DOCUMENT RESUME

ED 198 368 CE 028 086

TITLE	Model Building in Training. Symposium on Adult Learning Potential: An Agenda for the Future.
INSTITUTION	American Univ., Washington, D.C. Adult Learning Potential Inst.
SPONS AGENCY	Department of Education (DHHS), Washington, D.C. Teacher Corps.
PUB DATE	Sep 80
CONTRACT	300-77-0524
NOTE	63p.: For related documents see CE 028 085-087.
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Adult Education: Adult Educators: *Adult Learning: Adult Students: Educational Cooperation: *Educational Needs: *Educational Planning: *Futures (of Society): Higher Education: Lifelong Learning: Models: Postsecondary Education: *Training

ABSTRACT

This is the second of a series of three reports geared to educator training and which encompass alternative approaches to collaboration and expert input, as well as a range of diverse topics related to adult learning. This particular document describes a symposium conducted by the Adult Learning Potential Institute in June, 1980. For the symposium, a diverse group of nine selected participants were asked to respond to a number of critical questions concerning adult learning and training in the future. After an orientation by Winifred Warnat, in which she invites participants to be creative and daring, the first part of the report contains selected comments from group discussions. The second part of the report contains short papers given by the nine participants on the following issues: learning versus information processing: meeting the stressful future: leisure and adult learning: the necessity of changing old patterns to meet adult learning needs: technology, folk heroes, and adult learning: dependency and authority as blocks to adult learning: the future of the education business: adult learning potential: and new models of learning. A short selection of random comments made during the symposium and a list of participants conclude the report. (KC)

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MODEL BUILDING IN TRAINING

Symposium on Adult Learning Potential: An Agenda for the Future

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September, 1980

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Preface

Training is the major formal learning activity of adult learners. Its critical core is an effective model which provides the basis for program implementation. Because of the intricacies of model building for training, a series of three documents geared to educator training has been developed which encompasses alternative approaches to collaboration and expert input, as well as a range of diverse topics related to adult learning. The documents, which fall under the category of Model Building in Training, are:

- Collaboration in Adult Learning
- Symposium on Adult Learning Potential: An Agenda for the Future
- Toward the Twenty-first Century: Critical Issues in Adult Learning

While all address various dimensions of adult learning, each also addresses a unique aspect of model building. One document is a compilation of alternative models for collaboration; another is the proceedings of a symposium involving experts; and another is a series of presentations on future thrusts for educator training.

Because of its lack of specificity in content, design, and presentation, model building is, by far, the most complex aspect of training and is also the most neglected. With the increasing number of training programs being offered educators, program planning and development has become more and more important. Unfortunately, a dearth of literature on training models and model building exists, especially relating to adult learning and educator training.

Model Building in Training is intended to give educators involved in training some new considerations regarding model building that take into account why a program is designed the way it is; the significance of each activity and its outcomes for both the trainer and the trainee; the use and involvement of experts, as well as their range of expertise; and the scope of content that includes that which is obvious, and also that which is subtle. By providing a broad interpretation of model building which takes into account the breadth of adult learning and the multitude of variations in training modalities that are possible, it is our hope that trainers will be encouraged to stretch their creative tallents to constructing innovative approaches to training and adopt new and more comprehensive interpretations of content.

Preparation of these documents involved several people on the staff of the Adult Learning Potential Institute, to whom I am most grateful. Heartfelt appreciation to Juanita Fletcher, Associate Director, who with tender loving care devoted her time, talent, energy, and commitment to making this document a reality. Also special recognition to Harvey Goldstein who was instrumentally involved in planning the Symposium and to Ronald Tyrrell who miraculously transformed the massive transcripts into edited narrative. Deep gratitude for their good humor, team spirit, tireless determination, and skillful work in producing successive versions of this document goes to Marjorie Lambert, Office Manager, who kept it (and us as well) all together, and to Jeanetta Bruce and Terry Raffelt, Research Secretaries, for their indomitable spirit and their tenacious perseverance to complete the task at hand.

Winifred I. Warnat
September, 1980

Introduction

The basis of Symposium on Adult Learning Potential: An Agenda for the Future is a symposium that was conducted by the Adult Learning Potential Institute during the latter part of June, 1980. A diverse group of nine specially selected participants were asked to respond to a number of critical questions concerning adult learning and training in the future. (A list of the participants can be found on page 63.) The questions they were asked to respond to included the following.

- How do you define adult learning? Adult learning potential?
- How does either one fit within your life scheme?
- What about your own adult learning potential?
- How can cultivating adult learning potential promote personal education and learning, in the context of the worlds of work, education, family, leisure, etcetera?
- Given those considerations, as well as the current state of affairs, how should we be approaching adult learning, adult learning potential as we plan for the future?
- What about the relationship of each to emerging, critical social issues, such as training, unemployment, equity, career change, and acculturation; cultural diversity, aging, ecology, energy, communications, etcetera?
- What do you see as the importance and impact of adult learning and adult learning potential on the future of individual education and learning?
- What directions should be taken by educators as we approach the twenty-first century and beyond?

Although clearly a collaborative effort of experts in which they would pull together a synthesis of ideas, the Symposium was designed as a living-learning laboratory with each participant interacting simultanelously and interchangeabley as educator-learner. It was designed to provide for both individual and collective learning. So that the participants could get some sense of one another's thinking, each one was provided with a compilation consisting of brief papers they had been asked to write and submit prior to the meeting that gave their initial views on adult learning potential and the future. A variety of formats were used; each one carefully selected and sequenced to enhance participation within the interactive environment of the living-learning laboratory. Conducted over a three-day period, the Symposium began in the evening with an informal orientation meeting which allowed the participants to become acquainted with each other, as well as receive further explanation of the task at hand. At that time, they were also informed that each of them would have thirty-five minutes of the following day to discuss individual views on adult learning potential, using whatever manner of presentation they wished. The orientation meeting set the mood--one of openness, daring, and optimism--that was to permeate the remainder of the Symposium. The format for the morning and afternoon of the second day, which focused on the presentations given by each participant, was intended to provide participants with equal time for airing their views, and allowing for group interaction to them. To allow for even greater input and reaction to their charge, the evening format consisted of individual interviews conducted with each participant. A half-an-hour was allowed for each interview. With the previous day's activities concentrating on content identification, the final day of the conference, which consisted of three types of activities, concentrated on synthesis. The morning began with individual participants presenting their personal views on the future. With that variety of forecasts on the future and the content that had been generated, the day before their next task was to build the future agenda for adult learning potential. For this task they were divided into three work groups, each group having a recorder. The final session pulled together the agenda, as each group presented its list of items. Finally, each participant was asked to fill out an evaluation questionnaire to determine whether or not our attempt at creating a living-learning laboratory had succeeded--their responses indicated that indeed we had.

Through the proceedings presented in the Symposium on Adult Learning Potential: An Agenda for the Future, provocative ideas and issues are raised that reveal not only the inadequacy of the current knowledge base regarding how adults learn, but also the crucial need to alter existing interpretations of the teaching-learning process, especially where adults are concerned. Hopefully, the insights provided in this document will further stimulate the development of creative training models that truly penetrate our adult learning capacities and cultivate our adult learning potential. In addition, it is hoped that the exploration of those capacities and that potential through new research frameworks will be eagerly pursued.

I

SETTING THE SCENE

Orientation and Overview

Winifred Warnat

The idea for this symposium began to develop two years ago when I attended a conference on the future of education, hosted by Chris[topher] Dede. While I was relatively uninitiated to the area of futurology, it seemed as though my work on adult learning was definitely future oriented. Then, about nine months ago, I was a panelist with Warren Zeigler on the future and adult learning. From these two inspirational efforts, it seemed appropriate to bring together a group to share ideas and to look at new and future directions for adult learning.

Through the living-learning experience of this symposium, diverse perspectives are being brought together to form a synthesis for realizing and nurturing each persons' highly individual learning potential. The objectives we will be addressing are:

1. By looking at the future of adult learning we may be able to give better direction to the present. We want to get a clearer sense of the directions being taken by identifying issues, analyzing them, and finding alternative ways of addressing them.
2. In terms of adult learning potential--through this living-learning experience, diverse perspectives are being brought together to form a new synthesis for realizing and nurturing our highly individual learning potential.
3. In terms of ALP Institute--we are identifying issues, analyzing them and seeking alternative means on how to address them.
4. And in terms of you--each of you is a living-learning laboratory with capacities beyond your wildest expectations--maybe, just maybe, you will discover something more about yourself--here--that will enhance the quality of your lives.

Hopefully, these objectives will provide the undercurrent to our discussions over the next two days.

While we hope that a mood of optimism will permeate our work here, that does not preclude our penetrating the serious realities we are and will be facing as we approach the twenty-first century. Whether or not we are able to view the future with hope rather than despair is largely an individual determination. My own personal wish is that optimism will prevail.

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We also have tried to create an environment characterized by freedom--an environment in which each of us feels free to express our thoughts and ideas no matter how controversial they may seem to be. We hope that as participants you will feel comfortable and excited as we build a possible scenario for the future. The content to be covered by this symposium is up to you.

