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ABSTRACT

The document contains a brief outline of the conference proceedings and the text of two papers presented at the conference. Alan M. Rubin's paper, "Give Me a Fish and I Eat for a Day. Teach Me to Fish and I Eat for a Lifetime" (from the Babylonian Talmud), examines the question of whether our institutions of higher education are providing the opportunities to learn necessary life skills and presents a curriculum and service program, which operates from a community-based life skills center and is centered entirely around the adult students' life skills. "Adult Learning," a 65-page presentation by Shannon S. Widman, provides an overview of the field and particular characteristics of the adult learner, as well as resultant implications for adult educators. An historical review of adult education, which traces its organizational and institutional development, is included to provide insight into current problems in adult education. Drawing on research in the field, the author examines the motivations, learning processes, and performance of the adult learner. Successful course planning, teaching techniques, and teacher role for adult learning, likewise, are discussed. The paper also contains a partially annotated 10-page bibliography on adult learning. (EA)

PROCEEDINGS:

CONFERENCE ON THE ADULT LEARNER

May 23 and 24, 1975

Shannon S. Widman
Steven G. Olswang
Editors

Center for Development of Community College Education

University of Washington

Frederic T. Giles, Director

Occasional Paper Number 25

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FOREWARD

Adult continuing education, because of the characteristics of its clientele, is more and more adopting the teaching philosophy of the learner as self-directed, and of education as a way of learning to change rather than merely as a way of acculturation. Many educators are coming to believe that our society's survival lies largely in the ability of its citizens to become independent, lifelong learners capable of conducting their own inquiry.

Our Conference goals arose from those premises. We wanted to provide an opportunity for adult educators to participate in such an inquiry-based educational experience. We wanted to offer an opportunity for their problem-solving in a learning environment where a free exchange of ideas could occur. We hoped that the workshop activities would be fun as well as productive, and that the participants' satisfaction with them would encourage them to try these techniques with their own classes. In that way, we would be advancing the goal of helping students of all ages to become lifelong learners.

Shannon Widman

Shannon Widman
Conference Coordinator

CONFERENCE ON THE ADULT LEARNER

May 23 & 24, 1975

Resource Persons:

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Dick Petersen	Wenatchee Valley College
Mike Randall	University of Washington
Henry Reitan	University of Washington
John Schwenker	Bellevue Community College
Ron Templeton	Olympic College
Louis Watkins	Anchorage Community College
Harry Watts	North Seattle Community College
Shannon Widman	University of Washington
Don Williams,Jr.	University of Washington

Friday morning from 10 a.m. until noon, activities included:

self-introductions
silent generation of educational concerns for the workshop
small-group listing of those concerns
formulation of learning objectives from those concerns
sharing of small groups' concerns with the large group

Then Jim Thornton administered a brief quiz on the adult learner and adult learning guiding the resultant discussion on the information presented by the quiz.

After lunch, Alan Rubin presented a lecturette with overhead transparencies on the subject of a curriculum and service program built entirely around the adult students' life skills, answering inquiries from the participants. The small groups then drew up competency model requirements related to these different life skills (e.g., parent, consumer, worker), using this competency model as a guide to curriculum development. Afterward the small groups shared their curriculum suggestions and their assumptions about its adult clientele.

The final activity on Friday afternoon was a lecturette by Jim Thornton on the physiological and psychological considerations regarding the adult learner which affect programs and curriculum; this was followed by group discussion of andragogical principles of instruction.

Although the conference activities were generally participatory, this was especially true of Saturday's session. At this time the parti-

cipants in small work groups discussed strategies for identifying and assessing community needs for an adult continuing education program, and determined what the inherent problems of these strategies might be. The identified needs related to the academic and vocational requirements of the community. Following is a listing of these strategies and problems as reported by the conference participants.

STRATEGIES FOR IDENTIFYING NEEDS

Polling by: telephone
questionnaire
interview

of: economic groups
civic groups
social service agencies
government agencies
minority groups
educational institutions

Statistical inventory

of: community studies
government studies
special interest group studies

Public hearing or forum

Media campaign

Advisory committees

INHERENT PROBLEMS OF THE STRATEGIES

Getting a representative group
Getting manpower and financial resources to conduct and poll
Validity of the instrument

Bias of: Interviewer
Interviewee
Interest groups

Accuracy of original statistics
Completeness
Applicability of original information to current situation
Correctness of interpretation
Availability of information
Bias of instrument
Getting adequate representation of interest groups
Emotional confrontations
Skewed or biased presentation
Legal restrictions

Getting financial and manpower resources

Internal conflict within group
Hidden agenda
Continuity of committee

Getting proportionate representation from community factions

We appreciate the energy and enthusiasm of all the contributors and participants at the conference. As the above described activities indicate, the conference was one of participation by all concerned, and the dedication of those involved with the principles discussed made the conference a beneficial and worthwhile endeavor.

"GIVE ME A FISH AND I EAT FOR A DAY.
TEACH ME TO FISH AND I EAT FOR A LIFETIME."

from the Babylonian Talmud

Paper by:

Alan M. Rubin
Moraine Valley Community College

The question implied from the title of this paper is a keystone in developing effective programs: Are our institutions of higher education providing the opportunities to learn necessary life skills? In order to come to grips with this question, one needs to look at its various components, define the boundaries of its scope, and establish one's priorities toward implementing an appropriate delivery system.

Defining boundaries:

Survival seems to be an issue which came into prominence during the past decade and a half, and whose focus has undergone significant change even within that same period. Those who attended college in the middle to late sixties heard speaker after speaker preach zero-population and birth control in the face of impending disaster from an overpopulated country and an overpopulated planet. Shortly thereafter, this country achieved virtual zero-population, and students began to ask the inevitable: So what? And perhaps a more optimistic question, Now what? Educators were mandated by their constituency to provide answers to those questions. Adult education specialists were particu-

larly interested in supplying the missing answers. Community colleges sprang up all over America, offering the promise of an equitable educational system available to all. Blossoming alongside the community college was the continuing education department offering non-college credit learning experiences in business, industry, leisure-time activities, and personal development. Ironically, adult continuing education became the fastest-growing segment of instruction in America, with enrollments increasing at a rate of 11% a year. Approximately 50 million Americans are now engaged in some form of adult continuing education (Ferris, 1975). Again the students ask: So what? They want to know (and deservedly so) what amassing this knowledge means in terms of living "the better life." Traditionally, schools of higher education see as their charge the responsibility of preparing individuals to assume responsible roles in society. So they offer various tracks of instruction, at the end of which the individual receives credentials which testify that the learner did in fact go down the predetermined path specified in the diploma. Variations on this theme carried the promise of individualizing the delivery system through which people could be sent along the instructional track using the latest in technological advancements as instruments for change. The end result remained the same. Society still operated on the premise that the best way to become a responsible member of that society was to negotiate a track and receive appropriate credentials.

Priorities:

But what about the adult learner who has already assumed functional and responsible roles in society? What are those role and what educational opportunities are available to him for learning how to deal with the roles? Generally, an adult learner must face the task of transacting in a multitude of societal spheres which require diverse and complex competencies. Traditionally, instructional tracks leading to various degrees did not address themselves to the problems encountered in or the competencies needed for these roles. Other auxiliary and supportive services such as continuing education and counseling divisions approached the problems through the back door. The major thrust remained (and remains today) a paper chase. It is recognized that we are in an era of rapid social change (Rogers, 1961; Otto, 1970; Mednick, 1972). A major problem with that change is its alienating effect on the individual (Kaplan, 1974). To combat that alienation, it is reasonable and logical to look toward an educational system that provides opportunities to understand the changes, cope with the changes, and accept responsibility for the changes through interaction with the agencies that share that responsibility. For example, adult learners must negotiate personal transactions in dealing with personal family crises. Parents have received bad press since Freud's earliest days. Yet, where in the degree-granting institution of higher education can an adult achieve competency in coping as a family member? Similarly, the adult

learner must negotiate a life course filled with increasingly perplexing problems; such as, making career and life planning decisions, taking an active role as a community member, understanding consumerism within the context of our economic system, and using leisure time (and the freedom it brings) effectively. Certainly, it is a societal expectation that a responsible member must have competency in all of these areas. The opportunities for acquiring the skills to meet that expectation, however, are sorely and conspicuously lacking. While traditional educational philosophy addresses itself to the questions of what to teach and how to teach, a life-skills approach (especially a community-based one) speaks also to the questions of who the clientele will be, and where the best setting might be for the learning process to take place. This is the challenge facing those who choose to involve themselves in the learning process (see Figure I).

The focus of a life-skills orientation in education must include all of the factors implied in the learning system shown here in Figure I. By taking these factors into consideration prior to the formation of instructional and institutional policies, an integration of instructional and support services can be achieved. This can only serve to enhance the learning experience for all parties concerned.

The Individual: Figure II represents a simplified transactional process observable in our society today. At the core of that process

is the individual, whose needs must be met not only to survive, but, in fact, to grow (Raines, 1974). Similar to Abraham Maslow's needs hierarchy, the idea that an individual requires the safety of a secure environment seems to be a reasonable assumption to make. Built on top of that secure status, the individual becomes ready, willing, and able to "tune in" to both external and internal stimulation. It happens cognitively with the needed input from parents, family, school, and society. It happens affectively through pain, anger, joy, and fear. All of this stimulation works together in the individual to help form an identity, always unique and always within the scope of a broader human potential. The way in which that identity will prosper (in other words, the direction in which that individual will grow) depends upon the amount and kinds of roles that individual negotiates within his or her society. Those roles will be founded on specific value judgements the individual makes when reacting to the rush of stimulation provided in today's technological menagerie. Besides the rise and fall of the influence from one's own family, our society provides input about make-believe people from all walks of life, representing value systems from one extreme to the other, through television, radio, movies and theater, just to name a few of society's value delivery systems. Ultimately, the individual must decide for himself how he will behave vis a vis his chosen life roles. He must determine the extent to which he will participate in those roles and the quality of relationship he will have with them.

