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ABSTRACT

The purpose of this paper is to review and synthesize the literature on adult development and to suggest how this information can be applied to the practice of adult education. The first section discusses the nature of adult development, its definition, and key concepts. Sequential patterns of change in adulthood are examined in section 2, focusing on models formulated by Jung, Buhler, Erikson, Havighurst, Levinson, Gould, Sheehy, Loevinger, Perry, Kohlberg, and Fowler. Questions about the existence and nature of sequential models and the universality and generalizability of stage theories are aired. The next section provides a sampling of other approaches to development: the issue of personality change, the themes of work and love in adulthood, and the concept of life events and transitions. The second half of the paper explores the interrelationship between adult development and adult education, suggesting that an adult's motivation and need for education are most likely propelled by life-stage concerns and tasks. The paper concludes with practical applications of adult developmental research to adult education in the areas of program development, instruction, and counseling. (SK)

ADULT DEVELOPMENT: IMPLICATIONS FOR ADULT EDUCATION

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CONTENTS

FOREWORD

The Educational Resources Information Center Clearinghouse on Adult, Career, and Vocational Education (ERIC/ACVE) is one of 16 clearinghouses in a nationwide information system that is funded by the National Institute of Education. One of the functions of the Clearinghouse is to interpret the literature that is entered into the ERIC database. This paper is of particular interest to practitioners, researchers, and graduate students in the field of adult education and to adult vocational guidance personnel.

The profession is indebted to Sharan B. Merriam of Northern Illinois University for her scholarship in the preparation of this paper. Dr. Merriam is an Associate Professor of Adult and Continuing Education in the College of Education. Formerly, she was on the faculty at Virginia Polytechnic Institute and State University. Dr. Merriam has written extensively in the areas of adult development as it relates to adult education and the philosophy of adult education. Her books include Themes of Adulthood through Literature (1983), and Philosophical Foundations of Adult Education coauthored with John Elias (1980).

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EXECUTIVE SUMMARY

The purpose of this paper is to review and synthesize the literature on adult development and to suggest how this information can be applied to the practice of adult education. The first section discusses the nature of adult development, its definition, and key concepts. Sequential patterns of change in adulthood are examined in section 2, focusing on models formulated by Jung, Buhler, Erikson, Havighurst, Levinson, Gould, Sheehy, Loevinger, Perry, Kohlberg, and Fowler. Questions about the existence and nature of sequential models and the universality and generalizability of stage theories are aired. The next section provides a sampling of other approaches to adult development: the issue of personality change, the themes of work and love in adulthood, and the concept of life events and transitions. The second half of the paper explores the interrelationship between adult development and adult education, suggesting that an adult's motivation and need for education are most likely propelled by life-stage concerns and tasks. The paper concludes with practical applications of adult developmental research to adult education in the areas of program development, instruction, and counseling.

Information on the subject of adult development may be found in the ERIC system under the following descriptors and identifiers: *Adult Development; *Adult Education; Models; *Personality Change; *Midlife Transitions; Adults; *Developmental Stages; Developmental Tasks; *Individual Development; Program Development; Career Counseling; Life Cycles. (Asterisks indicate descriptors having particular relevance.)

INTRODUCTION

The diversity of institutions, programs, and clients characteristic of adult education has made it difficult for the field to evolve a single definition of adult education, one operating philosophy, or a professional focus upon which all can agree. One factor, however, perhaps so obvious as to be overlooked, that does provide a basis for unity is that we all work in some capacity with adults. Becoming acquainted with what is known about adulthood, about the patterns of growth and change that occur as adults age, can be a common endeavor for everyone in the field. Furthermore, such knowledge, thoughtfully applied, can also lead to more effective intervention in our roles as teachers, administrators, and counselors of adults.

The purpose of this paper is to review and synthesize the literature in the area of adult development and to suggest how this information can be applied to the practice of adult education. The first half includes a discussion of the nature of adult development, its definition and key concepts, an overview of sequential models of development, and a sampling of other approaches to the study of adulthood. The second part explores the interface between adult development and adult education and includes a discussion of the practical applications of adult development to adult education in the areas of program development, instruction, and counseling.

THE NATURE OF ADULT DEVELOPMENT

The second half of a person's life span was largely ignored by psychologists and educators until the middle of the 20th century. It was thought that nothing of significance happened to a person from the time of entry into young adulthood until the dying process set in. While developmental life-span researchers are concerned with the behavioral changes from birth to death, historically, childhood, adolescence, and later, old age received most if not all of the attention. The recognition of a period of life as a discrete segment needing investigation and deserving of research and special services is in itself a complicated process:

> First, individuals become aware of the specific characteristics of a given stage of life as a distinct condition. This discovery is then passed on to society in popularized versions. If it appears to be associated with a major social problem, it attracts the attention of agencies of welfare and social control. Finally it is institutionalized: legislation is passed and agencies are created to deal with its special needs and problems. (Hareven 1978, p. 203)

Infancy, childhood, adolescence, and old age have preceded the early and middle adult years as segments of the life span delineated for attention. With few exceptions, most of the scholarly research and theory on young and middle adulthood has been conducted within the last 25 years, with most major studies being published within the last decade.

Several factors can account for this increased interest in understanding how adults develop. One obvious factor is a dramatic increase in life expectancy. Compared with the person born in 1900 who could expect to live to age 47, a person born today can expect to live to be nearly 80 years old. Consequently, there are many more years to be an adult. There are also many more adults in our society. The adult segment of the United States' population has been increasing faster than the population as a whole, due in part to the post-World War II baby boom population nearing or in middle age.

Another factor leading to interest in adulthood has to do with the times in which we live. Rapid changes in technology, the environment, and sociocultural expectations require more flexibility on the part of adults to adapt and cope. The adult today can expect to make several career changes and has many more options with regard to interpersonal relationships, family structure, and life-style. By contrast, an adult living in the first half of this century most likely had one career with job security and had few, if any, options with regard to life-style and values.

Finally, social scientists are beginning to unravel the meaning of the concept of development itself and are devising more sophisticated strategies

for investigating components of development. For example, sequential designs, in which the best aspects of cross-sectional and longitudinal designs are preserved and the limitations minimized, are allowing for more complex questions to be examined (Baltes, Reese, and Nesselroade 1977).

At its simplest level, the concept of development implies change. Adults as well as children change in appearance, in behavior, in attitudes and values, in life-style, and so on. Wortley and Amatea (1982) summarize the questions about change that adult developmentalists seek to answer:

> (a) What are the changes to be expected or experienced in adulthood? (b) Are these changes sequenced in a predictable way, such as by age or stage? (c) How do these changes come about? Do they occur as a result of changing environmental demands (such as changes [dealt with] in social roles) or are they the result of evolving psychological or physiological processes? (d) How are such changes dealt with by the "healthy" individual (i.e., is there a predictable process for incorporating change or is the process idiosyncratic?); and finally, (e) What factors influence patterns of adaptation? (p. 477)

The notion of change or development means different things to different people. For some, it signifies progressing from simple to complex behavior, from a less differentiated state to a more differentiated state (Troll 1975). For others, the focus of development is on the description, explanation, and optimization of age-related changes from birth to death (Hultsch and Deutsch 1981). Still others, such as Neugarten (1973), view development as referring "not only to those processes that are biologically programmed and inherent in the organism, but also to those in which the organism is irreversibly changed or transformed by interaction with the environment" (p. 312). Research in adult development and aging generally focuses upon the observation, description, and measurement of changes in behavior over time.

Time, the key in developmental research, is both a complex and complicating variable. Neugarten and Datan (1973) distinguish three types of time that affect human development. Life time, or chronological age, is the most frequently used index of change, although it fails to be a meaningful predictor of much social and psychological behavior. Social time refers to the age-graded expectations of a particular society--that is, culture determines the appropriate time for certain behaviors, and different societies have different sets of age expectations not necessarily related to chronological age. Historical time "shapes the social system, and the social system, in turn, creates a changing set of age norms and a changing age-grade system which shapes the individual life cycle" (p. 57). Historical time consists of what writers call long-term processes such as industrialization as well as specific historical events that persons experience (e.g., a moon landing, a presidential election). Keeping the various dimensions of time in mind, Neugarten and Datan (1973) present the essence of developmental psychology: "to study sequences of change for the purpose of determining which ones are primarily developmental (in the sense of being tied to maturational change), and which ones are primarily situational--if indeed, this distinction can be made at all" (p. 69).

The question of whether changes in adulthood are developmental--that is, maturational, internal, organismic--as opposed to those induced by one's sociocultural, historical situation--will probably never be answered (Troll 1982). Indeed, it is much more likely that changes in adulthood are the result of the interplay of these factors, for

> although there may be certain regularities in the life cycle based on the external demands of social roles, there are also events that are not externally or socially based and arise more from within the individual than from without that create change. Thus changes in adulthood are not tied to biological aging per se, but to a complex of multiple environmental, interpersonal, and intrapersonal factors. (Wortley and Amatea 1982, p. 479)

SEQUENTIAL PATTERNS OF CHANGE IN ADULTHOOD

Within the last 30 years, several researchers have put forth what can loosely be called "theories" or explanatory paradigms of adult growth and change. Some emphasize internal determinants of change more than situational factors; some are more clearly hierarchical and age linked than others; and some have been labeled "phasic" and others "stage" theories. This paper will not attempt to categorize the major theories according to one or several of these dimensions; rather, the early theories of Jung, Buhler, Erikson, and Havighurst will be discussed first, followed by the more recent models of adult development proposed by Levinson, Gould, Sheehy, Loevinger, Perry, Kohlberg, and Fowler. A brief overview of each theory is presented first. This chapter concludes with a discussion of the issues and assumptions that underlie the organization of adulthood into sequential patterns of change.