At this point, I want to talk about the three pronged mission of the Adult Learning Potential Institute (ALP). First, ALP Institute has focused on the individual adult learning process especially in terms of its parameters. While there are many learning theories, most of them seem to fall short of explaining the adult learning process. When ALP started its work three years ago, I had assumed that we would find a large body of research on adult learning and its variations over the life cycle. Disappointingly, that was not the case. So, I started my work by identifying those areas that could give me insight into what the entire scope of the learning process might encompass. This led to an analysis of twenty theories of adult development. Much to my surprise, of the vertical theories of adult development, only the work of Robert Havighurst focused on adult learning from a developmental perspective. From that analysis several heirarchical theories such as those of Maslow, Vaillant, and Loevenger also were examined. While those theorists seemed to address the adult learning process, they did so only indirectly. Based on that analysis, it became evident how limited our knowledge of adult learning is and that it is a major gap in information regarding the developmental process of adulthood.

In addition to the learning process, we at ALP have been looking at the affective dimension of learning. The major focus of formal education is on the development of cognitive learning abilities. But when we discuss the intuitive and the reflective, as well as the spontaneous aspects of learning, we have only barely scratched the surface. During the 1960's young people behaved in ways that touched these areas. Unfortunately, most of us did not know what to do with these behaviors, let alone how to study them. The affective component of learning, then, has been an important area of concern to us at ALP Institute.

This journey to undertstand learning has also taken us into the areas of brain and mind research. A fascinating discovery was that only about 10 percent of how the brain functions is known. Moreover, the mind/brain controversy still remains unresolved. It seems terribly presumptuous, therefore, for us, and educators in particular, to assume that we know about the learning process when in fact we only know 10 percent of how the brain functions!

A second area the ALP Institute has focused on is the family as educator. Because of the recent White House Conference on the Family, this area is receiving considerable attention. For three years I have been developing an interpretation of the family as our primary learning institution. The family is where we learn most about our humanness, how to be a member of a group, what values, attitudes and feelings are appropriate. It is the place where the most basic teaching and learning go on. Unfortunately, our society tends to view the family from a deficit position. We tend not to acknowledge the family for the resource that it is. This is even true for the traditional nuclear family where our understanding of how the family functions as an educator is severely limited. And yet, intuitively we know that families function as very effective learning institutions.

A third area is training in the world of work. It is our most practical area. I began my career in the field of teacher training, and soon discovered that the common denominator for all educator training is that the trainees are all adults. Prior to my direct involvement with adult learning, I was working in early childhood education. One of my tasks was to examine Head Start Programs. This gave me an opportunity to look at the training of the child care providers themselves--parents, paraprofessionals, and teachers. This work, which highlighted the notion of a comprehensive approach to the "total" child, inspired me to look more deeply into the adult learning process. From that examination, a logical conclusion surfaced: Since we are adults so much longer than we are children, and since adulthood is at least as complicated as childhood, adult learning should address the "total" adult from a comprehensive perspective. It made sense to stop lumping adults into homogeneous groupings and expecting homogeneous outcomes. Indeed, the older we become, the more diverse we are.

These, then, are the major thrusts of the ALP Institute. Now back to your work at this Symposium. Each of you was selected on the basis of your talents and expertise in areas related to adult learning. Your professional backgrounds were in primary consideration, in part to assure as much variation as possible in the group membership. You will see that in the packet of materials there are the papers each of you submitted. Reading these papers is your homework assignments for tonight. The program tomorrow is entirely structured around your input and interaction. Each of you will have thirty-five minutes of time for your presentation to use in any way that seems most appropriate to our objectives. We will be very task-oriented because we want to get as much from this experience as we possibly can. With this overview, this evening's session comes to a close. We will see you bright and early tomorrow. Keep in mind that the Symposium is designed to represent a living-learning laboratory from which each of us as adult learners will hopefully take away some new insights into the complexity of the individual learning process and how each of us functions as a highly unique learner.

Building an Agenda for The Future of Adult Learning

In this session, the participants were assigned to work in three small groups, each with its own specially assigned person acting as recorder. The task of the small groups was to "build an agenda for the future in adult learning that relates to adult learning potential." The charge to the groups was that they develop "an action agenda listing items that are seen as 'do-able' and 'researchable.'" After working on individual agendas for thirty minutes the small groups reconvened in the large group setting for a general sharing of ideas.

Group I, consisting of Larry Davis, Chris Dede, and Constance Leean, discussed their ideas first. Each member took responsilbities for explaining the "agenda" items.

1. Conduct research in "communal" adult learning.

Research is needed on the process of multiple-person learning networks/groups/teams. This research would investigate the phenomenon that a group, as a whole, has a learning style and mind of its own. This could be on three levels: (1) small groups, (2) medium sized groups such as corporations, and (3) very large groups such as a nation.

2. Explore nonformal, yet systematic forms of adult learning.

Human beings are basically organizing beings. They seem to have a hunger for structure. The question is, how do adults learn in non-formal settings and what is the rational step-by-step process they use to actually learn?

3. Explore ways to help adults recognize when they are in transition --including identifying the parts of their lives that are in transition, and the processes that can be used to move through to more fulfilling images of self.

This is a good example of non-formal learning happening in a systematic way. When adults are in crisis situations--both internal and external--they are frequently confused and disoriented. These crises are a form of transition from one stage of development to another.

The goal would be to help adults move through transition periods and come out with a more fulfilled image of self. The question is "How can adults be helped to do this, either by themselves or through the use of some external resources?"

4. Study ways to organize and store information for easy access.

ALP could study ways to organize and store information for easy access to all kinds of people. This would include access to the kinds of information people want to know but are told, "You must not learn about these kinds of things." It is vitally important to store even the simplest kind of information in a way that people can get to it easily.

5. Explore ways to develop new myths and "heroes" of adult learning.

This item builds on the ideas expressed by Jim Nixon. Our culture does not revere learning. We ought to explore ways to begin to raise people's consciousness of the importance of continuous learning throughout their lives.

6. Promote equal access to learning technologies for all classes of adults.

There must be equal access to learning for adults. The affluent are more able to afford the hardware and software of the new learning technologies; "programs" for these new technologies may be heavily geared to middle-class and upper-class cultural requirements. We must find ways to democratize this process, thus insuring equal access for all classes of adults. It is one thing to wrestle with this problem in the schools, but quite another to deal with it in non-formal settings.

7. Investigate ways people use to access internal information/ideas in order to describe more fully these processes.

We understand and can help people learn how to access information from external stimuli. We must also understand and help people do the same with internal data. It means helping adults discover their own processes of accessing data from all states of consciousness and unconsciousness. Doing so would embellish their ideational resources.

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8. Examine the policy implications about what we are learning about adult learning.

There are some people in the field of adult education who are saying, "we have collected data on the non-formal learning of adults. What are the implications of that data for such issues as the establishment of adult learning networks, or adult learning institutions, or whatever?" It could be instructive to examine the policy implications of what we already know. Doing so would help us to see more easily what we do know.

9. Identify the principles and ideological frameworks for addressing adult learning research questions.

Before engaging in research, the researcher must understand assumptions. This means understanding the ideology behind a particular research method, as well as the particular method chosen to do the research. This is particularly important when it comes to studying the adult learner because it means mining the mind in areas that no one is clear about. One suggestion is that "new" naturalistic methods be used. This will allow research and theory to rise out of practice and not the other way around.

Group II consisted of Jim Nixon, Louis Rubin and Nina Selz. Jim Nixon acted as the group's reporter. The "agenda" is based on a straightforward step-by-step process: two large steps and a conclusionary caution.

Step I

-identify contemporary incentives for adult learning

-identify the kinds of adult learning most needed, e.g.

  .family
  .job-related
  .personal growth
  .etc.

-identify alternate processes by which (adult) learning can take place

-establish crediting procedures

Identifying contemporary incentives for adult learning is straightforward. But identifying the kinds of adult learning most needed led to considerable discussion. We were not sure who the "needer" was: an omniscient committee, or the individual learner. We left "need" undefined except to say it must be recognized from a number of aspects, including personal growth, job-related, family, etc. The third item is concerned with a need to identify alternatives through which learning can take place. Fourth, we are concerned about some sort of accrediting procedure. This relates to the incentives, or payoffs, for engaging in adult learning.

Step II

1. Explore potential of extended use of media for self-directed learning (e.g. cable TV)
2. Develop new ways to utilize motivators for learning
3. Investigate alternatives for deciding substance

Step II allows us to discuss some of the implications of adult learning in the future. Item 1 is to explore the potential of the extended use of media for self-directed learning through, for example, home computers and cable television systems. The image here recognizes that considerable learning is going on that does not use the established procedures that are thought of as the learning media. When it is learned how this learning is actually done, the extension to the future is to ask, "What are some ways to use that knowledge to take maximum advantage of new technologies as they become available?" Item 2, developing new ways to utilize motivators for adult learning, means that we invent "new" motivators, while Item 3 asks, "Who decides for the learner what she will learn? Does the learner decide, or does some committee?" The important concern is that alternatives for finding substance be found.

