.5	9.3	11.8	44.	Adjusting to the death of a spouse.	1.88
62.7	9.3	6.8	8.7	12.4	45.	Adjusting to retirement and reduced income.	1.99
41.6	19.9	15.5	13.0	9.9	46.	Establishing an explicit affiliation with my age group.	2.30
37.9	9.9	8.7	17.4	26.1	47.	Assisting teenage children to become responsible, happy adults.	2.84
24.8	13.7	29.2	24.2	8.1	48.	Contributing to community affairs.	2.77
6.2	2.5	7.5	21.1	62.7	49.	Having a good family life.	4.32
60.9	4.3	8.7	9.9	16.1	50.	Adjusting to single life.	2.16

A - Unimportant
B - Of little importance
C - Moderately important
D - Important
E - Very important

APPENDIX I

Stage II - Descriptive Statistics

TABLE X

ADLI

Adulthood Tasks - Response Set 2

(N = 161)

Item	Have you been involved in a learning activity as a result of the task? Percent of Sample YES (%)
1. Learning new skills and ideas.	85.7
2. Finding a congenial social group.	30.4
3. Starting a family.	19.3
4. Learning to live w/ a marriage partner.	36.0
5. Moving to a new job; adapting to a changing job.	47.2
6. Advancing in my career.	71.4
7. Managing shifts in family income or Expenses.	43.5
8. Becoming more in touch with my feelings and values	57.1
9. Further developing my specialized knowledge and skills	73.3
10. Changing goals in order that they might reflect my life and what I want out of it.	53.4
11. Developing a variety of interests.	46.0
12. Having more time to myself	31.7
13. Being successful in my career.	77.6
14. Contributing to society.	42.2
15. Using my leisure meaningfully.	46.6
16. Sharing my knowledge; being helpful to younger friends and associates.	56.5

Item	Have you been involved in a learning activity as a result of the task? Percent of Sample YES (%)
17. Accomplishing a few important things in the time I have left.	42.2
18. Maintaining warm relationships.	59.6
19. Being a parent; raising my children.	41.0
20. Maintaining a vital relationship with my mate.	51.6
21. Achieving my financial and material goals.	55.9
22. Maintaining my physical health and well-being.	62.1
23. Living in harmony with my religious beliefs and feelings.	54.7
24. Coping with stress.	55.3
25. Dealing with change in my life.	52.8
26. Attaining wisdom; seeing "the big picture".	51.6
27. Finding an appropriate partner or mate.	28.0
28. Redefining and reassessing relationships with partner.	44.7
29. Redefining and reassessing family relationships.	47.8
30. Adjusting to health problems.	35.4
31. Adjusting to physical limitations.	28.6
32. Adjusting to "empty nest"; reworking attitudes, accepting children leaving home.	18.0
33. Accepting care of aging parents; handling increased demands of older parents; adjusting to role reversal with parent.	16.1
34. Reexamining work/career choice; revising career plans.	49.1
35. Preparing for retirement.	30.4
36. Adjusting to death of parents.	18.0

Item	Have you been involved in a learning activity as a result of the task? Percent of Sample YES (%)
37. Adapting to a changing time perspective.	23.6
38. Managing a home.	42.9
39. Developing an ethical system.	32.9
40. Searching for meaning.	34.2
41. Becoming reconciled to death.	26.7
42. Expanding vocational interests.	37.3
43. Choosing and establishing a career.	42.2
44. Adjusting to the death of a spouse.	4.3
45. Adjusting to retirement and reduced income.	6.8
46. Establishing an explicit affiliation with my age group.	17.4
47. Assisting teenage children to become responsible, happy adults.	32.9
48. Contributing to community affairs.	26.1
49. Having a good family life.	63.4
50. Adjusting to single life.	24.2

Mean = 20.67

Standard deviation = 11.07

Minimum = 0

Maximum = 47

APPENDIX J

Stage II - Descriptive Statistics

TABLE XI

Chi-square Test of Significance
Selected Demographics by Learning Effort
and Transition Status
(N = 161)

Variable	Chi-square	Correlation Coefficient
Current learning effort		
by Age (10-year intervals)	39.02*(df 25)	.22** (Pearson)
by Sex	14.35*(df 5)	.20**(Tau)
by Work area	58.35**(df 35)	NS
by Educational level	50.74*(df 35)	-.29*** (Pearson)
by Income	N.S.	
Chief motivation for learning		
by Age (10-year intervals)	51.99*(df 35)	.26***(Tau)
by Educational level	NS	
by Sex	NS	
by Income	NS	
Transition Status		
by Age (10-year intervals)	27.59*(df 15)	.16* (Pearson)
by Educational level	32.22*(df 21)	NS
by Sex	NS	
by Income	NS	
Transition Size		
by Age (10-year intervals)	42.86**(df 20)	.34*** (Pearson)
by Work area	43.52* (df 28)	.18* (Tau)
by Sex	NS	
by Educational level	NS	
by Income	NS	

* $p \leq .05$
** $p \leq .01$
*** $p \leq .001$

APPENDIX K

TABLE XII

Kruskal-Wallis One-Way Analysis of Variance

ADLI

Adulthood Tasks

(N = 161)

Mean Rank							
Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+	Item	Chi Square	Level of Significance
93.18	75.22	76.72	64.25	52.19	1.Learning new skills & ideas.	11.82	.05
82.99	81.36	71.60	92.42	75.12	2.Finding a congenial social group.	2.29	NS
107.71	72.67	50.92	43.00	47.44	3.Starting a family.	44.97	.0001
96.30	78.86	76.10	37.58	47.23	4.Learning to live a marriage partner.	18.79	.001
84.49	83.83	82.60	50.50	41.81	5.Moving to a new job; adapting to a changing job	13.93	.05
99.98	74.43	79.76	60.50	16.31	6.Advancing in my career.	38.95	.0001
93.01	76.31	85.66	71.17	31.00	7.Managing shifts in family income or expenses.	20.55	.001
89.03	79.06	86.90	67.42	42.54	8.Becoming more in touch with my feelings and values	11.75	.05
94.17	72.38	81.66	77.17	36.96	9.Further developing my specialized knowledge and skills	20.61	.001
89.95	84.45	80.84	45.50	33.35	10.Changing goals in order that they might reflect my life and what I want out of it	19.45	.001