(See Figure III.)

If, in fact, the community college is to be "the people's college," then it must accept the responsibility for offering developmental assistance to individuals in its community around the issue of transactional competencies. That is to say, the community college can serve as a primary agent in the individual's process of: a) Reconciling his personal needs with societal expectations; and b) Discovering meaning in his life through his essential life roles (Raines, 1974).

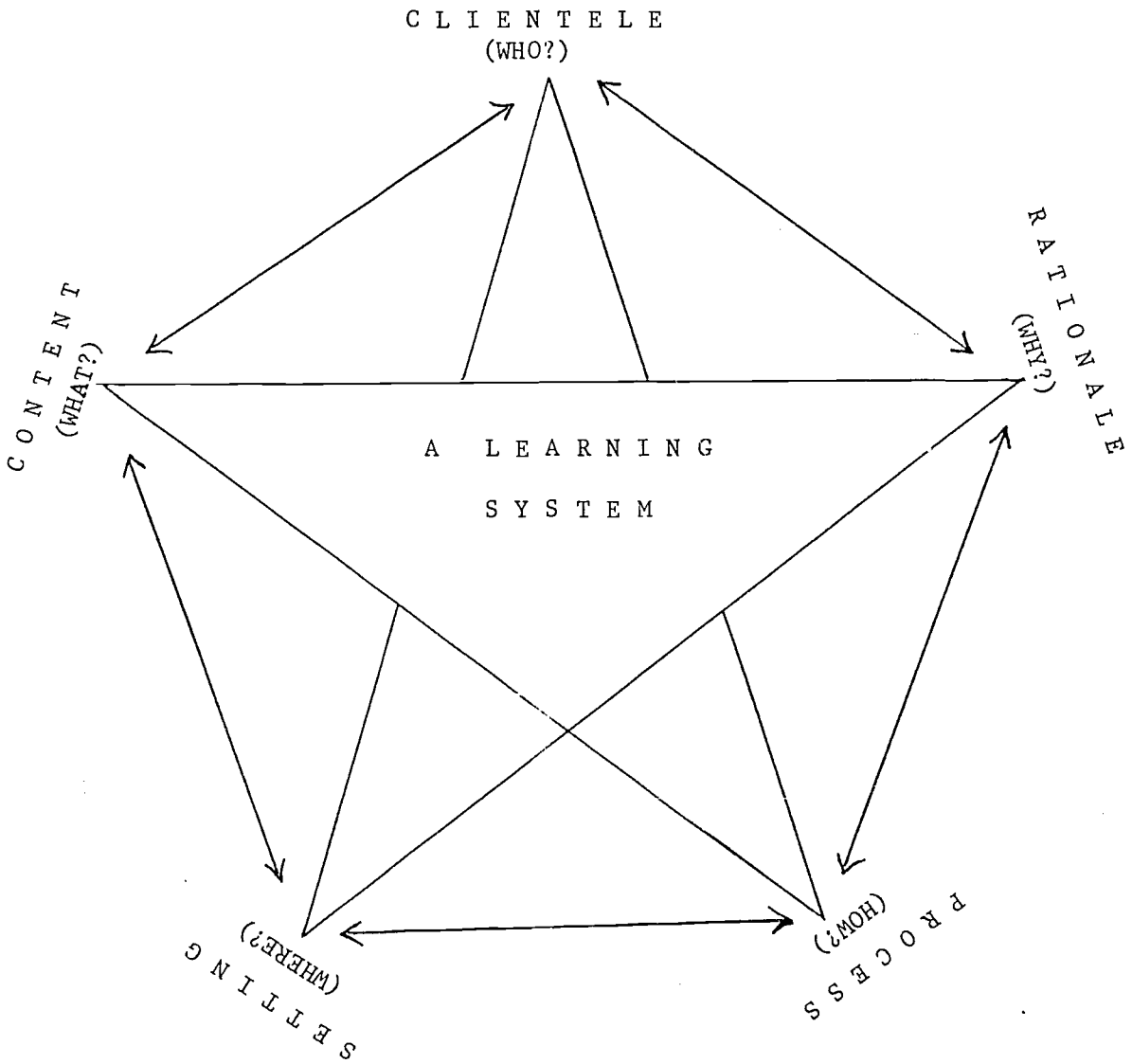
The problem becomes then, how to develop a program that offers the essential training necessary to achieve competencies in life-skills. It is apparent that in any particular community, agencies and institutions of various kinds already may be offering training in some of the life-skill areas. For instance, perhaps a community center in a particular community is offering counseling services for families. In addition, the Chamber of Commerce in the same area has a job fair once a year to promote business and industry in the vicinity. Naturally, the local churches are also giving input by offering opportunities for community involvement religiously, socially and even politically, as do volunteer groups like the Lions Club and the Rotary. Finally, there is the community college serving its district in a variety of ways, interlacing with the work of all of the other agencies; yet typically, each remains isolated from the others. Each agency holds a wealth of competencies

within its ranks which, if channeled effectively, could leave substantive impact on those who avail themselves of the opportunities to achieve them. Each agency, however, tends to be limited in its outreach capacity due to shortages in resources such as manpower, materials, and finances. Each reaches its own limited population that only coincidentally may cross lines. It is analogous to the spokes of a wheel extending from the hub without a rim to provide a structure so that the spokes can carry out their function effectively and efficiently. This is where the community college can take the lead. Since financial assistance is limited, the community college is being asked by funding agencies to form a consortium with other community agencies to provide services that will have the greatest impact on the greatest number of people. If the majority of service agencies in any given community pooled their offerings under the aegis of a community based life-skills center, a true learning exchange could take place. By sharing membership lists, contacts, and human resources, each agency could broaden its own outreach potential without losing credibility in its identity as a singular and separate institution. More money could be funneled into each individual institution by providing a new base from which to draw funds not now available to any individual agency. Bureaucratic red tape and administratial costs could be kept to a minimum by utilizing the community services division (or its equivalent) of the community college as the coordinating body for the life-skills center. Since it is primarily the taxpayer's

dollars that support the work of the college, it becomes the college's work to bring the necessary life-skills services to the taxpayers.

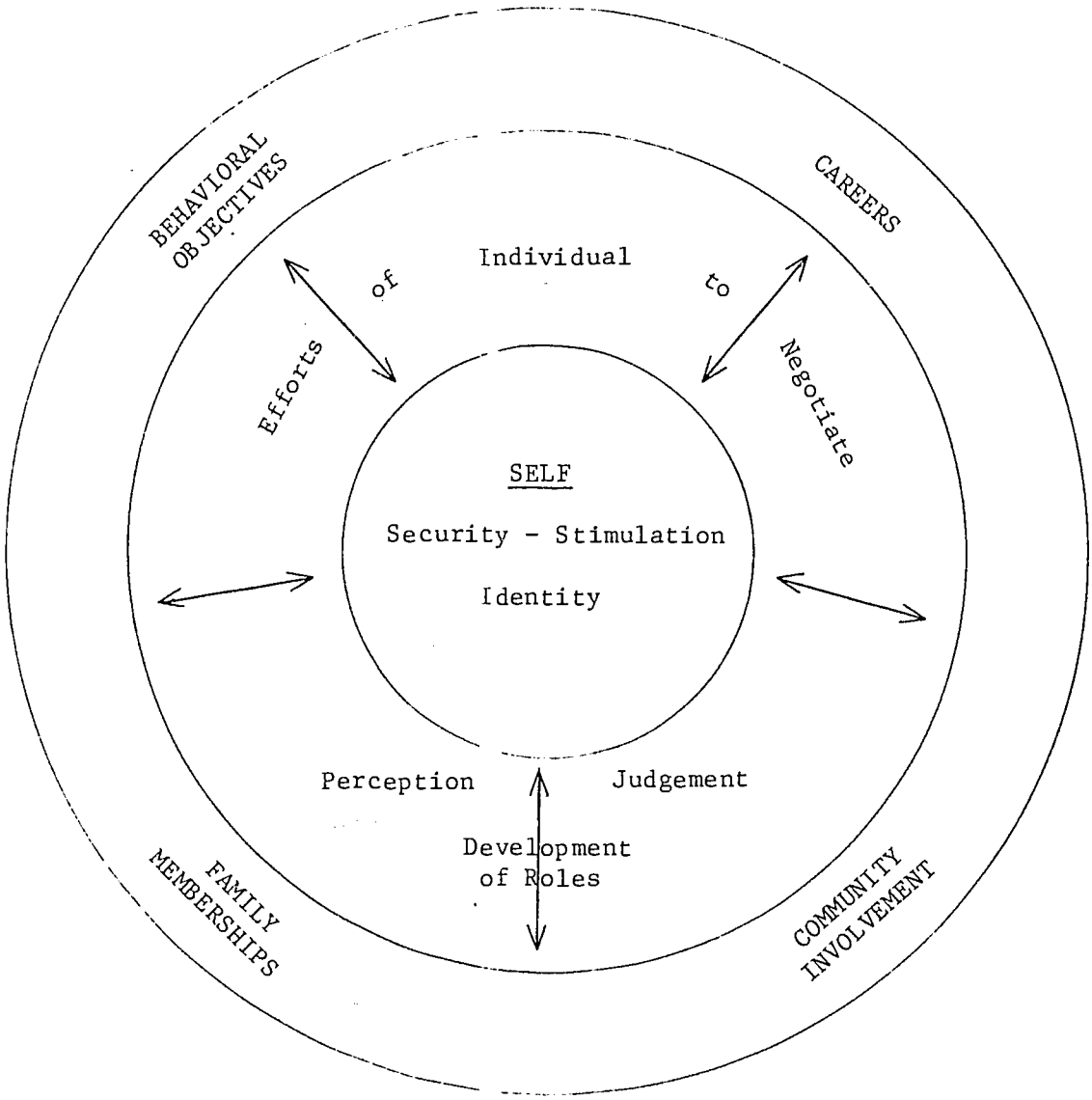
Most importantly, a life-skills center is in the best interest of the consumer. Any John or Jane Doe in any given community could have at his or her fingertips, all of the opportunities necessary to learn those transactional competencies which would allow for his or her participation as a responsible member of society. In addition, by providing John and Jane the opportunity to sit as consumers together with those people providing the services, as on an advisor board to the life-skills center, they can responsibly shape and form the thrust of today's educational systems. Through the personal integration or rejection of those competencies which give meaning to one's essential life roles, the consumer will be able to establish his own policies and strategies for becoming a responsible member of society. Give the adult learner a piece of knowledge and he will survive. Teach him to acquire life skills and he will grow.