Early Theories

The delineation of stages or sequential patterns of adulthood is certainly not a new phenomenon, nor is it peculiar to Western societies. Poets, philosophers, artists, and religious figures have observed and written about patterns of growth over the life span, including stages of adulthood. The Greek poet Solon, in the seventh century B.C., wrote about 10 stages of life, each 7 years long. Confucius in 500 B.C. noted different concerns for each decade from age 30 to 70. Other stages can be found in the Talmud, Hindu scriptures, and Shakespeare's As You Like It. It was not until the 20th century, however, that social scientists systematically investigated human development and attempted to chart patterns of growth and change.

In the early 1930s, Carl Jung formulated life stages based upon his clinical observations. His stages trace the development of consciousness, or the inner psychic life, in terms of the "problems" encountered at each stage. The first stage of youth begins after puberty and extends until middle age that begins between ages 35 and 40. The problems of youth are to put childhood behind, control sexual instincts, and overcome feelings of inferiority. It is a period of expanding consciousness. With middle age, "an important change in the human psyche" occurs (Jung 1971, p. 12); one questions "cherished convictions and principles," the body changes, and there is a male-female role reversal (i.e., men become more affiliative, women become more assertive). The second half of life is one of contraction rather than expansion, a turning inward "to illuminate the self." In old age it is necessary to have a sense of meaning, a purpose, and to face death gracefully. Jung poetically compares the stages of life with the rising and setting of the sun. In the morning (youth) the sun rises and "looks upon the wide, bright world which lies before it in an expanse that steadily widens the higher it climbs." At noon, or the beginning of middle age, "the descent begins. And the descent means the

reversal of all the ideals and values that were cherished in the morning. The sun falls into contradiction with itself. It is as though it should draw in rays instead of emitting them. Light and warmth decline and are at last extinguished" (p. 15).

Charlotte Buhler, also a pioneer in life-span psychology, evolved a theory of human development from analyzing 400 biographies. Her psychological stages correspond to biological phases of development; that is, each stage has a psychological task related to the intentionality with which one sets and pursues goals as well as a biological component. The first stage is from birth to 15 years and is one in which physical growth takes place and one in which plans and decisions are beginning to be made. Fifteen to twenty-five is a period of sexual reproductivity and experimental goal setting. Twenty-five to forty-five was found to be a culmination period, a period of biological stability and self-determination of goals. In the fourth phase (45 to 65), men and women examine the goals they have obtained. This is a period of introspection and self-evaluation; biologically, reproductive ability declines. Finally, the last stage is characterized by biological decline and the psychological task of evaluating the worth of one's life. This evaluation can lead to feelings of satisfaction or failure (Buhler 1968).

In the 1950s, two more formulations of the life cycle were proposed. Based largely upon his psychoanalytic practice, Erik Erikson (1950) advanced a theory of human development consisting of eight psychosocial stages. Robert Havighurst (1953), writing at about the same time, proposed a set of developmental tasks for each of seven segments of the life span.

Although published over 30 years ago, Erik Erikson's (1950) 8 stages of human development are read and quoted extensively throughout the world. They have also provided the framework for guiding and interpreting numerous recent investigations such as Vaillant's (1977) study of the Harvard men. The stages represent a series of crises or issues to be dealt with from birth to death. The early stages in Erikson's scheme parallel Freud's stages of psychosexual development. Erikson deviates from Freud, however, in focusing on the individual's relationship to the social world (hence, psychosocial tasks), in formulating stages that cover the entire life span, and in delineating a positive and negative component for each stage. That is, for each stage there is a choice between opposites--one negative and the other positive--and it is imperative that the person achieve a favorable balance of the positive over the negative. For example, the adolescent must achieve a sense of ego identity over role confusion, and the young adult must grapple with the issue of intimacy versus isolation. An interesting aspect of Erikson's theory is that he maintains that all stages are operative throughout life even though each age has an issue of primary importance. Briefly, the three adulthood stages are summarized as follows.

Young adulthood reflects the struggle between intimacy and isolation. A person is not capable of true intimacy until young adulthood because one must first achieve a sense of identity--the task for adolescents--in order to share the self with another. Failure to achieve intimacy results in living isolated from others, or being indiscriminately sociable.

In middle age, the issue of generativity versus stagnation arises. At this time of life it is important to be able to give to others, to care for future generations, and to produce something--children, work, art--that will outlive the self. Failure to do so results in stagnation, in a sense of impoverishment, in absorption and preoccupation with the self.

Finally, older persons are faced with the task of achieving a sense of ego integrity; that is, one can look back over one's life and accept it for what it was and feel content that one has contributed to the world. If the older person does not feel a sense of accomplishment and acceptance, then he or she will feel despair and loneliness and will fear death. The task of achieving ego integrity over despair represents a culmination of having worked through the previous seven stages. This last stage is brought on by the realization that life is soon to end. Death is faced more easily if one feels satisfied that life has been meaningful.

Robert Havighurst also proposed a set of tasks that individuals must deal with at each stage of life. In contrast to Erikson's tasks, which have their roots in Freudian psychology and are largely descriptive of ego development, Havighurst's tasks are primarily sociocultural. It was Havighurst, in fact, who defined "developmental task" as that "which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks" (Havighurst 1953, p. 2). Havighurst's adulthood tasks arise from a combination of social expectations and personal values. These tasks offer "teachable moments." In fact, "the adult educator can usefully see the adult part of the life cycle as consisting of a set of stages or phases which make different demands on education and offer different opportunities to the educator" (Havighurst 1964b, p. 18). The tasks for young, middle, and older adulthood are listed in figure 1.

Recent Sequential Models of Adult Development

Since the 1950s, the amount of research investigating the adult segment of the life cycle has increased considerably. Several major longitudinal studies such as the Kansas City Study of Adult Life, the Duke University Social and Medical Studies, and the Normative Aging Study of the Veterans' Administration Clinic in Boston were begun in the late 1950s and early 1960s. These studies have contributed much to our understanding of important aspects of adult development such as personality change, cognitive ability, value and attitude shifts, physical changes, and so on. In addition to these large-scale studies of various aspects of adult development, several researchers have followed the approach of earlier theorists and evolved orderly, sequential representations of growth and change in adulthood. While the earlier models encompassed the entire life span and were based largely upon clinical observations, these more recent models focus on adulthood and are derived from data collected systematically through interviews and surveys. The first three models to be discussed--those models of Levinson, Gould, and Sheehy--present stages of psychosocial development. Four other sequential models, each with a special focus, will also be discussed in the next section.

Young Adulthood

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
Finding a congenial social group

Middle Age

Achieving adult civic and social responsibility
Establishing and maintaining an economic standard of living
Assisting teenage children in becoming responsible and happy adults
Developing adult leisure-time activities
Relating to one's spouse as a person
Accepting and adjusting to the physiological changes of middle age
Adjusting to aging parents

Older Adult

Adjusting to decreasing strength and health
Adjusting to retirement and reduced income
Adjusting to death of spouse
Establishing an explicit affiliation with members of one's own age group
Meeting social and civic obligations
Establishing satisfactory physical living arrangements

Figure 1. Tasks for young, middle, and older adulthood

Source: Havighurst 1953

Perhaps the best known of the recent studies is Daniel Levinson's (Levinson et al. 1978) theory of adult development. His findings are based upon intensive interviews with 40 men between the ages of 35 and 45. In seeking to identify developmental periods, Levinson also evolved the concept of the life structure. The life structure is the basic framework of a person's life at any given time; adulthood consists of building and modifying this structure. There are periods of stability when one solidifies the life structure, and there are periods of transition when the structure is questioned and changed.

Levinson and his associates have proposed six distinct sequential periods of male development, each linked to chronological age:

- o Early Adult Transition or Leaving the Family. This stage begins in late adolescence and involves moving out of the family home and establishing a sense of identity separate from one's family of origin.

- o Entering the Adult World. This task of the early twenties necessitates making a tentative commitment to adult roles.

- o Age 30 Transition. Occurring between ages 28 and 33, this is a critical time of modifying the life structure.

- o Settling Down. This period occurs in the thirties and is a time of deeper commitments to career and family.

- o Midlife Transition. Between ages 40 and 45 is another critical period in which men reassess their goals, values, and dreams and may make dramatic changes in the life structure.

- o Restabilization or Middle Adulthood. Beginning in the midforties, this is a time of new achievements, stability, and productivity.

Several later periods--Age 50 Transition, Culmination of Middle Adulthood, and Late Adult Transition--have also been tentatively identified.

Roger Gould's (1972, 1978) stages of development grew out of combining his observations of adults in therapy with the results of a survey of over 500 men and women not in therapy. His theory charts inner stages of consciousness in which the adult gives up various illusions and myths held over from childhood. Adults have to give themselves permission to confront the realities of the adult world, and this confrontation results in a transformation or change in the level of consciousness. Gould's stages, similar to Levinson's, are as follows:

- o Leaving the Parents' World (16-22)

- o Getting into the Adult World (22-28)

- o Questioning and Reexamination (28-34)

- o Midlife Decade (35-45)

- o Reconciliation and Mellowing (43-50)

- o Stability and Acceptance (50 and over)

Gould (1978) speaks of adulthood as a time of dismantling the "protective devices" that gave us an illusion of safety as children (p. 39). In a sequential manner we deal with four major false assumptions: "We'll always live with our parents and be their child," "They'll always be there to help when we can't do something on our own," "Life is simple and controllable," and "There is no real death or evil in the world" (p. 39-40).

