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ABSTRACT

In this group of presentations from the 1978 National Conference on Higher Education, three researchers examine the need for the educational community to become more creatively responsive to the learning needs of adults. K. Patricia Cross delineates the difference between "adult education" and "adult learning". She discusses findings on adult learning behavior patterns and suggests ways that educators can help adults become more self-directed lifelong learners. In "Major Learning Efforts," Allen Tough describes the pervasiveness of individual learning efforts that are undertaken without the assistance of an instructor. He outlines research and practices that would enable educators to assist a society of individual learners in choosing and guiding its learning efforts. In "Life Stages and Learning Interests," Rita Weathersby combines psychological and social society of research findings with case studies of students, illustrating why the educational community should made its resources adaptable and available to persons at all stages of life. (CT)

CURRENT ISSUES in Higher Education

THE ADULT LEARNER

K. Patricia Cross
Allen Tough
Rita Weathersby

1978 National Conference Series, Americ ciation for Higher Education

1978 NATIONAL CO[illegible]FERENCE SERIES

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THE ADULT LEARNER

PREFACE

If it were not already apparent to those involved in postsecondary education, recent Census Bureau figures have confirmed it: more than a third of today's college students are 25 years of age or older.

Institutions are adapting to this growing clientele by taking various approaches, ranging from expanding evening credit programs to establishing entirely new services and programs designed to meet the unique needs of the nontraditional adult student. But on what assumptions about adult learners are institutions basing their planning? Is it clear who these learners are, what motivates them to seek educational opportunities, and how far institutions should go in structuring learning settings for them?

In this group of presentations from the 1978 National Conference on Higher Education, three researchers take different cuts at examining the answers to these questions in the hope that the educational community will become more creatively responsive to the learning needs of adults. The three authors, K. Patricia Cross, Allen Tough, and Rita Weathersby, are all proponents of the growing trend toward a learning society. Their papers synthesize recent research on the adult learner. Cross delineates the difference between "adult education" and "adult learning"; she discusses findings on adult learning behavior patterns and suggests ways that educators can help adults become more self-directed lifelong learners. In "Major Learning Efforts," Allen Tough describes the pervasiveness of individual learning efforts that are undertaken without the assistance of an instructor. Tough believes this type of independent learning has not been given full recognition by educators in the past, and he outlines research and practices that would enable educators to assist a society of individual learners in choosing and guiding its learning efforts. In "Life Stages and Learning Interests," Rita Weathersby combines psychological and social research findings with case studies of students, illustrating why the educational community should make its resources adaptable and available to persons at all stages of life.

K. Patricia Cross is a research educator at the Center for Research and Development in Higher Education, University of California at Berkeley, and senior research psychologist at the Educational Testing Service. Allen Tough serves as associate professor of adult education at the Ontario Institute for Studies in Education. Rita Weathersby is on the graduate faculty at Wheelock College and is a staff associate at the Boston Center for Religion and Psychotherapy.

THE ADULT LEARNER

K. Patricia Cross

It is quite possible that lifelong learning now outranks motherhood, apple pie, and the flag as a universal good. Almost everyone is in favor of lifelong learning despite mounting confusion over the meaning of the term. If a lifelong learner is one who takes classes or engages in any sort of "organized instruction," then surveys indicate that from 12 to 31 percent of the adults in the United States can be called lifelong learners (NCES 1975; Carp, Peterson, and Roelks 1974). If, however, a lifelong learner is one who "plans independent learning projects" or "makes highly deliberate efforts to learn," then research indicates that from 79 to 98 percent of the adult population can legitimately lay claim to the title of lifelong learner (Penland 1977; Tough 1971).

THE ADULT EDUCATION VERSUS ADULT LEARNING DEBATE

Some analysts resolve the difficulty of gauging the size of the learning force by distinguishing between adult *education* and adult *learning* (Tough 1971; Ziegler 1977): whereas adult education concentrates on providing instruction for adults, adult learning places the emphasis on facilitating learning. Following this distinction, the supporters of adult education are defined as those who work toward equal opportunity and improved access for adults. They would, for example, provide more evening and weekend colleges, grant credit for experiential learning, and lobby for financial entitlements for adult part-time students. Their emphasis would be on getting adults into an educational system (offered by industry, churches, and community agencies as well as by schools and colleges) that mainly provides group instruction on either a credit or non-credit basis.

The advocates of adult learning, on the other hand, would bend their efforts toward facilitating individual learning on any topic of interest to the learner, through providing mentors, learning contracts and learning exchanges, counseling and advisory services, and the like. They would give relatively less attention to providing access to instruction and certification and relatively more attention to helping people plan their own learning programs. Either adult education or adult learning might be promoted by colleges. Empire State College, for example, emphasizes adult learning in that it helps adults plan learning contracts. Most evening colleges emphasize adult education by providing instruction geared to the special needs of adults.

The debate between adult learning and adult education was made legitimate by some research introduced in Canada early in this decade (Tough 1971). Researchers, using the methodology of probing interviews, found an impressive amount of self-directed learning taking place completely outside of organized learning programs. Whereas American surveys have typically counted as adult learners those who participate in "organized instruction" of some type (inside or outside the formal school system), the Canadian researchers counted learners not by courses taken, but by learning projects completed. A learning project was defined as a series of related episodes adding up to at least seven hours in which the person deliberately tries to gain certain knowledge or to develop a specific skill (Tough 1971). An example of a learning project is illustrated by the woman who, while working for a children's aid society, set out to learn legal and counseling procedures when she was assigned several battered-child cases. Other learners have taught themselves about foreign countries in preparation for travel, or about such things as the history and procedures of wine-making. Teachers typically spend long hours in self-directed projects related to their teaching.

By synthesizing findings across a number of interview studies, we can conclude that between 80 and 90 percent of the adult population conduct at least one learning project each year and that the typical adult conducts five learning projects per year, spending about 100 hours on each project (Tough 1977). That adds up to an impressive 500 hours per year, or 10 hours per week, for the average adult learner.

With all of that learning already taking place, it looks as though educators are late in jumping on the bandwagon. What role should they play in the learning society?

The blunt advice of some is for educators to stay out of the way of adult learning, thereby lessening the risk of ruining learning with education (Ziegler 1977). More moderate reformers hope to push education in the direction of learning by studying the natural inclinations of adult learners and redesigning education to take full advantage of the capacities and motivations of

adults for self-directed learning (Tough 1971). Still others, with mixed motives, advocate making standard college classes more easily accessible to adults. This is the position taken by most colleges and universities.[1] It also carries some people who fear that the more effective colleges are in recruiting adults, the more adults will be attracted away from self-directed learning projects into programs designed and directed by others. The point of the learning society, they say, is to develop independent, self-directed learners—not to create a society in which learners become increasingly dependent on an educational establishment to decide what, where, when, and how people should learn.

While this point is well taken, we should take care not to let the structures, procedures, and definitions of education undermine spontaneity, relevance, and ultimate value of self-directed learning, there is considerable evidence that adult learners would welcome some help with their learning projects (Knowles 1975; Peters and Gordon 1974; Penland 1977). The trick is to be able to facilitate learning without taking over.

The adult-education pursuit of learning debate is probably a healthy one and this time we move toward a learning society permits us to think carefully about what we want the society to be.

THE NEED FOR PLANNING

Visions of a learning society with people of all ages enthusiastically pursuing learning projects that interests them could easily become nightmares as a joyless learning society, with people grimly fulfilling requirements and seeking degrees for every variety of learning.

The threat of a joyless learning society is real, I think, and there is some indication that these trends that it could become the norm. Not only are adults feeling new pressures to gain and use educational credentials to compete in a tightening job market, but the terms "competency" and "mandatory" adult education have come into being, reflecting a growing tendency to legislate continuing education. Medicine, for example, all public accountants must now complete 80 hours of study every two years in order to retain their licenses. Professional associations, too, are introducing the concept of compulsory adult education. The American Academy of Family Physicians requires physicians to complete 50 hours of continuing education each year and pass an examination every seven years in order to maintain their specialty. The concern felt by some educators is not that it is unreasonable or undesirable to require people serving the public to keep current in their specialties, but that external requirements can obliterate internal motivations.

That need not happen, of course, and I think there is a chance in the 1980's to move into the learning society with a conscious plan to help all adults—all people eighteen and over—become more self-directed lifelong learners. That, I suggest, should be our first priority for the learning society.

So far the learning society has grown without any particular attention to planning. The great growth spurt that took place in adult education between 1970 and 1975 was the result of entrepreneurial efforts on the part of both colleges and learners. Looking ahead, colleges are attempting to supplement a shrinking 18-24-year-old student market with an expanding population of 25-34 year olds. Seeing the handwriting on the wall, a large number of colleges started special programs for adults shortly after 1970. Since the beginning of this decade, the increase in both credit and non-credit programs for adults has been nothing short of spectacular. The majority of colleges in the United States now offer encouragement to part-time degree candidates, and the number of colleges offering non-credit programs has more than doubled in recent years—going from 1102 institutions in 1967 to 2225 in 1975.