Mean Rank Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+	Item		Chi Square	Level of Significance
93.58	78.49	73.90	56.92	65.04	11.	Developing a variety of interests.	8.55	NS
82.47	84.32	84.96	75.58	47.00	12.	Having more time to myself.	8.29	NS
93.67	73.08	86.88	79.42	30.42	13.	Being successful in my career.	22.79	.001
78.19	85.33	76.36	88.00	75.00	14.	Contributing to society.	1.81	NS
87.24	68.87	87.74	57.17	98.04	15.	Using my leisure meaningfully.	8.22	NS
74.69	72.90	96.32	96.42	90.81	16.	Sharing my knowledge; being helpful to younger friends & associates	7.90	NS
83.27	81.78	71.22	77.42	82.31	17.	Accomplishing a few important things in the time I have left.	1.60	NS
75.42	84.43	88.80	76.50	78.12	18.	Maintaining warm relationships.	1.96	NS
90.21	82.00	95.72	29.92	46.58	19.	Being a parent; raising my children.	21.19	.001
93.92	80.22	79.30	30.92	47.81	20.	Maintaining a vital relationship with my mate.	18.22	.01
90.42	77.37	89.22	61.08	28.65	21.	Achieving my financial and material goals.	23.37	.001
80.12	81.22	84.76	70.00	71.85	22.	Maintaining my physical health and well-being.	1.91	NS
81.11	72.76	85.18	74.92	90.77	23.	Living in harmony with my religious beliefs and feelings.	4.35	NS
83.60	78.66	88.80	74.50	57.65	24.	Coping w/stress.	4.99	NS
84.57	75.71	90.04	76.58	60.58	25.	Dealing with change in my life	5.13	NS

Mean Rank Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+	Item	Chi Square	Level of Significance
90.75	72.94	89.06	90.92	61.54	26. Attaining wisdom; seeing "the big picture".	9.15	NS
92.44	85.92	61.56	48.00	48.77	27. Finding an appropriate partner or mate.	19.45	.001
92.81	82.99	77.06	55.83	34.50	28. Redefining and reassessing relationships with partner	18.92	.01
86.89	74.14	86.56	104.25	60.69	29. Redefining and reassessing family relationships.	6.35	NS
76.91	68.77	101.90	91.00	96.27	30. Adjusting to health problems.	10.71	NS
78.29	64.19	93.48	100.67	117.04	31. Adjusting to physical limitations.	17.56	.01
70.21	82.38	109.06	91.17	68.46	32. Adjusting to "empty nest"; reworking attides, accepting children leaving home.	13.53	.05
75.71	92.41	88.08	72.67	50.46	33. Accepting care of aging parents; handling increased demands of older parents; adjusting to role reversal with parents.	10.17	NS
90.27	80.50	85.32	70.42	27.58	34. Reexaming work/ career choice; revising career plans.	20.76	.001
69.02	72.64	113.12	109.33	86.38	35. Preparing for retirement.	20.00	.001
75.09	81.64	95.00	78.50	71.35	36. Adjusting to death of parents.	4.38	NS
84.31	75.48	88.72	71.33	55.23	37. Adapting to a changing time perspective.	9.77	NS

Mean Rank Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+	Item	Chi Square	Level of Significance
87.33	73.64	89.24	76.67	48.65	38.Managing a home.	12.04	.05
90.91	76.55	76.44	85.75	43.96	39.Developing an ethical system.	13.67	.05
83.31	83.28	72.86	84.50	61.27	40.Searching for meaning.	4.62	NS
75.80	79.35	87.24	70.17	92.73	41.Becoming reconciled to death.	3.46	NS
81.86	84.96	87.20	81.50	36.38	42.Expanding vocational interests.	14.32	.05
90.08	86.12	66.56	67.50	37.50	43.Choosing and establishing a career.	19.54	.001
79.44	81.37	73.84	72.00	85.54	44.Adjusting to the death of a spouse.	4.15	NS
74.66	79.96	89.80	101.25	79.65	45.Adjusting to retirement income.	3.67	NS
85.69	67.36	86.14	73.83	79.92	46.Establishing an explicit affiliation with my my age group.	10.48	NS
69.91	91.15	103.54	61.67	50.81	47.Assisting teenage children to become responsible happy adults.	18.52	.01
77.59	86.79	79.22	97.17	59.62	48.Contributing to community affairs.	5.61	NS
81.68	80.60	82.74	82.17	75.65	49.Having a good family life.	.23	NS
80.80	81.03	70.14	106.00	77.19	50.Adjusting to single life.	4.85	NS

APPENDIX K

TABLE XIII

ADLI
Adulthood Tasks
Kruskal-Wallis One Way
Analysis of Variance
Highest Ranked Items by Age Group
(N = 161)

Level of Significance	Age 25-34
.0001	3. Starting a family
.0001	6. Advancing in my career.
.001	4. Learning to live with a marriage partner
.001	9. Further developing my specialized knowledge and skills.
.01	20. Maintaining a vital relationship with my mate.
.001	13. Being successful in my career.
NS	11. Developing a variety of interests.
.05	1. Learning new skills and ideas.
.001	7. Managing shifts in family income or expenses.
.01	28. Redefining and reassessing relationships with partner.

Level of Significance	Age 35-44
NS	33. Accepting care of aging parents.
.01	47. Assisting teenage children to become responsible, happy adults.
NS	48. Contributing to community affairs.
.001	43. Choosing and establishing a career.
.001	27. Finding an appropriate partner or mate.
.001	10. Changing goals in order that they reflect my life.
NS	12. Having more time to myself.
NS	18. Maintaining warm relationships.
.05	42. Expanding vocational interests.
.05	5. Moving to a new job; adapting to changing job.

Level of Significance	Age 45-54
.001	35. Preparing for retirement.
.05	32. Adjusting to empty nest.
.01	47. Assisting teenage children to become responsible, happy adults.
NS	30. Adjusting to health problems.
NS	16. Sharing my knowledge; being helpful to younger friends and associates.
.001	19. Being a parent; raising my children.
NS	36. Adjusting to death of parents.
.01	31. Adjusting to physical limitations.
NS	25. Dealing with change in my life.
.0001	21. Achieving my financial and material goals.

Level of Significance	Age 55-64
.001	35. Preparing for retirement.
NS	50. Adjusting to single life.
.05	29. Redefining and reassessing family relationships.
NS	45. Adjusting to retirement and reduced income.
.01	31. Adjusting to physical limitations.
NS	48. Contributing to community affiars.
NS	16. Sharing my knowledge; being helpful to younger friends and associates.
NS	2. Finding a congenial social group
.05	32. Adjusting to "empty nest."
NS	30. Adjusting to health problems.

Level of Significance	Age 65 +
.01	31. Adjusting to physical limitations.
NS	15. Using my leisure meaningfully.
NS	30. Adjusting to health problems.
NS	41. Becoming reconciled to death.
NS	16. Sharing my knowledge; being helpful to younger friends and associates.
NS	23. Living in harmony with my religious beliefs and feelings.
.001	35. Preparing for retirement.
.001	44. Adjusting to death of spouse.
NS	18. Maintaining warm relationships.
NS	50. Adjusting to single life.