Gail Sheehy (1976) popularized the idea of growth and development in adulthood with the publication of Passages: Predictable Crises of Adult Life. In addition to synthesizing the research findings of Levinson, Gould, and others, Sheehy herself interviewed 115 middle-class men and women. Information gleaned from previous research and these interviews resulted in her formulation of predictable changes in adulthood. Perhaps Sheehy's most noteworthy contribution is her attention to adult female development as well as male development. For each of the stages Sheehy describes the female experience. The stages are outlined as follows:

- o Pulling Up Roots (18-22). While men move out from the family and establish their identity, women often become thwarted at this stage because they either realize their identity through another man, or must choose between career and family.

- o Trying Twenties (22-28). This is a period when adults set goals and make decisions that guide their future actions. Women at this stage may experience conflicting drives between a family orientation and a need for success in the world. Lack of female role models is a crucial problem at this stage.

- o Catch 30 (28-32). At this time both men and women are restless and reflective and reevaluate earlier commitments.

- o Rooting and Extending (32-35). Life stabilizes, men concentrate on careers, usually at the expense of family and social life. Women in their early thirties assume one of several patterns ranging from the "caregiver" who concentrates on family, to the "either-or" woman who chooses between love and work, to the "integration" woman who tries to combine both family and work.

- o Deadline Decade (35-45). In recognizing that life is finite and that one has only a certain number of years left to live, adults at this time undergo an intense period of introspection, questioning, and reexamination of values and goals. Women, Sheehy feels, experience this crisis somewhat earlier than men.

- o Renewal or Resignation (45-50). If adults have reevaluated themselves in the previous stage and were able to set realistic goals and expectations, then this period will be one of stability and satisfaction. Those who refuse to examine their lives will most likely experience this period with a vague sense of resignation and perhaps dissatisfaction.

Sequential Models with a Special Focus

Several theorists have delineated models of development related to a specific area of growth. The following four models will be briefly discussed: Loevinger's ego stages, Perry's intellectual development, Kohlberg's moral stages, and Fowler's stages of faith development. These four models all share the assumption that the unfolding of stages depends upon maturation of the

organism and that the sequence of stages is fixed and invariant. The emergence of higher stages depends upon having passed through lower stages. Each level in the hierarchy is qualitatively different from other levels in terms of how one accommodates the world. Higher levels of development represent a more complex, more differentiated, more "mature" state.

Jane Loevinger's (1976) theory of ego development is based upon defining the ego as a "master trait" that determines how one views the world and responds to it. Loevinger's earlier stages are labeled "Impulsive" and "Self-Protective." Here one conforms to rules and regulations, thinks in terms of stereotypes, and exhibits behavior that is dependent and manipulative. With increasing age and life experiences, a person moves into stages that are characterized by more self-awareness. These she identifies as "Conformist" (conforming to social norms and expectations) and "Conscientious-Conformist" where an individual begins "to think in terms of alternatives, exceptions, and multiple possibilities in situations" (Weathersby 1981, pp. 54-55). Once becoming self-aware, a person may move into the fifth stage--"Conscientious"--where one lives according to those rules and norms that have been evaluated and accepted as standards for living.

Another major shift occurs when one moves into the Autonomous Stage through a transition she labels "Individualistic." Here one comes to a sense of respect for individuality and learns to tolerate life's ambiguities, can synthesize and integrate apparently conflicting ideas, and so on. A person in Loevinger's highest stage--the Integrated Stage--is relatively rare, but would be characterized by an ability to reconcile "inner conflicts" and would "achieve a more consolidated sense of identity" (Weathersby 1981, p. 55).

William Perry (1981) became interested in the development of the thinking of his Harvard students. Through open-ended, in-depth interviews with students over their 4 years of study, Perry delineated a "map of sequential interpretations of meaning" that, he states, "has since been found to be characteristic of the development of students' thinking throughout a variety of educational settings" (p. 78). This map has since been linked to cognitive style, teaching style, the nature of knowledge, and other cognitive, ego, and moral development models (Weathersby and Tarule 1980).

Perry's model consists of nine positions with transitions between each position. Schlossberg (1984) summarizes these hierarchical stages as follows:

- o Basic duality. The world is seen in terms of polarities such as good/bad, right/wrong. Knowledge is absolute, and an "authority" (the teacher) has the "right answer," which will be duly revealed to the hard-working and obedient student.

- o Relativism. All knowledge and values, including those of authority, are contextual and relativistic.

- o Commitment. Although absolute certainty is impossible, some kind of personal commitment or affirmation is needed. As this commitment develops, the student affirms his or her own identity. (p. 8)

Lawrence Kohlberg (1973) has developed stages of moral development that are similar to Loevinger's and Perry's findings. Kohlberg maintains that moral development is inextricably linked to intellectual development. His stages are in fact based upon Piaget's stages of cognitive development. Kohlberg's six stages fall into three levels of development.

- o Preconventional. Moral decisions are made on the basis of fear of punishment and self-satisfaction of needs in exchange for occasionally satisfying the needs of others.

- o Conventional. Decisions reflect a commitment to uphold the social order and maintain expectations of the social units to which one belongs.

- o Autonomous or Principled. This level reflects an orientation in which an individual has examined moral values and principles apart from the sociocultural context. Decisions are made based upon self-chosen principles that uphold the dignity of human beings above and beyond their context.

Finally, James Fowler (1981) has proposed a theory of faith development paralleling Kohlberg's stages of moral development. Briefly, Fowler's (1983) six stages are as follows:

- o Children reflect the faith of their parents.

- o Middle childhood is characterized by taking on the beliefs of persons other than just parents.

- o The teen years are those in which one's faith conforms to that of peers. "A personal and largely unreflective synthesis of beliefs and values evolves to support identity" (p. 58).

- o Young adulthood is a period of critical reflection and doubting.

- o Midlife and beyond is a period of mature faith when one can "embrace" the "polarities in one's life," be alert to paradox, and be able to accept "multiple interpretations of reality" (ibid.).

- o The final stage can come about in midlife or beyond. Faith is from a universal perspective. "Beyond paradox and polarities, persons in this stage are grounded in oneness with the power of being" (ibid.).

The various sequential models of adult growth and development are arranged in chart form in table 1. Similarities among the earlier and more recent theories can be noted by glancing across a particular period, such as middle age. Those models that focus on one dimension of development (i.e., Loevinger, Perry, Kohlberg, and Fowler) also have much in common with one another. It would seem that research over the last 30 years has indeed revealed certain patterns of growth and development common to many men and women. The extent to which such models are representative of adult development is one of the several issues debated by those who continue to research in

TABLE I

SEQUENTIAL MODELS OF DEVELOPMENT

Jung	Buhler	Erikson	Havighurst	Levinson	Gould	Sheehy	Loevinger	Perry*	Kohlberg	Fowler
	0-15 Progressive Growth	Trust vs. Mistrust Autonomy vs. Shame Initiative vs. Guilt	Infancy and Early Childhood (9 Tasks)				Impulsive, Pre-social Self-Protective		Egocentric Punishment & Obedience	Reflect Faith of Parents Takes on Beliefs of Others
	15-25 Continued Growth Expansion	Industry vs. Inferiority Identity vs. Role Confusion	Middle Childhood (9 Tasks) Adolescence (10 Tasks)				Conformist Conscientious Conformist	Basic Duality Multiplicity Pre-Legitimate Multiplicity Subordinate Multiplicity Correlate Relativism Commitment Foreseen Initial Commitment Implications of Commitment Developing Commitment	Instrumental Relativist Good-boy, Nice-girl Approval	Conform to Peers
Youth (puberty to 35-40)	25-45 Stability of Growth Culmination Period Self-determination of Goals	Intimacy vs. Isolation	Early Adulthood--selecting a mate; living with spouse; starting a family; rearing children; home; starting an occupation; civic responsibility; congenial social group	17-22 Leaving the Family 22-28 Entering the Adult World 28-33 Age-30 Transition 33-40 Settling Down	16-22 Leaving the Parents' World 22-28 Getting Into the Adult World 28-34 Questioning and Reexamination 35-45 Midlife Decade	18-22 Pulling Up Roots 22-28 Trying Twenties 28-32 Catch 30 32-39 Rooting and Extending	Conscientious Individualistic Autonomous		Authority, Rule Law & Order Social Contract, Autonomous, Principled	Critical Reflection and Doubting Mature Faith Stage
Middle Age	45-65 Loss of Reproductive Ability Self-Assessment	Generativity vs. Stagnation	Middle Age--civic and social respons.; standard of living; teenage children; leisure activities; spouse; physiological changes; parents	40-45 Midlife Transition 45-60 Middle Adulthood Restabilization	43-50 Reconciliation and Mellowing 50 and over Stability and Acceptance	35-45 Deadline Decade 45-50 Renewal or Resignation	Integrated		Universal Ethical Principle	Faith From Universal Perspective
Old Age	65 and over Regressive Growth Biological Decline Experience Fulfillment/ failure	Ego Integrity vs. Despair	Old Age--adjusting to death of spouse, retirement, decreased strength; social and civic obligations; friendship; living arrangements							

*Perry's stages occur over 4 years of college.

the field as well as those, such as adult educators, who seek to apply the findings.

Issues Related to Sequential Models of Development

The study of human development is in large part the search for orderly, predictable patterns of change over time, while at the same time recognizing the enormous diversity of behavior that exists among any group of people. The models or "theories" of development just presented represent numerous efforts to describe the changes that occur, the tasks to be dealt with as men and women age. There are many as yet unresolved issues surrounding these sequential models of development that only time and further research will be able to address. For the most part, the issues fall into two major categories: those that deal with the existence and nature of sequential models of development and those that question the universality and generalizability of stage theories.