The adult-education boom of the early 1970's has also been fueled by rising interest in education on the part of adults, especially among the college educated, who are experiencing increasing job competition as well as changing lifestyles. Not only are women and ethnic minorities new competitors in professional career fields, but there is a predictable promotional squeeze ahead for the baby-boom generation who are now reaching early adulthood. As this usually large generation of young adults begins to push through the career pipeline, they will begin to discover that they

[1] The most common modifications made for adult learners are conveniences of scheduling and location of classes (Ruyle and Geiselman 1974).

are in fierce competition with each other for the relatively small number of leadership positions vacated by previous, smaller generations. Some career pipelines will become severely congested, forcing more mid-life career changes as well as a scramble for the competitive advantage presumably found in further education.

Thus, for multiple and complex reasons, adult participation in part-time credit and non-credit educational activities has grown tremendously during the first half of this decade. Added to the shift toward an older society is the shift toward a learning society. The number of adults engaging in learning activities is increasing even faster than their numbers in the population. During the six-year period between 1969 and 1975, the number of adults participating in organized learning activities increased 31 percent compared to a 17 percent increase of their numbers in the population (NCES 1969 and 1975).

While we know quite a bit about what has happened in adult education during the first half of the decade, it is almost impossible to write the scenario for adult learning the second half of the decade. The most recent national data that are comparable takes us up to 1975, and it is clear from those census surveys (NCES 1972; 1975) that the rate of growth in adult education slowed somewhat between 1972 and 1975—a statistic provoking some analysts to predict that the adult education boom has already peaked (Kreefe 1977). I am not sure about that. It is possible, however, that the spontaneous and competitive growth of the first half of the decade may be supplanted by more attention to coordination, and the formulation of policy in the second half of this decade.

Indeed, the year 1972 may have marked the watershed between competitive entrepreneurial promotion of adult education and the planned and coordinated growth of a learning society. Between 1972 and 1978 at least thirty large-scale surveys of the adult learning market were conducted by state and other agencies (Cross 1978a) and more than fifty sets of recommendations were offered by various task forces and study groups (Cross 1978b). That means that there is a great deal of data and many sets of recommendations sitting about on desks somewhere. So far, I know of no evidence that would indicate that these studies have resulted in coordinated planning or in the formulation of broad social policy. The studies have, however, been used by individual providers of educational programs and services to gauge the interest of the market, and it is possible that the escalating competition among the various segments of publicly supported education will force greater attention to coordination and policy formulation in the remaining years of this decade.

CHARACTERISTICS OF ADULT LEARNERS AND POTENTIAL LEARNERS

The surveys of adult learners are providing more data about potential students than has ever been available in the history of higher education. The fact that such unaccustomed responsiveness on the part of the establishment is not altogether altruistic, but rather derives from an instinct for institutional survival, does not lessen the positive potential of the information.

The surveys typically involve representative samples of adults over the age of seventeen who are not enrolled in school full time, and they are usually conducted for state planning offices charged with coordinating educational resources. I recently had the opportunity to synthesize data across these studies (Cross 1978a; Cross and Zusman 1977), and I came to the conclusion that patterns of participation and interest are remarkably similar from study to study. That similarity makes it possible to present a profile of the characteristics and educational interests of adult learners and potential learners.

A profile, of course, is a statistical average that ignores the tremendous diversity of the adult population, and it does not purport to describe any real person who ventures into a college classroom. Nevertheless, statistical summaries do serve to put together, as our individual experiences cannot, a generalized picture of the typical adult learner. The learner I am about to describe is not the lifelong learner who independently undertakes learning projects, which includes almost all of us, but rather the learner who engages in "organized instruction" for credit or not, in schools, colleges, industry, labor unions, the military, professional associations, community organizations, correspondence and television courses, private tutors, and any other source of organized instruction. Just to put things in the proper perspective, colleges and universities provide less than half (40 percent) of the organized instruction for adults.

A national survey sponsored by the Commission on Non-Traditional Study (Carp Peterson, and Roelfs 1974) found that approximately 30 percent of the adult population can be classified as learners, and another 46 percent can be called would-be learners; i.e., those who are not currently participating in organized instruction but who express an interest in further learning. About a fourth of the adults in the United States say they are not interested in further education. In the light of the research on self-directed learning, it is probably not quite fair to call these people non-learners, but at the moment, they are making no impact on organized instruction.

On socioeconomic and attitudinal indicators, learners are most similar to today's college students, and non-learners are least similar. Today's adult learners are disproportionately young, white, well educated, employed in professional and technical occupations, and making good incomes (Cross and Zusman 1977). Eighty-five percent of today's adult learners have at least a high-school diploma. Would-be learners are statistically a little more like the average American, and those expressing no interest in further learning are predominantly older and from lower socio-economic classes.

The best single predictor of whether an adult will participate in continuing learning activities is prior level of educational attainment. A college graduate, for example, is about four times more likely to participate in a class, workshop, discussion group, or some other form of organized instruction than a high-school dropout. Each additional year of formal education seems to add to the probability that the individual will become an active lifelong learner (Cross 1978). In short, education is addictive; the more education people have, the more they want, and the more they will participate in available opportunities.

Incidentally, the finding that learning is addictive and apparently insatiable is incredibly consistent across research studies, and it should serve to allay fears that there is too much competition among the various providers of educational services for adults. Being introduced to a new idea or knowing a little about a subject usually stimulates the desire to know more—as witness the impact of the television program "Roots" on courses in anthropology and on the demand on libraries and records bureaus for assistance with a rash of self-planned learning projects. Far from being alarmed over the "competition" offered by other colleges, by non-educational organizations and by the media, educators should welcome and encourage the widest possible variety of educational services on the basis of well-documented evidence that shows that the more people learn about almost any subject, the more they want to learn. The local community college that seems to have the largest piece of the market on adult learners is more likely to be stimulating the market than satiating it.

The habit-forming nature of learning is encouraging to educators, but it causes problems for policymakers who are concerned about equal opportunity. It means that as educational opportunities for adults increase, it is the already well educated who will rush to participate. In the absence of policy intervention and substantial change in the form of education, the gap between the well educated and poorly educated in this country will almost certainly increase.

At the present time, adult education is probably more elitist on socioeconomic indicators than today's undergraduate education, and that may surprise some people who still think of night school as a lower-class immigrant's college. But it is not especially surprising when we look at the changes in postsecondary education in recent years. Not only is postsecondary education for young people reasonably well endowed with financial aid, but the first two years of college, at least, have become increasingly accessible and increasingly necessary for a broad cross-section of American young people. Adult education, on the other hand, has little financial aid available, is largely voluntary and self-motivated, and up to now has not been easily accessible nor widely known to many people.

If present trends continue, it is quite possible that adult and continuing education could replace college degrees as the socioeconomic sorter of American society. Employers, instead of asking about college degrees, may begin to ask potential employees what they have done over the past few years to keep abreast of a rapidly changing world. The answer to that question is likely to be a more valid indicator of employee potential than our present assumption that educational credentials are good for a lifetime. In any event, it will be the ambitious, upwardly mobile socio-economic classes with the background, the knowhow, and the wherewithal who will gain the competitive edge through the increased availability of new educational opportunities for adults.

If the less well educated are [illegible]icipate fully in the learning society, then some changes in today's directions are indicated. Research shows that the interests of the poorly educated differ from those of the well educated in [illegible]dictable ways. Although most adults express very pragmatic educational goals, those without college experience are more interested than those with some college in the material benefits of education, i.e., in higher incomes and better jobs. To this end, they want practical education that will help them learn what they need to know to get ahead in the world. They want those things taught in more active formats than traditional academic lectures, and they want their learning to carry some form of certification or recognition that has credibility to employers. Those without college experience generally perceive more barriers to education than their better-educated peers—major among these being cost, transportation problems (especially for older citizens), lack of information, and lack of interest and self-confidence (Cross 1978a).

While statistical snapshots of learner characteristics provide some useful information, they fail to paint the broader picture that is present in patterns of interests and reactions. I am not at all sure, for example, that opening the routes of access to rather traditional forms of education through such things as financial entitlements, flexible scheduling, and off-campus locations will do much to close the gap between the educational "haves" and "have-nots." The same things that led to relatively early school-leaving undoubtedly contribute to lack of interest in returning. It appears that those things are significantly related to how education makes people feel about themselves. It seems obvious that those who have been most successful in the educational system will be eager to return to the scene of their earlier successes, while those who have been less successful are not especially eager to expose themselves to the threat of further failure.