APPENDIX L
TABLE XIV
ADLI
Adulthood Tasks
Factors and Eigenvalues
(N = 161)

Factor	Eigenvalue	Percent of Variance	Cumulative Percentage
1	12.18	24.4	24.4
2	3.56	7.1	31.5
3	2.77	5.5	37.0
4	1.98	4.0	41.0
5	1.66	3.3	44.3
6	1.59	3.2	47.5
7	1.52	3.0	50.5
8	1.37	2.7	53.5
9	1.28	2.6	55.8
10	1.27	2.5	58.4
11	1.23	2.5	60.8
12	1.15	2.3	63.1
13	1.06	2.1	65.2
14	1.03	2.1	67.3

APPENDIX L

TABLE XV

Varimax Rotated Factor Matrix for Adulthood Tasks

ADL

Item Number	Factor 1	Factor 2	Factor 3	Factor 4
1	.43725	.04611	-.10269	-.04290
2	.02759	.11646	.50581	.13791
3	.08838	-.06549	.00193	-.01206
4	.13078	.11279	.15911	.01692
5	.52639	.03084	-.15857	.15702
6	.76718	.04208	.14901	-.05347
7	.39177	.32264	.14911	-.14279
8	.23896	.10949	.65183	.09694
9	.67875	-.05215	.35014	-.09822
10	.47114	.24404	.27300	-.03630
11	.26187	.15433	.12148	.18906
12	.31177	.10571	.15852	.26906
13	.79975	-.03560	.22647	.10277
14	.24647	.02823	.18567	.21176
15	.09273	.08917	.30790	.28768
16	.24312	.17752	.05337	.00892
17	.14379	.17084	.18572	.01400
18	-.06827	.05427	.22152	.22926
19	.14132	-.11710	-.06825	.03537
20	.14273	.16824	.13558	-.01820
21	.49719	.19332	.02790	.08924
22	.30058	.16222	.07473	.57279
23	.04358	.18082	.23927	.32619
24	.29633	.14853	.60041	.27599
25	.31069	.12397	.58251	.23129
26	.20747	.35231	.57825	.15822
27	.12214	.05062	.06611	.08818
28	.13326	.09166	.26581	-.02859
29	.07801	.21580	.29016	.28768
30	.01973	.05394	.25867	.68380
31	-.07835	.21734	.11688	.73987
32	.00039	.19780	.15707	.16128
33	.04978	.14087	.09701	.24722
34	.54567	.17635	.08856	.12100
35	.05085	.12096	.02081	.15503
36	-.01050	.70695	.01089	.22256
37	.05724	.71178	.20080	.09925

Item Number	Factor 1	Factor 2	Factor 3	Factor 4
38	.07911	.40100	.01196	.05897
39	.15576	.57612	.24401	.13107
40	.13413	.46698	.38894	.19943
41	-.00104	.49222	.18404	.49435
42	.26406	.09484	.13805	-.13144
43	.37197	.29077	-.00738	.06966
44	-.27736	.14908	.05007	.23434
45	-.03783	.07607	-.00040	.18845
46	-.03480	.12710	.14837	.37073
47	.13267	.11652	.09881	-.14418
48	.06078	.15452	.06988	.03186
49	.07896	.25312	.02703	.18157
50	.14688	.30848	.24122	.21810

Item Number	Factor 5	Factor 6	Factor 7	Factor 8
1	-.11347	.04591	.18436	.05653
2	.01917	.16178	.16954	-.24937
3	-.01032	.74036	-.10241	-.04288
4	.13094	.74780	.04480	-.03127
5	.43050	-.01419	-.17343	-.04192
6	.12134	.05131	.06649	.09402
7	.18179	.14755	.34977	-.12645
8	.35597	.01927	.14146	.01375
9	-.07306	.12529	.01252	-.01888
10	.34280	.05831	.01647	-.09622
11	.07264	-.02157	.11650	.11362
12	.20865	-.06594	.34166	.09111
13	.00335	.11750	.08350	.06731
14	-.01522	-.05672	.36236	.05755
15	.15116	.11499	.43069	.05272
16	.18547	.05094	.27558	.29944
17	.04428	.02429	.67361	.10141
18	.34749	.05437	.44639	.33939
19	.06062	.41980	.15668	.63667
20	.21329	.55036	.24607	.19876
21	.17307	.17318	.20328	.04668
22	.05362	.08148	.35507	-.01208
23	.05200	.09551	.12361	.03924
24	.04837	.08288	.02447	.20154
25	.24202	.04366	.22467	.14941
26	-.04368	.09677	.16506	.05185
27	.77066	.00362	.17364	-.10584
28	.65496	.33600	.05188	.12213

Item Number	Factor 5	Factor 6	Factor 7	Factor 8
29	.45957	.23440	-.13791	.16129
30	.04845	-.05772	-.07076	.16398
31	.08888	.02810	.04842	.01826
32	-.09552	-.10800	-.00710	.69605
33	.10815	.14739	.16189	.02917
34	.18649	.04442	.05387	.08004
35	.03981	-.09960	-.00296	.17614
36	.10029	-.04863	.12231	.16663
37	.04542	.04107	.06764	.07231
38	.21620	.39358	.33300	.29628
39	.06553	.27491	.09977	.03544
40	.21209	.00134	-.04326	-.03496
41	-.02292	-.02150	.08274	-.03205
42	.06664	.02767	-.02734	.00951
43	.28654	.03937	.28037	-.20383
44	-.18680	.03518	.27342	.00616
45	-.02084	.03141	.06840	-.07082
46	.19161	.12239	.01325	-.28279
47	.02392	.00164	.08102	.55022
48	.08866	.07692	-.01421	.04980
49	.06012	.46949	.15661	.40178
50	.29212	-.24884	.22159	-.24414

Item Number	Factor 9	Factor 10	Factor 11	Factor 12
1	.26598	-.12568	.34384	.18281
2	.08676	.04336	.45467	.14100
3	.17017	-.09174	.17201	-.08460
4	-.19635	.01264	-.09992	.15393
5	-.18421	.05674	.15027	.21811
6	-.01865	-.01048	.04435	.01400
7	.00883	.27463	.14403	.01483
8	.02326	.05712	.14027	.03965
9	.17568	.09012	.12574	.10205
10	.17935	.01919	.19741	.07106
11	.03130	.09874	.68567	.12626
12	.06519	.10394	.05896	-.09245
13	.08973	-.03375	-.06781	.05926
14	-.01205	.02440	.07643	.65501
15	.36996	.08394	.23806	-.20540
16	.53839	.04617	.09015	.21443
17	.14297	.08298	.06089	.23019
18	.28851	.00270	-.01266	.15165
19	.08982	-.05146	-.13690	.04053
20	.19569	.05363	-.38346	.00797
21	.36314	.01054	-.25929	-.07769