Existence and Nature of Sequential Models

For several reasons, some writers and researchers have cautioned against the wholesale adoption of any sequential model of development. They contend that much of the research is based upon small, nonrepresentative samples or is largely *a priori* theorizing. Especially debated is the extent to which the models are age related. Sheehy (1976), Levinson et al. (1978), and Gould (1978) suggest that they are. Neugarten (1980) argues the point, stating that there is a normal expected series of life events, but they are age-irrelevant:

> Chronological age is becoming a poorer and poorer predictor of the way people live. An adult's age no longer tells you anything about that person's economic or marital status, style of life, or health. Somewhere after the first 20 years, age falls away as a predictor. . . . Lives are more fluid. There's no longer a particular year--or even a particular decade--in which one marries or enters the labor market or goes to school or has children. (p. 66)

In a recent study investigating the existence of age-related life stages, Lacy and Hendricks (1980) looked at life orientation and satisfaction of a sample of over 9,000 adults surveyed by the National Opinion Research Center. They found only minimal evidence for age-related adult life phases. Social class and, to a lesser extent, sex, race, and historical period were more significantly related to the attributes measured. The authors note that their findings "should be sufficient to alert other investigators to the tentative quality of existing developmental paradigms and to the potential problems of ignoring important social and contextual factors in explaining patterns of the life change" (p. 107).

A second question about the nature of sequential models has to do with the source of change in adulthood. To what extent is adult behavior biologically, internally, or intrapsychically determined, and to what extent do social, historical, or environmental factors determine behavior? For Kohlberg,

Piaget, Gould, and some others, changes are maturational. Levinson, Sheehy, and others propose models of development much more contingent upon sociocultural factors. If most change is biologically determined, the question arises as to how educators can enhance such development. If change is externally determined, the question becomes more how environmental factors can be arranged or controlled to bring about development. Closely linked to this issue is the question of the extent to which people change qualitatively, that is, become different, or quantitatively, that is, become more or less the same. In reality, "biological change is not absent from the years of adulthood, and certainly social change is ever present. Both biological and social dynamics probably interact in intricate fashion throughout life" (Troll 1982, p. 3).

The lack of consensus as to whether stages are age linked and whether movement through the stages is largely internally or externally propelled has led to the theories being classified numerous ways. Cross (1981) divides the theories into (1) phases of the life cycle and (2) stages of development. Phase theories emphasize identifiable transitions and periods of change and include the work of Gould (1978); Levinson (1978); Sheehy (1976); Lowenthal, Thurnher, and Chiriboga (1975); Neugarten (1968); and Havighurst (1972).

Developmental stage theories outline vertical progressions (as opposed to horizontal phases) and devote more time to explaining origins of change as opposed to describing the phase. Cross considers Erikson (1950), Perry (1981), Loevinger (1976), and Kohlberg (1973) to be stage theorists. Weathersby and Tarule (1980) divide the adult development literature into life-cycle stages, "age-linked periods in which certain issues and adaptive tasks are likely to be paramount" (p. 5), and hierarchical sequences of development in which "each level" presents "a qualitatively different frame of reference" (p. 23). Weathersby labels as hierarchical or structuralist those theorists that Cross identifies as stage theorists. In an even more refined categorization, Troll (1982) presents stage theories based on structure (Piaget, Kohlberg, Loevinger), life situations (Havighurst, Levinson, Sheehy, Gould), and issues (Erikson, Jung, Buhler).

Universality and Generalizability of Stage Theories

The extent to which sequential models of development can be applied to individuals, to cultural subgroups, and to women is indeed open to question. As noted earlier, many of the models are based upon small, white, middle-class, largely male samples. Those models that are not especially age linked, such as Erikson's, and would thus appear to be more generalizable, are difficult to operationalize and test. What does generativity look like, for example, and how do we measure it?

Recent research on women suggests that they do in fact experience developmental patterns different from what men experience. Carol Gilligan (1982), in particular, challenges the generalizability of male-dominated models, especially Kohlberg's, to women. She has found that women's moral decision making is predicated upon a different set of assumptions and perspectives. Women are much more relationship oriented than men, who make decisions based upon

impersonal standards of justice. Lowenthal, Thurnher, and Chiriboga (1975) found large differences in how men and women coped with life events even though they were at the same "stage" in life. Even the sequence of Erikson's stages for women has been questioned. Women may very well be working on generativity before they have achieved a clear sense of identity. When the family grows up, then women turn to themselves and attend to their own identity development. Finally, with regard to women's patterns, Weathersby and Tarule (1980) note that women may be faced with a special developmental task of "balance and integration" of career and family cycles (p. 19).

Very few studies have investigated the developmental patterns of various ethnic groups and socioeconomic classes other than the middle to upper middle class. One important study of blue-collar adult couples found that they had significantly different outlooks on life than their middle-class counterparts. They also experienced some of the developmental tasks and confronted many of the issues characteristic of the stage theories earlier in the life course than the theories propose (Rubin 1976). Lacy and Hendricks (1980) perceptively analyze the problem of generalizing models of development to various subcultures:

> The disciplinary focus of developmental models and the continuity which emerges from the reality of daily life may not be as compatible as is customarily assumed. In other words, the stage models of the lifecourse formulated by sociologists or psychologists and the practical problems of living in a given culture may not be particularly congruent. . . . Age-normative changes in pluralistic lifestyles which mark entry to and departure from socially recognized stages may not be as inclusive as is often assumed. A solution to this quandary may yet emerge, however, from a closer scrutiny of subcultural influences on individual negotiations and attempts to normalize their lives in light of the dominant values and themes implicit in that culture. (p. 106)

OTHER APPROACHES TO THE STUDY OF DEVELOPMENT

Not all research in adult development has as its goal the delineation of sequential models of development. Much important research has been conducted from the perspective of issues, events, or themes common to adults irrespective of chronological age. The following section offers a sample of these approaches through a brief discussion of research on (1) the issue of personality change, (2) the themes of work and love in adulthood, and (3) the concept of life events and transitions.

Personality Change

It might be recalled that the goal of developmental research is to uncover regularities of change in an organism either over time or as a result of the passage of time. The models just discussed lay out in some order issues, tasks, or concerns that individuals will encounter as they age. However, rather than proposing sequential models of development into which most adults can be placed, some researchers and writers study development in terms of the issues themselves. Several, for example, have addressed the question of whether intelligence declines with age. Others have asked whether personality changes as we age and, if so, how.

The earliest major study of personality was conducted by Bernice Neugarten and associates (1964). From repeated interviews over a 7-year period with 700 adults between the ages of 40 and 90, Neugarten found that some aspects of personality do change over time while other aspects do not. Outward social factors such as personal style, personality traits, and a person's adaptive behavior remain relatively stable over time. What does seem to change are intrapsychic processes. Briefly, Neugarten found an increased interiority, a shift from active to passive mastery, and a shift in sex role perspectives (i.e., women become more assertive and men become more nurturing). Neugarten (1964) summarizes her findings as follows:

> Forty-year-olds seem to see the environment as one that rewards boldness and risk-taking and to see themselves possessing energy congruent with the opportunities presented in the outer world. Sixty-year-olds seem to see the environment as complex and dangerous, no longer to be reformed in line with one's own wishes, and to see the self as conforming and accommodating to outer-world demands.
>
> Different modes of dealing with impulse life seem to become salient with increasing age. Preoccupation with the inner life becomes greater; emotional cathexes toward persons and objects in the outer world seem to decrease; the readiness to attribute activity and affect to persons in the

environment is reduced; there is a movement away from outer-world to inner-world orientations. (pp. 189-190)

Gould (1978) and Sheehy (1976) in particular have found similar changes in the middle years.

Recent studies contradict Neugarten's findings, however. Costa and McCrae (1980) found only slight increases in introversion with age. After tracking hundreds of adults over a 12-year period, they conclude that personality remains stable over the life span. In another major longitudinal study of personality, extensive data were collected on several hundred Berkeley and Oakland residents, first when they were in junior high, then in their late teens, midthirties, and midforties (Block 1981). Block found a high level of consistency on all measures used from the subjects' earliest ratings to those done in their midforties.

In a review of major studies asking whether or not personality changes as we age, Rubin (1981) points out that more often than not results are contingent upon what dimensions of personality one is interested in and the methodology used to study those dimensions. He concludes that

> a full picture of adult personality development would inevitably reflect this tension between sameness and transformation. Some aspects of personality, such as a tendency to be reclusive or outgoing, calm or anxious, may typically be more stable than other aspects, such as a sense of mastery over the environment. Nevertheless, it must be recognized that each of us reflects, over time, both stability and change. . . .
>
> Now that researchers have established beyond reasonable doubt that there is often considerable stability in adult personality, they may be able to move on to a clearer understanding of how we can grow and change, even as we remain the same people we always were. (p. 27)

Work and Love in Adulthood

Still another approach to the study of adulthood is to follow a theme as it weaves itself in and out or through an adult's life. The search for identity is one such theme, as is the changing nature of intimacy from young adulthood to old age. Work and love are two other themes central to understanding adulthood. They are often studied in tandem for, as Smelser (1980) writes, "there is reason to believe that the two phenomena overlap with each other almost to the point of fusion," and "work and love are in important respects substitutable for one another, in that varying amounts of libido and resources may be devoted to one at the expense of the other" (p. 5).

These interlocking themes were first articulated by Freud, who is often quoted as having said that maturity is measured by one's capacity to work and to love (Smelser 1980, p. 4). Indeed, work, broadly defined as being productive or contributing in some way, and love, the ability to relate meaningfully to other people, are central to an adult's life. And how well one does both speaks to that person's sense of well-being.