Thus, one of the dilemmas of the learning society is deciding who the learning society should serve—Those who most want it? Those who most need it? Everyone? If the answer is everyone, then the learning society will have to bend its efforts toward helping everyone experience satisfaction and success in lifelong learning. That may require a reconceptualization of education. Traditional education has a long history of sorting and labelling learners—to the presumed benefit of academic standards, but surely to the detriment of large numbers of people who are labelled below-average learners throughout their most formative years as students in the school system. Non-credit education may be the fastest growing form of lifelong learning precisely because its sole obligation is to help all learners experience satisfaction and success in their learning activities.

We have other dilemmas as we move into the learning society. Among these is how to move an educational system basically designed for dependent children and adolescents toward a system designed to serve people over a lifetime of learning. Some authorities (Knowles 1969) address this issue by making a distinction between pedagogy (education for children) and andragogy (education for adults). One important distinction between adult and child learners concerns self-concept. Children perceive themselves as inexperienced people without much responsibility for decisions at home, in school, or in the community. They expect school authorities to make the decisions, and they expect to learn more or less what they are told to learn. Adults, in contrast, see themselves as decision-making members of family and community groups. They come to the learning experience having made a conscious decision about what they want to learn. They tend to be less patient than full-time students with a waste of their time, and they employ more rigorous tests of personal relevance.

One of the more interesting findings to emerge from the intensive-interview studies of self-planned learning is the clear message that the reason most adults who want to learn something do it on their own rather than take a class is because they want to have more control over the conditions of learning. In a recent nationwide study (Penland 1977), the two most popular reasons given by adults for undertaking self-planned learning rather than enrolling in classes were the desire to set their own learning pace and the desire to use their own style of learning. It would appear that providers of learning services for adults are going to have to learn how to accept into full partnership adults who wish to share in decisions about what and how they shall learn.

A second characteristic of adult learners, documented time and again in the research, is their pragmatic approach to learning. Adult learning is motivated primarily by the desire to solve immediate and practical problems. They are interested not so much in storing knowledge for use at some future time as in applying knowledge to life goals that seem important to them.

Research on adult learners who were engaged in their own independent learning projects (Tough 1968) showed that for almost three-fourths of these learners the primary reason for starting

their learning project was the desire to use the learning directly in order to do something, produce something, or decide something—in short, in order to take action. Ranking quite far down the list of adult reasons for learning was academe's traditional reason for teaching—to aid students in understanding. Fewer than one-third of the adult learners indicated that they were strongly motivated to undertake their learning project in order to understand better what they were reading, hearing, or watching.

Research on adult learning interests almost invariably concludes that, except for adults whose major motivation is to earn a degree, traditional academic subjects rank low in learning priorities. Some academics are disdainful of these priorities, believing that they indicate a lack of intellectual interest. It seems to me less a matter of rejecting intellectual challenges and more a matter of evaluating the usefulness of the knowledge to the learner. The young mother or father enrolling in a course in child psychology is probably not planning to be a research psychologist. Yet most academic psychology courses are taught not as a subject matter is useful for working and living with people, but as preparation for graduate study. It should come as no surprise to us that many intelligent, alert adults find this kind of learning irrelevant to their needs.

Findings from market surveys are consistent with those from research on self-directed learning in demonstrating the pragmatic orientation of most adult learners. About half of all potential learners name vocational or professional subjects as their first choice. Courses in hobbies, home and family living, financial planning, and the like usually rank second, but they are likely to have broad appeal rather than strong appeal. While majorities express an interest in such subjects, the interest is not likely to be a primary one among those concerned with the labor market (Cross and Zusman 1977).

The third characteristic of adult learners that differentiates them from children is their reservoir of life experiences. New learning for adults has to be incorporated into an existing framework of learning and experience. Adults do not come to school with a blank slate, waiting for it to be filled by teachers. They want to know how new knowledge relates to their own thoughts and experiences. This, of course, has both advantages and disadvantages. It means that there are some pegs on which to hang learning that is meaningfully related to past knowledge and experience. At the same time, it may mean that some things have to be unlearned because the new learning is not compatible with the old. Unlearning the child-dependent role of subservient student is a good example of a past experience that interferes with learning the new role of self-directed learner. Learning theorist David Ausubel (1968) says, "The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly." Easily said, but not very easily done, especially in the case of adults where surprising gaps in learning may exist alongside amazing sophistication.

The research showing that adults are a more diverse collection of individuals than younger college students (Knox 1977) is easily comprehended when we contemplate the variety of experiences that have been assimilated by adults throughout the developmental stages of their lives. Teaching such a diverse group of individuals as though it were a homogenous group with common backgrounds and common goals is, now more than ever, unrealistic, and teachers and administrators will have to develop new arrangements and new methods of facilitating learning for a staggering mix of individuals.

CONCLUSION

The range of adult interests is very great, and it is difficult to present a statistical profile of "the" adult learner. Furthermore, there is a danger of deriving a simplistic profile from the statistics of market surveys. A simplistic profile would indicate that the largest number of adults are quite traditional in their educational preferences. Classes and lectures, for example, are the most popular teaching methods, with one-fourth to one-third of survey respondents favoring traditional classes. Do not lose sight of the fact, however, that the same statistic means that from two-thirds to three-quarters of the adult learners prefer some approach to learning other than the ubiquitous lecture (Cross and Zusman 1977).

But there is another more basic problem with an overdependence on the marketing concept for planning the learning society. And that is that the marketing concept is more likely to look backward than forward. It is more likely to reflect stereotyped views of education as it was when

adults went to school ten or twenty years ago than what education and learning could or should be ten years hence. Conducting a marketing survey of educational needs today is a little like asking people fifty years ago, who were used to preserving food in an icebox, how they would respond to the idea of electric refrigerators and frozen foods. I suspect that most respondents to such a hypothetical survey would have been more likely to opt for more frequent delivery schedules and lower prices for ice than for an unknown and uncomprehended refrigerator. People can't make valid judgements until they see and experience the alternatives to the familiar. In short, survey respondents seem somewhat more prone to like what they know than to know what they would like.

The truth of that observation is revealed in hundreds of little problems that are inherent in interpreting too literally individual-item data from the needs assessments. Let me give a few examples:

(1) Although survey data indicate that a miniscule two to seven percent of adult learners say they are interested in weekend scheduling (Cross and Zusman 1977), some colleges have offered attractive weekend colleges and found them enormously popular.

(2) Although the cost of education is usually listed as a major barrier to continued learning for adults, it is also quite evident that many, if not most, adults have no notion of the cost of various learning alternatives (Cross 1977). Another barrier that seems to be based on lack of accurate information is illustrated by the large number of survey respondents who say that they can't engage in learning activities because they "don't want to go to school full-time." As we know, almost no adult needs to go to school full-time today to learn almost anything he or she might wish to learn.[2] The problem seems to be more a lack of information than a lack of appropriate learning opportunities. Yet three-fourths of the adults surveyed seem to feel that they have adequate information (Cross 1978b). Fortunately, the federal government and many states have diagnosed a problem and are making plans to provide better information about learning opportunities.

(3) A final example of the problems of a too-literal interpretation of market surveys should convince us that we need to offer imagination and leadership in providing new options as well as to be responsive to current desires if we are to plan adequately for the learning society. Typically, less than 5 percent of survey respondents indicate any interest in the new technologies. Yet when Miami-Dade Community College offered its off-campus learners a computerized letter telling them how they were doing and prescribing further learning activities, that component rapidly became the single most popular element in all courses using it (Kelly and Anandam1976).

My message is not that needs assessments are not useful and helpful in providing a better understanding of the new clientele. Rather, it is that progress is made by people with imagination and vision analyzing problems and offering new leadership and better solutions. So far, educators have been exceptionally flexible and responsive in offering adult learners new paths of access to basically old forms of education. The challenge of the future, as I see it, is to be both practical and creative in designing a learning society that will offer adults from all walks of life the opportunity to become self-directed lifelong learners. I hope that the learning society will be varied and joyful rather than standardized and grim and that adult education will enhance adult learning rather than replace it.

[2] "Don't want to go to school full-time" is checked as a barrier to learning by 35 percent of potential learners (Carp, Peterson, and Roelfs 1974)

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K. Patricia Cross
Senior Research Psychologist
Educational Testing Service
1947 Center Street
Berkeley, CA 94704
and
Research Educator
Center for Research and Development
in Higher Education
University of California, Berkeley
Berkeley, CA 94704

MAJOR LEARNING EFFORTS: RECENT RESEARCH AND FUTURE DIRECTIONS

Allen Tough

Adults spend a remarkable amount of time each year at their major efforts to learn. In fact, a typical learning effort requires 100 hours. The typical adult conducts five of them per year, altogether spending 500 hours on major learning efforts. Some of these learning projects rely on instructors and classes, but more than 70 percent are self-planned, and others rely on friends and peer groups.