Item Number	Factor 9	Factor 10	Factor 11	Factor 12
22	.21772	-.03225	-.06241	.04396
23	.64351	.07185	-.00665	.13821
24	.08660	.03214	-.09930	.14196
25	.02683	.00831	.03078	.03637
26	.17741	-.03100	-.00248	.11042
27	.11630	-.08631	-.05504	-.02642
28	.02994	.09337	-.02679	.08203
29	.24392	.06370	.28233	.11679
30	.11951	.23123	.19777	-.03950
31	.04127	.15394	.05999	.09719
32	.00441	-.06102	.04639	-.04542
33	-.00759	.21313	.03738	.05905
34	-.16292	-.06924	.18217	.05094
35	.22947	.69625	-.06031	.05532
36	-.06349	.23180	-.13092	.04242
37	.23001	.08831	.16123	.06242
38	.04877	.18424	.21696	.00481
39	.13869	-.08595	.15833	.15698
40	.29351	.00501	.10406	-.01367
41	.04238	.14325	-.01730	.26049
42	.08135	.12714	.12549	.08895
43	-.13213	-.01404	.24334	-.02864
44	-.12462	.37804	.04432	-.03648
45	-.05391	.78305	.06373	.02387
46	.35411	.27579	.17947	.20498
47	.06879	.36306	.14504	.24113
48	.15212	.06394	.07992	.80602
49	.30236	.14523	.02708	-.00159
50	.14547	.06263	.23798	-.10559

Item Number	Factor 13	Factor 14
1	.10262	.13162
2	.19712	.14985
3	-.04656	-.09116
4	.20633	.05484
5	-.05334	-.01526
6	.14326	.09801
7	-.02005	-.28947
8	.14775	-.06498
9	-.06067	.06576
10	.07667	-.20542
11	-.03127	.17770
12	.38058	.03059
13	.07129	.06048
14	.04723	-.03452

Item Number	Factor 13	Factor 14
15	.06446	.01472
16	.02002	-.16544
17	.08469	.00098
18	-.09714	.09467
19	-.06396	.15323
20	.06127	.13127
21	.10133	.10007
22	.06051	.02874
23	-.00987	.09040
24	-.02470	.05115
25	-.13288	.17254
26	.03657	.05264
27	.07084	.18799
28	.16956	-.07775
29	.02400	.01329
30	.07320	-.06957
31	.07386	-.09811
32	.23484	-.07787
33	.73408	.02107
34	-.11754	.30405
35	.22308	.14468
36	-.06216	.08996
37	.13482	-.05405
38	.17942	-.03985
39	-.02818	.09646
40	.17807	.30297
41	.04352	.17131
42	.02768	.76878
43	-.06677	.42627
44	-.47280	.00991
45	-.00668	-.00406
46	.04113	.09355
47	-.11798	-.05487
48	.02153	.08859
59	-.22916	.12770
50	-.33454	.10493

APPENDIX L

TABLE XVI

Items, Factors, and Factor Loadings

Adulthood Tasks

	Factor 1 Achievement Items	Loadings
13.	Being successful in my career.	.79975
6.	Advancing in my career.	.76718
9.	Further developing my specialized knowledge and skills.	.67875
34.	Re-examining work/career choice.	.54567
5.	Moving to new job; adapting to changing job.	.52639
21.	Achieving my financial and material goals.	.49719
10.	Changing goals in order that they might reflect my life and what I want out of it.	.47114
1.	Learning new skills and ideas.	.43725
7.	Managing shifts in family income.	.39177

	Factor 2 Adaptation Items	Loadings
37.	Adapting to changing time perspective.	.71178
36.	Adjusting to death of parents.	.70695
39.	Developing an ethical system.	.57612
40.	Searching for meaning.	.46698
50.	Adjusting to single life.	.30848

Items	Loadings
Factor 3 Self-awareness	
8. Becoming more in touch with my feelings and values.	.65183
24. Coping with stress.	.60041
25. Dealing with change in my life.	.58251
26. Attaining wisdom; seeing "the big picture".	.57825
Factor 4 Health	
31. Adjusting to physical limitations.	.73987
30. Adjusting to health problems.	.68380
22. Maintaining my physical health and well-being.	.57279
41. Becoming reconciled to death.	.49435
46. Establishing an explicit affiliation with my age group.	.37073
Factor 5 Redefinition of Family	
27. Finding an appropriate partner or mate.	.77066
28. Redefining and reassessing relationships with partner.	.65496
29. Redefining and reassessing family relationships.	.45957

Factor 6
Family

Items	Loadings
4. Learning to live with marriage partner.	.74780
3. Starting a family.	.74036
20. Maintaining a vital relationship with my mate.	.55036
38. Managing a home.	.39358

Factor 7
Attachment

Items	Loadings
17. Accomplishing a few important things in the time I have left.	.67361
18. Maintaining warm relationships.	.44639
15. Using my leisure meaningfully.	.43069
14. Contributing to society.	.36236

Factor 8
Parenting

Items	Loadings
32. Adjusting to empty nest.	.69605
19. Being a parent; raising my children.	.63667
47. Assisting teenage children to become responsible, happy adults.	.55022
49. Having a good family life.	.40178

Factor 9 Philosophy Items	Loadings
23. Living in harmony with my religious beliefs and feelings.	.64351
16. Sharing my knowledge; being helpful to younger friends and associates.	.53839

Factor 10 Retirement Items	Loadings
45. Adjusting to retirement and reduced income.	.78305
35. Preparing for retirement.	.69625

Factor 11 Sociability Items	Loadings
11. Developing a variety of interests.	.68567
2. Finding a congenial social group.	.45467

Factor 12 Citizenship Items	Loadings
48. Contributing to community affairs.	.80602

Factor 13
Constraints

Items	Loadings
33. Accepting care of aging parents.	.73408
44. Adjusting to death of spouse.	-.47280
12. Having more time to myself.	.38058

Factor 14
Career Development

Items	Loadings
*42. Expanding vocational interests.	.76878
**43. Choosing and establishing a career.	.42627

* Item's loading on Factor 1: .26406
** Item's loading on Factor 1: .27197

APPENDIX M

TABLE XVII

Stepwise Multiple Regression Analysis of the Life Events Subsection

ADLI

Step	Variable	R^2	T	Significance of T	β	Beta
1	Age	.0410	-2.541	.01	-.20427	-.2025

APPENDIX M

TABLE XVIII

Stepwise Multiple Regression Analysis of the Learning Activities Subsection ADLI

Step	Variable	R^2	T	Significance of T	β	Beta
1	Educational Level	.1054	3.306	.0012	1.0376	.3247
2	Work Area	.1669	-3.566	.0005	-.6288	-.2552
3	Sex	.1946	2.949	.0037	2.8344	.1687
4	Income	.2189	2.145	.0336	.7993	.1747

APPENDIX N

TABLE XIX

Correlation Matrix of the ADLI Subtests

Stage II

Subtest	1	2	3	4
1. Learning Activities	1.00			
2. Learning Activities by High, Medium, Low	.90****	1.00		
3. Life Events	.11	.05	1.00	
4. Adulthood Tasks Learning	.38***	.29**	.27**	1.00