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Research

-Implications of developing potential

-What is meant by

- .basic/conceptual
- .technical
- .leisure
- .family life
- .schools
- .societal enterprise
- .personal
- .cognitive behaviors
- .risk taking
- .intuitive/creativity

Under the heading "Research," we suggest that the focus begin with the question, "What might the implications of developing human potential be?" Furthermore, we identified some concepts that need further elucidation. Indeed, the whole effort may have to begin with defining these concepts and checking out basic assumptions.

Group III was comprised of Jacqueline Hall, Lee Regal, and Warren Ziegler. Lee Regal was the spokesperson for this group with the other members commenting when they thought it appropriate and useful to do so.

Assertions

1. Learning is deep seated--as we have changes in our learning styles, learning affirmations, etc.
2. Learning isn't round, square, analytical--it happens --all times, all places.
3. We have enormous amounts to learn about how to learn together.
4. Move--from individual learning to competence in shared group learning.
5. Do we have the moral right and competence to ask (8-10 people) until we do the work ourselves?
6. Use ourselves as case studies.

Research

1. How do we create a learning culture?

2. Is it more efficient or inefficient to create a learning culture?
3. Should we develop some new designs for organization, family, work, church, public policy, interpersonal relationships?
4. How do we go about developing new means to new ends?

There was considerable discussion about how much there is to learn about how people learn together in various group settings. This symposium could have been a forum, or a model, for looking at the process of how adults learn together. If the members of the symposium could have a clear understanding about how they learned as individuals, it would greatly facilitate learning how the group learns collectively. It is important to move from studying individual learning to studying about shared group learning.

There was concern that none of the symposium participants brought to the experience, as Warren Ziegler put it, "validated, legitimized, competence in our group learning." This concern was noted in terms of one of the stated objectives of the symposium. "Each of you is a living-learning laboratory with capacities beyond your wildest expectations. Just maybe you'll discover something more about yourself here that will enhance the quality of your lives." There was no statement beyond or equivalent to that about the total group activity. Group activity does not mean group dynamics here. Rather, it is how collective learning takes place and how it is understood. If we cannot understand collective learning ourselves, or if we cannot develop the competence to do it ourselves, then by what right should others be expected to be able to do it? If there has been group learning here, and if there are competencies to both participate in it and judge it, that has not been made explicit by anybody. To put it in a nutshell, an old model of learning was used to try to do a "new" thing. That is very difficult to do. In order to create new learning cultures requires rendering oneself vulnerable to a system of sanctions and rewards which are very powerful and which have been in place for a very long time.

To create a learning culture within a small management team or within complex larger organizations can be difficult because such a culture will be seen as inefficient. The question is, is it more efficient to let one person decide to establish the structure, etc.? Of course, this kind of question only needs to be asked in a technological society where a higher premium is put on the value of efficiency and productivity.

The old model of learning is so thoroughly ingrained in each of us that it is almost impossible to envision being with a new structure. Each of us must vigilantly assess how our old learning models affect us and keep us from revising it. It is clear that we need some new designs for the family, work, church, politics and interpersonal relationships.

A concern for efficiency in organizations leads eventually to a discussion about how means and ends fit together. In some human activities, the ends are changing while the means are remaining the same. Where the ends are changing, for example, some people are talking about health in new ways, but the delivery of health care, the means, are no longer appropriate. Therefore, an efficiency collaboration exists. Something similar can be found where the means have changed, but where the ends remain the same, for instance, in the area of instructional technology (new means) and conventional education (old ends) -- fantastic means in search of ends.

What Does the Future Hold for Adult Learning?

Louis Rubin: Human progress does not take place in nice, orderly ways. With human relations there are always setbacks. My hunch is that we are entering a period of political and sociological neo-conservatism. This will bring about a profound interest in old beliefs and old ways of doing things, but once we have undergone that ritual, there will be an opportunity for some of the things we have been talking about to occur.

At all costs we must avoid confusing what we are all about with fads. The danger of dispersing what we are after is that it will be confused with whatever is faddish or trendy. To prevent this dispersion we must find ways to convince everyone that one of the good things in life is continued learning; that we are all ongoing learners. The problem is how to find the necessary wherewithal to motivate people. Quite bluntly, there are many individuals in this world who do not see the point in more learning for themselves. Learning may not translate into more money, it may not improve their love life, it may not improve their health, it may not get them a passport to heaven. So, they ask, "Why should we engage in the rituals of learning if there is no personal good to be found?" I, therefore, make the following suggestion: In order to create a desire for learning, we must design programs to discourage human complacency.

Jacqueline Hall: The advances of technology will affect everyone in some way. These technologies have and will continue to bring with them a number of ethical questions about how to use them. Some of these ethical issues will be affected by the conservatism that seems to be emerging: A longing for and an analysis of the old ways of doing things. At one time, I was interested in the notion that "small is better." Today I'm not convinced that that slogan fits our civilization.

Constance Leean: I think that the future has caught up with us. We are at the edge of a totally new and different era. Everything we have experienced in the past is going to be revised, reordered, and rethought. Transformation of meaning must become a real concept in this new context. Indeed, because of rapid change, people at all levels are experiencing their own transformations of meaning. Peter Rosack talks about how people are beginning to sense not only their individuality, but their connectedness to everything on this planet. He describes this consciousness as something verging on a spiritual intelligence. I am sensing this new consciousness among the rural people of Vermont. These "common" folk are experiencing the same things as the rest of us: families in disarray, questing for self-fulfillment, and the questioning of their traditional values and procedures. They also want to know what is to be done to make their world different and better.

We are living in a time with very leaky margins. We no longer know, for certain, what our boundaries are. Therefore, those of us who can, must help others through this transitional period.

Larry Davis: The thing that strikes me most about the field of adult learning is that our population is growing older. Simultaneously we are living in a time of rapid change. The combination of an older population and rapid change is going to cause a searching for new values and beliefs. Consequently, many people will be volunteering to unlearn some old behaviors, attitudes and beliefs. A major mission of educators in the future, then, will be to learn how to help individuals to unlearn. While significant unlearning can occur, many people will have great difficulty doing it.

Another area that needs to be addressed is the storage and retrieval of information. It is important to reorganize human information so that it is more readily accessible to those who need it. Much of what happens in libraries today is obsolete.

Christopher Dede: In the next five to eight years we are in for some turbulent times. These times are likely to be as turbulent as any times since the decades of the Great Depression and World War II. One major reason is the aging of the baby boom. On the one hand, that age cohort will have considerable political power. There will be pressure to divert monies from all government levels for non-formal education for this age group rather than for children. On the other hand, this large cohort of people moving through our social, political, and economic institutions will find fewer and fewer opportunities to be managers and administrators because there will be fewer people to manage and administrate. This may cause a lot of dissatisfaction among this age group. People will likely turn to adult learning as a way to overcome their dissatisfaction.

Economic hard times are coming. Regardless of how bad these "hard" times are, they will trigger much informal adult learning. It is useful to use the Depression as an historical analogy. During that time, people tried to learn a great deal. Some of what they learned was practical and much of it was not. Some of what they learned was simply to help them escape from the problems of day-to-day existence. During the Depression the entertainment industry was perhaps the most thriving industry going. Today it will be the various learning technologies. These technologies will probably be used to deliver entertainment, but once they are in place, they can easily be used to deliver opportunities for learning.

Warren Ziegler: Looking at the history of the last fifty years we can see a transfer of civilizations. We are not emancipating a new psychic, spiritual, humanistic future. What is now happening is that we are entering into a stage of new barbarianism. Indeed, it may take between fifty and several hundred years before a new civilization emerges. There is going to be a huge mess not unlike the destruction of the Roman Empire.

But another possibility is that we may, in fact, be entering into some psychic transformation that is qualitatively different than every other human civilization. I'm not forecasting that at all. However, I work for that kind of civilization because I find its possibilities very exciting. What I do is try to emancipate the futures each person has in himself or herself. That work is distinguished from forecasting their futures.

But how do we decide among all the futures that can be emancipated in human beings? I've worked with over ten thousand human beings, helping them to emancipate their futures, their images, and their inventions. But how do we distinguish between the good images and the bad images; the good inventions and the bad inventions; and the good learnings and the bad learnings? These are important moral questions.

Jim Nixon: I am an inveterate optimist. I cannot recall any time that was better than the present. Humans have a tremendous capacity to adapt to change. They either adapt to new situations or convince themselves that the new situation is just fine.

Yesterday we talked about new concepts for the use of technology in education. This process is well under way. For example, Mattell, the toy maker, has announced a new computer game that can be hooked up to a television set. It is really a microprocessor system designed to be a highly sophisticated home computer. By marketing it as a game, they think they have reduced the public's fear of using computers. Now there are thousands of computers installed in homes. Furthermore, impact of television on the present generation of youth has been greater than most of us realize. The diminishing of reading test scores is due to the fact that children have spent so much more time watching television. More importantly, these youngsters have sensed that learning to read or to write is of no real value to them. They realize that they can communicate information in other ways. When this group gets to positions of authority we will probably find them choosing other means to communicate and other ways to record their proceedings.