FIGURE I



From: LIFE-CENTERED EDUCATION
by - Max Raines

FIGURE II



adapted from: LIFE-CENTERED EDUCATION
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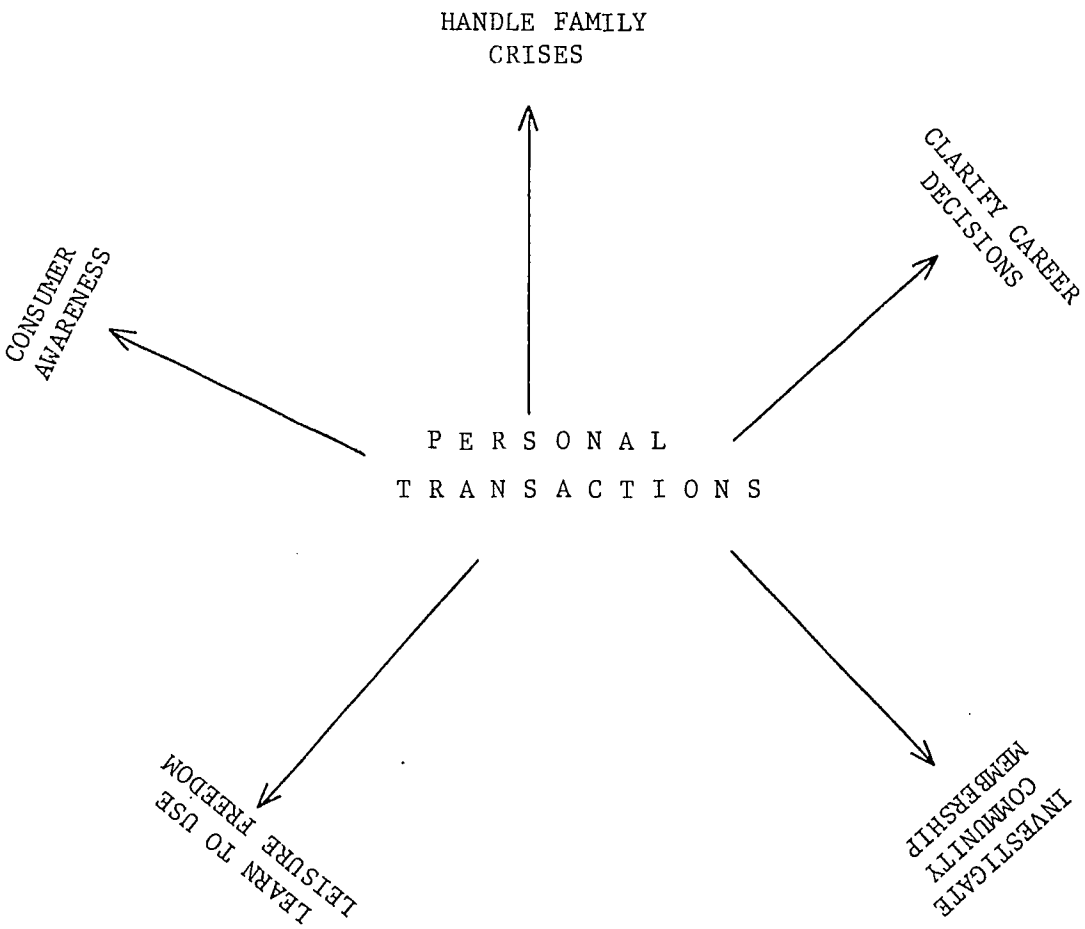
FIGURE III



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ADULT LEARNING

"An overview of the field and
the particular characteristics
of the adult learner, with resultant
implications for adult educators"

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ADULT LEARNING
Shannon S. Widman

DEFINITIONS OF THE SPECIAL TERMS INCLUDED BELOW:

Adult student/learner--A person of post-college age (beyond 22) or who attends school only part-time and whose full-time occupation is something other than college studies (Thornton, 1960)

Adult education--It is the action of an external educational agent in purposefully ordering behavior into a planned systematic experience that can result in learning for those for whom such activity is supplemental to their primary role in society, and which involves some continuity in an exchange relationship between the agent and the learner so that the educational process is under constant supervision and direction (Verner, 1962),

or

organized activites for (chronologically) mature persons carried on by a wide variety of institutions for the accomplishment of specific educational objectives (Knowles, 1962),

but

does not mean adult basic education, which is usually limited to literacy education.

The field of adult education--It brings together into a definable social system all the individuals, institutions, and associations concerned with the education of adults; and working toward 1) improvement of methods and materials of adult education; 2) extension of opportunities for adult learning; 3) advancement of the general level of culture (Knowles, 1962).

Andragogy-- From the Greek "agoge" (activity of leading) and "andr" (adult). Used first by a German grammar school teacher, Alexander Kapp, in 1833 to describe the educational theory of Plato, who had defined it as the normal and natural process of continuing education for adults (Ingalls, 1973).

Continuing Education Unit (C.E.U.)--Ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction (National Task Force Interim Statement of the National University Extension Association--and 33 other ogranizations, 1968).

ADULT LEARNING
Shannon S. Widman

INTRODUCTION

The adult student enrolling in adult continuing education classes, such as those found in evening programs at community colleges, is treated educatively like an adolescent. (Though I suspect that such is also the case in nearly all continuing education programs, I specify the community college because I have more immediate knowledge of that particular institution.) According to Knowles (1974) the undereducated adult especially has been turned away from education by being treated like a child. The reasons for such inappropriate treatment are many.

First, the instructor of these classes usually received methodology training via courses which concentrate on the adolescent or even pre-adolescent learner; about 30 percent of community college instructors' previous experience is actually in the high school (Freedman, 1973).

Second, the academic curriculum at most community colleges is formulated for those students who intend to transfer to a four-year school, and who are, therefore, generally 18-20 years old. In fact, of the community college student population, only 6 to 17 percent actually do transfer (Larsen, 1974); about half the total community college population is of post-college age (Blocker, 1965). Average age in community colleges nationally is now over 28 (Gleazer, 1975).

Third, because adult education as a separate, identifiable field of study and practice is only about 50 years old, and is, therefore, still

striving for credibility, it holds onto "many of the curricular and methodological trappings of traditional mechanistic schooling." (Knowles, 1974) The National Advisory Council on Extension and Continuing Education in their 1973 report, substantiates this: "A source of unrest within American education is the intolerably rigid structure of the system itself and what seems to be the reluctance of many educators to make the kinds of changes in it that will help maintain the system as an effective instrument of society."

Fourth, the phenomenon of the adult student in the United States as a lifelong learner is relatively recent. Even though the education of adults is as old as civilization, and even though night school for adults has been common in the U.S. since early in this century, emphasis in curriculum then was largely limited to literacy training and Americanization, these programs until recently being organized like those for children and youth: subject transmission by didactic teachers. (Knowles, 1974) In the past ten years, however, with the rapid growth of the community college, the numbers of adults of post-college age returning to school increased and is continuing to increase. In 1968, a quarter of the population over 21 went back to school (Alford, 1968). In 1972, 30 million adults were enrolled in continuing education sponsored by almost every type of institution and organization (Knox, 1974). Adult enrollment is expected to be 82 million in 1975; the ratio of the working

force to the learning force 100 to 159 (Tough, 1971).

In spite of this recent growth, the development of the adult education movement in the U.S. has, in comparison to the field in other countries, been haphazard. Formally begun about 100 years ago with the formulation of the England Workers' Education Association, adult education's purpose in England was to educate workers; the same was true in Sweden. In Denmark the folk school was begun as an attempt to refashion the national culture; in the USSR adult education has been an instrument of state policy to ensure loyalty to the State and to develop technological competency; in underdeveloped countries its purpose is to eliminate illiteracy. Nearly all national movements have had unified aims and forms.

The American adult education movement can not yet be considered unified, mainly because of the myriad needs, goals, and social pressures affecting its growth. There is a sense of formlessness and even confusion regarding what the movement is or should be in this country, and how it should be structured, if indeed it should be structured at all. Knowles (1962) sees adult education's progress as being impeded rather than enriched by marked specialization, diverse social goals, activities, agencies, and organizational machinery.