** $p \leq .01$

*** $p \leq .001$

**** $p \leq .0001$

APPENDIX N

TABLE XX

Correlation of Selected Demographics with the Adulthood Tasks Factors

Stage II

Variable	Achievement	Adaptation	Selfawareness	Health	Redefinition of Family	Family	Attachment	Parenting	Philosophy	Retirement	Sociability	Citizenships	Constraints	Career Development
Age	-.64****	.12	-.02	.29*	-.15	.00	.39**	.10	.29*	.50***	.15	.00	.11	-.19
Sex	.06	.31*	.31*	.25*	.32*	.23*	.17	.00	.12	-.19	.39*	.24*	.31*	.14
Income	-.15	-.49**	-.26*	-.57****	-.31*	-.22*	-.40**	-.17	-.02	-.08	.44***	-.41**	-.25*	-.36*
Educational Level	.29*	-.00	-.12	-.20*	-.11	-.16	-.38**	-.29*	-.21	-.25*	-.10	-.02	-.19	-.14

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

**** $p \leq .0001$

APPENDIX N

TABLE XXI

Correlation Matrix of ADLI Subtests with

Adulthood Tasks Factors

Stage II

Subtests	Achievement	Adaptation	Selfawareness	Health	Redefinition of Family	Family	Attachment	Parenting	Philosophy	Retirement	Sociability	Citizenships	Constraints	Career Development
Life events	.24*	.13	.08	.04	.21*	.07	.04	-.03	.00	-.10	.05	-.05	-.01	.05
Learning activities	.32**	.18	.19*	.08	-.00	-.00	-.16	.01	.14	.04	.12	.23*	.12	.14
Learning activities by High, Medium, Low	.23*	.15	.16	.05	.05	-.02	-.19*	.07	.09	.06	.08	.23*	.07	.07

* $p \leq .05$
** $p \leq .01$

APPENDIX O

TABLE XXII

Crombach's Alpha Reliability Coefficients of the Adult Development Learning Inventory

Subsection	Alpha	Standardized Item Alpha	F	Level of Significance
Learning Activities	.83	.83	63.66	.0000
Adulthood Tasks	.94	.94	51.36	.0000
Adulthood Tasks Learning	.93	.93	30.53	.0000

APPENDIX P

Stage III - Descriptive Statistics

TABLE XXIII

Sample Characteristics

(N = 38)

Item	Percent of Sample (%)	N
Are you currently enrolled as a student?		
Yes, full-time	7.9	3
Yes, part-time	10.5	4
No	81.6	31
Current learning effort		
Learning alone	26.3	10
With one or two others	5.3	2
Course for credit	18.4	7
Course for no credit	..	..
At work, church, library	31.6	12
Not involved in any learning	18.4	7
Chief motivation for learning		
Job	60.5	23
Family	5.3	2
Personal growth	21.1	*
Health	2.6	1
Religion	2.6	1
Community interests	2.6	1
Leisure activities	..	..
Not applicable/None of these	5.3	2
Transition or change status		
Not much hs changed	21.1	8
Appraisal of my life	23.7	9
A definite change	31.6	12
A major transition	23.7	9
Transition or change size		
Huge change of central importance	13.2	5
Large/important change	31.6	12
Definite change with some importance	28.9	11
Small/unimportant	7.9	3
Not applicable	18.4	7

APPENDIX P

Stage III - Descriptive Statistics

TABLE XXIV

ADLI

Life Events

(N = 38)

	Cummulative Percent-	Within 0-1 mo.	Within 1-6 mo.	Within 6-12 mo.	Within 1-2 years	Over 2 years
Death of child or spouse (husband, wife or mate)?	21.1					8 (21.1)
Death of child or spouse (husband, wife or mate)? (2nd)	0.0					
The death of a parent, brother or sister?	50.0		1 (2.6)	1 (2.6)	2 (5.3)	15 (39.5)
The death of a parent, brother or sister? (2nd)	28.9					11 (28.9)
The death of a parent, brother or sister? (3rd)	15.8				1 (2.6)	5 (13.2)
Loss of close friend or important relationship by death?	60.5	1 (2.6)	1 (2.6)	2 (5.3)	4 (10.5)	15 (39.5)
Loss of a close friend or important relationship by death?(2)	15.8				2 (5.3)	4 (10.5)
Legal troubles resulting in being held in jail?	2.6			1 (2.6)		
Financial difficulties?	18.4	2 (5.3)	2 (5.3)		1 (2.6)	2 (5.3)
Being Fired or laid off?	10.5					4 (10.5)

	Cummulative Percent-	Within 0-1 mo.	Within 1-6 mo.	Within 6-12 mo.	Within 1-2 years	Over 2 years
A miscarriage or abortion (self or spouse)?	15.8					6 (15.8)
Divorce, or a breakup with a lover?	26.3		1 (2.6)	1 (2.6)	2 (5.3)	6 (15.8)
Separation from spouse because of marital problems?	18.4					7 (18.4)
Court appearance for a serious violation?	2.6			1 (2.6)		
An unwanted pregnancy (self, wife or girlfriend)?	5.3					2 (5.3)
Hospitalization of a family member for serious illness?	57.9	6 (15.8)	6 (15.8)	2 (5.3)	2 (5.3)	6 (15.8)
Unemployment more than one month (if regularly employed)?	13.2				1 (2.6)	4 (10.5)
Illness/injury kept in bed for week or more, hosp. or emerg. room?	28.9		1 (2.6)	2 (5.3)	3 (7.9)	5 (13.2)
An extra-marital affair?	13.2	1 (2.6)				4 (10.5)
The loss of a personally valuable object?	18.4	1 (2.6)	1 (2.6)		2 (5.3)	13 (7.9)
Involvement in a lawsuit (other than divorce)?	10.5		1 (2.6)			3 (7.9)
Failing an important examination?	7.9			1 (2.6)		2 (5.3)
Breaking an engagement?	2.6					(1.6)
Arguments with spouse (husband, wife or mate)?	36.8	7 (18.4)	3 (7.9	3 (7.9	1 (2.6)	
Taking on a large loan?	42.1	3 (7.9)	2 (5.3)	1 (2.6)	2 (5.3)	8 (21.1)
Troubles with boss or other workers?	23.7	2 (5.3)	2 (5.3)	3 (7.9)		2 (5.3)

	Cummulative Percent-	Within 0-1 mo.	Within 1-6 mo.	Within 6-12 mo.	Within 1-2 years	Over 2 years
Separation from a close friend?	13.2					5 (13.2)
Taking an important examination?	26.3	3 (7.9)	2 (5.3)	1 (2.6)		4 (10.5)
Separation from spouse because of job demands?	13.2	2 (5.3)	1 (2.6)	2 (5.3)		
A big change in work or in school?	57.9	1 (2.6)	6 (15.8)	5 (13.2)	1 (2.6)	9 (23.7)
A move to another town, city, state or country?	23.7					9 (23.7)
Getting married or returning to spouse after separation?	18.4					7 (18.4)
Minor violations of the law?	10.5				1 (2.6)	3 (7.9)
Moved home within the same town or city?	23.7	1 (2.6)	1 (2.6)			7 (18.4)
The birth or adoption of a child?	28.9					11 (28.9)
Spouse unfaithful?	5.3					2 (5.3)
Attacked, raped or involved in violent acts?	5.3					2 (5.3)