This picture has emerged in just the past seven years, with many basic surveys and several in-depth studies contributing to our understanding. This paper presents a review of that research and suggests some high-priority directions for the future. Even within the narrow context of classes and workshops, there are useful implications for practice. I, too earn my living through classroom teaching; but I have found my methods changing dramatically (Tough 1971: pp. 147-166) as a result of listening to adults tell about the range of their learning efforts.

THE PHENOMENON

A phenomenon can be studied more precisely and successfully once its boundaries are clearly defined. One has to know what is included in the phenomenon and what is not. Fortunately, the definition of a major learning effort, or learning project, has been spelled out in great detail (Tough 1971: pp. 6-15 and 171-173), and virtually all studies have used the same definition. In brief, a learning project is a highly deliberate effort to gain and retain a defined area of knowledge or a skill, or to change in some other way. To be included in this definition, a series of related learning sessions (episodes in which the person's primary intention is to learn) must add up to at least seven hours.

The definition has been designed to include the entire range of major learning efforts. Any method can be included—reading, listening, observing, attending class, reflecting, practicing, getting answers to questions—as long as the person's primary intention during the learning episode was to gain and retain a defined area of knowledge or skill. (My shorthand terms "knowledge" and "skill" also include changed awareness, competence, habits, attitudes, sensitivity, confidence, etc.) Self-planned learning, classroom learning, learning guided by a friend or a group of peers, and learning guided by programmed instruction, are all considered learning projects, whether they are undertaken for credit or not. Learning for practical reasons—to make a good decision, build something, raise a child, perform some task—is also included in the general definition, as are learning efforts motivated by curiosity, interest, puzzlement, and enjoyment.

Some changes that are parellel to this expanded concept of the learning effort are occurring in the *practice* of adult education. During the 1950's and 1960's, exciting learning innovations mainly centered around group situations, such as small group discussions, panels, student presentations, group dynamics, case studies, visual presentations, etc. During the 1970's, much of the innovative practice has focused on individual learning that relies little on a group or its instructor. Some examples of these practices are learning exchanges, learning contracts, independent study, individual self-planned learning (as the primary approach within an academic course), behavioral self-control, and projects that rely on commercially published books to help the individual learner plan and guide his or her learning projects. Recent experiments with procedures for helping professionals design and conduct their own learning have included graduate students (Malcolm Knowles), medical doctors (Leonard Stein), mental health professionals (a large, funded project at Prairie View), and ministers (through a booklet). Public libraries and cooperative extensions have always been noted for their help to individual learners; during this decade several public libraries joined together in a project to provide more intensive help for the individual.

In both research and practice in adult education, there is some evidence of a shift of focus. Whereas the traditional focus has been on providing education or instruction, the emerging focus is on facilitating relevant learning. Roger Sell's work on a taxonomy of standard terms (for use throughout the field), now being developed for the U.S. National Center for Educational Statistics, reflects this changing emphasis. The directory presents each term from the standpoint of the

learner, then presents the parallel term from the standpoint of a sponsoring institution. The focus of the directory has recently shifted from "adult and continuing education" to "learning opportunities for adults."

BASIC SURVEYS

How many major learning efforts do people conduct in one year? What are they learning? How much time do they spend on each effort? Who plans and guides the learning sessions?

During the past few years, many surveys have studied these questions in various populations. Some of the surveys have sampled men and women in a particular country, state, or city. Others have focused on groups ranging from adult high-school diploma students to university professors, from the unemployed to the retired, from factory workers and union members to college administrators and extension agents, and from members of a literacy class in Jamaica to professionals in an affluent Canadian suburb. Several of the surveys were conducted in various parts of the United States and Canada, and one each in Ghana, Jamaica, and New Zealand.

The Summary Picture

That basic picture is remarkably consistent from one population to another. The numbers change a little, but the general pattern remains constant. In fact, the largest differences are within any given population, not between populations.

The number of persons who conducted at least one major learning effort during the year before the interview was probably 90 percent, although the range from one study to another was from 70 percent to 100 percent. Pat Coolican, in her report on self planned learning (Coolican 1974b, p. 13), said, "It appears the major question is no longer participation versus nonparticipation. Almost everyone undertakes learning projects to some degree."

Two important statistics emerge from the surveys: (1) The typical learner conducts five distinct learning projects in one year, learning in five distinct areas of knowledge and/or skill; and (2) The learner spends an average of 100 hours per learning effort, for a total of 500 hours per year, or almost 10 hours per week.

Some populations yield lower figures than others, although the training of the interviewers themselves can be a variable in the result of the surveys. In general, the less training the interviewers have in understanding the concept of the learning project and in probing skillfully for additional projects, the fewer learning projects they uncover. Even well-trained interviewers, however, tell me that they probably are missing some projects because people cannot recall them after several months. Also, one experiment with recording projects in daily learning diaries yielded higher figures than were uncovered through the interview technique, and Heimstra (1975) tells me that rambling two-and-a-half-hour follow-up conversations with his interviewees yielded high figures than his formal semi-structured interviews.

A similar pattern emerges across all the surveys of adults on the planning pattern used for subject matter and learning activities. The composite picture is shown in Table 1.

Table 1. Percentage of Learning Projects Using Each Type of Planner

Self-planned	73
Group	
Led by professional	10
Peers	4
One-to-one helper	
Professional	7
Friend	3
Nonhuman resource	3

Note: To retain clarity, projects without a single dominant planner have been excluded from these calculations. All of the excluded projects include some self-planning plus one or two other planners.

In summary, about 20 percent of all learning projects are planned by a *professional* (someone trained, paid, or institutionally designated to facilitate the learning). The professional operates in a group 10 percent of the time, in a one-to-one situation 7 percent of the time, indirectly 3 percent of the time—that is, through completely preprogrammed, nonhuman resources such as programmed instruction or a television series. In the remaining percent of the learning projects, the detailed day-to-day planning is handled by an "amateur." Seventy-three percent of these amateurs are the learners themselves, but occasionally they are friends (3 percent), or a democratic group of peers (4 percent).

The range of adult learning efforts can be compared to an iceberg. For many years we paid attention only to the portion showing above the surface of the water. We focused our attention on professionally guided learning, providing learning groups such as courses, classes and workshops, and other professionally guided learning methods such as apprenticeships, tutorials, correspondence study, educational television, programmed instruction, and so on. Most educators still agree that professionally guided learning is very important. However, the fact that it comprises only 20 percent of adult learning efforts—the visible tip of the iceberg—has crucial implications. The bulk of the iceberg that is hidden below the surface comprises 80 percent of adults' learning efforts. It consists largely of self-planned learning, though some learning efforts are planned by other amateurs, such as friends and peers. Seeing our professional efforts within this total context is useful: implications arise for fresh services and for our present professional practices.

The most common motive for undertaking a learning project is future use or application of the anticipated knowledge and skill. The learner has a task to perform—raising a child, writing a report for the boss, handling a case, teaching a class, fixing or improving something around the home, sewing a dress—and wishes to learn how to perform a task successfully. A common motivation is curiosity or puzzlement, or wanting to acquire knowledge for its own sake. Learning for credit toward a degree, certificate, driver's licence, or other certificate is also less common—it comprises about 5 percent of all learning projects, with the precise figure ranging form less than 1 percent to 15 percent.

Geographical Areas

Several surveys have sought a basic picture of learning projects in a particular geographical area. In Tennessee, Peters and Gordon (1974) interviewed 466 adults in Knoxville and one rural county. They found that about 91 percent of these adults had conducted at least one learning project during the year. Most of these learning projects were job-related or recreational; the remainder focused on personal improvement, religious concerns, and family relations. Peters and Gordon (1974, pp. 28-29) found that their interviewees "needed more help in setting goals, locating expert assistance, finding information and materials, dealing with difficult parts of their projects, and finding sources to assist in evaluation," and that "the more highly educated interviewees were more likely to need additional help, as were professionals and males."

Field (1977) travelled to Jamaica to interview adults in a literacy class, and Denys (1973) and I went to West Africa to interview several groups of educated adults in Ghana. The basic data for learning projects in these two countries were remarkably similar to the findings in the United States and Canada. While training 10 interviewers in New Zealand, too, I encountered learning patterns similar to those found in North America, but the final data are not yet available.

For a national U.S. survey, 1501 adults across America were interviewed in November 1976. Penland (1977) reports a learning-effort participation rate of 79 percent, but he included learning efforts of less than seven hours. If we eliminate these shorter efforts from his data, the participation rate falls to 70 percent, according to my calculations. In any given year, then, at least 70 percent of American adults conducted at least one major learning effort. (Virtually all other studies report a much higher figure. The reason for this puzzling discrepancy might be uncovered through an in-depth survey focused exclusively on discovering what are considered the basic characteristics of learning projects.) Again eliminating the shorter efforts, the mean number of major learning efforts per learner was about 4.1, according to my calculations.