This is in fact a major finding of a recent study by George Vaillant (1977). His research followed the lives of 95 graduates from the Harvard classes of 1942, 1943, and 1944 for the purpose of studying good mental health. Working, loving, and playing wove themselves with varying emphases throughout the lives of these privileged men. From ages 20 to 30, intimacy was the most important concern, followed by occupational success in the thirties. Family and concern for others became very important again in the forties. In addition, Vaillant developed an Adult Adjustment Scale of 32 occupational, interpersonal, and health-related items that he used to classify 60 of the 95 men in the study into Best Outcomes and Worst Outcomes. Unlike the 30 men classified as Best Outcomes, the 30 Worst Outcomes exhibited poorer mental and physical health and were less able to adapt to life's crises. The Worst Outcomes had little if any supervisory responsibility at work, contributed only meagerly to charity, and exhibited bleak friendship patterns at age 50 (Vaillant 1977, p. 350). Overall, Vaillant found that good mental health consisted of a close correlation between "the inner man (his defenses, subjective happiness, and physical health)" and "the outer man (his objective capacity to work, to love, and to play)" (p. 282).

Work and love, operationalized as "Mastery" and "Pleasure," formed the 2-dimensional model of well-being in a recent study of 300 women between the ages of 35 and 55 (Baruch, Barnett, and Rivers 1983). The women were randomly selected to represent six different work and love combinations; that is, never married and employed, married without children and at home, divorced with children and employed, and so forth. The aim of the study "was to discover how, and in what ways, the major areas of life affect a woman's sense of well-being" (p. 3). Chronological age failed to correlate with any measures of well-being. Neither did "age and stage" theories contribute toward understanding these women's lives. Contrary to many of the developmental studies that "link women's lives mainly to their biology," this study found that "a woman's level of well-being could not be predicted by whether or not she had children. Women did not feel devasted by 'the empty nest' and menopause caused so little disruption to the lives of most women that many saw it as a 'nonevent'" (pp. 234-235). The authors discovered that "the theme of achievement and work--job, education, career goals--dominated" women's lives (p. 242), and of the six work/love combinations in their sample, "the women who scored the highest on all the indices of well-being were married women with children who have high-prestige jobs" (p. 143).

Life Events and Transitions

A third approach to studying adult growth and development is to look at events that are likely to occur in an adult's life and the consequent transitions that those events might trigger. Neugarten (1976) proposes a social framework consisting of life events, age norms, and expectations. Within every social system, expectations develop as to the appropriate times certain events should occur. Each person becomes aware of the "social clock" that suggests the best time to leave home, marry, retire, and so on. Self-assessments, especially in middle age, often center on questions of being "on time" or "off time" with regard to this social clock. Neugarten (1976) goes on to argue that the events themselves do not necessarily precipitate crisis or

change. What is more important is the timing of these events. If they occur off-time, that is outside the "normal, expectable life cycle" (being widowed in young adulthood or fired close to retirement, for example), they are much more likely to cause trauma or conflict. The study of the life cycle, then, becomes a "psychology of timing" rather than of events themselves. Commenting on today's fluidity of the life cycle, the growing irregularity of major life events, and the increasing irrelevance of age, Neugarten (1979) concludes that "it is of doubtful value to describe adulthood as an invariant sequence of stages, each occurring at a given chronological age" (p. 93).

Neugarten suggests building theory around the timing of events in adulthood. Other researchers recognize their importance in a person's life but subsume them under larger developmental periods. Levinson et al. (1978), for example, talk of "marker" events such as marriage, illness, good fortune, war, retirement, and so on. A marker event may have a "notable impact upon a person's life. Marker events are usually considered in terms of the adaptation they require" (pp. 54-55). They go on to note that events themselves will not generate theory. "It is more fruitful," the researchers say, "to conceive of development in terms of tasks and periods in the evolution of the life structure. We can then use this developmental perspective in understanding the significance of particular events" (p. 54). Vaillant (1977) concurs with Levinson et al. in observing that "adults do not merely march on from life event to life event, from graduation to marriage to 'empty nest' to retirement" (p. 201). There are patterns and rhythms, and "isolated traumatic events rarely mold individual lives . . . the quality of the whole journey is seldom changed by a single turning" (p. 368).

As Levinson notes, life events necessitate adaptation that brings about change in one's roles and relationships. Knox (1977) explores these adaptations and changes in a discussion of what he calls "change events." In his model, change events precipitate transitions and change in one's personal and social life: "The relative stability of adult life is periodically punctuated by change events, such as marriage, a job change, or the death of a close friend, that alter significantly the individual's relationships with other people and disturb the routine of social participation" (p. 573).

A person may respond to a change event in several ways: frantic activity, action, educative activity, desire for assistance, contemplation, and withdrawal. Of most interest to the adult educator is, of course, the educative activity in which a person might engage in response to one of life's changes. A recent major study of why adults participate in education in fact found that 83 percent of the learners surveyed said they were learning in order to cope with some past, present, or future change in their lives (Aslanian and Brickell 1980). Interestingly, the transitions that these learners were coping with were not always synonymous with the life event that triggered the transition period. For example, a heart attack (trigger event) may result in a person's retooling into a less strenuous occupation (transition), or a promotion (trigger) may lead to learning a new leisure activity (transition).

In another study that looked at the relationship between transitions and life events, subjects in four transitional life periods were selected: high school seniors, young newlyweds, middle-aged parents with grown children, and

retirees (Lowenthal, Thurnher, and Chiriboga 1975). Subjects from each group were studied just before moving into the stages in order to discover how they prepared for and eventually coped with the transition. The authors discovered that the anticipation of the impending transition was stressful and often precipitated some personal reassessment. With the exception that the two younger groups experienced more "stressors" (life events) than the two older groups, the study found no age differences in ability to adapt to transitions. Greater differences were related to sex, with women "in all stages reporting more stressful experiences than men" (p. 229). In a follow-up analysis of these four groups, Chiriboga (1982) focused on the importance of life events (stressors) in determining emotional change in adulthood. He found only moderate support for his hypothesis with stronger linkages between emotional well-being and life events among women. He concludes that "life events are influential in adult development" but are inadequate as a basis for developing an explanatory framework of growth and change in adulthood (p. 600).

Life events and a person's health have been linked by Holmes and Rahe (1967) in a popular scale that purports to measure the amount of stress a person might be experiencing at a particular point in time. The scale consists of 42 change events each having a point value ranging from 100 points for death of spouse to 11 points for minor violation of the law. The authors have found that the higher a person's total life stress score, the more likely the individual is to develop serious physical or psychological ailments. Another more recent scale developed by Sarason, Johnson, and Siegel (1978) allows respondents to indicate whether a particular life experience has had a positive or negative impact on their lives.

Thus, it seems that studying life events and transitions can provide insights into adult development, although not an overarching theory, and offers a concrete means of linking adulthood to applied fields such as social work, counseling, and adult education. This and other ways in which adult development and adult education are related will be explored more fully in the second part of this paper.

ADULT DEVELOPMENT AND ADULT EDUCATION

Adult development is an intriguing and at the same time frustrating area of inquiry. The recency of the research, the tools available to carry out investigations, and the enormous complexity of the issues involved make generalizations about the nature of growth and change in adulthood tenuous at best.

Despite the limitations posed by the state of the field of adult development, an understanding of what is known cannot but enhance the practice of adult education. Conversely, participation in adult education may well affect development. This notion of the interrelatedness of adult development and adult education will be explored in the following section, as it offers a basis for suggesting practical applications of adult development to adult education in the areas of program planning, instruction, and counseling.

The Interrelationship of Adult Development and Adult Education

The interface between adult development and adult education is evident in asking such questions as: What is the nature of the relationship between stages of development and participation patterns in adult education? What kind of match is there or should there be between programmatic offerings and age or stage segments of the adult population? Is there a relationship between critical junctions in the life span and increased use of education? How can education optimize or facilitate development over the life span? How will adult education affect research in areas such as cognitive functioning?

Participation in both formal and informal adult education can, as Weathersby and Tarule (1980) state, enable "the satisfaction of different developmental needs depending upon a student's place in the life cycle" (p. 20). More than just satisfying needs, however, adult education can actually affect development in a number of ways. The very close relationship between intelligence, cognitive functioning, and amount of formal education is one obvious area of impact. Psychologists Baltes and Goulet (1970) state that "adult education will significantly alter the type of age functions to be expected in . . . life span research on cognitive functioning in future generations" (p. 20).

Decision making based upon moral and ethical considerations is another area where changes can occur as the result of educationsl experiences. Kohlberg (1973) writes that the latter stages of moral development are obtainable only by adults because they "have the experience of sustained responsibility for the welfare of others and the experience of irreversible moral choice" (p. 196). Educational settings offer the opportunity for adults to examine the nature of their responsibilities as adults.

Somewhat more difficult to assess but no less important is the impact of education upon personality factors such as values, attitudes, self-concept, and life-style. Mezirow (1978), for example, has proposed the construct of perspective transformation as a result of studying the sometimes dramatic effect of education in the lives of reentry women. Adult learning, he contends, is not merely the addition of new information; rather, existing knowledge is transformed into a new perspective that leads to new behaviors.

This idea of consciousness raising--but in a political context--is the theme of Paulo Freire's (1970) writing and work. Through adult education Freire seeks to change the oppressed's view of themselves and their world to one of a posture of personal empowerment. Some literacy programs, particularly in the Third World but also in North America, have been based upon his philosophy. Although most adult education does not overtly strive for political transformation, most educators can testify to the changes in aspects of personality that have occurred in returning women, midcareer changers, and adult basic education students in particular (Knox 1977).