Mean = 164.5
Maximum = 562
Minimum = 0

APPENDIX P

Stage III - Descriptive Statistics

TABLE XXV

ADLI

Coping Strategies

(N = 38)

	Percent in Sample		
	Does Not Apply	Does Apply	Does Apply & was very Helpful
1. I sought increased emotional support from others.	26.3	13.2	60.5
2. I tried to find new interests.	21.1	57.9	21.1
3. I looked for a person who could provide direction for me.	57.9	23.7	18.4
4. I tried to find some other outlets, like sports, cooking or gardening, to relieve some of the feelings I had.	21.1	57.9	21.1
5. I tried to talk to others about the event.	28.9	28.9	57.9
6. I sought some form of counseling or therapy.	71.1	10.5	18.4
7. I tried to find others who had experienced the event to see how they dealt with it.	57.9	23.7	18.4
8. I tried to devote myself to work.	52.6	39.5	7.9
9. I spent more time in nature, listening to music, with art or writing.	50.0	26.3	23.7
10. I sought consulation in philosophy or religion	60.5	18.4	21.1

		Percent in Sample		
		Does Not Apply	Does Apply	Does Apply & was very Helpful
11.	I attended self development groups or classes, sought social skills training or academic/ vocational counseling.	76.3	10.5	13.2
12.	I spend more time reading, observing, learning.	18.4	57.9	23.7

Mean = 9.65
Standard deviation = 4.72
Maximum = 22
Minimum = 2

APPENDIX P

Stage III - Descriptive Statistics

TABLE XXVI

ADLI

Learning Activities

(N = 38)

	Item	Percent of Sample YES
1.	Attended a meeting of a group or organization to learn or discuss things.	68.4
2.	Went to a conference, institute, or workshop.	63.2
3.	Took a correspondence or home study course	2.6
4.	Took a course at a university, college, community college, or high school for credit.	18.4
5.	Took a course at a university, college, community college, or high school for no credit.	7.9
6.	Learned something from doctor, dentist, lawyer, tax advisor, or specialist/expert.	78.9
7.	Read an academic, technical or professional magazine.	86.8
8.	Involved in a learning activity through a museum or art gallery.	39.5
9.	Involved in a learning activity through a club, YMCA or professional organization	21.1
10.	Involved in independent study.	65.8

Item	Percent of Sample
11. Attended a labor union short course or meeting.	5.3
12. Took a course or attended a lecture through a community organization or government program.	18.4
13. Read, observed, or listened with the main purpose to gain knowledge or skill.	100.0
14. Participated in self-development groups/classes.	26.3
15. Involved with programmed textbook or computer-aided instruction.	36.8
16. Attended a class or training session through a hospital or other health organization.	5.3
17. Participated in some form of human relations training such as stress management or creative problem solving.	36.8
18. Participated in social skills training such as assertiveness training or communication skills.	26.3
19. Participated in civic education or volunteer training.	18.4
20. Participated in some type of personal development training to include:	
a. consumer education/ homemaking skills	21.1
b. time/leisure use	26.3
c. career preparation	34.2
d. money management	34.2
e. nutrition/health	18.4
f. values clarification	7.9
g. pre-retirement workshops	2.6
h. other	15.8

Item	Percent of Sample
21. Took private or individual instruction such as music lessions or lessons from a golf or tennis professional.	13.2
22. Learned something completely on my own through reading, observing, or other channels.	97.4
23. Participated in a workshop class or study group or other learning activity dealing with family relationships such as	
a. marriage counseling/workshops	7.9
b. parenting education	10.5
c. divorce or singles workshops	2.6
d. other	15.8
24. Participated in workshops/classes or other learning activity related to occupational information, career exploration, mid-career change, values clarification, job updating.	36.8
25. Participated in a class/course or other learning activity related to a hobby or craft.	15.8
26. Took a class or seminar at work or because of something related to my job.	44.7
27. Participated in a class, study group, or course at a church.	31.6
32. Participated in a class, study group, or course through the library.	..
29. Followed a class/course on TV, radio or cassette tape.	21.1
30. Attended a public lecture	23.7

Item	Percent of Sample
31. Took a guided tour.	47.4
32. Involved with apprenticeship or vocational school course.	5.3
33. Participated in some form of counseling or therapy, either as an individual or in a group.	26.3

Mean = 12.87
Standard deviation = 5.5
Minimum = 4
Maximum = 25

Frequencies by Thirds

Classification	Number of Learning Activities	Percent of Sample
Low	4 - 10	34.2
Medium	11 - 16	39.5
High	17 - 25	26.3

APPENDIX P

Stage III - Descriptive Statistics

TABLE XXVII

ADLI

Adulthood Tasks - Response Set 1

(N = 38)

Percent of Sample						
How important is this task at this time in your life?						
A (%)	B (%)	C (%)	D (%)	E (%)	Item	Item Mean
2.6	0.0	21.1	39.5	36.8	1. Learning new skills and ideas.	4.08
13.2	23.7	26.3	15.8	21.1	2. Finding a congenial social group.	3.08
86.8	7.9	5.3	0.0	0.0	3. Starting a family.	1.18
28.9	5.3	10.5	2.6	52.6	4. Learning to live with a marriage partner.	3.45
42.1	7.9	15.8	15.8	18.4	5. Moving to a new job; adapting to a changing job.	2.61
21.1	7.9	13.2	31.6	26.3	6. Advancing in my career.	3.34
15.8	7.9	21.1	23.7	31.6	7. Managing shifts in family income or expenses.	3.47
5.3	5.3	10.5	28.9	28.9	8. Becoming more in touch with my feelings and values.	3.71
10.5	2.6	18.4	44.7	23.7	9. Further developing my specialized knowledge and skills.	3.68

Percent of Sample							
How important is this task at this time in your life?							
A (%)	B (%)	C (%)	D (%)	E (%)		Item	Item Mean
23.7	15.8	13.2	21.1	26.3	10.	Changing goals in order that they might reflect my life and what I want out of it.	3.11
7.9	23.7	39.5	15.8	13.2	11.	Developing a variety of interests.	3.03
15.8	15.8	39.5	13.2	15.8	12.	Having more time to myself.	2.97
18.4	2.6	18.4	26.3	34.2	13.	Being successful in my career.	3.55
2.6	18.4	15.8	47.4	15.8	14.	Contributing to society.	3.55
0.0	13.2	23.7	36.8	26.3	15.	Using my leisure meaningfully.	3.76
0.0	10.5	10.5	47.4	31.6	16.	Sharing my knowledge; being helpful to younger friends and associates.	4.00
13.2	7.9	26.3	18.4	34.2	17.	Accomplishing a few important things in the time I have left.	3.53
0.0	0.0	18.4	23.7	57.9	18.	Maintaining warm relationships.	4.40
21.1	13.2	2.6	10.5	52.6	19.	Being a parent; raising my children.	3.61
15.8	2.6	2.6	15.8	63.2	20.	Maintaining a vital relationship with my mate.	4.08