The areas of life in which people said they used their learning were rank-ordered in this way (Penland 1977, p. 40): personal development, home and family, hobbies and recreation, general education, job, religion, voluntary activity, public affairs, and agriculture/technology. When asked

where they preferred to learn, most respondents chose their home. Their next preferences were for learning on-the-job, outdoors, in discussion groups, classrooms, libraries, and public events, in that order.

Penland was interested in the reasons why people choose to learn on their own instead of learning by taking a course. The responses were quite different from those expected by many adult educators—for example, the traditionally cited factors of money and transportation were ranked last. The following rank order of responses begins with the reasons most often selected as particularly important (Penland 1977, p. 32): desire to set my own learning pace: desire to put my own structure on the learning project; desire to use my own style of learning; I wanted to keep the learning strategy flexible and easy to change; I wanted to learn this right away and couldn't wait until a class might start; I didn't know of any class that taught what I wanted to know; lack of time to engage in a group learning program; I don't like a formal classroom situation with a teacher; I don't have enough money for a course or a class; transportation to a class is too problematic or expensive.

In an earlier study, also funded by the U.S. Office of Education, Penland (1976) studied the learning projects of 128 public library users in Pittsburgh.

Older Adults

Hiemstra (1975) and his students interviewed 256 adults, age 55 and older, in Nebraska. More than half of their learning projects were for self-fulfillment, focusing on the arts, crafts, recreation, and religion. Some were related to personal and family concerns, such as mental and physical health, finances, and homemaking. Fewer were job-related, and only 9 percent were for developing social and civic competencies.

Heimstra's survey, like several others, has shattered some stereotypes about who does and does not participate in lifelong learning. If we study participation in adult education classes, clear differences do show up between the participation rates of different populations. But that may occur partly because persons with high educational attainment have cause to believe that the course method is a more legitimate or effective learning mode than self-planned learning, whereas adults who have had unhappy school experiences are reluctant to repeat those experiences and prefer to learn on their own. When Heimstra studied the participation rate in learning projects, however, he found that most of these differences disappear. In the number of projects or the number of hours, Heimstra found no differences according to age or between urban and rural dwellers, males and females, or Mexican Americans and white Americans. Differences according to social class, education, and occupational level occurred only in the number of projects, not the total number of hours spent on each project.

Occupational Categories

Several surveys have focused on the learning efforts of particular occupational groups.

Studying unemployed adults in New Jersey, Johnson, Levine, and Rosenthal (1977, p. 16) found "a fascinating and rich range of learning activity among those who are out of paid work," with 86 out of the 100 interviewees able to recall undertaking at least one learning project during the past year. This learning activity included developing new coping skills required by unemployment and efforts to find and prepare for a job, in addition to the usual range of learning efforts.

A picture of the learning patterns of mothers with pre-school children was provided by Coolican (1974a). Almost half of their learning activities revolved around the home and family, another 18 percent around hobbies and recreation, and 11 percent around personal development. Public affairs, general education, and vocational and religious subjects each ranked below 10 percent.

A randomly selected group of professional men were found to have conducted a mean of 11 learning projects in one year, and they devoted 1244 hours to these projects. (McCatty 1974). Their job-related learning (55 percent of the total) included both keeping up with the literature and new discoveries and learning in order to handle particular cases. An interesting variance, also noted in passing in some other surveys, occurred in the average number of hours per project; 148 hours for self-planned projects, but 48 for group learning projects and 79 for one-to-one projects.

McCatty (1974) also asked the survey respondents about their reasons for choosing particular learning methods. The most common reason for choosing the self-planned method was the desire

to explore individualized subject matter: the person wanted to learn particular things and had little interest in a general survey of a field. The most common reason for choosing group or private instruction was the capability of the instructor. McCatty also found the percentage of projects using each type of planner varied sharply from one subject matter area to another. A group method was especially common for religious learning (47 percent of all religious-learning projects) and academic learning, whereas one-to-one interaction was common for personal development (29 percent), and self-planned methods were common for current events (96 percent) and vocational learning.

Several researchers have studied school teachers as learners. In Canada, Fair (1973) interviewed beginning elementary-school teachers. In the United States, Kelly (1976) compared beginning secondary-school teachers with those who had taught for 10 to 15 years and found there were no significant differences in the number of learning projects they undertook, but there were differences in their motives and difficulties. Miller (1977) interviewed teachers in one non-urban area of upstate New York. In Ghana, Denys (1973) interviewed secondary school teachers. In Canada, McCatty (1976) surveyed physical and health-education teachers. All of them found that teachers are just like anyone else when it comes to their own learning: their many major learning efforts are largely self-planned and not for credit. Of the 21 physical-education teachers engaged in fitness programs for themselves, for example, none did so in group situation. These studies all suggest the need for finding fresh approaches to facilitate teachers' efforts at professional improvement. Teachers are receiving relatively little help now from employers and from faculties of education.

Other professionals have also been studied as learners. Miller and Botsman (1975) found that Cooperative Extension agents averaged 12 yearly projects each. Unlike most populations, though, they turned to workshops and experts for over half of their learning, and planned only 40 percent of their projects themselves. Benson (1975) found that 84 percent of the learning projects undertaken by college and university administrators were job-related. The parish ministers who kept learning diaries for Allerton (1975) devoted 62 percent of their projects to their vocation. In particular, they learned in order to deliver sermons or lessons; to prepare for administrative decisions related to programs, the membership, or the professional staff of the church; or to perform committee responsibilities outside the local church. Johns (1973) found that pharmacists in Atlanta devoted 30 percent of their learning projects to vocational subject matter, 26 percent to hobbies and recreational learning, 14 percent to home and family concerns, and 10 percent to public affairs.

Educational Level

Johnson (1973) studied adults who had just completed their high-school examinations (including GED) in Ft. Lauderdale. The typical interviewee had conducted 13 or 14 learning projects during the year: the total range was 6-29.

Armstrong (1971) found a remarkable amount of learning efforts among unemployed adults of low educational attainment. His descriptions of their learning efforts, and of how the avid learners had some stage been turned on, are particularly vivid.

Peer Groups

Much adult learning occurs in peer groups with a common interest or problem who meet without a professional or trained expert. Social scientists are paying more and more attention to this phenomenon, with two journal issues (*Journal of Applied Behavioral Science* and *Social Policy*) being devoted to the self-help movement in 1976-77. Farquharson (1975) discovered a remarkable range of self-help groups. They were effective not only in helping people deal with problems (such as drinking, gambling, weight, physical handicaps, bereavement, child raising), but also in improving their self-confidence and ability to relate to other people effectively and helpfully.

MOTIVATION, TASKS, AND HELP

Up to this point, we have been looking at surveys that gathered data on such basic questions as the frequency, duration, and planner of learning projects. A few studies focused in great depth and detail on such questions as motivation, the learner's planning tasks, and available support structures.

Moorcroft (1975) probed the origin of current learning projects, which he sometimes traced back 20 years or more before the interview. His subjects usually recalled these origins vividly; most

of their recollections were pleasant, although some of the earlier childhood origins were unpleasant. The unpleasant origins largely concerned family interrelationships or school experiences. According to Moorcroft, "the motivation path leading to an important learning project is a complex one" (1975, p. 172).

Tough (1968) probed the reasons for beginning and continuing a major learning effort, and later (1971, p. 47) presented his revised conceptual framework. However, no one has tested the revised framework yet.

In self-planned learning, the adult must perform many of the planning tasks that would be performed by the instructor during a course. An early study (Tough 1967) found that learners retain responsibility for the learning tasks and receive help from a mean of 10.6 persons, mostly acquaintances. A more detailed list of planning tasks during self-teaching was presented in a later study (Tough 1971, pp. 65-69, 81-82, and 94-96).

Morris (1977) studied the learners' planning steps in great detail. He found that usually the first planning step was to clarify a general problem or issue. This was followed by an awareness of the need to learn or a decision to begin a learning project. General long-term objectives were established next, and then the learner identified and obtained resources. The steps beyond this point varied greatly from one person to the next.

According to Morris (1977, p. 195), the most common problems or difficulties were "(1) in knowing how to start their learning projects (setting objectives); (2) in finding or making time to learn (setting objectives and scheduling); and (3) in knowing whether or not they were progressing or had accomplished what they had set out to do."

Another detailed in-depth study was conducted by Luikart (1975). He focused on the persons (an average of 10.3) who helped with self-planned learning projects. Almost two-thirds of the helpers provided *sustained* help, giving information or assistance three times or more. The amount, source, and type of help received by the learners was to a significant degree associated with differences in the size, density, and composition of their personal social networks.

FUTURE DIRECTIONS

What else do we need to know about major learning efforts during adulthood? What fresh practices should we be developing?

After reflecting on the recent literature, I conclude that the following research and development projects would have the highest potential benefit. By initiating and supporting such projects, governments and foundations as well as professional adult educators could move us toward a society of highly competent learners that receives support with choosing and guiding its learning efforts.