In a thoughtful essay on the relationship between adult development and education, Lasker and Moore (1980) speculate about the profound effects education could have on development:

> By raising consciousness prior to actual events, education could create a hybrid mentality that knows before it experiences. By aiding the anticipation and understanding of transition, education may lessen its turmoil and pain. By predicting pitfalls, education may create the reverse of self-fulfilling prophecies, as adults consciously seek to avoid mistakes others have made. This, in turn, could add a new dialectic to change in adulthood. . . . The link between education and adult development may eventually prove to be more profound than any we have sketched so far. For in bringing adults face to face with their own psychology, education may transform adults' self-experience and thereby actually alter the course of adult development itself. (p. 35)

Just as education affects development, development also has an impact upon education, as can be seen in participation patterns and adult learning theories. The most dramatic evidence for linking adult development and adult education comes from a study conducted by Aslanian and Brickell (1980). Of the 744 adult learners interviewed, 83 percent named some past, present, or future transition in their lives as the reason for their participation. More than half (56 percent) said that changes in jobs or careers precipitated learning. Transitions in family lives followed by changes in leisure patterns ranked second and third as motivating factors. In highlighting the link between learning and development, the authors conclude that "need, opportunity, and even desire are not sufficient to cause most adults to learn at a particular point in time. Something must happen to convert most latent learners into active learners." That "something" is the timing of changes in a person's life. "To know an adult's life schedule," they conclude, "is to know an adult's learning schedule" (pp. 60-61).

Not only does developmental change help to explain participation in adult education, it also provides a framework for identifying various components of

the learning transaction. For example, Weathersby (1981) reviews numerous studies conducted by herself and others that link ego stage with preferred learning style, teacher style, conceptions of the use and nature of knowledge, and motivation for participation.

Adult learning theory is another area that has been affected by knowledge of adult development. Mezirow's (1981) concept of perspective transformation, mentioned earlier, is proposed as a uniquely adult phenomenon. Education for transformation involves "helping adults construe experience in a way in which they may more clearly understand the options open to them so that they may assume responsibility for decision making" (p. 20).

Tough's (1971) research on the independent learning of adults also reflects the impact of developmental psychology. He found that approximately 90 percent of adults are engaged in at least 2 major learning efforts per year, with the average person conducting 5 projects and spending approximately 100 hours on each project. The nature of their learning projects--from learning French to building a greenhouse--varies considerably, but the majority of efforts have as their goal some anticipated use or application of the knowledge or skill. Tough (1981) links these findings to adult development: "The particular knowledge or skill sought by an individual will often be influenced by his or her stage in the life cycle, as well as vocational development, intellectual development, ego development, and moral development or level of humanitarian concern . . . the particular subject matter does vary somewhat from one stage to another. One clear example from research is the emphasis on job preparation in credit courses among adults under the age of 30, as compared with older adults" (p. 302).

Probably the best developed theoretical link between adult development and learning can be found in the assumptions underlying andragogy. Andragogy, "the art and science of helping adults learn," has been proposed by Knowles (1980, p. 43) as a means of distinguishing child education from adult education. The assumptions upon which andragogy is based posit the adult as self-directing, independent, and defined by an accumulation of unique, personal experiences. Adults' readiness to learn is related to the developmental tasks of their social roles, and their orientation to learning is problem-centered and immediate, rather than future oriented.

What is known about adults, their tasks, their roles, their concerns, and experiences provides the educator with guidelines for planning meaningful learning experiences. These implications will be discussed more fully in the next section dealing with practical applications of development to adult education. It is interesting to note, however, that the interrelationship between the two areas has been the thrust of much recent thinking and writing (Chickering 1981; Krupp 1982; Lasker and Moore 1980; Schlossberg 1984; Weathersby and Tarule 1980).

Aside from the reciprocal impact adult development and adult education have upon each other, the two fields are inexorably linked through the goals of educational intervention over the life span. As with development itself, several issues arise with respect to educational intervention. Some writers feel that as yet there is no solid, research-supported basis for designing

intervention strategies. Others raise the ethical questions involved in promoting certain goals of intervention. For Lasker and Moore (1980), some of these "sobering" issues are: "Should development be the aim of educational institutions? Do we have the right to consciously attempt to change the stage of a learner? Is such change necessary or desirable? More bluntly, what is wrong with being at the stage where one is?" (p. 33). Despite these caveats, most adult education has goals that reflect a developmental orientation. Birren and Woodruff (1973), for example, write that most educational intervention is "deliberately timed to accelerate, deaccelerate, or otherwise alter anticipated age functions" (p. 318). They present three goals of intervention over the life span. Alleviation of deprivation is one goal. Individuals or cohorts of individuals (minority groups or the aged, for example) have not had the opportunities for educational attainment that younger or middle-class persons have had. Two other goals--enrichment and prevention--are long term in impact. The authors observe that "while educational enrichment through the development of skills and motivation for life-time learning is a goal that educational institutions are far from reaching, there is evidence in middle-aged and aged cohorts of a desire and a willingness to participate in life-time learning experiences" (p. 322).

The third goal of prevention is most clearly linked to adult development. Educational programs can prepare persons to anticipate and cope with future developmental tasks and life crises. Difficulties in middle and old age might be avoided, Birren and Woodruff write, if education would take more seriously "the late life consequences of early educational experience" (p. 322).

Schaie and Willis (1979) assume that "the primary aim of education should be optimization of individual development across the life span" (p. 120). Since human behavior is modifiable, it is therefore subject to educational intervention strategies. These interventions should be based upon developmental tasks, social roles, and social expectations characteristic of people at different life stages. In their view, youth focuses on the acquisition of learning, young adulthood is involved with the application of knowledge, and middle age is a time for the maintenance and transformation of information. Intervention at middle age may in fact have "the greatest impact for society" because it is middle-aged adults who hold the "positions in the power structure of society" (p. 134).

This notion of optimization of development is the theme of a paper by Heffernan (1983) exploring the need for supportive environments, especially in the workplace. Since most adults spend a good share of their time working, it would behoove employers to define workplace features that can contribute to an adult's development; "and in doing so, we might also better our understanding of adult workers' productivity and work satisfaction at different points in their lives" (p. 22).

By way of summarizing the information on adult development, Cross (1981) proposes a Characteristics of Adults as Learners (CAL) model that takes into account physical, sociocultural, and psychological characteristics. The nature of educational intervention depends upon which set of characteristics is addressed. In focusing upon the physiological characteristics, the adult educator usually assumes a <u>compensatory</u> stance. Sociocultural characteristics

or a life-phase approach to development assumes an adaptive or adjustive approach. That is, education provides support for those going through the phases and transitions of adulthood. Finally, there is the goal of challenging adult learners:

> If one accepts a hierarchy of developmental stages, and if one believes that the role of educators is to help each individual develop to the highest possible level, then the role of educators is to challenge the learner to move to increasingly advanced stages of personal development. This may mean creating the motivation for learning through making the learner uncomfortable in her present assumptions. She is thus forced to examine her present assumptions and to redefine and reshape them at increasingly higher levels of development. (p. 240)

Whether the goals of educational intervention are to support transitions or affect development, or according to Lasker and Moore (1980), "match" institution to learner stage or "push" development, the fact is that education for adults is integrally linked to developmental processes in adulthood. Unlike child education, which is mandated and which is largely future oriented, adult education, in order to sustain its voluntary clientele, must respond to the concerns, tasks, and changing social roles of adult learners at various life stages. The ways in which educators and institutions can respond and are responding are discussed in the following section.

Implications for Practice

As noted earlier, adult development is a relatively new area of investigation and, as such, there are still many unresolved issues, contradictory findings, and perplexing questions. Furthermore, there are limitations in translating theories of adult development into practice. What does a practitioner do with the "deadline decade," "generativity versus stagnation," or "childhood demons," for example? That is not to say, however, that there is no knowledge from adult development theory that can be applied to practice. There is, and after having explored the interrelatedness of the two areas, it is clear that one affects the other whether the interaction is planned or not planned. Rather than being a deterrent, the newness of adult development information offers a challenge to adult educators to apply this knowledge cautiously and creatively to practice. It is interesting to note that childhood education has always been linked to child development. What person preparing to teach children has not had a course in child development or adolescent psychology? Systematically examining the same connection for the adulthood phase of the life span not only seems appropriate but necessary if adult educators are to serve their clients effectively. The implications of adult development for practice will be discussed here in relation to the three broad areas of program development, instruction, and counseling.

Program Development and Administration

Program development is broadly conceived here to include the institutions, agencies, and individuals who plan and administer programs for adults. Adult

development can form a basis for the overall structure of a program, it can provide the content of the program, and it can guide planners in attending to the barriers to participation encountered by potential learners.

A program planning model, the entire structure of a program, can be based upon a developmental perspective. Knowledge of how an adult learns best, of the preferences, concerns, tasks, and so on, can influence the choice of purposes, targeted audiences, delivery modes, and content of a program. Kummerow, Sillers, and Hummel (1978) propose just such a model. Their Framework for Adult Development Programming contains five dimensions. Dimension A suggests who or what is the target of the program. In addition to individuals and special groups, the target can be an institution, community, or social attitude. Dimension B lists three purposes of such programs: remediation, prevention, and development. Each of these purposes has already been defined in the discussion of the goals of educational intervention in the previous section. Dimension C covers methods of presenting programs, including modes of delivery. Several of these modes such as tutorials, groups, and independent study reflect the self-directedness, independent self-concept, and experiential base characteristic of adult learning. Dimension D, sources of programs, suggests a wide range of community and civic organizations and personnel. Under personnel, the category of educators is only one of six possibilities, with emphasis being on using people with expertise in a specified area. The last dimension, E, lists contents of programs that reflect common developmental concerns throughout adulthood. These themes are self-assessment or taking stock, decision making and problem solving, relationships, perceptions of time, biological changes, career behavior, values, expectations of self, needs, spirituality, and use of leisure time.