Percent of Sample							
How important is this task at this time in your life?							
A (%)	B (%)	C (%)	D (%)	E (%)		Item	Item Mean
13.2	2.6	26.3	34.2	23.7	21.	Achieving my financial and material goals.	3.53
0.0	2.6	10.5	42.1	44.7	22.	Maintaining my physical health and well-being.	4.29
2.6	15.8	13.2	26.3	42.1	23.	Living in harmony with my religious beliefs and feelings.	3.90
7.9	5.3	21.1	26.3	39.5	24.	Coping with stress.	3.84
7.9	15.8	18.4	23.7	34.2	25.	Dealing with change in my life.	3.61
7.9	7.9	26.3	34.2	23.7	26.	Attaining wisdom; seeing "the big picture".	3.58
68.4	2.6	5.3	5.3	18.4	27.	Finding an appropriate partner or mate.	2.03
36.8	13.2	13.2	15.8	21.1	28.	Redefining and reassessing relationships with partner.	2.71
18.4	13.2	15.8	21.1	31.6	29.	Redefining and reassessing family relationships.	3.34
28.9	10.5	7.9	26.3	26.3	30.	Adjusting to health problems.	3.11
28.9	18.4	18.4	13.2	21.1	31.	Adjusting to physical limitations.	2.79

Percent of Sample							
How important is this task at this time in your life?							
A (%)	B (%)	C (%)	D (%)	E (%)		Item	Item Mean
50.0	7.9	10.5	13.2	18.4	32.	Adjusting to "empty nest"; reworking attitudes, accepting children leaving home.	2.42
39.5	2.6	23.7	23.7	10.5	33.	Accepting care of aging parents; handling increased demands of older parents; adjusting to role reversal with parent.	2.63
28.9	13.2	15.8	28.9	13.2	34.	Reexamining work/ career choice; revising career plans.	2.84
28.9	13.2	28.9	13.2	15.8	35.	Preparing for retirement	2.74
57.9	5.3	2.6	26.3	7.9	36.	Adjusting to death of parents	2.21
47.4	13.2	21.1	10.5	7.9	37.	Adapting to a changing time perspective.	2.18
15.8	5.3	36.8	23.7	18.4	38.	Managing a home.	3.24
36.8	18.4	7.9	18.4	18.4	39.	Developing an ethical system.	2.63
31.6	13.2	21.1	21.1	13.2	40.	Searching for meaning.	2.71
39.5	13.2	10.5	15.8	21.1	41.	Becoming reconciled to death.	2.66
21.1	18.4	31.6	18.4	10.5	42.	Expanding vocational interests.	2.79

Percent of Sample							
How important is this task at this time in your life?							
A (%)	B (%)	C (%)	D (%)	E (%)		Item	Item Mean
47.4	10.5	23.7	10.5	7.9	43.	Choosing and establishing a career.	2.21
78.9	0.0	2.6	5.3	13.2	44.	Adjusting to the death of a spouse.	1.74
55.3	5.3	7.9	13.2	18.4	45.	Adjusting to retirement and reduced income.	2.34
52.6	13.5	21.1	10.5	2.6	46.	Establishing an explicit affiliation with my age group.	1.89
50.0	7.9	2.6	13.2	23.7	47.	Assisting teenage children to become responsible, happy adults.	2.51
18.4	21.1	39.5	18.4	2.6	48.	Contributing to community affairs.	2.60
0.0	2.6	5.3	18.4	71.1	49.	Having a good family life.	4.62
71.1	5.3	5.3	2.6	13.5	50.	Adjusting to single life.	1.78

A - Unimportant
B - Of little importance
C - Moderately important
D - Important
E - Very important

APPENDIX P

Stage III - Descriptive Statistics

TABLE XXVIII

ADLI

Adulthood Tasks - Response Set 2

(N = 38)

Item	Have you been involved in a learning activity as a result of the task? Percent of Sample YES (%)
1. Learning new skills and ideas.	92.1
2. Finding a congenial social group.	28.9
3. Starting a family.	10.5
4. Learning to live w/ a marriage partner.	42.1
5. Moving to a new job; adapting to a changing job.	47.4
6. Advancing in my career.	76.3
7. Managing shifts in family income or Expenses.	44.7
8. Becoming more in touch with my feelings and values	55.3
9. Further developing my specialized knowledge and skills	73.7
10. Changing goals in order that they might reflect my life and what I want out of it.	44.7
11. Developing a variety of interests.	52.6
12. Having more time to myself	28.9
13. Being successful in my career.	68.4
14. Contributing to society.	42.1
15. Using my leisure meaningfully.	47.4
16. Sharing my knowledge; being helpful to younger friends and associates.	55.3

Item	Have you been involved in a learning activity as a result of the task? Percent of Sample YES (%)
17. Accomplishing a few important things in the time I have left.	39.5
18. Maintaining warm relationships.	55.3
19. Being a parent; raising my children.	44.7
20. Maintaining a vital relationship with my mate.	55.3
21. Achieving my financial and material goals.	63.2
22. Maintaining my physical health and well-being.	73.7
23. Living in harmony with my religious beliefs and feelings.	63.2
24. Coping with stress.	47.4
25. Dealing with change in my life.	50.0
26. Attaining wisdom; seeing "the big picture".	47.4
27. Finding an appropriate partner or mate.	21.1
28. Redefining and reassessing relationships with partner.	44.7
29. Redefining and reassessing family relationships.	44.7
30. Adjusting to health problems.	34.2
31. Adjusting to physical limitations.	23.7
32. Adjusting to "empty nest"; reworking attitudes, accepting children leaving home.	26.3
33. Accepting care of aging parents; handling increased demands of older parents; adjusting to role reversal with parent.	26.3
34. Reexamining work/career choice; revising career plans.	42.1
35. Preparing for retirement.	42.1
36. Adjusting to death of parents.	15.8

Item	involved in a learning activity as a result of the task? Percent of Sample YES (%)
37. Adapting to a changing time perspective.	18.4
38. Managing a home.	50.0
39. Developing an ethical system.	26.3
40. Searching for meaning.	34.2
41. Becoming reconciled to death.	26.3
42. Expanding vocational interests.	44.7
43. Choosing and establishing a career.	36.8
44. Adjusting to the death of a spouse.	5.3
45. Adjusting to retirement and reduced income.	21.1
46. Establishing an explicit affiliation with my age group.	15.8
47. Assisting teenage children to become responsible, happy adults.	28.9
48. Contributing to community affairs.	34.2
49. Having a good family life.	60.5
50. Adjusting to single life.	13.2