While the future may present us with some turmoil, it is no more painful than it has been in the past. Change and growth are always painful. Pain is part of the human condition. But I think we will survive and enjoy the survival.

Nina Selz: We no longer have the luxury of developing the so-called "new" potential. Our hands are going to be full with just surviving. Lifelong learning will not be a choice, it will be a necessity. Even now we are having difficulty with the problems facing us. So my personal advice to us all is: "Go for it."

Lee Regal: I am concerned because an advanced society, like ours, that has provided us with the resources and the leisure to examine ourselves is confronted with many serious dilemmas. Some of these dilemmas are bringing us to the brink of World War III because we have not found ways to learn how to work with peoples of other cultures and other countries. I also worry that we will put our energies into looking at issues from a cosmic perspective and forget the fact that we have an accountability for our present world. There are some people who are pushing the concept of the "small planet." I cannot accept their arguments. Over 85 percent of our society is directly related to institutions in some way. Only 15 percent are in what can be called entrepreneurial ventures.

The communications and information technologies have shown us that we Americans are really part of a larger world. We must learn, and help our children to learn very early, the kinds of skills needed to deal effectively with groups whose values, systems, needs and development are different from our own. It is really important to see the present as the context for the future, and, managing that, to learn to value each other.

II

ADULT LEARNING AND THE FUTURE: PARTICIPANTS SPEAK

Information Storage and Learning

Larry Davis

Learning is a totally natural process that is very crucial to the survival of certain organisms, especially the more mobile ones. I'm not sure whether humans became adept at learning because of mobility or whether humans were able to be more mobile because we could also learn. Picture a mobile organism attempting to survive in a world of chaos. Imagine being a cave person and being confronted with a tremendous amount of phenomena all the time. In order to survive as a cave person, you must be able to store information (called recognition information) that helps you remember whether something or someone is a threat to your existence. You must be able to retrieve such information very quickly if you are to survive. In addition to storing cognitive information in storage frameworks the same thing holds for emotional responses. Thus, when confronted with danger, the adrenals produce a "fight-or-flight" response that probably has not changed in human beings for millions of years.

Humans can also store information about relevant situations. We are not only asked "What is it?", but "What does it mean to me?" These are survival questions. As we encounter phenomena, we prepare to decide how we are going to respond. This I call procedural learning and it is the key to understanding how to help ourselves and others learn.

Procedures are similar to psychomotor learnings much of which are focused on external procedures. Something "out there" triggers the physiological steps that cause me to act. In other words, as we learn, we are storing procedural information to help us respond to encountered stimuli both internally and externally. We also store this information in ever more complex frameworks. Thus, the procedures we use tend to make the stored frameworks balance. Sometimes this does not happen and as a result strange kinds of structures are also stored that may or may not be essential to our survival.

The procedures of learning are also influenced by our expectations. This is how we filter, block or allow information in. These expectation sets are procedures that are put in place for processing data--to hear and/or see what we want to hear and/or see. We can learn how to change these expectation sets. If I expect a person to say something, or if I expect to get something, or if I have certain goals, then I have expectation procedures in place. Some of these expectation procedures are complex while others are quite simple. For example, when I drive an automobile, I put into place some pre-set expectation procedures about what I am expecting to encounter. I process certain kinds of data, while totally ignoring other data. However, if something strange occurs to interrupt these pre-set procedures, a "startle" effect is produced forcing me to deal with that stimuli immediately.

My model of learning also allows for the uses of curiosity and creativity. The research on curiosity dates to the 1950's. In that research there is a tendency to talk about curiosity in terms of "intrinsic motivation." The child is always exploring the environment and we might expect that there is some kind of intrinsic reward for that behavior. But maybe it just makes the child feel good because the behavior is repeated over and over. I think that nature has provided us with a payoff for curious behavior equivalent to the payoff that is associated with sex. We repeat the behavior because it feels so good. Unfortunately, this kind of exploratory behavior is stunted about the age of seven when the child is sent off to school. In school someone else tells the child what to do, when to do it, and how to do it. At that point the child's capacity for creativity and inventiveness is stunted by the someone else's stored procedures.

A considerable amount of this theory is derived from an information processing model. In that model there is a notion called executive control. I call it the "my" of the mind. It regulates my motives and my energy, in short, my motivations.

Meeting the Stressful and Scary Future

Christopher Dede

As we look at the future we may see it at best as stressful and at worst scary. As one who works in the field of "futures," I find myself becoming increasingly scared in a variety of ways, but my position is not pessimistic. Rather it is a position that says, "there are very difficult times coming on the horizon and we had better be prepared for them."

We know different pieces of how to help people learn about how to meet the stressful and scary future. It seems to me that if the problem is broken down we can say that we have mastered the different parts of it. Unfortunately, we have not been able to find a way to integrate all of the pieces into a coherent plan. In other words, I do not know how to take a group of people who may or may not be interested in what I want to say and somehow emerge at the end of five years with a group of people who have wrestled with and can master the problem of coping with the future. In this regard I often think that I am not making much progress.

There are several reasons why I am not and others are not making progress. One reason is tied to the advantages and disadvantages of specialization and the kinds of things that happen to people that are specialized when they are in an evolving situation. I am reminded of the dinosaurs and how specialized they became and what happenened to them as things evolved. A second reason may be the kinds of limits and dependencies we learn in school. The discipline may be used to help people understand how to cope or even invent their own futures. But, at the same time, these disciplines may get in the way of the learning process. A third, and most profound reason for our lack of progress, may be that there is something very deep underneath all of this--some kind of serious cultural problem that we are dealing with. As Warren Ziegler says, "our society may be scared of learning."

Learning involves change. Learning is "scary" because it is intrinsically moral. Unfortunately, our society is afraid to make a moral statement. So when I think about the future being stressful and scary and that we are not making much progress toward solving the problems of the future, I often think it's because we are a neurotic society. We know what the real situation is, but it is easier for us to behave in ways that are not quite appropriate. Somehow we must learn to face the real situation and on a deep emotional and intellectual level learn how to make more appropriate responses.

Adults have a limitless potential to learn. That assumption is based upon faith and on my existential response. I cannot prove it rationally. The adult learning potential of which I speak is directly tied to the concept of learning being equal to living described by Connie Leean. That potential is not achieved by the rational process of sitting down and saying, "Something is coming. I really need to know about it, and by George, I'm going to sit down and learn about it." Such a process doesn't break through the barriers in the same way that tying learning and living together do. So the question is, "How can we make learning enough a part of living so that the process opens up and people begin retrospective planning and thereby potentiating themselves?"

One way to begin this process is through the use of educational technologies. Although there is some reason for concern about the possible misuse of these technologies, they pose an interesting way of opening up a dialogue with large numbers of adults. Through microcomputers, video discs, and some of the sophisticated things that can be done through satellite television we can reach millions of people. And if we can find a way to reach them in such a way that they are motivated to begin their own retrospective planning, they may then begin to recognize what is coming in their future and then begin to act in appropriate ways.

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I am not worried that we will not have the hardware to reach large numbers of people. The private sector will find ways to do that. What worries me most is that we are not going to know what to say or that we are not going to say it in a way that will hit home. I know what I would like to say. I want to talk about the future and the challenges and opportunities that are there. But, I do not know how to take that message and deliver it to a group of people as diverse as those in our society that would give them a feeling of common purpose and goals. And furthermore, to give them a sense that their future depends on what all of them decide to do collectively.

One of the blocks that I encounter doing "future" work is that even when people have a sense that they understand what is coming they do not believe that they have any control over what will happen. The key to successful futures work is getting past that block by saying, "You may not have control in the sense that you can wave your hand and say, 'let it be,' and lo, it happens. You do have control in that by working together with a group of committed people you can make things happen." History is filled with examples of how small groups of people have been able to affect both positively and negatively the course of the future. Indeed, one reason that the future is stress- and scary is that the future depends on what group decides to do what first.

In my work with others I strive to evolve a sense of a little less self-reliant potency, and a little more collective potency. That is that each person is not in such a strong position that he or she can continue to do only his or her own thing while someone else minds the store and everything works itself out. On the other hand, the belief should be instilled that we are not in such an impossible position that by working together toward some common goals and by learning and acting together toward those goals we could make a difference and get us out of our predicament.

In a sense I am less interested in individual adult learning and more interested in collective adult learning. Just what such an adult learning community would look like is unclear to me. I do not have much personal experience with how a community mind functions in the best sense of the word. What I envision is a group of people being able to learn more as a group than any of the individuals could learn. To make what I am trying to say more concrete--if this symposium works really well, we might come out on Tuesday afternoon as a group having attained certain group intellectual, social and emotional skills that we could not have attained by going through exactly the same sequence of thought on an individual basis.