Regardless of the absence of formalized structure and unification,

however, American adult education continues to expand; this continued growth leads to the fifth of the reasons its participants are still treated like children in educative settings. Because the field has grown in so many directions and so rapidly, there hasn't been much time for educators to evolve theories, conduct studies, and devise new methodology for these large numbers of adult learners. Change is slow in education. Until about 20 years ago, not much research was devoted to the question of the adult learner as differentiated from the adolescent. Educators who wrote on the subject before this time usually made general comments which could have applied to any age group, and suggested methodology which bore little or no special relevance to the uniqueness of the adult learner. When in the late forties and fifties, teachers began experimenting with different strategies, in order to cut the disastrously low retention rate of early adult education, they gradually built a literature of their more successful ones. In the sixties, researchers began to test these practices, and out of that effort adult educators started using a new label to describe them. The label for this differentiated body of theory and technology is "andragogy," connoting "the art and science of helping adults learn." (Knowles, 1974) This is not a newly coined word; it was used in Germany as early as 1833 and has been used extensively during the last decade in Yugoslavia, France, and Holland. In 1970 the University of Amsterdam established a Department of

Pedagogical and Androgogical Science (Knowles, 1973). Seven universities in the Netherlands now offer degrees in androgogy, and in Yugoslavia there are several programs in it leading to a doctorate. So, in Europe, at least, andragogy is considered a legitimate field of study; there are signs that even in the U.S. its acceptability is growing, for in 1973 the Federal Government actually sponsored a study and document called A Trainers Guide to Androgogy. Perhaps, then, there is hope that this fifth of the reasons may be minimal in importance soon.

Sixth, few American colleges and universities yet offer degrees or education courses in adult education, or teach androgogical methodology. Many articles in education journals state and restate the need for research and more research into the field; many others insist on the need to find out more about the adult learner, agreeing that he is somehow different; many more say that if we educators are to do right by these returning adults, we need to do a better job of teaching them. The general consensus is that adult education is the future of education; that that's where it's happening. This view seems to be readily accepted and acted upon even on an international level. For example, in 1966 the First International Conference on the Comparative Study of Adult Education was held, with the intention of developing closer ties between adult education leaders from different countries. Also, the United Nations Education Science and Cultural Organization (UNESCO) has been holding inter-

national conferences periodically for over ten years. Unfortunately, not much is yet being done in the U.S. toward training teachers to effectively teach adults. West of the University of Nebraska only the University of British Columbia, U.C.L.A., and Oregon State University have finally offered advanced degrees in adult education, and those graduate programs are really more the result of the vocational and extension credit departments' expansion than of the education departments' efforts. Washington State University has just begun offering such an advanced degree, but it, too, has grown out of the extension service WSU offers.

So the adult student for many different reasons is treated like the adolescent when he enrolls in most continuing education courses in and out of community college settings. So what? Is he really different as a learner from the younger one? Has he indeed unique characteristics that would require the education to treat him differently in a learning situation? Does he learn the same way, the same things, for the same reasons? Is traditional methodology efficient when used with adults? The following review of the literature offers a general overview of these concerns.

ADULT LEARNING
Shannon S. Widman

HISTORY OF ADULT EDUCATION

In order to get a clearer picture of why the field of adult education has the problems it does today--mainly the lack of unified purpose and direction and valid, workable methodology--it would be helpful to look briefly at its history, in terms of the kinds of organizations and institutions with which it began and developed. It is my belief that since its beginning, American adult continuing education has had the potential for successfully enriching the intellectual lives of American citizens, that it has always had opportunities for doing so, that it has always had appropriate means and spirit necessary to do so. Why, then, is there such a disheartening gap between educators' original ideals and intents for the participants of continuing education programs, and the actual classroom results? Why doesn't America have a citizenry of adults committed to the concept of life-long learning?

American adult education began during the Colonial Period, generally unorganized and primarily vocational in nature, and strongly connected in goals to religious education, to the work ethic, and character-building. Typical institutions of this period: apprentice programs, common schools, and vocational schools. Benjamin Franklin, in addition to wearing his Founding Father and inventor hats, could also be considered the patron saint of American adult education, because of his forming a social-educational group called the Junto.

Between the Revolutionary War and Civil War, adult education's task was to diffuse knowledge, to transform the American populace from subjects to citizens. Some major instruments: Printed communications, public speeches, the New England Town Meeting, and the Massachusetts Lyceum. In 1836 the Lowell Institute was formed in Boston for the purpose of "maintenance and support of public lectures upon philosophy, natural history, arts and science" (Knowles, 1962). Later in the century came the N. Y. Chautauqua Institute, the County Agricultural Societies and fairs, the university extensions, the YMCA, the National Education Association (NEA), and the Grange.

The Federal Government began indicating its philosophy of legal and financial sanction of adult education with the Land Grant Act, the Smith-Lever Act of 1914 (Co-op Extension Service), the Smith-Hughes Vocational Education Act of 1917, the George-Deen Act of 1936, the George-Barden Act, and the formation of the Department of Education. This legislation was in partial response to the demands presented by war veterans, the large numbers of immigrants who had arrived in the U.S. in the early 1900's, victims of the Great Depression, and by the post-wars economic booms. The public schools, with their evening high school, literacy, vocational, and Americanization programs, became the primary institution for meeting the responsibility of massive education or re-education of these adults.

In addition to governmental involvement, voluntary national organizations and institutions concerning adult education began to appear in the early 1900's and have continued to do so since: the American junior college; in 1926 the American Association of Adult Education; in 1921 the NEA's Department of Adult Education; from the 1920's to the 1940's the Carnegie Corporation's activities and contributions; in 1939 the Kellogg Foundation initiated its Centers for Continuing Education; the Ford Foundation put 47 million dollars into its Fund for Adult Education from 1951-1961; in 1952 the National Association of Public School Adult Education; in 1955 the Adult Education Section of the Office of Education; and in 1957 the American Library Association's Adult Services Division (Knowles, 1962).

But this diffusion of interested organizations from business, government, education, and philanthropy seemed to ensure adult education's lack of unified goals and directions. Outlets were everywhere for continuing education, but emphasis appears to have been more on where and by whom than upon the adult participants' unique requirements as learners. In the 1950's, as a result of educators' lack of success with WWII veterans, adult curricula did move closer to the Wisconsin Idea (concentration on real-life problems of adults and society rather than academic organization of knowledge); and educators began to be concerned with trying to organize adult learnings into sequence such that experience

could be integrated with formal instruction, perhaps even credit given for experiential learning. (In the last five years, there has been growing acceptance by colleges and universities of the CEU--a means of acknowledging and rewarding a student's post-academic learning.) Too, the Kellog Centers actualized andragogical techniques and methodology in involving their adult constituents in cooperative planning of programs, in utilizing alternative teaching methods such as group discussion and role-playing, and in moving learning experiences outside the traditional classroom setting. But elsewhere, and by other institutions, little of these philosophies are stated, much less implemented in their programs.

I see this discrepancy between educational ideals and classroom practices in American adult education originating with the massive governmental involvement beginning in the 1920's and 1930's. At this time, the public high schools responded to demand by enlarging their night program to handle the growing number of adult students, but used their pedogogically oriented staff and facilities to do so.

Habits are hard to break; especially so for teachers. Once into an educational routine which seems to offer at least moderate success, we are tempted to use this routine on all students, regardless of age. When evening programs were mainly transferred to the community college, most of these same teachers came along, bringing these same routines with them.

While such transfer of less-than-appropriate methodology is unfortunate, the fact that there has been a change of scene is extremely encouraging. The growth of the community college and its community service outreach efforts offer ideal institutional means of providing continual learning opportunities for all persons. It is perhaps the only means of doing so in an organized, national manner.

Most educators are aware of the differences as learners between their younger and older students, and much as been written in trade journals about the fact that typical pedogogical methods aren't as successful with these mature students. But educators want facts and proof and practical, tried-out suggestions, not theory and speculation, before we will make any appreciable changes in the way we deal with adult learners enrolled in our programs and classes. Hopefully the following information will help bring about some of those changes.

CAN ADULTS LEARN?

In general, society itself has discouraged adults from viewing learning as necessarily continual. "The organism has one basic tendency and striving--to actualize, maintain, and enhance the experiencing organism." (Rogers, 1951) Education as a lifelong process is a relatively new concept for Americans, who seem to have felt that everything necessary for them to learn is learned by the end of high school for most, or

at the end of college for the rest; a child's role was to learn for his later life and an adult's was to work and meet social commitments. Our society believed the saying, "You can't teach an old dog new tricks." Even much of the early research into adult learning indicated that older persons' learning was deficient; for example, the Disengagement Theory, which postulated that it was natural for people to disengage from life as they grew older.

Jung (1960) believed the contrary. It was his opinion that it was

> "just the mature person who, in our times, has the greatest need of some further education in individual culture after his youthful education in school or the university has moulded him on excessively collective lines and thoroughly imbued him with the collective mentality...people of riper years are in this respect capable of education to a most unexpected degree...we disregard the education of the adult, of who it is always assumed--on what grounds who can say--that he needs no more education."

Knowles (1974) agrees, and cites current research that demonstrates adults maintain their ability to be continuing learners, and that affirms the andragogical position that "it is an organic need of human beings to move from dependency toward self-directedness." Further, he believes that education's new purpose is "to develop the capacity in each individual to learn to change, to create a new culture throughout the span of his life."