(1) First, we need an in-depth survey to collect accurate, basic data from men and women throughout the world. These surveys could gather data through intensive, semi-structured interviews conducted by skilled interviewers who are familiar with the concept of a learning project. Each interview would take up to one hour to collect basic data on exactly what knowledge and skill the person was trying to gain, on the number of planned projects and their duration, and on the planner himself or herself. A supplementary data analysis could provide separate statistics for learning projects aimed primarily at personal growth, understanding the world, spiritual growth, and/or answering the basic questions of life. (This might help bring together the lifelong learning movement, the human growth movement, and spiritual growth.) Detailed information could also be collected on peer learning groups and self-help groups—such as local historical and scientific societies, Bible study groups, garden clubs, consciousness-raising groups, and committees—that learn intensively about a problem before making a decision.

(2) Another possibility for future research is geographical expansion of my current (1977-78) survey, which covers metropolitan Toronto. The survey asks interviewees to describe their largest intentional change of any kind over the past two years—not just learning projects, but also deliberate changes in activities, habits, job, relationships, or environment. It also asks interviewers about their planning/guiding tasks and the assistance available to them, and it requests information on what additional assistance and competencies would have been helpful to them.

(3) We know remarkably little about what motivates people to devote 100 hours to learning something, especially when the main benefits of that learning are not highly practical and useful. Fascinating insights could emerge from an in-depth study of what benefits adults anticipate from a major learning effort. We need to study individuals goals and priorities in order to frame our theories and practices in a sound context.

(4) Another high-priority need is for detailed studies of unmet needs for peer self-help groups. Only after studying these needs sympathetically and insightfully will we be able to develop better help for learners, or for people who are seeking peer self-groups. The sequence is important (Tough 1971, p. 146): "As with self-planned learning, we must first understand how the learning proceeds in its natural form. Only then will we be ready to fit our help into that natural process without disrupting it." Farquharson, for example, after studying peer self-help groups in Toronto, developed a directory of local groups for distribution by the Red Cross.

(5) Efforts to explore the implications for public educational policy could be very useful. I believe that governments and other public institutions should initiate and support the seven research priorities detailed in this section. They could also explore the implications of recent findings on adult learning for other areas of legislation and public programs. Some examples of findings that should be supported by policymakers are implications spelled out in Ziegler's final report (1977), which should be studied, tested, and perhaps extended; the suggestion that because professionals already spend an enormous amount of time at learning, they should retain their licences on the basis of periodic testing of their knowledge and skills, rather than being obliged to learn in predetermined ways, which is now the case; and the suggestion that for achieving government goals, it might be much less expensive to facilitate self-planned or peer-group learning than to provide instructional programs.

(6) To foster the development of effective public policy and fresh services, we urgently need further in-depth studies of four related phenomena: the choosing, planning, and guiding steps that learners perform at the early stages and throughout their learning (Morris 1977; Peters and Gordon 1974, p. 29; and Tough 1967); how help from books and individuals fits into these steps; what can go wrong with learners' efforts to get help (Tough 1971, pp. 104-110) and the additional help and competencies from which learners would benefit most. Such insights would help us make better decisions about what new services, books, programs, and help would provide the greatest benefit to the adult learner and the same time be most cost effective.

(7) One finding is clear: adults want additional competent help with planning and guiding their learning projects. Adult educators could respond by adopting a fresh, broader purpose: to foster the entire range of major learning efforts, not just group instruction and pre-programmed courses. One especially useful service would be the production and distributing of printed materials, tools that help adults clarify their needs, choose their learning goals, plan their overall strategies, and generally guide the learning process. Government printers, public libraries, and bookstores handle countless books and booklets on how to grow vegetables, cook, care for children, and repair the home—but not on how to choose and guide one's learning efforts. Printed self-help materials for adults could be produced (and given, lent, or sold) by virtually any adult education institution, counseling or educational brokering center, staff development department, government department, professional association, or graduate program. These tools can make adults aware of the countless opportunities and resources for self-planned learning, as well as opportunities for group instruction (i.e., the metropolitan Toronto directory of continuing education) and for one-to-one instruction (i.e., local skill or learning exchanges).

(8) Similar information functions can be performed not only through print, but also through groups and one-to-one counseling. Again, the purpose would be to foster the entire range of learning, whether it occurs through a group taught by an instructor, a group of peers, or a self-planned effort. The counseling or group would be designed to help each person: a) clarify problems, needs, wants, interests, or options; b) gain self-insight or an accurate self-assessment; c) examine a variety of options, both self-planned and professionally planned; d) set priorities and choose one or two particular directions for learning; e) choose the general overall strategy, including the type of planner and the particular resources; and f) perform the various tasks required for guiding the learning effort to a successful conclusion. We could also try to develop counseling, groups, or printed materials that would increase the individuals' competence at the steps listed above and at choosing various methods and media.

While these research efforts are being undertaken to bring us to a fuller understanding of adults' major learning efforts, educators can do several things to enhance their own learning efforts and those of their students.

WHAT YOU CAN DO

(1) Become committed to fostering the entire range of major learning efforts. Feel part of with the helping enterprise devoted to facilitating persons' efforts to learn and grow. Be part of an even wider enterprise: to foster the humane, loving, liberating, growth-enhancing elements in our society.

(2) In your program or institution, be sure learners have plenty of freedom and choice.

- Provide a variety of opportunities and resources for learning and personal growth.
- Be sure people can get plenty of information about these opportunities and resources.
- Encourage autonomous groups of peers ("self-help groups") to form around a common interest or need.
- As much as possible, give the learners a wide choice of how and what to learn; simultaneously, be sure they can get enough help.
- Browse through chapter 14 in *The Adult's Learning Projects*.
- Shift away from "we know best," from emphasis on credit or grades, from coercion or forced attendance, from a high degree of control by the instructor.

(3) Through printed materials or in one-to-one conversations or in a group, experiment with helping learners to:

- Thoughtfully choose their learning goals (after reflecting on their life goals, seeking feedback on their performance, clarifying needs and interests, and examining their current learning patterns)
- Become aware of the panorama of available opportunities and methods (including self-guided and peer-guided), and choose the most appropriate strategy;
- Become competent at making choices and plans more effectively and independently next time.

(4) Develop or integrate new knowledge about all this, or encourage others to do so. Eventually, this increased understanding will lead to better help and resources for the entire range of intentional human learning.

(5) Try to improve as a learning consultant and helper. For example, you could read about learning projects, study your own learning, read about being an effective helper, seek constructive feedback, try to listen better, try to be more loving and spontaneous and authentic, attend a personal growth group.

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Allen Tough
Associate Professor of Adult Education
Ontario Institute of Studies in Education
252 Bloor Street West
Toronto, Ontario
Canada M5S IV6

LIFE STAGES AND LEARNING INTERESTS

Rita Weathersby

We assume that education is a "good" for children and for 18-22 year-olds. What is it for adults? Adults are not required to go to school—or to study or learn in any setting, formal or informal. Adults enroll out of choice, often in the face of considerable obstacles, and sometimes with a strong inner imperative clearly related to their own growth.

I am interested in the ways in which, across the life cycle, people's choices lead to their own growth and development. I am convinced that for many adults educational institutions provide support structures for negotiating life transitions. By support structure I mean both a physical and social setting, a legitimization of learning, and a series of experiences involving goals, values, and a focal content that provide a vehicle for the inner work of transition. The content can be academic, vocational, professional, technical or avocational; the level of work can be from beginner to advanced-graduate status; and the settings can vary enormously in size, duration, requirements, amount of personal contact, and assumptions about the nature of teaching and learning. Despite their diverse backgrounds, adult learners share a common ground. They are people who have chosen to reach out for something new. At any life stage, the choice to enroll is an act of faith that is a reaching-out for something beyond one's grasp, a declaration that action will have a hoped-for result.

The purpose of this paper is to describe some general principles underlying this imperative for growth, and to relate it to research on adult life stages. I would like to see a system of higher and postsecondary education that is consciously designed around the learning needs of adults. Colleges, universities, mediated learning systems, television, citizen learning exchanges—all of the educational institutions we currently have, or can create, can be used to serve adult learners.

To create an integrated system, we need to know more about adults as learners and about the processes of transition and development, crisis and opportunity, that are embedded in the life cycle. Working without that knowledge is like designing and producing a car without knowledge of the characteristics of the driver, the roads the car will travel, the roadway conditions, the amount and quality of available fuel, and the workings of the engine. A car is a vehicle for motion, and so is an education. We can produce better vehicles if we understand the personal and developmental meanings of education in adults' lives. The examples I relate come mainly from my research with adult students in the external bachelor's degree program at Goddard College (Weathersby 1977). "Going back to school," for these adults, involved a substantial commitment of time and energy, so they are perhaps more in transition than most adult students. However, their life situations are generic and are widely applicable.