Leisure and Adult Learning

Jacquelyn Hall

I have been thinking about the different purposes of education. The first purpose is basically to transmit concepts. The schools are full of conceptual learning--reading, writing, history, etc. It is the whole compilation of learnings that society says is important for persons to know in order to be more aware of who they are, where they have come from, and for getting along reasonably well in society. This constitutes the academic portion of schooling.

A second purpose is to educate for the technical. Technical education is aimed at some kind of productivity. Some techical education takes place in school settings, but a good deal of it is located at the source of the experience itself. This is where people are taught a sense of the skills, or behaviors required by the task to be undertaken. A basketball team refining its skills, or a lithograph operator learning to operate a press are examples of technical education. The aim of such education is to increase a person's productivity.

A third category, and the one I am most interested in here, is called education for leisure and family living. Leisure as an enterprise is currently being redefined by several factors: new work patterns, new retirement patterns, the longevity of the population, and improvements in the general health of the population. A similar redefinition is occurring for family life: changing sex roles, new profiles in the work place, changing retirement patterns, a shorter time-span for child-rearing, and the increased longevity of family members.

Because so many changes are occurring in the areas of leisure and family life, a more systematic appraisal is needed. This appraisal must be in terms of what we look at, as well as how to examine what we finally do choose to study. Some things can be done cognitively. For example, one can study and learn about child-rearing practices in order to determine what skills are needed to be an effective parent. One can also learn and develop various kinds of skills and behaviors--swimming, painting, or communicating well with others.

Education for leisure is often complicated because one person's leisure activity may be another person's work. For instance, the time someone spends running on the beach could be defined as leisure, or it could just as easily be defined as work. The person may be running to reduce stress and to "feel" good; for another person it may mean something quite different. It all depends on the purpose of the activity. I define leisure as what I do with my life that is outside the productivity of a given work place in a given society. Leisure activity may have an end product such as cooking an excellent gourmet meal, or publishing a novel, or diving well into a pool of water. Whatever the outcome, it constitutes a very personal investment of time, energy, and interest.

One area of leisure education in which adults are particularly interested is the area of holistic health. There is an increasing popular realization that the physiological self, the emotional self, and the spiritual self must be engaged together if maximum healing is to take place. In short, the whole person must be taken into account. This is what holistic health practices attempt to do.

Furthermore, unless a person is willing to be a learner, it is unlikely that he or she will derive the benefits from the holistic health approach. This approach emphasizes personal responsibility for participation in the process of diagnosis and treatment. The person not only talks about the symptoms of the ailment being experienced, but also about life events that may be affecting his or her health. This gives the person an opportunity to discover the connection between symptoms, life experiences, and general health.

Indeed, the very notion of "prevention" as a health concept is absolutely rooted in the person's learning potential. Prevention, in health terms, means teaching people about the effects of different life styles on good health, including the kinds of things that can be done to improve and maintain a state of "wellness." Prevention starts before there is any disease. To make prevention work requires a commitment; it requires learning; and it requires resources for educational efforts. In short, a country's health status is not dependent on its health service delivery system, but on what and how people learn to keep themselves healthy. This requires learning how to promote personal and collective wellness: "I am not sick today. I don't have any particular diseases that are disabling me, but I can learn how to take good care of myself." The concept of wellness can be embellished many ways. This embellishment is directly related to adult learning.

We live in a system where there is increasingly more government involvement and management in our lives. Most of us have come to see ourselves having to fit into a large system. We grow up to "be something," to fit into the mold of a world already made for us. This causes many of us to feel impotent about having some impact on this larger system. At one time in our history we had a tradition of "rugged individualism." A person could take a piece of land and make it work for himself or herself. But the concept of potency has a different psychological set today. The entrepreneurial attitude of yesteryear is very different from thinking about potency in terms of one's ability to influence the systems that put limits on different aspects of one's life. I think about my power to affect the national state of mental health; my power to affect the PTA; my power to affect local zoning regulations--now I ask, how can I affect the systems that create the categories of our lives? Helping people learn how to be more personally and collectively potent is one of the great challenges of adult education.

Retrospective Planning: A Key to Unlocking Adult Learning

Constance Leean

As Eduard Lindeman said, "the person who knows what he wants to do, and why, is intelligent." I would add that such a person is also a learner and a reflective thinker. Furthermore, that his or her capacity for knowing and reflecting is developmental. To some degree everyone is intelligent, thoughtful and reflective. The person who knows what he/she wants to do in life, and how he/she is going to go about it is a self-directed learner. To some extent, everyone is a self-directed learner. Such a self-directed learner is a transformer of both personal and social meanings. This capability to tranform meaning to the things happening around one is a key to adult learning.

My assumptions about adult learning are first, that adults are learning all the time. We are motivated to learn often in spite of the deadening effects of schooling, and our environments. Somehow, out of our human potential, comes an innate curiosity, as well as an innate desire to know what is going on in the world.

A second assumption is that adult education and formal learning structures should be liberated from the archaic notions of credentialing, time-specific learning, and teacher-student dichotomies. That is my way of saying that as we look at what needs to be changed or transformed about adult education, we must question all of the tried and true methods, patterns, and habits of thought.

Everybody has the ability to understand and to analyze how internal and external events influence and shape their lives. In most cases, we do not give each other the opportunity to do that. My research activity has been to spend time with people who are usually called "uneducated" and to ask them to reflect upon and analyze their personal history in relationship to where they are now and where they want to be in the future. With help and encouragement, these people are able to understand how some of the forces in their lives have impacted upon them.

The setting for my research is rural Vermont among action-oriented people. They give two hours every other week to our research project. Most of these people spend considerable time at very mundane tasks--plowing, shoveling manure, cleaning up after the chickens. When asked when and where they did their thinking, they replied that it was while doing these mundane daily tasks. One example of this process comes from a man who became a farmer when he was over fifty years old. Since he had come to his new career rather late in life, he knew he had considerable catching up to do. He reported that he was always thinking about how to solve the "nitty-gritty" problems like how to modify his old tractor, etc. The point is that he does this important thinking while doing his everyday tasks.

A key to unlocking adult learning is to ask questions about one's doing process, as well as about one's thinking process. This is called retrospective planning--stopping a person while he/she is engaged in a task and asking, Why did you do that? Where did that doing come from? Where is it taking you? What more do you want to do? What do you want to do differently? This process is very difficult for most people to engage in, but these rural people seem to appreciate the opportunity to share their process with someone.

One consequence of this kind of interviewing is that it tends to raise the awareness of the people involved. Most of the people seemed ready and willing to engage in personal exploration. This learning happens to each of us at a time, and to the degree that one is ready for it. For example, some of the women in the study are beginning to understand what it is to be oppressed. They are beginning to talk about what is going on in their personal lives and in their families. But while they could see things happening and changing all around them, they could not respond in a personal way until they were ready to do so. In my interactions with them I try to help by clarifying what it is they already know and to help them talk about it.

People know intuitively what is best for them, what their own answers are. They just need help to bring it out.

When people have a chance to interact on a very dynamic and deep level with other people, they become more aware of the deeper meanings in their lives, and where they are in their stage in life. Everything seems to become clearer. During such encounters paradigms are changed, as are world views, and images of self and others. What I am talking about here, is a paradigm shift that happens when people have a chance to talk about their lives. I think it's very fruitful for personal growth, as well as for raising social consciousness and collective action. Once people realize that they are learners, that they are connected with other people who are also learners, and that there are people utilizing resources and learning networks all around them, they will then see the possiblity for connections with others in creative projects and creative ventures that they did not dream possible for themselves before.

Technology, Folk Heroes and Adult Learning

James Nixon

The problem that I want to deal with is the one generated by the rapid pace of technology on the practical skills of people. By practical skills I mean those skills used to survive both physically and psychologically. Those skills tend to become obsolete more rapidly than people can change, thus producing considerable agony for those affected. Agony is produced for example among the unemployed because in the United States we have not developed a system for transferring funds to people unless they are "gainfully employed." Agony is also produced for the unemployed because we withold status from people unless they have a job. While jobs can be arranged in a hierarchy of status, being unemployed is one of the worst situations in which a person can find himself or herself. The greater the numbers of people that are unemployed, or threatened with the prospect of unemployment, the more likely is the prospect that we as a people will individually and collectively react by trying to stop the march of progress. While the march cannot be stopped, the attempt could put our nation at a competitive disadvantage.

We are threatened today because there are somewhere between 12 and 30 million Americans under or unemployed. We must find ways to communicate more effectively with people concerning the threat of change to their level of perceived personal safety. People could be helped to understand earlier about change threats and what the alternatives are for dealing with them. I think then most people would opt to take appropriate corrective measures.

In our society, with a heavy commercial orientation, we tend to allow ourselves to be sold things with little long-run utility, merely to help someone's short-run game plan; examples being our current energy crisis and our continued heavy use of petroleum products. The obvious effect is that in the long run we are going to run out of fuel, but in the short run we continue to be wasteful consumers of energy.