The classic Thorndike study (1928) was the first to suggest that adults' learning ability was not necessarily diminished because of age

alone. On the basis of his experiments he concluded that adults learned fairly easily and rapidly, and could probably learn more than they habitually did. From his subjects' (who were drawn mainly from the college or university population) own testimony, he suggested that what prevents adults from learning more is mainly lack of motor skill, sensitivity to criticism, and underestimating their own ability. He also suggests that learning is hindered by interference, poor learning skills, and lack of interest in the thing to be learned.

One of the early writers to suggest that learning was naturally lifelong was Havighurst (1956), when he described adulthood as being a developmental period, during which certain kinds of growth occur, centered around social and cultural activities. In early adulthood, the tasks are: 1) selecting a mate; 2) learning to live with the spouse; 3) family; 4) managing the home; 5) occupational; 6) civic responsibility; 7) finding a congenial group. In middle age, the tasks are: 1) continuation of civic and social responsibility; 2) establishing and maintaining an economic standard of living; 3) assisting children to adulthood; 4) developing leisure time; 5) relating to the spouse as an individual; 6) adjusting to middle age; 7) adjusting to aging parents. In later maturity, the developmental tasks are: 1) adjusting to decreasing physical strength and health; 2) adjusting to retirement; 3) adjusting to reduced income; 4) adjusting to the spouse's death; 5) continua-

tion of social and civic rsponsibility. Havighurst felt that the adult must apply himself to meeting these tasks through education, and that he does not lack the ability to do so.

Pittenger and Gooding (1971) also expressed confidence in the adult's ability to learn, when they unqualifiably state: "Given a healthy organism, positive environmental influences, and nonrestrictive set of perceptions of self, there appears to be no foreseeable end to the perceptions possible for the individual."

A longitudinal study by Schaie, Labouvie, and Buech (1973) concluded that earlier studies which had shown signficant age decrements in cognitive behavior had not controlled for sociocultural change. A separate study by Schaie (1970) suggests that environmental impact between times of measurement in longitudinal studies is of marked importance in measuring adults' fluid intelligence; and that adult age changes in crystallized intelligence can be accounted for substantially by generational differences.

Waugh, Fozard, Talland, and Ervin (1973) suggested, along these lines that what may have been thought to be diminishing decision-making ability in later years reflects instead age-induced impaired psycho-motor efficiency. Overstreet (1949) reported that older Ss' apparent inability to learn was not connected with age, but was related to factors in the person himself; such as a lack of aptitude for a specific subject, of motivation, or a particular learning skill; or was related to certain blocking

by ideas, habits, or emotions. He also found that a cultural unacceptance of adult education prevented many older students from learning further. In a longitudinal study reported by Klausmeier and Harris (1966) it was suggested that motivation, drive, and time rather than small variations in intelligence might be the important determiners of whether or not adults learn.

Gilbert (1973) expressed conflicting findings, reporting a decline in scores in initial learning, retention, and repetitious learning among Ss in her 35-year follow-up. This could be in part explained by Schaie's studies and Welford's work in 1958. Welford found no decline in insight with age, but rather of certain necessary preconditions for its occurrence, and that limitations of the older Ss related to gathering and retaining data on which insights depend. Older Ss' apparent difficulty in learning, he contends relates more to their inability to comprehend material or to deal with the conditions under which it is presented, or to increased liability to interference with short-term retention of some other activity.

Furry and Baltes (1973) substantiate this. They suggest that part of the often-observed age difference in components of intelligence is not an indication of a loss in task-specific abilities; different age functions, they feel, may in part reflect the operation of non-intelligence factors like pretest experience, subtest position, and pretest

fatigue. Botwinick (1967) cautioned that differences in performances are difficult to interpret relative to cognitive and non-cognitive factors (such as loss of speed, motivation, or health) and also because there is no absolute zero to intelligence. While he admits that learning performances do decline with age, he is not clear whether such decline is because of the adult's relative inability to learn, or because of non-cognitive factors. Zahn (1967) believes that the amount learned may diminish, but this is probably because of factors like self-doubt and sensitivity to criticism.

Riley and Foner (1968) summarized the findings of their review: older people are more likely to show deficits in sensory and perceptual skills, in muscular strength, in ability to react quickly, in complex sensorimotor coordination, in memory, learning, and various aspects of intellectual functioning. Yet, in all, their review was less than conclusive regarding older Ss' ability to learn. When compared with younger Ss, in a job training situation, for example, some older Ss had difficulty, others were the same as the younger Ss, still others excelled over the younger at new tasks. In general, then, Riley and Foner do not suggest that older persons are unable to learn, but that they may take longer, and have more difficulty in doing so than do younger persons.

Time appears to be a key factor in efficient adult learning. When this factor is controlled for, or eliminated, older Ss' learning quality

compares quite favorably with the younger (Jarvik, Eisdorfer, and Blum, 1973). Lorge's untimed intelligence test indicated no loss in general learning with age (Dickinson, 1973). Belbin and Downs (1966) did not control for time in their study, where they reported that their young Ss (20-34) bested the old Ss (35-49) in learning paired associates via various learning methods (e.g., linear programming, memorization by activity, and deduction). The one method where the old Ss' performance was comparable to the young was deduction.

Health is another major factor affecting the continuation of effective learning. Longitudinal studies included in Jarvik's collection indicate remarkably stable verbal scores whenever health is preserved; good health is extremely important, since vascular disease is most likely to cause cognitive decline. Zahn (1967) found that high blood pressure slows intelligence test performance. Jarvik et al concluded that intellectual abilities can be maintained into the ninth decade, regardless of intelligence level and without reference to SES or residential setting.

Other physical factors affect learning with increased age. For example, vision peaks at age 18, then declines, until by age 30 nearly 40 percent of all adults have defective vision; by 60 years, 82 percent. Also, visual reaction time is slower with age, and more effort is required to change focus from near to far. Hearing, too, declines. While only one-eighth of all 20-year-olds have defective hearing, one-half of

all 60-year-olds do; and sound discrimination and speed of auditory reaction diminish (Dickinson, 1973). Botwinick (1967) discusses the physical limitations of aging on memory. The general decline in memory ability can possibly be explained. Psychologically speaking, the older the S, the more time he requires to register new information; but if he takes too long to register it, there is a risk of decay or erasure or interference. Neurochemically speaking, in older persons there is a decrease in RNA (a biochemical substance found in nerve cells, which is thought to code and store acquired information) as well as a decrease in acetylcholine (thought to be necessary for transmittal of messages at the synapse). Physiologically speaking, the level of general health relates to memory ability.

However minimal their physical decline, and however sound their health, some older persons may still not keep up their intellectual pursuits. Apparently the person's level of education, his personality, and his continuing to learn are cogent factors in his intellectual functioning in later years (Jarvik, et al, 1973; Zahn, 1967). Jarvik actually showed an <u>increase</u> in IQ with age, as did Owens (1953) whose study indicated increase occurring to age 50, and with some Ss to age 70. According to Botwinick (1967), at a maximum, only 25 percent of the variance of age accounts for variance of intellectual function. These studies substantiate Hunt (1961) who took the position that IQ "should be regarded

as a phenotype, like height or weight, for which genes set limits of potential development, but which is finally developed through encounters with the environment." Jarvik summarized the personality characteristics of these Ss whose IQ increased with age:

They tend to maintain distance from other people
they are likely to turn inward
their nurturance of others is minimal
they are serious, almost gloomy
they are self-critical
they value intellectual matters
they are not extreme in either masculinity or femininity
they are not gregarious as children

Also, Houle (1961) formulated a profile of adults who engage to an outstanding degree in activities thought to be educational:

They have a high income
they are from a large community
they are fairly stable in their residential pattern
they have had a varied education pattern
they are from their late 20's to 50's
they are married
they perceive themselves as concerned with learning
they are professional or white collar
they are goal-oriented.

However, a more recent profile of the adult enrolled in continuing education classes shows a more pronounced middle class orientation, and often a minority background (Larsen, 1974).

There seems to be no doubt that, on the basis of these sources, adults' intelligence remains intact sufficiently for them to succeed at learning tasks throughout their lives. When looking at some of those

longitudinal studies which report to the contrary, consider Schaie's point about lack of control for sociocultural changes, as well as the contention by Botwinick (1967) that longitudinal studies are largely biased in favor of Ss of higher ability; the less able are less available because of sickness and earlier death. If those cautions are taken into consideration, then a nearly unarguable conclusion remains: adults can learn if they want to.

WHY DO ADULTS LEARN?

Tough (1971), on the basis of many detailed interviews and studies, reported on the actuality and extent of adults' learning. He discovered that the reason adults learn is that they have a very deliberate intention of gaining and retaining certain knowledge and skills. He defines "knowledge and skills:"

> Any positive or desired change or improvement in understanding, awareness, comprehension, beliefs; or in ability to apply, analyze, synthesize, evaluate, judge; or any such change in skill, habits, attitudes, emotional reaction, sensitivity, patience, inner or overt behavior. These changes result from experience.

He says that the adult learner has conscious outcomes in mind for these change-inducing learning experiences. Some are immediate, some not; some are cognitive or material; some are emotional or psychological. Dickinson (1973), too, found varying degrees of both intrinsic and extrinsic elements in the adult learner's motivation.