In a recent article, Hentges (1983) notes that most adult education programs are based on "segmental needs and special interests." The author proposes a broader model that "looks to anticipating needs and assisting task accomplishment in adult development" (p. 16). The Holistic Life Cycle Curriculum Model sets four content areas--careers, relationships, health, and miscellaneous--across three life stages--young, middle, and late adulthood. Specific "units" or courses are suggested for each content area appropriate to each stage of life. For example, a young adult "relationship" unit might be on marriage or parenting; a middle adulthood "career" unit might be on management or reentry; and an older adult "miscellaneous" unit might be a course on living arrangements or travel. Commenting on the model Hentges writes: "It satisfies the pragmatic, goal-oriented motivation of adult learners . . . it becomes both an adjunct and an aid to fulfillment in each developmental stage. It promotes growth within existing roles." Finally, the model "gives form to the goals of adult education-lifelong learning and learning for long life" (p. 28).

Some institutions and delivery systems have already built programs using knowledge of the changes adults go through and the different tasks and concerns that face adults at various stages of life. Several descriptions of successful programs for young adults (Darkenwald and Knox 1984), midlife adults (Knox 1979), and older adults (Okun 1982) reveal that knowledge of adult development is serving as a basis for programs in churches, hospitals,

the military, government offices, community agencies, and educational institutions. Pacific Heights Community College Center in San Francisco, for example, has a program for seniors based upon Havighurst's developmental tasks of later life. The classes are "designed to assist elderly students to successfully handle these tasks which include adjusting to decreasing physical strength and health, adjusting to retirement and reduced income, and adjusting to the death of a spouse" (Murphy 1980, p. 4). Such courses as Moving Ahead in the Face of Loss, Home Repair for Women, and Bachelor Living have proved highly successful. For Havighurst's older adulthood task of establishing an affiliation with one's age group, ample opportunities for socializing with peers are included in all the programs.

Perhaps the best known application of adult development to education is the program sponsored by the Adult Life Resource Center at the University of Kansas (McCoy 1977). In shifting the emphasis from counseling, which implies a medical model of treatment, to education, the staff puts faith in "the capacity of adults to learn new behavior and to take charge of their lives" (p. 18). Drawing primarily from the work of Gould, Levinson, and Vaillant, the staff mapped the topography of adulthood. For each of seven stages--Leaving Home, Becoming Adult, Catch-30, Midlife Reexamination, Restabilization, Preparation for Retirement, and Retirement--tasks, program responses, and outcomes sought were delineated. This conceptualization has resulted in workshops and classes being offered on such topics as midlife, career development, family communication, death and dying, coping with transition, and so on. In addition to this programmatic response, the Adult Life Resource Center has sponsored several National conferences on adult development and produced numerous readers, training manuals, and tapes on the life cycle and career development, and its staff is available to consult with institutions and agencies wishing to develop similar programs.

In planning and administering programs for adults, a knowledge of adult development can help planners understand the need for and type of support services necessary to the program's success. Such knowledge also sheds light on the barriers adults face when considering engaging in adult learning activities. For example, child care provisions should be made for programs designed to attract young adults. Transportation and scheduling are crucial factors in offering programs for older adults. These are listed by Cross (1981) as situational barriers--"those arising from one's situation in life at a given time" (p. 98). Cross gives examples of lack of time for 25- to 45-year olds due to demanding work and family responsibilities, lack of money for young people and other low-income groups, lack of child care for young parents, and lack of mobility for the aged and handicapped. Another type of barrier, institutional, is defined as "those practices and procedures that exclude or discourage working adults from participation in educational activities--inconvenient schedules or locations, full-time fees for part-time study, inappropriate courses of study, and so forth" (p. 98). Cross's third category, dispositional barriers, has to do with the attitudes and perceptions of oneself as a learner. Darkenwald and Merriam (1982) call this category psychosocial and note that it actually has two dimensions: "Psychosocial obstacles tend to be related either to education or learning as entities or activities, or to the self as a learner or potential learner. The first category encompasses negative evaluations of the usefulness, appropriateness, and pleasurability of

engaging in adult education" (p. 139). With regard to the self as learner, barriers have to do with negative perceptions of ability (especially if returning to education after a long hiatus), fear of not being self-disciplined enough, and fear of not being able to compete with younger learners. Probably more powerful deterrents than situational or institutional barriers, the psychosocial concerns of potential participants reflect past negative experiences with education and an acceptance of some of the myths about aging, learning, and intelligence. What is known about cognitive functioning and learning ability as adults age can in itself be the subject of a course or workshop.

Program planners and administrators can use the knowledge base of adult development to provide an overall structure or program perspective, to develop specific content, and to understand and alleviate the barriers to participation encountered by potential learners. Knowledge of adult development can also be used to revitalize existing programs. This is probably a more realistic option for most institutions that are locked into funding patterns and prescribed policies and procedures. Chickering (1981) presents a thoughtful and practical set of guidelines for ensuring the development of learners in higher education. Institutions have a range of options for doing this through teaching practices, student-faculty relationships, sources of evaluation, and institutional functions. Instructional techniques can match and stimulate a student's level of development. The student-teacher relationship can vary from the teacher being an authority to being a colleague, just as evaluation can be conducted by a teacher, peers, or self. The "hidden curriculum" of any institution has an impact upon the people it serves. Chickering suggests that the institution itself can offer opportunities and challenges for continued development. Of these possibilities for linking adult development and institutional functions, Chickering (1981) writes:

> We can modify our typical institutional practices in directions that recognize developmental diversity and help students at each stage move toward higher levels. Every institution will enroll students at all of these developmental levels. Because of this diversity, it cannot simply pitch its educational program at any one particular stage. . . . Alternatives need to be created that serve students at all levels. Institutions must be responsive to the full range of developmental stages and learning styles brought to them by the students they aim to serve. (p. 782)

Instruction

As Chickering suggests, instruction is one area in which educators can apply knowledge of adult development both to match and challenge the developmental stages of learners. An instructor who has an understanding of adulthood and appreciates the differences between children and adults as learners can maximize learning through the use of appropriate instructional strategies.

Two of the assumptions underlying andragogy proposed by Knowles (1980), one dealing with self-concept and the other with experience, are particularly relevant for understanding the link between development and instruction. Knowles (1980) observes that as a person matures, his or her self-concept

moves from one of a dependent personality toward one of a self-directing human being. This factor has both philosophical and practical implications. It offers the adult educator a developmentally based goal--"enhancing the learner's ability for self direction in learning as a foundation for a distinctive philosophy of adult education has breadth and power. It represents the mode of learning characteristic of adulthood" (Mezirow 1981, p. 21).

From an institutional standpoint there are several techniques available to enhance an adult's movement toward self-direction. Overall, adults who daily make decisions affecting their lives and the lives of dependents are capable as well of participating in the planning and implementation of their own learning. They are also able to judge the value of a learning experience. Thus adults, since they are more or less autonomous and self-directed, should be allowed to contribute to the planning, implementation, and evaluation of their own learning. This requires the teacher to assume a stance other than the school-based stereotype of authority figure, transmitter of knowledge, and judge. Chickering (1981, p. 779) suggests a sequence of teacher roles, each allowing for more independence on the part of the learner. A teacher can be a "model" with whom students can identify, or, in situations where programmed materials or mediated instruction are used, an "abstraction" behind the system. Teacher as "resource" and finally "colleague" are the two roles that offer the student respect as an independent person and that foster self-direction.

Contract learning is one specific technique that can be used within even highly structured institutional settings to enhance self-directedness. Contract learning can also accommodate the range of development to be found in a group of adults. All the ingredients of a learning activity can be individualized through a learning contract: objectives, place and time of learning, content, actual activities and resources, and evaluation (Clark 1981). A learning contract addresses each of these components and the extent to which the components are negotiated between student and teacher reflects both the role of the teacher and the autonomy of the student. Clark observes that most faculty have to learn some new roles to be able to help implement contract learning. At one time or another, faculty functions as facilitator/counselor, broker/negotiator, instructor/tutor, evaluator, administrator, developer of learning resources, creator of instructional materials, and planner of individualized degree programs.

The second assumption of andragogy that links development and instruction is the idea that an adult "accumulates a growing reservoir of experience" that both defines that person as unique and offers a resource for learning (Knowles 1980, p. 44). Instruction can be designed to take advantage of an adult's life experiences and expertise. As a matter of routine some instructors have their adult students identify what they can offer to other learners--their special talents, skills, experiences, or knowledges that could be shared with others. Experiential techniques such as small group discussions, seminars, field trips, simulations and games, case studies, and so on actively engage learners and make use of their past experiences. Menges (1981) discusses in some detail how small groups can foster the development of psychomotor skills, emotions, memory, cognition, and "nonlinear" thinking such as the ability to formulate problems as well as solve them.

Portfolios are another technique for acknowledging an adult's experiences. While contract learning proposes the learning that will take place, portfolios document prior learning. Used in many higher education settings as a basis for awarding credit for prior learning, the experience of assembling one can be in itself growth producing. In reporting on the use of portfolios at Sinclair Community College in Dayton, Ohio, Krueger (1982) notes that portfolios (1) helped students get jobs, (2) resulted in increased self-esteem, and (3) provided an opportunity for reflecting upon "phases, careers, and relationships" in their lives (p. 89).

The teacher-learner interaction and instructional techniques are also affected by what is known about learning ability as adults age. While inherent learning ability appears to remain stable during most of adulthood, noncognitive factors have been found to affect a person's performance on particular learning tasks. Three factors in particular are age linked in their impact on learning:

- o Pacing or speed refers to the time a person needs to examine a problem, respond to a task, or recall information. This ability decreases with age. Learning activities should have few, if any, time constraints. Optimum performance results when adults are allowed to pace their own learning.