One of the ways our society has of redirecting our perceptions about individual and cultural requirements is through the mass media, primarily through the use of television. We should give some serious thought to the possibility of using television consciously to "reeducate" adults in much the way "Sesame Street" is used to educate children. This can be done by developing a series of "folk" heroes that are effective learners. For example, there is the character of Archie Bunker who is a learner especially in his dealings with people. From my professional perspective, as an equal opportunity officer for a large corporation, there could have been no better character invented than Archie. Nationwide this mass media character has helped us to focus on many issues we needed to deal with. While he uses all of the ethnic and racial clichés, he ultimately deals with people in ways we think are acceptable.

Another contribution Archie has made is that he has very effectively demonstrated that an average person can, when he needs to, such as when he becomes unemployed, develop new skills. In Archie's case the skills he developed were those of entrepreneurship. We could be helping others to learn these skills.

There are thousands, if not millions, of opportunities for people to be gainfully employed, to have a reasonable degree of control over their environment and destiny, and perhaps most importantly to enhance their self-esteem by being able to say when asked, "I own a boutique," or "I own a health food store," or the like. There are a growing number of opportunities for those kinds of activities that are being created right before our very eyes. Today it is difficult to hire someone to rake leaves, patch roofs, etc. Perhaps if these same occupations were restructured so that the persons doing them were working for themselves rather than for someone else, they could gain a degree of dignity that is now apparently missing in these jobs. However, we seem to lack any structured plan to teach people how to set up and operate small businesses.

The time is right for helping persons learn how to become entrepreneurs because doing so would help them to make a contribution to society, besides doing something that we all need for our collective survival. This would require discovering how to reach millions of people. We must find ways to break the circle, or we are going to lose the battle. I would like to use a personal example to illustrate my point. I believe that while going to public school, students gain a bank of knowledge that can be drawn on in the future. In addition, it is also a place where one can test out skills in a number of different fields. While going through school, my folk hero was Andrew Carnegie. I didn't just pick Andrew Carnegie out of the clear blue sky as a role model. I was good at math, and my grandfather was an engineer, and someone said to me, "You're good at math. Why don't you be an engineer?" Well, I didn't know what an engineer did. This person said, "Andrew Carnegie was a great engineer. He built the steel mill down there, and he was very rich." Well, of all the things said, "he's rich" rang my chimes, and had my undivided attention. What I am saying is that going through the schooling process, taking most of those courses, most of which I thought were totally irrelevant, was to give me a feel for whether I was a math type or an English type, or whether I had writing skills, or analytic skills. Then, having identified my skills I went further through the formal process, to fine-tune and hone those skills so that ultimately I had something marketable for which someone was willing to pay me a wage.

I think in a one-to-one counseling situation it's easier to sit down with another person and say, "Well, looking at your skills, Mary, I think that you might be very good as a corporate executive, or whatever." That process legitimizes the person's own self-perception. It is relatively easy to build on these perceptions if you have been correct that the basic skills were there in the first place.

But how do we reach thirty million people? I am not certain how that could be done except through the mass media. Perhaps one way to approach the problem is by putting together a "folk" hero team that is well integrated in the skills and the attributes of good learners.

Unfortunately there is no mechanism presently available to fund the experimentation needed to develop the concept of "learning" heroes. While we can identify a group of people who care whether our children learn and are therefore willing to put up money for "Sesame Street," we can not locate a similar group of people willing to fund an equivalent effort for the "Sesame Street" mothers and fathers. Normally, we rely upon commercial interests to fund such enterprises. But commercial interests will not fund programming unless it sells their products. At this time, we have not come up with a convincing way of having American adults, who spend an average of five hours a day sitting before television, spend some of that time learning. While there are opportunities for learning to take place while watching television--say, while watching Archie Bunker--it is incidental learning. I think the time has come to concern ourselves with convincing each other that our education never comes to an end.

Dependency and Authority as Blocks to Adult Learning

Lee Regal

No matter what is done to inhibit or encourage it, people are always going to learn. And they will learn things other than what others expect them to learn. For that reason it may mean that a good deal of what people learn is how to unlearn. As Buckminster Fuller said, "true higher learning is self-administered unlearning of what we have been taught in school." It strikes me that in order to begin thinking about learning and being involved with other learners, I must fully appreciate my own learning process.

A major issue in the hindering of the learning process centers around the issue of systematic dependency. Much systematic dependency comes from the unresolved authority issues that originate in the family. Helping people to learn how to be more powerful means resolving these early authority issues. Our public schools and institutions of higher education exemplify a value system that supports authority. This system keeps its clients in a one-up, one-down, teaching/learning process. Furthermore, schooling fosters a form of consumerism rather than helping people learn how to generate what, how, when and where they really want to learn. I see in the full range of our institutions the perpetuation of a learning system where the person is not taught to think for himself or herself. The teachings of this system must be unlearned.

Learning events are part of our central nervous system. What the child learns in the family most often is what is unspoken. The value sets, rules, and beliefs that are verbally stated are reinforced nonverbally. This is how children learn what is really important for a particular family. The nonverbal dimension is missed in most school learning. There is lots of verbal rhetoric in schools, but what the children are honing in on is what the teacher and their peers are doing nonverbally. Unfortunately, nothing in the setting reinforces how children can learn from each other.

Teaching children how to share in each other's learning processes is just not done in the school curriculum. This lack is directly related to the teacher as "the" authority figure in the classroom.

I believe that human beings have the capacity to intervene in their own behavior in order to change it. The question for me is, at what point can the intervention be made? For a variety of reasons, some very personal, I have been drawn to the literature of the Holocaust. The central theme is, that it was possible for a people who seemed to be totally devastated to regain their feet and reassert their dignity. I am still trying to understand what made that possible. How could they have intervened at all in the face of such overwhelming annihilation? While I am still drawing conclusions from that event, I find encouragement from what the Jews did to intervene in their own destiny.

I believe that as children we learn to be dependent on our parents who are both physically and psychologically more powerful. This kind of dependency often leads to feelings of impotency. But I fundamentally believe that by teaching children and adults how to learn, it is possible that they will be empowered to change or intervene in their own behalf. This kind of teaching and learning can be done very early, both in homes and in schools. But to do so requires having people become more aware of the total human experience.

I recognize that there are various definitions of authority. I also recognize that both children and adults are very dependent at different developmental stages. What I'm cautioning about is the kind of dependency fostered in schools that prevents learners from moving towards independent thinking. School-fostered dependency goes on much longer than it needs to.

An important thing for us to do, therefore, is to get at what our core values, beliefs, attitudes and skills are. This will give us a sense of our own self-authority as opposed to only imitating others. What we need to do is to become more aware of who we really are. And this process requires considerable self-assessment.

Self-assessment is an ongoing process that cannot be avoided. For example, it comes during problematic dreams. Unfortunately, most of us choose to discount the value of dreams and, therefore, discount an important source of self-learning. Learning is always taking place whether or not we are on top of it at any given moment. Usually we must learn to be retrospective about our learning and ask ourselves, "What did I learn then?" or stating "I learned..." We humans have so many ways to learn including psychic, spiritual, and sensory motor possibilities. When we free ourselves from the rigidities of our past learning systems we can then look for more positive, more constructive, and more visionary ways to manage our world. These possibilities may be frightening to some people, but I am reminded that being scared and being excited are the same physiologically. We must help people learn to play up the excitement aspects of their fears, enabling them to know about themselves and making them willing to listen to the rest of the world.

Accepting the Future with Grace and Optimism

Louis Rubin

I'm currently interested in two things. One is in what can be done by way of formal, public education to facilitate a more orderly transition into the inevitable future. A second interest is, what can be done on a personal basis to help people accept the inevitable future with as much grace and optimism as possible.

One of the issues that interests me has to do with what Jacob Getzells calls the distinction between problem finding and problem solving. The distinction is this: knowing the right question to ask. If the right question is asked, useful answers will be found. But if the wrong question is asked, then even if "good" answers are found one does not get very far. We could have some kind of curriculum in public schools to help children identify what the problems are and where to find them. That would help them to know which battles are worth undertaking both in their personal lives and in their collective lives.

Another issue is associated with the probable variations in the time, delivery, and location of learning. It seems entirely feasible, for example, that a good deal of learning will be dispensed by corporations both because it will serve their interests, and because it will be demanded by the population. Even now, corporations are involved in many such learning programs: stress management training for their employees being one example. Business does this because they are both concerned about the stress level of their employees and because someone who is emotionally distressed is not going to do well for the corporation. It does not make any difference whether the problem is at home, or at the workplace--if the employee is having psychological problems, the corporation thinks its money is well spent by making their employees healthy again. Because of rising expectations, individuals will turn increasingly to the workplace as the source of all "goodies." And business, in a kind of reverse ethos, will be concerned about servicing these needs. One of these needs will be for education.