Even if the task at hand could be accomplished without further learning, adult learners will often undertake this learning anyway, in order to accomplish the task at a higher level, for gratification or self-esteem or efficiency. Sometimes an adult wishes to learn in order to be better prepared for a future event; sometimes to get academic credit. Morgan, Holmes and Bundy (1960) found that adult motivation to learn related to the varying degree of importance of such personal concerns as citizenship, moral values, health, safety, personal culture, leisure activities, economic efficiency, vocational training, and learning skills themselves. According to Brunner (1959), the adult's motivation connects to goals sociogenic in nature, which Rogers (1969) supports; the reason most adults gave for being involved in continuing education programs was primarily socially-derived. D. Nicholson (Brunner, 1959) questioned over 5000 students in all types of adult education and discovered that vocationally based motives prevailed for the 20-40 age group of married and and separated or divorced women. Those categories of Ss who listed intellectual-cultural motivations were married women, single men, and those with higher previous education. Perhaps this emphasis on practical and social bases for learning motivation is a relatively recent trend; R. A. Beals (Brunner, 1959) did a study in 1935 on the relative frequency of motivations for college alumni (median age 41.6): intellectual curiosity and mental stimulation--52 percent; college sentiment--19 percent;

renew friendships--16 percent; relaxation and change of scene--13 percent.

Whatever the motivation relates to, Tough believes this individual motivation and self-determinism is a crucial prerequisite for successful adult learning situations.

He sees certain factors either fostering or preventing adult learning from reaching this first stage of expressed desire to learn: the adult's past experience, such as his parents' example in reading, verbalization, interests, and his own schooling's relevance and satisfaction; also, the adult's psychological characteristics (his mental ability, energy, agressiveness, rationality, insight, current knowledge and skills, number of interests, perceptions about learning, whether he is future-oriented, has motivation from higher-level needs, his readiness to change, the clarity of his life goals and his competence at setting them); additionally, the adult's circle of friends influence him at this point--do they have a positive attitude toward learning?

One major difference, then, in adult learning vs. adolescent is the degree of voluntary determinism. In contrast to the typical high school and college age-student, who learns (or at least is expected to learn) because older persons decide he has a need to know, the adult learner deliberately chooses to learn something because he has definite requirements for that knowledge or skill, and the reason directly relates to his own

perception of his unique needs.

WHAT DO THEY LEARN?

With the ability and motivation to learn, what kinds of things does an adult learner want to learn? In general, types of knowledge that fall under the "how to" category, that are a means of solving immediate, particular life problems (Havighurst and Orr, 1956; Knowles, 1962; Blocker, 1965; Dickinson, 1973). Thorndike (1928) also stressed the importance of this type of learning to adults and Lorge (1955) concurred. Lorge's studies showed that adults were far more likely to continue with learning activities if they felt some kind of practical outcome would be the result. Included under "practical outcome" could be such diverse examples as geographic mobility, occupational advancement, or higher income. The majority of retired Ss Hiemstra (1973) interviewed preferred learning projects which were either basic knowledge or skill mastery, rather than those which could be classified as enjoyment or new experiences. Edward Strong (Dickinson, 1973) reported that Ss over 25 crystallized their interests, transferring them from the physical and varied topics of their younger years to activities and subjects done as individuals. Brunner (1965) reported that adults preferred to learn that which related to real and relevant events, or which could be associated with existing values, or which was of practical value or related to their environment.

Tough's study (1971) details the kinds of things an adult wants to learn: learning tasks connected with his occupation are preparing for it, keeping it, and solving its problems; tasks connected with adult status: home and personal responsibilities and a practical application of any acquired knowledge and skill to the self or environment. Learning tasks can also be more abstract in nature, such as those related to personal interests, leisure, or curiosity, but even these are internalized in a pragmatic way. The use of the knowledge from any of these areas can be either immediate or anticipated. The adult's individually determined learning program is markedly different from the adolescent's compulsory attendance in a prescribed program. The adolescent answers the question, "What do you learn?" with, "What I'm supposed to;" the adult with, "What I want or need to."

HOW DO THEY LEARN?

Do the differences between the age groups' reasons and interests extend to their learning processes as well? How do adults go about learning? Is it in different ways from those of younger students? Do adults encounter different kinds of problems when they learn? Several authors have shown that such differences in learning processes and methods of attacking learning tasks do exist. John Flavell (Goulet and Baltes, 1970) discussed the kinds of differences between the child's and the

adult's cognitive function. He said that while childhood's cognitive modifications are largely inevitable, momentous, directional, uniform, and irreversible, no such underlying process directs adult changes. The most important changes in the adult's cognition result from life experience and the lack of the across subject conformity that characterizes the child's intellectual growth. Other properties of adult cognitive changes: 1) They are more quantitative than qualitative and of less magnitude than the infant-to-adult change; 2) they do not occur in all adults; 3) most of them concern social-interpersonal factors, rather than including as well the logical-natural world as does the child's cognitive change.

Tough (1971) in his discussion of the adult's learning projects, detailed the initial stages, the steps that adults required just to make the decisions to begin a project and to determine what kind of knowledge and skill to learn in that project. The learner:

Tries to increase his competence at performing the preparatory steps
decides which steps to take and in which sequence
formulates an action goal
decides to spend some time learning something
tries to get specific
tries to increase awareness of the range and variety of relevant knowledge and skill
considers possible benefits
estimates how much he already knows
tries to decide how able he will be to do it
estimates various costs of the project

decides how to find the necessary resources
decides to actually begin the project
decides the amount to be learned
frees himself for learning
if motivation is lacking during this phase, he deals with that problem
generally assesses his progress thus far

Once a learning project is decided upon, the adult then takes definite steps to prepare for the actual implementation of the project. He:

Decides what to learn
decides what specific activities, methods, resources, equipment, etc., he will need
decides where to learn
sets deadlines for completion of the project
decides when to begin
decides on the pace
estimates current level or progress
checks for blocks or inefficiencies
obtains specific resources or equipment or reaches the specific place
prepares or adapts these resources, etc.
gets the money necessary
finds the time to accomplish the project
increases his motivation

Tough found that the median time for this initial phase was two hours, and that it was rarely completed without some help regarding detailed content and strategy from several source persons. However, even though resource persons were utilized, the adult himself made the decisions.

Tough reported some general differences between his adult Ss' methods and those of two younger groups', one of sixteen-year-olds, and another of ten-year-olds. The younger Ss also voluntarily set out on learning projects, but whereas the sixteeners' projects were similar to the adults',

the ten-year-olds' were more varied in type. Both younger groups were less concentrated in their attention to their projects than were the adults; their learning episodes during the projects were shorter; the total time devoted to their projects was shorter; and their motivation for beginning their projects was more "for fun" than "for use."

As well as Tough's general conclusions regarding learning projects, other studies differentiate more specifically between the younger and older students' learning processes. In concept formation, for example, adults exhibit more ease at the task than do youngsters. Walk, Karasaitis, Lebowits, and Falbo (1970) found that, whereas the children Ss attended to artists' concept presentation differentially, the adult Ss sorted all artists' works with equal facility.

Johnson (1972) tested Ss from four to 53 years on their ability to form the concepts of abstract space and of its bio-social-philosophical dimension, using circles with either horizontal or vertical diagonals to do so. He correlated these symbolic diagonals psychologically to the abstract concepts. He found that as the age of the S increased, so did his movement from the concrete to the abstract.

A similar experiment by Musek (1972) hypothesized that understanding of the concepts of "good" and "bad" as exemplified by their being symbolized connotatively was a function of age. He found this to be supported, and concluded that differentiation of concepts increased with age.

Houle (1961), Paivio (1971) and Clark (1971) each state that adults are able to grasp more abstract concepts with more ease than children. Paivio found that adults utilize visual processors more than children do in concept formation, and that the potency of their images was greater. Also, repetition of the image presentation helped adults learn, but this method does not work as well for children.

Another age-related difference in concept formation was brought out by Clark (1971). He indicated that as the age of the S increases, he attains concepts by attending more to their instances' functional characteristics than to the dominance of their physical characteristics. Botwinick (1967) agreed that older persons conceptualize functionally rather than generally, and went on to suggest that they produce fewer abstractions than do younger persons, doing so with more difficulty if they are under time restrictions.

In addition to concept formation, there appear to be these age-related differences in other areas of learning as well. Middleton and Davenport (1973) found that their Ss prior to middle age were more apt to utilize prior context in expectancy-restoration tasks; those past middle age depended more on subsequent context. Perhaps this is due to the tendency of older persons to respond with more caution in a learning situation. Older Ss simply wait for more cues to guide them. The conclusions Traxler (1973) reached regarding retroactive and proactive inhibition illustrate

the difficulty the older learner has in keeping such cues ordered and working to his advantage whenever possible. His older Ss (mean age 68.7) showed disproportionately more retroactive inhibition in free recall than proactive, but there were significant age differences in both RI and PI. Sjogren and Knox (1965) conducted an experiment with Ss ranging from 21 to 65 in which they attempted to determine whether prior learning was an age-related inhibition in a learning task. They found that age was not a factor in the Ss' ability to learn material that could be freed from pre-experimental learning, and that interfering conditions that they introduced had the same effect across all age groups.

Encoding studies show adults to be more flexible in switching encoding modalities to ones they perceived as more appropriate to the to-be-learned items (Paivio, 1971), in overcoming latencies in complex tasks (Tversky, 1973), and in paying minimal attention to irrelevant cues (Goulet and Baltes, 1970). Older children seem to be able to utilize the relevant associative processes aroused by pictorial material in a verbal learning situation. Adult Ss, too, apparently utilize these associative strategies, coding and transformation of items, but Paivio warns that in studying unmediated learning, the variable of an adult's strong associative habits is often uncontrolled-for. There is another difficulty adults have when they depend on their visual perceptions to aid them in encoding: the progressive-regressive pattern over the life-span (Goulet and Baltes, 1970).