- o Meaningfulness, or how personally relevant or familiar material is makes a difference in learning especially for older adults. Drawing upon an adult's experiences is one way to ensure that the activity will be meaningful.

- o Motivation, or the extent to which an adult is interested in learning a particular skill or information, affects both participation and learning ability. Other noncognitive factors that affect learning and that are age or cohort related are level of formal education, social class, and physical health.

Development thus affects instruction from the perspective of what is known about changes in learning ability, an adult's life-experiential base, and the movement toward an independent self-concept and self-directedness in adulthood. Weathersby and Tarule (1980) delineate the basic variables in a teacher-student interaction that can be adjusted according to the developmental stage of the learner and the stage one might be trying to effect:

> Crucial aspects of a situation appear to include the amount of structure provided by the instructor for the intellectual tasks given to students; the degree of diversity in the situation; the amount of direct experience provided in relation to more cognitive content; and the degree of 'personalism' or personal acknowledgement and relationship incorporated in the learning situations. Students at the lower stages need more structure, less diversity, more direct experience, and a personal atmosphere in the classroom. (pp. 47-48)

Counseling

Most practitioners in adult education, whether their official title be teacher, administrator, program director, or counselor, often find themselves making referrals, giving advice, or offering support to their adult students. Knowledge of the phases, stages, or transitions an adult is likely to be experiencing or will experience is an invaluable asset in such situations. Many other people such as social workers, librarians, employment counselors, health professionals, and so on are also in positions to counsel adults. Within the framework of this paper, counseling is thus meant to convey the notion of assistance or consultation having an educational focus (as opposed to a psychotherapeutic one) in which many in the helping professions engage. Counseling centers in postsecondary institutions typically have this orientation, as do agencies providing brokering. Brokering services have developed within the last decade in response to community-based needs of adults. They might be "located in urban areas, small towns, and rural areas, independently operated or sponsored by colleges and universities, community agencies, or consortia," and serve "women only or both sexes" (Thomas, Majarich, and Lobes 1982, p. 75). The link between brokering agencies and adult developmental issues is clear from the report of one educational information center's experiences:

> The vast majority of these clients were adults seeking to make changes in their lives--young adults who regretted earlier decisions to terminate their education, middle-aged adults who sought to upgrade their skills or to change careers, women who wished to enter or re-enter the labor market after years of childrearing, and adults of all ages who sought to enrich their lives through new learning. . . . A large proportion of clients needed a broad range of services, including information, counseling, referral, personal support, esteem building, and training in such areas as decision making and consumerism. (p. 76)

Job or career concerns are a major area of development for which adults seek assistance. "The growth in opportunity to choose and change is what creates the need for the availability of adult career guidance services." Since adults of all ages "have more opportunity for job change, education and training, they have needs that resemble those of youth: sorting out objectives and negotiating the educational and employment systems" (Barton 1980, p. 8).

While some writers (Troll 1982) distinguish between "job" and "career," for the purposes of this discussion, it is most useful to think in terms of vocational or occupational maturity that is based upon the notion of development. This concept represents a "lifelong process of developing work values, crystallizing a vocational identity, learning about opportunities, and trying out plans in part-time, recreational, and full-time work situations" (Tolbert 1974, p. 25). In much the same way that adult development has been construed in the form of sequential stage models, the process of occupational maturity has also been conceptualized by various models. Two of the better-known models of career development intersect with general life-span developmental models. Havighurst's (1964a) three periods include becoming a productive person in young adulthood, maintaining a productive society (which corresponds to

Erikson's stage of generativity in midlife), and contemplating a productive and responsible life in old age. Super's (1957) model comprises only one aspect of his work in career development. In addition to career stages, he has proposed tasks unique to each stage, described four different male and seven different female career patterns, linked self-concept to vocational satisfaction, and explored the concept of vocational maturity (Kernan 1980).

Super's stages of career development, while originally linked to chronological age, might just as easily be used to understand the sequence of a career initiated at any time in the life span, and so is relevant today when it is not unusual for an adult to have more than one career in a lifetime. His stages are (1) growth--one becomes aware of interests and abilities; (2) exploratory--a time of exploring various possibilities, of tentative choices, of trial; (3) establishment--a more permanent commitment is made and one seeks to become established in the occupation; (4) maintenance--a holding period when one consolidates and secures his or her position; and (5) decline--a time of withdrawal or retirement from the vocational activity.

In thinking about the interaction of adult development with career development, Campbell and Cellini (1980) place career development within the larger context of adult development and list the following implications for adult career guidance:

- The need for developmental diagnosis and treatment of career development problems. "A thorough understanding of career development and general adult development is crucial in diagnosing and formulating the best treatment interventions" (p. 80).

- The recognition that certain career adjustment processes remain constant in their dynamics but change in context. Career decision making is a constant process; the context of the decisions can change.

- The recognition that career development interacts with adult life stages. Stages "act as moderator variables in the career adjustment process" (p. 81).

- The development of strategies to assist individuals in coping with transition.

- Identification of thematic problems. Career adjustment problems can be "grouped into a number of broad adjustment themes that recur over the life span, e.g., identity, generativity, etc." (p. 81).

- The development of preventative programs and support materials.

As was discussed in the first section of this paper, adult growth and development can be studied through adult life events and transitions. This framework also offers another perspective by which adult development can be applied to counseling. Knox (1977), for example, lists seeking assistance as one of the ways adults adapt to change events. This is characterized by "requesting another person or an agency to give advice or arrange for, or at least plan the necessary adaptation" and is differentiated from turning to

education, which involves participating in "systematic and sustained learning activities" (p. 538). Change events actually offer opportunities for adult educators to respond in either an educational or counseling mode or both. As a case in point, Lewis (1983) discusses the tremendous adjustment that couples and families must make when a married woman enters graduate school. She suggests several mechanisms, both formal and informal, that provide support for students and their families during this transition. In another example, Meyer (1983) explored the relationship of developmental life stage to the coping and emotional reactions to a myocardial infarction. He found that young, midlife, and late-life victims responded in ways characteristic of their life stage. For instance, young victims blamed family history, midlifers blamed stress, work, and family problems, and older victims blamed their age for the cause of the attack. Meyer notes that such knowledge is vitally important if health care professionals are to aid in a patient's recovery.

The most recent and most thorough exploration of adulthood transitions and their relationship to counseling is found in Schlossberg's (1984) book, Counseling Adults in Transition. Schlossberg defines transition as "an event or nonevent resulting in change." Transitions include "not only obvious life changes (such as high school graduation, job entry, marriage, birth of first child, bereavement) but also subtle changes (such as the loss of career aspirations and the nonoccurrence of anticipated events, such as an expected job promotion that never comes through)" (p. 43). In helping adults negotiate a transition, it is important to assess the type of transition (anticipated, unanticipated, nonevent, chronic hassle), the context (including the relationship of person to transition and the setting in which it occurs), and the impact (on relationships, routines, assumptions, and roles). Further, one needs to evaluate the myriad personal and social resources a person has available to cope with the transition, and finally, the process of the transition itself needs to be monitored and evaluated.

Counseling in the broad sense of assistance is one response that adult educators and others can better make if informed by what is known about adult development. Instruction and program development are two other areas where knowledge of adult development can have an impact. When one considers the diversity of concerns, developmental stages, abilities, and so on within a group of adult learners, the task of meeting any of their needs seems overwhelming. On the other hand, when one is knowledgeable about the nature of adulthood, the implications for enhancing practice seem limitless.

SOME CONCLUDING THOUGHTS

The purpose of this monograph has been to synthesize the literature on adult development and suggest how such knowledge might be applied to the practice of adult education. While research and theory on adulthood have lagged behind interest in other segments of the life span, there is every indication that adulthood will continue to be investigated and more and more will be known about how adults grow and change as they age. Likewise, because the population is becoming older and because learning is becoming a recognized and acceptable activity, there is every indication that participation by adults in education will continue to grow. The interaction between the two phenomena is obvious. An adult's motivation, interest in, and need for education are most likely propelled by life-phase or life-stage concerns and tasks. From the practitioner's perspective, adult education can be structured so as to respond to and support developmentally based needs and goals of its adult clientele. This can be done in two ways: the content of adult education can be targeted to specific life transitions, developmental tasks, or age-related concerns; and, paradoxically, the enormous diversity found among any group of learners can be handled through building upon prior experience and through individualizing instruction. And, in addition to responding to and supporting adults, content and instruction can be offered in such a way as to stimulate further growth and development.

What can be done in theory, however, and what actually happens in practice are often two very different things. While there are numerous instances of adult development and adult education being systematically linked, most adult education practice is largely atheoretical. It takes time, after all, to build a body of knowledge--such as in adult development--and it takes even longer to translate such knowledge into effective practice. Theories must be proposed, put into operation, and tested; findings from one study have to be verified by subsequent research; information has to find its way into the hands of practitioners; and practitioners have to know what to do with it. Conversely, the problems that practitioners encounter need to be brought to the attention of those who can investigate them. Better avenues need to be developed whereby information and knowledge can flow more easily between practitioners and researchers. It is the aim of publications such as this to facilitate this process. By pulling together at least some of the basic information on adult development and suggesting how it is or might be applied to practice, it is hoped that readers will be stimulated to think about the possibilities in consciously relating the two areas of adult development and education. Reflection, which should result in thoughtful action, is what separates the professional adult educator from the paraprofessional. Informed practice leads to meeting the ultimate goal of all adult education: that of better serving the learner.

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