A third area of concern to me is centered around lifelong education. In the next twenty years, lifelong education is much more likely to become a reality because we are becoming enormous consumers of information. It now takes an avalanche of information simply to cope with life. The whole system seems rigged so that we must rely upon specialists to translate this information for us. And so we will see a consumer hunger for information to be dispensed in a variety of ways. A good deal of that information will be educational. One current example is in the area of health consciousness. It has to do in part with new discoveries about vitamins, it has to do with large numbers of people living much longer lives, and it has to do with the traditional concern about maintaining and preserving youth. This heightened awareness is reflected in better health habits and consequently in all kinds of information on health-enhancing subjects. The amount of money that has been made by publishing companies selling self-help books in the area of health is little short of mind-boggling.

The fourth set of my concerns has to do with the large numbers of people in our society who are intensely dedicated to the preservation of the status quo--some examples being the male chauvinists, and those drivers of gas-guzzling automobiles among us. We will find great problems with respect to those people who are resistant to, or who lack a receptivity to change. It will require a certain amount of strategic effort on the part of visionary people to mount a very skillful communications campaign designed to ready the non-willing consumers of the future. They are not going to change automatically, or willingly, or easily. Such a campaign must be designed to change mind-sets and attitudes. Much would be gained by such an effort because there would be some people who are very slow to accept new kinds of shifts and who will drag down the enterprise.

We can be certain that the public schools will be resistant to change. Public education is a very large business that performs at least four very significant functions for society. However, only one of these functions has to do with education.

First of all, public education is probably the largest single business in the economy. If we were to close the nation's schools it would devastate the economy. Second, the schools offer a very essential custodial service. The public likes school because it allows them to keep the children in a fairly safe, sanitary, hygienic place. If the schools were taken away from the public, they would immediately invent some other place to take care of their children. Third, the schools in our culture are a sorting maching, controlling access to desireable vocations. In our society, one cannot become a doctor, lawyer, dentist, or corporation president unless one has survived the educational system. If a student is kicked-out or opts-out of school, he will not make it in our society. So the system is rigged so that large numbers of children, especially from the minorities and the poor, drop out of school. This assures that there will always be a large supply of menial labor which is essential to the maintenance of the social system. Or, to put it another way, there is no way on earth that a social system, such as ours, would permit everyone to attain their true learning potential. If everyone did, there would be no bottle washers, or window washers. In society as we know it, there must be some kind of stratified system. A ditch-digger and a surgeon may be equal in the eyes of God, but everyone on earth knows the difference. And finally, the fourth function of education is education. Teaching does go on in the schools. Sometimes it is good, and sometimes it is bad.

One of my concerns is that if you continue to make more and more learning accessible and possible it will badly mess up the social system because one of the functions of learning is to increase expectations. Education alerts people to what is better, and when they know what is better they are no longer willing to be put down and constrained. More assessable education would work if you could change people's attitudes. The larger problem is, however, that in anticipation of the future, people will need to change their values, their attitudes, their convictions and their beliefs. That's a perfectly straightforward, simple statement. Now the question is, since they must do this, will they do it easily, or with difficulty? If they have difficulty changing, then that will be very good for the mental health business. The more problems people have, the more money the government is going to put into mental health, because a lot of poeple will become very distressed.

The question is: Does the society have an obligation to initiate activities which facilitate the capacity of people to make the inevitable adjustments to change? You can take two positions: you can take the Skinnerian position, which is simply "screw 'em--just make the changes, and they will adjust. That's the simple, most efficient way." Or, the other way, which is a democratic learning process that says, "Give people some opportunity to look forward, to anticipate and help recognize that they aren't going to lose that much." If we can't do that, society will continue to reject many good ideas and our transition into the inevitable future will lack grace and optimism.

Adult Learning Potential: An Unchallenged Assumption

Nina Selz

In order to think about the future I believe it is necessary to have a discipline of thought. The scenarios on the future of adult learning potential and development that were submitted prior to this meeting came from old places. They were part of the way in which we are trained to be linear thinkers. Although we are a high caliber group, the starting point of our discussion today was the past and the present. That is the way we proceed because that is the way we are taught. It is the function to our training in linear, analytical thinking. I believe we must learn to think in leaps in order to make projections on the future.

Another problem present in our discussion has been the assumption that all adults--or at least a large portion of them--want to learn or are capable of learning. People are not necessarily curious, nor do they necessarily want to think. So, it seems very naive to assume that 100 percent of the adult population wants to learn or is capable of learning. As an observer-commentator I believe that a large portion of the adult population believes that learning is sissy business--something that children do. The whole idea of retraining and recycling workers will not happen simply because adults want to learn. It will happen because changes are occurring so rapidly that adults are being forced to retrain in order to survive. To illustrate, even two years ago many people had the choice of going back to school and learning a new skill. Today they do not have that choice--because of economic conditions. They are being forced to retrain in order to pay the rent and to feed the children. Thus, the motivation for adult learning, for most, is purely economic.

Insofar as what we are calling "adult learning potential," I think it is impossible to talk about it unless we understand that potential is an estimation. As it is being discussed, human potential is not an individual matter. It is, instead, being discussed as a generic capacity.

We seem to be saying that it is a capacity that is inherent in the human race. Human potential is being talked about as being "vast" and "undeveloped." For example, someone said that "We are using only 10 percent of our potential." I do not know where that figure came from. Moreover, the idea of potential means that the human brain holds latent capacity which is not only innate but unused as well. Without evidence that it exists, the term "human potential" does not have much power. Rather it seems to be an unchallenged assumption or opinion. We have always assumed it existed because we read about it somewhere. It is, at best, an estimation of a possible capacity because we have not yet learned to think in terms that will do more than make it an indefinite estimate.

We often base our perceptions and ideation on estimates. For example, I have been trying to listen between the lines of what is being said today, and I have done this so that I would not overload by trying to pay attention to everything. As a result, I do not feel--as some have said they feel--that there has been too much to listen to, nor flush through, nor pay attention to. That is an estimation. And I think that is what we are saying when we refer to "using potential" or "developing potential." We are estimating the unknown. We are assuming we could do more, or listen to more, or accomplish more.

N.S.*: I have prepared several questions that I am going to ask you. Both the questions and the answers may help us see where we are in our perception or ideation of human learning potential. First, just a show of hands. How many of you believe in this thing called potential?

(Show of hands).

N.S.: How many of you are undecided?

(No hands raised).

N.S.: So, the no show of hands means what?

(Laughter and individual comments to each other).

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*N.S. is Nina Selz.

N.S.: The majority response here had to do with "yes." So, the next question is, on a percentage basis, how much of your adult potential have you, individually, used in your lifetime?

Examples of responses:
- *"0 percent."*
- *"100 percent"*
- *"I don't know what my potential is--maybe zero."*
- *"Well, with any luck, and the intervention of the Lord, I'd say someplace between 25 and 95 percent."*

N.S.: The next question is: How much of your potential do you think you will develop in your lifetime?

Examples of responses:
- *"Maybe we're like Bette Midler. When she was asked to respond on a one to ten scale she chose fifteen."*
- *"Deciding what percentage of what I don't know I'll develop is an unreal question for me. I hope, another 100 percent."*

N.S.: The next question is: What is a recent learning experience that you have had--something you've recently learned, whether it is a project or experience?

Examples of responses:
- *"I learned to beat the machines at a casino by developing a winner's attitude..."*
- *"I learned that I am still carrying messages with me from early childhood..."*
- *"I learned that tall Texans cannot backpack successfully because they fall backwards..."*
- *"My learning experience involved a new approach to what I call creative conflict."*

N.S.: This question has to do with something that's both potential and learning--I'm not quite sure how it fits in between. What is something we cannot learn--something we just can't conceive of learning?

Examples of responses:
- *"...if it is quantitative, maybe how to comprehend the universe."*
- *"We can't learn about beginnings and endings."*
- *"Can we discuss what we can't possibly know?"*

N.S.: Question: If you individually, or we collectively, could change one thing, what would you want most to change?

Examples of responses:
- *"The portion of body fat that is directly affected by the numbers of calories that you take in."*
- *"The ingrained human propensity towards pessimism."*
- *"Responding to conflict with violence."*

N.S.: The last question *(which refers to the beginning statement in her written scenario on the future, "I was born the year Freud died")*, is: Does everybody know the year Freud died? *(Then, answering her own question)*, He died in 1939. I'm finished. *(Meaning with her presentation)*.

Voices (still mulling over a previous question).
-"I'm not sure I'd change anything."
-"You wouldn't?"
-"That would be my next question--what would you not want to change?..."

The Disciplines of the "New" Models of Learning

Warren Ziegler

In modern, industrial, and post-industrial societies learning is the quintessential political act. This was not always true, but it is today. This fact has made me realize how desperately our society needs a new paradigm for human learning--the old models of learning no longer serve us well, (if they ever did).

Over the years I have been working on "new" models of adult learning. Some of the characteristics of what may be called fully human learning need iteration. Fully human learning is a kind that we only engage in in some proximate fashion. It can be distinguished from all other kinds of learning including most academic learning.

The learning I am talking about has a set of disciplines that are both processes and products. These disciplines include the disciplines of listening, imagining, feeling, critical reasoning, a futures perspective, and ownership.