Defining life stages is easier than labelling the stages, although researchers such as Daniel Levinson, Roger Gould, Bernice Neugarten, Erik Erikson, and authors such as Gail Sheehy have given us some guidance in this matter. Life stages are age-linked periods of stability and transition embedded in our experience of living. A life stage is a time period in which certain concerns are salient (for example, setting long-range goals and accomplishing them), and during which certain adaptive tasks (such as leaving one's parental home, taking on adult roles in work, marriage and parenthood, facing old age and death) provide us with opportunities to become stronger persons, and to become new and different persons if we choose.

There is what Carl Rogers (1969) calls "significant learning" associated with each life stage. Significant learning is self-initiated learning which involves us both cognitively and affectively, which influences our behavior and attitudes, which is self-evaluated, and which is inextricably intertwined with the meaning of our lives. Some of this adaptive learning is quite practical—such as learning how to fill out income tax forms, run a community meeting, or achieve excellence in one's speciality. Some of it deals with our capacities for caring, thinking and working—with our identities as growing persons, and with our visions of who we are in the world.

People's learning interests are embedded in their personal histories, in their visions of who they are in the world and in what they can do and want to do. For many people, especially those in life transitions, education involves taking risks not only with one's sense of self-esteem, but with one's sense of self. A 38 year-old female student at Goddard College explained it this way:

> The one thing about adult learning is there are tremendous risks in it because you're always going beyond what you need. You're taki risks with decisions you're starting to formulate, patterns you're trying to pull together. . . . It's just like walking on eggs with information—new information that you're just processing, just drinking in, always. And then you're not sure of the validity of your own conclusions, so you've got to take another tiptoe step because *that's part of yourself, you know, that you never looked* at. (Weathersby 1977)

This woman was a corporate executive who enrolled because she grew tired of the insecurity of being a lady vice-president without a degree in a corporation increasingly peopled by MBA's. Along with enrolling she made major changes in her career and in her lifestyle—so much so that she described herself as a juggler. She said, "You know, it's almost like being a good three-ball juggler with five balls. There's a lot of stuff up in the air for me right now, and I think that has to do with growth."

There are many adults who are jugglers, at mid-life and mid-career, with changing personal priorities and worldviews. Some of them enroll in college or in graduate school, and both the process of getting a degree and the results of a degree in terms of unfolding career opportunities, or new worldviews and identities, are changes which in themselves create the potential for more change. I asked Goddard students whether they considered themselves to be in a period of stability or transition. Seventy-nine (79) percent said they were in a period of transition. That is, they were either on the verge of making a lot of changes in their lives and work, they had just come through a huge transition period, or they were consolidating a major period of change. For many graduating students, the "huge transition" period coincided with being a student. My impression is that the timing of enrollment differs idiosyncratically. Some people seem to enroll in the middle of a life transition, while others enroll in anticipation of changed life circumstances.

Bernice Neugarten, a sociologist at the University of Chicago, has identified age norms related to adult activities (1976). There seems to be a widespread cultural consensus on when is the proper time to leave home, go to college, marry, have children, stop having children, move to a retirement home, and so on. Adult students are sometimes spurred on by these norms and sometimes self-consciously breaking them. For many people in their mid- to late-twenties, there is a culturally induced pressure to get one's life and career together. For example, a twenty-nine year-old man explained why he enrolled at this period of his life in terms of time running out. He said, "I wanted the benefits of a B.A. while I still have time to use it." What is interesting is that people at many life stages say "now is the time for this," and what they have in common is an internal readiness for a particular educational experience. For example, a fifty-two year-old woman who was starting the same degree program that her daughter had just completed said, "I am perhaps late, but there are things I would like to do in the last half of my life—and I need to know so much more." Our internal clocks often run counter to our cultural clocks. Merely by providing educational opportunities for adults we can legitimize individuals' internal clocks and create new social norms. The reverse is also true; there is a clear if subtle message if there is no age box past forty on an application form. Changing our cultural expectations about what adults are "supposed to be doing" seems to me to be incredibly powerful as an idea that gives adults permission to pursue education without undue self-consciousness.

Erik Erikson (1968) suggests that within the life cycle are embedded tasks of functional importance to personality development. He assigns to early adulthood (in one's twenties and thirties) resolution of the critical tension between intimacy and isolation; to middle adulthood (in one's forties and fifties) the issue of generativity versus stagnation; and to later adulthood (in one's sixties and beyond) the issue of integrity versus despair. He assigns to adolescence the issue of identity versus role diffusion, but I have found that identity is a key question in any transition. Resolving these critical issues in altered life circumstances become developmental tasks of adulthood. A "developmental crisis" occurs when the events of life thrust one of these issues forcefully upon us, and it offers us the opportunity for reshaping our intrapsychic balance. These are learning tasks of major proportions, and they often appear as focal questions underlying the impetus for further education, and underlying adults' choices of topics for study. For example, a thirty-five year-old woman chose to study the biographies of adventurous women such as Margaret Mead and Helen Keller, and she concluded, "I am that adventurous woman I was searching for." The questions are basic and profound: Who am I? Who am I close to? How can I be productive in the world? Can I look back on my life choices and the events of my life and value them as mine? At each life stage we probably fashion new answers to them all, although one issue may become more

developmentially salient. The impetus for learning springs from a combination of growth and necessity and from wrestling with events and choices in relation to work, self, and others.

Daniel Levinson (1976) has created the concept of the life structure, and it is useful here because adult students are often making changes in their life structures. A life structure is the pattern or design of an individual's life at any given time. Throughout our lives we develop, stabilize and then terminate a series of age-linked life structures. One interesting result of Levinson's research is his conclusion that any stabilization in life structure is temporary; no life structure seems to last more than 8 to 10 years. The purpose of a transition is to terminate a life structure that has become inadequate and to initiate a new life structure. A transition is a boundary between two periods of greater stability. It can involve considerable turmoil, or it may go relatively smoothly. To negotiate the transition, we must reassess the structure of our lives and either make changes or recommit ourselves to old roles and patterns, although these may assume new meanings. Listen, for example, to the 41 year-old adult student.

> After years of being wife, mother, department head, I awoke to the fact, "Who the hell am I? . . . I am concerned about having been in the same job so long. I want to explore new fields, need desperately intellectual stimulation. Perhaps this field is where I can function best, but I need refreshment or change. (This program) can help me decide. . . . My last child is away at school and I am deciding whether I want to be married, not legally or physically, but emotionally. That is a commitment I have never made. (This program) is helping me become a person, not a role—hopefully, a mature person.

This woman is wrestling with a process of personal renewal in almost all the aspects of her life, and has turned to an educational setting for a legitimized kind of learning that supports decision and redirection.

Another of Levinson's conclusions is that in creating an integrated life structure we can only use parts of ourselves, which means that important parts are left out. When we restructure our lives we have the opportunity to create a new "goodness of fit" between our daily roles and activities and our inner selves, particularly aspects of self that were neglected or left out of previous life structures. My favorite example of this phenomenon is an eighty-one year-old student who titled the period of her life she had just left as "The Awakening" and her next life period, "To Be a Successful Poet." The major point, however, is that people use an educational experience differently in periods of transition than they do in periods of stability. In transitional life periods people seek redirection; in periods of stability people seek the same tools for working and building, and they also seek stimulation and enjoyment, but with less emotional urgency.

So far I have avoided characterizing life stages, choosing instead to describe the dynamics of transition underlying adults' uses of education. This is because what I think we're after is not institutionalizing a matching process, but rather a responsive process, a way of designing education so that it recognizes the power and promise of making the resources of higher education available to adults in all life stages. Also, there is no real consensus on life stages. If we look at the life cycle from biological, sociological, or psychological perspectives, we pay attention to different phenomena to mark off the periods—our bodies, our roles, and our psyches.

Briefly, however, we can characterize early adulthood as the period from 20 to 35; midlife transition lasts from approximately 35 to 45; middle adulthood from 45 to about 57; the late adulthood transition from 57 to 65; and adulthood from 65 until death. Most adult students in institutions of higher education fall into the first two categories, although programs like the Elderhostel sponsored by a group of New England colleges are now being designed specifically for older adults. It is interesting to look at the life-stage demographics of particular programs to see which groups are being served. Different institutions, and programs within institutions, have different demographics with respect to life stages and learning interests. Also, there are sex differences in the timing of men and women's life periods; and in their uses of particular forms of education. More women than men at Goddard, for example, saw the program as a support for a life transition. Men tended to want a liberal arts bachelor's degree in a period of relative stability.

There are researchers who have been specific about age-linked life stages, among them Daniel Levinson (1976, 1978) and Roger Gould (1972). The appendix to this paper contains a brief characterization of life stages, including the marker events that are common reference points in each life period and the major psychic tasks of each stage.