In regard to memory, Anders (1973) found support for the accepted generality about age: Older Ss are slower in retrieval searches for both primary and secondary memory. But Boyanowsky and Anders (1973) offer a possible explanation when they suggest that what may have seemed to be a short-term memory deficit associated with aging could be due to the problem of encoding the material in the first place. If Ausabel's hooks were not being utilized efficiently, retrieval of the information would be more difficult. However, Riegel and Riegel (1968) found that if the items in storage are those which are often experienced, they were likely to be recognized faster. They believe that the older Ss' (average age 70) lower scores in recognition related to their need for more time to arrange the items and suggested that the older Ss seem to be confused by increased storage size. Welford (1958) also found a decline in short-term retention, possibly related to the Ss' inability to see the material's relevance, but believed that his Ss exhibited more thorough coding to help themselves compensate for this deficiency. Riley (1968) qualified his general conclusion regarding older Ss' memory deficits somewhat: The poorer performance in memory tasks might be related more to the initial acquisition of the test material than to the Ss' ability to retain it. Although the older Ss performed less well in tasks requiring selective storing and processing, when they were presented with familiar material and could pace themselves and had increased exposure to the stimulus mat-

erial, they were much more likely to approximate the younger Ss' performance. Paivio (1971) also found that availability of the symbolic memory codes was important to performance in the storage-retrieval sequence, and was co-related positively to the age of the subject.

Hankins (1973) wrote on token reinforcement and its effectiveness in modifying the behavior of school-age children. An experiment by Buckholdt and Ferritor (1974) did the same with adult Ss; judging from the baseline period results reported for each study, the technique was equally successful for the two age groups. Buckholdt's report discussed the need for educators' intervention in the areas of adult education programs and environment, implying that behavior modification can be utilized in making these programs more effective; however, their experiment did deal exclusively with adult basic education. Perhaps this kind of token reinforcement to influence the learning process would not be as readily accepted by other adult learners.

When attempting to determine from available studies whether adults have age-related difficulty in specific kinds of learning, conclusions may depend to a large extent on what kind of method is used to gather the data. The cross-sectional method used by Kamin (1957) Jones (1959) and Schaie (1958) indicate that in reasoning, for example, there is a sharp decrement in ability with age from the peak at young adulthood (the thirties) to old age. Yet if the longitudinal studies of Owens (1953)

Bayley and Oden (1958) and Bayley (1968) are examined on the same variable, a modest gain shows from the young adulthood plateau until old age. Schaie and Strother (1968) conducted a short-term longitudinal study on that same variable, reasoning, and found a modest decrement from middle adulthood to old age. Apparently the problem lies with determining without doubt whether reasoning is truly an age-related variable before meaningful inferences can be drawn from the reports. Other variables may yield similar results, upon examination.

Though the research methods' possible biasing of conclusions must be considered, it seems to be relatively safe to generalize from the reported research on the subject of adult learning psychology. One major difference in learning style between adults and adolescents relates to the additional amount of time required by the adult to accomplish the task, in order for him to overcome such problems as memory deficits and PI and RI. Other age-related differences apparently work to the advantage of the older student: he learns abstract concepts more readily than does the younger one; and he is willing, as well as able, to take more direct and immediate charge of his learning projects.

IMPLICATIONS OF THE RESEARCH--ANDRAGOGY

Keeping these observations about the adult learner and his special characteristics in mind, what are the implications for instructors form-

ulating adult education programs? What methodology will be the most effective? Which activities appeal most to adult learners? Are there specific qualities in the instructor himself which draw the adult learner into the learning task more completely?

Some general guidelines regarding adult education programs are suggested by Jarvik (1973). Census data project that by 1985, 61 percent of the persons over 65 will have at least a high school education. If these adults are to want to participate in adult education classes more than previous adults have (only 2.8 percent of those 60-74 years old were participating in such classes in 1958; in 1965, only 10 percent of those over 55 participated), then obstacles such as awkward physical arrangements, inappropriate time schedules, and uncomfortable social settings must be remedied. Also, adults' reduced energy and income may possibly have kept them away from continuing education, and these factors, too, must be considered in program planning.

Knowles typology (1962) for developing a curriculum for adults includes such topics as education for the aging, community development, creative arts, fundamental and literacy education, leadership training, public affairs, parent effectiveness, personal finances, investments, home remodeling and repair, marital dynamics, and infant and child care. Tough (1971) believes curricula for adult education should be "characterized by the learner's freedom to decide what and how to learn, free of

formal evaluation and the power situation of teacher over student." In other words, the curricula must necessarily relate to and be influenced by the adult's developmental and social role tasks. His life skills require a much more practical and problem-solving orientation than do the curricula for the adolescent and college-age learner.

The literature suggests that educators will have the greatest classroom success with adults if they focus their attention on "helping learners develop the skills of inquiry, providing environments that are rich in the resources needed for various kinds of inquiry" (Knowles, 1974), and if the material is connected to the adult's experience or perception, is practical, is reinforced, is evaluated, and is learned in an informal setting (Dickinson, 1973). Dubin (1973) says that the difference between systems of learning for children and those for adults should be in the adult's acquiring basic skills, organizing knowledge, and stimulating productive thinking; that instructors attempting to teach new tasks should capitalize on the adults' previous experience; that the focal point of a curriculum should be a process model rather than a content model, so that the learner engages in continuing self-education. Morgan and Barton (1960) stress the importance of activities calling for reasoning, judgments, and creative thinking on the part of adult learners.

More specifically, in setting up the course itself and in teaching it, the instructor should keep certain facts about the adult clientele

in mind. Because the adult enters a learning experience as a means of solving particular life problems (Blocker, 1965; Knowles, 1962; Havighurst, 1956), the course plan should be problem--or situation--centered and should be immediately related to his particular needs, abilities, and resources (Bergevin, 1967; Knox, 1974). The plan should not be determined by the instructor's idea of how much of the subject should be "covered" during the course. In order to find out what the adult's particular needs are, the instructor must ask, "Why are you here? What is it that you need or want to know? What will you be doing with this information or skill? How will this knowledge help you solve a problem or improve a skill? What do you already know about this topic? How much of this task can you already solve?" Of course the instructor may well have knowledgeable hunches about the learner's needs, based on his understanding of the adult's life roles, but should not rely solely on those hunches to plan the learning activities, if he wants to maximize the adult's successful involvement in them.

During this initiating phase, one of the most essential elements of the learning experience must be provided for. Knowles calls this "climate setting." The instructor must be able to demonstrate right from the beginning the relaxed, informal, collaborative tone that allows for non-threatening participation and mutuality. He utilizes the kinds of activities which will help make the learners feel at ease, valued, and coopera-

tive. For example, in addition to asking them those questions about why they are there, he will supply them with orientation to the broad purpose and scope of the course, to each other and the instructor(s) as resource persons, to the available resource materials, and to suggested ways for them to prepare to participate in the learning experience. He may also guide a "getting-to-know-each-other" kind of activity, in order to provide for the students' immediate ego-involvement, and to set the keynote of mutual sharing of resources and participation. For a group of over 25 persons, this activity might be more effective if they break up into small groups of about five persons each. These smaller groups could get to know each other well enough to present a TV variety show based on their group members in the format of the editorial, book review, sports, comics, or feature columns; or could use the inquiring reporter technique. An alternative to breaking the large group into the groups of five or so, is to request that each person find someone he does not know and spend a few minutes chatting with him; then that pair moves off to find a second pair of participants to chat with; then that foursome finds another foursome. The result is an eight-person group which may then begin working together on some project, or which may then introduce itself to the larger group. For groups under 25 persons, it may work well just to have self-introductions; or a name-tag activity where, after a few minutes of two-person interviewing, the pair creates each other's name tag, reflecting something

the partners learned about each other during the talk.

All this comes under the heading "course planning." Once the adult student is comfortable enough to identify his needs and interests in a general way, the instructor works with him in determining the model behavior or degree of competency related to those needs. Techniques for developing this model: The instructor may provide the groups with his own ideas, which are open to critiquing by the group; a group-conducted interview of a panel of professionals or experts or those generally believed to possess competency; a pooling of the groups' ideas of competency, based on their experiences or preliminary searches into the topic.

With the instructor's guidance, the student will then evaluate his present performance or competency, and assess the difference between the two levels. Some means of achieving this self-evaluation with minimal risk to ego: Critical incident games, skill practice, simulation; role-play; and video tape. The National Association of Public School Education for Adults (N.A.P.S.A.E.) (1964) recommends careful attention to this early-stages technique. Their publication stresses the desirability of the instructor's involving the students in the course planning and criteria-setting, in order to give more immediacy and personal involvement to the group.

After the student has decided how much he has to learn or improve to meet the competency level he wishes to attain, the instructor and he

together determine which kinds of learning activities are the most appropriate to help him make these changes. At this point the instructor's own training is of prime importance. On the basis of his experience in similar situations and on his knowledge of the assets and liabilities of a specific technique or device, he can guide the adult learner in directions that will facilitate his learning process.