The new learning involves a kind of listening that has both inner and outer dimensions. In pre-literate societies with an oral tradition, people develop their listening skills to a high degree. From my reading about the Plains Indians and from my personal observations in Africa or pre-literate groups, I would say that they are distinguished by their listening competencies. On the other hand, our society has forgotten how to listen. Since we are not taught how to, we have not developed the skill either to listen to other people, or to listen to ourselves. To attain the kind of higher level learning potential that each of us has, requires developing the disciplines of listening.

The discipline of imagining is another discipline attached to fully human learning. Like listening, we all imagine. It is accessible to everybody. But since it is accessible to everybody, the imaginative capacity has been denigrated and delegitimatized. Consequently, we have forgotten a whole range of competencies associated with imagining. These competencies are also characteristic of the new model of learning.

Feelings constitute a third discipline of the new learning. Learning includes, but is more important than a merely cognitive act. Learning is also a feeling act. One of the competencies of feeling is that one does not have to give an accounting for one's feelings. Therefore, we would ask ourselves, what do we do with our own feelings and with the feelings of others? We do this in a way that says we do not have to account for our feelings. That is a way of talking about trust and vulnerability in our relationships.

With few exceptions, the foregoing three disciplines are not taught, legitimated, or celebrated in the analytical, linear mental life of our society.

A fourth discipline of the "new" learning is critical reasoning. It is a disservice when we say to persons, "You have the right to your opinion about anything, and you have no obligation or responsibility to think critically about it." For fifty years or so, critical reasoning has been mixed up with the distribution of power. The elite, who have the power, have also been trained in critical reasoning. As we redistribute power, we want to make sure that those receiving power are enabled to reason critically. Unfortunately the opposite seems to be occurring--the new groups do not know how to reason critically. One consequence of this is that they will not be able to hold on to their power very long.

The fifth discipline associated with the "new" learning is what might be called a futures perspective, that is the willingness and competence to look at both the good and the bad consequences of our learning. This is an extraordinarily difficult discipline to learn. Most of us don't do it very well. For example, I don't think that college graduates who work for the State Department have any greater capacity to look at the consequences of their actions than

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say an equal number of construction workers.

Finally, there is the discipline of ownership. Ownership has generally meant, "what is mine is not yours without my permission." The ownership I'm talking about means that you are prepared to share and to be accountable. The "new" learning is one in which people are enabled to become clear about the consequences of their learning and to always be able to intervene in one's own experience to change it. Human beings learn in order to change their human condition. It is always appropriate to ask a human being, "why do you learn?." The consequential nature of human learning is crucial because it distinguishes our learning from that of all other life. When we say to someone, for example, who has not had much formal schooling, that they have been learning in a number of different and valuable ways, we are raising their consciousness, as Harry Stack Sullivan would say, to what they are doing in a way in which they can reflect on it and can do something about it, if they choose to do so.

This brings us to the point that learning is always deliberate. The matter of choice, of intentionability, of deliberateness is absolutely essential to the understanding of the "new" learning. This means that the choice, or intentaion must be in the hands of the learner and not in someone else's hands. That is why learning is the most radical political act in which human beings can engage because the choice to learn must be that of the learner. Therefore, the most powerful research would be to examine our social institutions and ask, what are the characteristics of the culture of non-learning and anti-learning? What things are not permitted to be learned? And who will not permit them to be learned?

Among all the phenomena of human activities, the largest number of them in any society are in the culture of non-learning. That is what is meant by social control, social maintenance, and cultural perpetuation.

Another strategy of social control is the deliberate perpetuation of falsehood through education. It is a strategy which recognizes the phenomenon of false consciousness, which makes people feel happy about a situation about which they should not feel happy. Imagine that a large number of persons are living in a home, managing it eighteen hours a day and feeling happy about their circumstances. If that is the case, then by what right does anybody intervene to ask them how they feel about their lives? If there is a right, it is the right that has to do with what we understand human learning to be--any time we say of any phenomena, including our own most intimate human experiences, that you may not ask questions about who you are and what you are doing that's a denial of being human.

In the culture of non-learning, the underside is the inter-psychic inhibitors to learning that are the internal components of the external culture. People get very powerfully trained into inhibiting their learning. This is where the listening, imagining, feeling, disciplines of fully human learning become most important. By learning to listen to self, with our inner eyes and ears; by learning to imagine alternative states of affairs; by learning to acknowledge feelings, and by having the discipline to critically reason about these disciplines, we can reduce the inhibitors to learning both internally and externally.

III

SUMMARY: KALEIDOSCOPE ON THE FUTURE

Random Selection of Ideas Expressed During the Course of the Symposium

-It is very important to attach new construction and new conceptions, new notions, from a variety of vantage points, not in an effort to demolish them or to shock, but rather because every idea profits from an attack.

-There are many different views as to what adult education consists of, and what adult learning is and how it takes place. Probably the ideas set forth at this symposium were more atypical than typical, and a little more analytical and innovative, certainly a great deal more lively than one would normally find. As a consequence, there is considerable food for thought on what was said. There were many ideas--little bits and pieces of things that could be incorporated into on-going movements. So, the virtue of a meeting like this is to focus attention upon possibilities and paradigms, models, ideas, notions, that can be thought about and cumulatively incorporated into on-going programs.

-There will not be as much in the way of dramatic change by the year 2000 as we might think. 1984 was the magical year. Well, it is four short years away, and there is not likely to be spectacular change in the intervening four years. The next sixteen years will probably show dramatic changes in some of the technological apparatus. There will be more reliance on computers; more extensive use of new kinds of media; but by and large schools and teachers will be more similar to today than different.

-We have a nation where we can carry computers in a suitcase and yet we still argue about back to basics. We have a vast technology which is unbelievable and we cannot agree about equality of the sexes. So here we sit, in the middle of the twentieth century, on all kinds of time bombs.

-If we want to move toward consideration of the future--what we think is going to happen, or will happen in spite of what we want to try to make happen--we are going to have to change our method of thought. We are going to have to think "future."

-Our society has undervalued adult learning and as a result we've found ourselves with many problems in the way that we've made decisions and in the way we've done our strategic planning, because the people making the choices haven't had the knowledge, haven't the preparation needed. Nor have they been given the necessary skills to make decisions properly.

-There are many things that individual educators are doing right in the present. For almost any educational problem that you can name, someone, somewhere is the country is doing a good job of solving it. Our problem is that we have not built on those individual solutions, and so they tend to remain isolated. There isn't the same kind of building on strengths that takes place, say, in the sciences, where each generation of scientists stands on the shoulders of the scientist who has gone before. While I have a great deal of good feelings about individual educators, the enterprise, education, as a whole, seems to need complete reformulation so that we can build on what we learn.

-With time we will be more successful in finding sophisticated methodologies that are at relatively low cost. This will help us understand more about learning, but we will never approach the kind of simple precision that the sciences are capable of. To that extent, education will be more of an art than a science. But much depends upon our abilities to make sense of the variables in human behavior. Human beings, unlike the stuff that science is made of, change and shift. Trying to apply scientific models to education--looking for the same kind of precision and accuracy--would be a terrible mistake.

-There is a constant, continual shift between generations, so it is impossible to be totally precise in education.

-We're still learning to use the book as a technology and it's been around for 500 years, so it is unrealistic to think that within ten years we will somehow realize the full potential of a computer or videodisc or satellite television. But I would hope we could make a start of it.

-An area that needs to be addressed is the storage and retrieval of information. It is important to reorganize human information so it is more readily accessible to those who need it. Much of what happens in libraries today is obsolete.

-A lot of what is happening with adult education is that we prepare people to exist in the world as it currently is.

-Learning includes, but is more important than a merely cognitive act.

-I see in the full range of our institutions the perpetuation of a learning system where the person is not taught to think for himself or herself. The teachings of this system must be unlearned.

-Teaching children how to share in each other's learning process is just not done in the school curriculm. This lack is directly related to the teacher as "the" authority figure in the classroom.

-This is a hard way of saying it, but there is a need to restructure the thinking of managers in industry. We deal euphemistically with what we refer to as "the new workforce," meaning a workforce that is composed of large proportions of minorities and women and long-haired young people, and pot-smokers, and what-not. Because a lot of managers are not psychologically equipped or ready to deal with this "new workforce" one task is to help them learn how to manage their business more effectively with these kinds of people as their workers.

-History is filled with examples of how small groups of people have been able to affect both positively and negatively the course of the future. Indeed, one reason that the future is so stressful and scary is that the future depends on what group decides to do what first.

-The belief should be instilled that we are not in such an impossible position that by working together toward some common goals and by learning and acting together toward those goals we could make a difference and get us out of our predicament.

-While the future may present us with some turmoil, it is no more painful than it has been in the past. Change and growth are always painful. Pain is part of the human condition. But I think we will survive/and enjoy the survival.

-Our hands are going to be full with just surviving. Lifelong learning will not be a choice. It will be a necessity. So my personal advice to us all is: "Go for it."

-It is important to realize that your physiological self as well as your cognitive and affective self participates in a learning experience. There is more and more realization that the whole person needs to be taken into account in understanding learning.

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