Mean = 20.5

Standard deviation = 3.82

Maximum = 43

Minimum = 5

APPENDIX P

Stage III - Descriptive Statistics

TABLE XXIX

MBTI

Myers-Briggs Type Indicator

(N = 38)

SENSING TYPES with THINKING	SENSING TYPES with FEELING	INTUITIVE TYPES with FEELING	INTUITIVE TYPES with THINKING	
ISTJ N = 4 % = 10.5	*ISFJ* N = 7 % = 18.4	*INFJ* N = 0 % = 0.0	*INTJ* N = 2 % = 5.3	JUDGING
ISTP N = 0 % = 0.0	*ISFP* N = 1 % = 2.6	*INFP* N = 1 % = 2.6	*INTP* N = 1 % = 2.6	PERCEPTIVE — INTROVERTS
ESTP N = 2 % = 5.3	*ESFP* N = 2 % = 5.3	*ENFP* N = 4 % = 10.5	*ENTP* N = 2 % = 5.3	PERCEPTIVE
ESTJ N = 3 % = 7.9	*ESFJ* N = 5 % = 13.2	*ENFJ* N = 1 % = 2.6	*ENTJ* N = 3 % = 7.9	JUDGING — EXTRAVERTS

	N	Percent
E	22	57.9
I	16	42.1
S	23	60.5
N	15	39.5
T	17	44.7
F	21	55.3
J	24	63.2
P	14	36.8
ST	10	26.3
SF	14	36.8
NF	7	18.4
NT	7	18.4

APPENDIX P

Stage III - Descriptive Statistics

TABLE XXX

Mean Scores on the ADLI Subsections of the Selected MBTI Subgroups

(N = 38)

Subgroups	Life Events	Learning Activities	Adulthood Tasks
ST	171.9	13.7	23.4
SF	138.8	11.5	21.4
NF	225.1	15.6	22.3
NT	145.1	11.7	14.9

APPENDIX Q

TABLE XXXI

Stepwise Multiple Regression Analysis of the MBTI Preferences with Selected Demographics

MBTI Function	Variable	R^2	β	T	Significance of T	Beta
SN	Educational Level	.15291	8.6565	2.288	.029	.391036
TF	Sex	.42007	31.8772	4.583	.0001	.64128
JP	Educational Level	.17340	8.9478	2.466	.019	.416413

APPENDIX P

TABLE XXXII

Correlations of the ADLI Subtests and the Continuous Preference Scores of the MBTI

ADLI Subtest	MBTI Preference EI	SN	TF	JP
Learning Activities	-.15	.23*	-.09	.19
Life Events	-.10	.29*	-.00	-.20*
Adulthood Task Learning	.05	-.11	.17	-.00

* $p \leq .05$

APPENDIX R

TABLE XXXIII

Correlations of the ADLI Subtests and the and the Eight MBTI Functions

Function	Learning Activities	Life Events	Adulthood Task Learning
Extraversion (E)	.16	.14	.02
Introversion (I)	-.23*	-.19	-.02
Sensing (S)	-.18	-.17	-.11
Intuition (N)	.29*	.28*	.13
Thinking (T)	.11	.13	.09
Feeling (F)	-.03	-.03	-.21*
Judging (P)	-.17	-.12	-.00
Perception (P)	.19	.15	.00

$P \leq .05$

APPENDIX R

TABLE XXXIV

Pearson Correlation Matrix of MBTI Functions and Adulthood Tasks Factors

MBTI Function	Achievement	Adaptation	Selfawareness	Health	Redefinition of Family	Family	Attachment	Parenting	Philosophy	Retirement	Sociability	Citizenships	Constraints	Career Development
Extraversion (E)	-.05	.07	-.07	-.17	-.03	-.12	.05	.05	.07	-.01	-.00	-.02	-.15	-.14
Introversion(*)	.03	.17	-.02	-.18	.03	-.05	.01	.00	.03	-.02	.04	.07	.23*	.15
Sensing (S)	-.28*	-.17	-.05	.28*	.02	.24*	.28*	.33*	.30*	.04	.18	.05	.28*	-.07
Intuition (N)	.29*	.13	-.03	-.27*	-.01	-.24*	-.30*	-.29*	-.31*	.03	-.27*	-.06	-.33*	.08
Thinking (T)	.05	-.16	-.14	-.03	-.20*	-.17	-.03	.09	.13	.23*	-.34**	-.11	-.22*	.00
Feeling (F)	.11	.23*	.24*	.02	.30*	.27*	.04	.04	-.06	-.19	.35**	.17	.20*	.09
Judging (J)	-.16	-.04	-.04	.18	-.00	-.03	.02	.10	.12	.11	.00	-.27*	.07	.13
Perception (P)	.15	-.00	.04	-.18	.00	.04	-.02	-.07	-.08	-.13	.01	.24*	-.05	-.18

* $p \leq .05$
** $p \leq .01$

APPENDIX R

TABLE XXXV

Correlation Matrix of ADLI Subtests with Adulthood Tasks Factors Stage III

ADLI Subtest	Achievement	Adaptation	Self Awareness	Health	Redefinition of Family	Family	Attachment	Parenting	Philosophy	Retirement	Sociability	Citizenships	Constraints	Career Development
Learning Activities	.33**	-.05	.11	-.04	.03	-.11	-.01	-.16	.04	-.14	.00	.13	-.13	.10
Life Events	.21*	.20*	.26*	.07	.09	-.04	-.06	-.01	-.05	-.14	-.03	-.23*	-.16	.19
Adulthood Task Learning	.52****	.70****	.82****	.63****	.75****	.68****	.69****	.74****	.59****	.24*	.68****	.52****	.59****	.51***

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, **** $p \leq .0001$

APPENDIX S

TABLE XXXVI

Discriminant Analysis

Groups: ST, SF, NF, ST

Variable	Wilk's Lambda	F	Significance
Learning Activities	0.92	1.035	NS
Life Events	0.93	.888	NS
Adulthood Task	0.92	.979	NS

Variable	Eigenvalue	Canonical Correlation	Chi-Square	Significance
1*	0.09134	0.289	3.02 (df, 3)	NS

APPENDIX S

TABLE XXXVII

Discriminant Analysis: Classification Results

Actual Group	N	1	2	3	4
1. ST	10	1 10.0%	4 40.0%	3 30.0%	2 20.0%
2. SF	14	1 7.1%	8 57.1%	4 28.6%	1 7.1%
3. NF	7	1 14.3%	1 14.3%	5 71.4%	0 0.0%
4. NT	7	2 28.6%	3 42.9%	2 28.6%	0 0.0%

Percent cases correctly classified: 38.84%

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