Some research and reporting indicate that there is a definite teaching technique required by different kinds of learning. For example, the lecture, one of the most-often-used techniques in adult continuing education activities, is not always appropriate. In examining its effectiveness, Verner and Dickinson (1967) reviewed studies of immediate and delayed recall of factual information, of attitude modification, of audio-visual delivery, and of learner preference. They concluded that the lecture works best when:

It imparts information
is short
uses simple language
is well organized
contains only meaningful information
its purpose is to arouse interest in a subject
retention over time is not important
participants are of average or above average intelligence

In an earlier source, Verner (1962) had emphasized the necessity of relating specific teaching techniques to the functions of the specific learning process. Those best-suited to the acquisition of information: Lecture, panel, forum, symposium, debate, field trip, correspondence,

and reading lists. Those best for acquiring a skill: Demonstration, role-play, drill, apprenticeship, field projects. Those best for application of knowledge to a new situation or to problem-solving: Discussion, seminar, internship, buzz group, committee membership, participation in a workshop. Knowles (1970), too, formulated a typological table matching appropriate teaching techniques to the behavioral aspects that the learner wishes to develop:

To develop knowledge about------	lecture, TV, debate, interview, book-based discussion
to develop understanding of-----	audience participation, Socratic discussion, film, case method
to develop attitudes about------	experience-sharing discussion, group-centered discussion, case method
to develop interest in----------	TV, demonstration, exhibits, field trips
to develop values of----------	TV, sermon, debate, symposium, guided discussion, role-play, games, T-group

Regardless of the technique and process involved, the instructor should remember that adults generally learn at a slower rate than do younger students, and are a bit more fearful about succeeding (Bergevin, 1967; N.A.P.S.A.E., 1964; Donahue, 1955; Whipple and Fansler, 1936; etc.); therefore, he needs to program some flexibility into his course requirements: Giving incompletes if requested or appropriate, individualizing instruction, and providing continuing and consistent feed-back regarding

the student's progress. The instructor's basic philosophical approach to teaching adults should be one of practicality rather than of abstractions and imparting of values (Blocker, 1965).

The final component to the learning experience is the summative evaluation, or the re-evaluation, of the adult's performance as it relates to the competency model criteria he and the instructor delineated earlier. How well does his behavior measure up? Is he satisfied, or does he feel he needs further learning experiences or skill practice? The learner himself may evaluate his own performance via supplied objective data; or via repetition of the diagnostic exercise; or via two- or three-person teams. Or the instructor might take charge of this stage of the learning experience. Dickinson (1973) suggests that content tests best evaluate learning in the cognitive domain; attitude scales best assess that of the affective domain; and rating scales are best for that of the psycho-motor domain. He also recommends that the participants evaluate the course itself, in terms of its effectiveness, appropriateness, and practicality for them; so does Ingalls (1973). The course evaluation can be administered by the instructor or under the leadership of a previously formed, volunteer team from the larger group. This team may decide among themselves which techniques or instruments to use, presenting these as possibilities to the larger group for acceptance; or they may ask for guidance from the instructor or the group. Some devices and techniques for course

evaluation: Rating scales, post-course questionnaires, personal interviews, buzz groups.

As far as the instructor himself is concerned, Tough (1971) indicated qualities of the ideal "helper" for adults' learning projects. The helper:

> Provides accurate and realistic information
> is not harmful
> is sought by the learner
> is objective
> gives individualized help for the particular learner
> encourages the learner's strength to learn in the future
> is warm and friendly and accepting
> encourages the learner to maintain control of the project
> is an equal with the learner in dialogue situations

This varies somewhat in scope from an earlier study, done with a more traditional classroom setting and with the typical teacher-student relationship. Solomon (1963) reported on his study of the effect of teacher behavior on adult learning. He found eight factors, determined by observing teachers in action, with which he gauged their effectiveness in their students' learning processes. Then he concluded from the Ss' performance on extensive content tests and questionnaires which of these factors contributed best to specific learning tasks. His conclusions:

> Factual learning was most effectively accomplished when the teacher was clear and expressive, and when there was a median between permissiveness in the classroom, and control;
>
> when the teacher was energetic, aggressive, and flamboyant;
>
> that in general the adult student prefers a teacher who uses control, is energetic, expressive, and warm, and who encourages factual student participation;

> that students in small classes prefer a teacher figure rather than a close interaction between the students and the teacher as a personality

But Knowles (1974) disagrees with this kind of teacher role; his ideal corresponds more nearly to Tough's findings about effective helpers: They tend to be warm, indirect, cognitively well-organized, enthusiastic facilitators and resource persons rather than coldly efficient transmittors. Informal one-on-one is their key guideline. Rogers (1969) describes the attitudinal qualities of a facilitator: 1) genuineness; 2) non-possessive caring; prizing and respect for the learner; 3) empathetic understanding and sensitivity; 4) accurate listening. Ingalls (1973) stressed the importance of a trainer's possessing a self-accepting attitude, and being prepared to change along with the students. He should demonstrate an authentic caring attitude, and be willing and able to take interpersonal risks. Postman and Weingartner (1969) list the behaviors of an instructor who best uses the inquiry method to encourage students to become independent learners: 1) he rarely tells the student what he thinks they ought to know; 2) the basic mode of discourse with the students is questioning: 3) he generally does not accept just a single statement as The Answer; 4) he encourages student-student interaction, as opposed to student-teacher, and avoids acting as a mediator or judge during such interactions; 5) he rarely summarizes positions taken by students on learnings that occur, in order to avoid closure and the ending of further

thought; 6) he develops lessons from the responses of the students, not from previously determined "logical" structure; 7) his lessons generally pose problems for the students; 8) his evaluation is a measurement of behavioral changes.

The following chart by Knowles (1974) focuses these differences between traditional and current thinking about adult education methodology and the role of the instructor; as well as summarizing some differences between the learning psychology of the younger and older student.

A COMPARISON OF ASSUMPTIONS AND PROCESSES OF PEDAGOGY AND ANDRAGOGY

Assumptions

PEDAGOGY		ANDRAGOGY
Self-concept	Dependency	Increasing self-directedness
Experience	Of little worth	A rich resource for learning
Readiness	Biological development; social pressure	Developmental tasks required by social roles, stages of adulthood
Time-perspective	Postponed application	Immediacy of application
Orientation to learning	Subject-centered	Problem- and person-centered; importance of learning skills

Process Elements

PEDAGOGY		ANDRAGOGY
Climate	Authority-oriented formal; competetive	Mutuality; respectful; collaborative; informal

Process Elements
(Cont'd)

	PEDAGOGY	ANDRAGOGY
Planning	By teacher	By teacher and student
Diagnosis of needs	By teacher	Self-diagnosis with teacher's guidance
Formulation of objectives	By teacher	Mutual negotiation
Design	Content units	Problem units; learning projects
Activities	Transmittal	Experiential; inquiry
Evaluation	By teacher	Mutual re-diagnosis of needs; of program

CONCLUSION

Several questions were presented in this general overview on adult learners: Can they? Yes. Why do they? Because of specific personal motivations. What do they? Practically useful items of knowledge or skill. How do they? Pretty well. Who best teaches them? Helpers, not pedagogues. But given this information, why do anything with it? Is the concept of adult continuing education a viable one? Do we as educators need to make changes which will encourage its acceptance? Could it be not only viable, but vital to our society's survival?

> Plato: Education ought to be a process continuing through life, perpetually interlocking with practical experience and action.
>
> Alfred North Whitehead: We are living in the first period of human history...(when the time-span of cultural revolution has become compressed into less than the lifetime of an individual). Accordingly our training must prepare the indiv-

idual to face a novelty of conditions. (1930)

Kurt Lewin: The prescription for resolving social conflict is through re-education. (1948)

Adult Education Association of the United States: Formed for the general purpose of "furthering the concept of education as a process continuing throughout life." (1951)

Clark Kerr: The ultimate justification of a democratic society lies in the development of the individual in the only sense in which the term can have ethical meaning---the independent individual, the unique person. We must insist on the right not to be unified; upon the right not to be integrated, upon the right to an independent viewpoint that is not totally furnished by a single organization. (1953)

Paul McGhee: The involvement of the individual in small face-to-face groups is the most effective way a vital democracy can be maintained. Strengthening of these groups must be one of the high-priority tasks of adult education. (1954)

Malcolm S. Knowles: The concept of lifelong learning may well be our last secret weapon against the destruction of civilization. It is the only insurance against the obsolescence of man. The highest priority subject matter for adult education in the immediate future is education about education, in order to unify all education into a lifelong education movement. (1962)

Peter Drucker: Modern man's life pattern is undergoing an evolution, so that a direct relationship will exist between success and the amount of new learning. (1966)

The First International Conference of the Comparative Study of Adult Education: Adult education is a vital force in defining and achieving national and international objectives; education is a lifelong process, a means of adapting to changes. (1966)

ADULT LEARNING
Shannon S. Widman

Margaret Mead: The purpose of teaching has now changed from teaching what we know to what we don't know.

Carl Rogers: The aim of education must be the facilitation of learning. (1969)

Jennifer Rogers: What is the point of adult education? It is an expression of the point of Christianity, of humanism, of democracy. It is that men should have life more abundantly, should cultivate their human qualities, and should play a responsible role in their society. (1969)

U.N.E.S.C.O.L.: Adult continuing education's objectives include a requirement for education to be available through a person's working life, without restrictions of age, sex, prior education, training, or position. (1973)

National Advisory Council on Extension and Continuing Education: It is in the national interest of the United States that higher education resources be developed and augmented to the end that lifelong learning opportunities for all citizens, regardless of previous education or training, be widely available to promote the continued vitality of our free society. (1973)

Huey B. Long: Failing to modify the concept of education, education structures, and educational philosophy, America's "ignorant society" will continue to move in the maladaptive direction Alvin Toffler warned about in Future Shock. Terminal education is philosophically, semantically, and practically unacceptable. (1974)

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