In the "Leaving the Family" period (ages 16 or 18 to 20 or 24), colleges and universities (and maybe the army) are major social institutions that help adolescents break away from their families and establish separate identities. A young adult in his twenties who is in the stage of "Getting into the Adult World" is more likely to be interested in job-related education, whereas someone undergoing an "Age 30 Transition" is frequently seeking redefinition of life aims or new career directions, in the guise, perhaps, of taking yoga classes at the community adult education center or returning to college for a master's degree. Contrast, for example, the 24 year-old in a hurry who says, "I want to finish my undergraduate work so that I can get my graduate degrees" with a woman at her thirties transition who characterizes the life period she just left as "Faced with Disappointment and Disillusionment, I ask, Who Am I and Where Am I Going?" and says she is "Preparing To Meet New Goals." At the "Settling Down/Becoming One's Own Person" period in one's thirties, people's motives for education take on the quality of an active investment of energy in a life structure experienced as stable. They may be upgrading professional skills or pursuing valued interests or hobbies. There is often more going on underneath. For example, intellectual curiosity was the chief reason that impelled a thirty-five year-old suburban housewife to study for a liberal arts bachelor's degree. But there was also a sense of giving herself permission to grow, the kind of growth toward self-tolerance that Roger Gould (1972) has identified as crucial in replacing our childhood images of adults' omnipotence with the reality of our day-to-day experience of being adult. Enrolling in college at this point in her life was a part of giving herself permission to develop her capabilities and autonomy:

> I guess that gave me the permission—the feeling that I have to approve of myself, and I can't look to others anymore to give me that feeling of quality or autonomy. That I have to give it to myself. And the only way I can do it is by building on my education because I couldn't figure out what else it was—as far as I was concerned, it was the only thing lacking . . . I tried everything: organizations and the children, you name it—dancing lessons, singing lessons, everything and anything that I thought maybe would fill that void. . . . Then I came to the realization that for me it was my education. I had to answer a lot of questions that I needed answers to, and that's what got me here. (Weathersby 1977)

At mid-life, in a transitional period, education can provide a setting for redefining one's work in conjunction with a deeper understanding of self, and for many women along with changed family circumstances. For women who seek professional work roles after homemaking and volunteer or community work, education can provide a setting for gaining self-confidence and credentials for legitimized entry into the job market. Age forty often brings on a watershed of consciousness. Many women I interviewed reported changes in self-perception, as if an internal clock had ticked off their last hours of having to be someone they were not. At 40 they felt a new self-acceptance: personality was set, it was too late to change, and they felt free to pursue activities of their own choosing rather than to please others. The woman quoted earlier who said, "After years of being wife, mother, department head, I woke to the fact, who the hell am I?" was 41. For men and women who have been working all their lives, there is sometimes the necessity to revise career ambitions downward, change careers, or find ways to allocate time and energy satisfactorily across the roles of worker, parent, spouse, and citizen. Again, there is ample evidence that the timing of men's and women's life stages is very different, particularly for women whose first career is as a care giver. And career development and personal development for any individual can run on tracks with different timetables.

In my study at Goddard, and in external degree programs generally, there tend to be adults in their fifties. The goals of those who were in that life stage shared a "coming of age" quality, as if a lifetime's experience were being recast into new, more serviceable molds for action. In this group (and they all happened to be women) there was a woman who had been paralyzed with polio since her early twenties and who was now working toward an executive career in vocational rehabilitation; a woman whose work with women's groups in the Episcopal church led her to want a master's degree in language, psychology and religion; a woman whose vocation after leaving a suburban household had been to create a community learning center in a one-room, thatched house on a hillside in Puerto Rico; and a woman whose goal was to become an ordained minister, extending her current career as a director of religious education. There was a huge gap between the second oldest student at 56, and the 81 year-old student whose goal was to develop as a poet. What would our institutions be like if we designed programs around the needs of retired and older adults? With retirement there are greater opportunities for recreation and leisure. Aging brings needs for social contact and personal support.

The point is this: each life stage offers opportunities for learning. Each life transition places a person somewhat at risk. Who helps, and how? Across our society, where are the physical support structures—facilities, personnel, financial accessibility—and the knowledge and emotional encouragement to help people cope with the difficulties and emerge from the encounters with deeper knowledge and ability to contribute to others? Who provides comradeship to a man who retires after working all his life? Who helps the woman embarking on a second career, and the elderly widow or widower trying to overcome grief and find a place in society?

Some adults in each of life's transitions show up in institutions of higher education. Our task is to be sensitive to the *learning* needs of each transition and respond with programs that have integrity. This means that we must also respect our new institutional learning process, for the management of transition requires respect. Transition is a state that is "not here" and "not there." I think that many of our institutions are in the midst of their own states of transition when it comes to framing programmatic responses to adult students. I hope we're at the stage of improvising and creating something very new.

APPENDIX

Brief Characterization of Adult Life Phases*

Life Phase	Major Psychic Tasks	Marker Events	Characteristic Stance
Leaving the Family (16 or 18 to 20-24)	Separate self from family; reduce dependence on familial support and authority; develop new home base; regard self as an adult.	Leave home, new roles and more autonomous living arrangements; college, travel, army, job. Initial decisions about what to study, career, love affairs.	A balance between "being in" and "moving out" of the family.
Getting into the Adult World (early 20's to 27-29)	Explore available possibilities of adult world to arrive at initial vision of oneself as an adult. Fashion an initial life structure; develop the capacity for intimacy, create a dream; find a mentor.	Provisional commitment to occupation and first stages of a career; being hired; first job; adjusting to work world; quitting, being fired; unemployment; moving; marriage; decision to have a child; child goes to school; purchase of a home; community activities; organizational roles.	"Doing what one should." Living and building for the future; transiency is an alternative track.
Age 30 Transition (late 20's; early 30's)	Reexamine life structure and present commitments; make desired changes, particularly to incorporate deeper strivings put aside in the 20's.	Change occupation or directions within an occupation; go back to school; love affair; separation; divorce, first marriage; remarriage.	"What is life all about now that I'm doing what I should? What do I want out of life?"

*Sources for this chart are Levinson (1974), Gould (1972), Neugarten (1969), and Sheehy (1974). Category titles and time designations are Levinson's. Classifications for the later periods were developed from the data in Weathersby (1977).

Life Phase	Major Psychic Tasks	Marker Events	Characteristic Stance
Settling Down (early 30's)	Make deeper commitments; invest more of self in work, family and valued interests; for men and career women, become a junior member of one's occupational tribe; set a timetable for shaping one's life vision into concrete long-term goals; parenting.	Death of parents; pursue work, family activities, and interests; children old enough for mother to return to school.	Concern to establish order and stability in life, and with "making it," with setting long-range goals and meeting them.
Becoming One's Own Person (35-39; or 39-42)	Become serious member of occupational group; prune dependent ties to boss, critics, colleagues, spouse, mentor. Seek independence & affirmation by society in most valued role. For woman whose first career is in the home, a growing comfort with family responsibilities and independence to seek valued interests and activities.	Crucial promotion, recognition; break with mentor.	Suspended animation; waiting for the confirmatory event; time becomes fir and worrisome.
Mid-Life Transition (early 40's)	Create a better fit between life structure and self, resolve experience of disparity between inner sense of the benefits of living within a particular structure and what else one wants in life.	Change in activities from realization that life ambitions might not develop; change of career; remarriage; empty nest; a second career for women whose first career was in the home; loss of fertility; death of friend, sibling or child.	Awareness of bodily decline, aging, own mortality; emergence of feminine aspects of self for men, masculine aspects for women.
Restabilization (a three-year period around 45)	Enjoy one's choices and life style.	Become a mentor, share knowledge and skills with younger friends and associates, contribute to the next generation, develop new interests or hobbies; occupational die is cast for men.	

Life Phase	Major Psychic Tasks	Marker Events	Characteristic Stance
Transition into the 50's (late 40's to mid-50's)	Another reexamination of the fit between life structure and self; need for redirection, a whole new beginning for some.	Last chance for women to have a career, or vigorously pursue a deferred life goal or interests—family crises, home duties diminished, change in husband's job status.	An imperative to change so that deferred goals can be accomplished.—"It is perhaps late, but there are things I would like to do in the last half of my life."
Restabilization, Mellowing and Flowering (late 50's, early 60's)	Accomplishing important goals in the time left to live.	New opportunities related to career and valued interests; personally defined accomplishments.	A mellowing of feelings and relationships, spouse is increasingly important, greater comfort with self.
Life Review, Finishing Up (60's and beyond)	Accepting what has transpired in life as having worth and meaning; valuing one's self and one's choices.	Retirement of self and spouse; aging; death of friends, spouse and self.	Review of accomplishments; eagerness to share everyday human joys and sorrows; family is important; death is a new presence.

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Rita Weathersby, Staff Associate, Boston Center for Religion & Psychotherapy, 110 Arlington Street, Boston, MA 02116

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