Appendix D

Creating Lifelong Learning Communities

A New Way of Thinking About Education

The Need for a New Way of Thinking

Perceptive observers of modern civilization have been exhorting for some time now that the nineteenth-century model of education, on which our contemporary educational enterprise is based (and seemingly frozen into) is no longer functional in a world of accelerating change. Witness:

> *Alfred North Whitehead* pointed out in 1931 that it was appropriate to define education as a process of transmitting what is known only when the time-span of major cultural change was greater than the life-span of individuals. Under this condition, what people learn in their youth will remain valid and useful for the rest of their lives. But, Whitehead proposed, "We are living in the first period in human history for which this assumption is false . . . today this time-span is considerably shorter than that of human life, and accordingly our training must prepare individuals to face a novelty of conditions." Education must, therefore, now be defined as a lifelong process of continuing inquiry. And so the most important learning of all—for both children and adults—is learning how to learn, acquiring the skills of self-directed inquiry. [Whitehead, 1931, pp. viii-xix]

Donald A. Schon proposed in 1971 in his classic work, *Beyond the Stable State*, that most of our current social institutions, including those of gover-

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* A working paper prepared for the UNESCO Institute for Education, January 1983, by Malcolm S. Knowles.

nance and education, emerged during the relatively stable state of the last century and therefore are geared to maintaining stability, but that we are now in an era of instability which requires a very different set of assumptions:

1. The loss of the stable state means that our society and all of its institutions are in *continuing* processes of transformation. We cannot expect new stable states that will endure even for our lifetimes.
2. We must learn to understand, guide, influence, and manage these transformations. We must make the capacity for understanding them integral to ourselves and our institutions.
3. We must, in other words, become adept at learning. We must become able not only to transform our institutions, in response to changing situations and requirements; we must invent and develop institutions that are "learning systems," that is to say, systems capable of bringing about their own continuing transformation.
4. The task which the loss of the stable state makes imperative, for the person, for our institutions, for our society as a whole, is to learn about learning. What is the nature of the process by which organizations, institutions, and societies transform themselves? What are the characteristics of effective learning systems? What are the forms and limits of knowledge that can operate within processes of social learning? What demands are made upon a person who engages in this kind of learning? [Schon, 1971, p. 30]

Edgar Faure and his associates on the International Commission on the Development of Education established by UNESCO, observed in 1972 that "for the first time in history, education is now engaged in preparing men for a type of society which does not yet exist." The Commission makes a number of recommendations for the reorganization of our global educational enterprise around the concept of lifelong learning. Its concluding recommendation is as follows:

> The concept of education limited in time (to "school age") and confined in space (to school buildings) must be superseded. School education must be regarded not as an end but as the fundamental component of total educational activity, which includes both institutionalized and out-of-school education. A proportion of educational activity should be deformalized and replaced by flexible, diversified models. Excessive prolongation of compulsory schooling, which is beyond certain countries' capacities, must be avoided. The extension of continual training will more than compensate for the shorter average duration of initial studies. Briefly, education must be conceived of as an existential continuum as long as life. [Faure, 1972, p. 233]

Samuel Gould, chairman of the Commission on Nontraditional Study, describes the difficulty the Commission experienced in defining this concept in 1973:

> Despite our lack of a completely suitable definition, we always seemed to sense the areas of education around which our interests centered. This community of concern was a mysterious light in the darkness, yet not at all mysterious in retrospect. Most of us agreed that nontraditional study is more an attitude than a system and thus can never be defined except tangentially. This attitude puts the student first and the institution second, concentrates more on the former's need than the latter's convenience, encourages diversity of individual opportunity rather than uniform prescription, and deemphasizes time, space, and even course requirements in favor of competence and, where applicable, performance. It has concern for the learner of any age and circumstance, for the degree aspirant as well as the person who finds sufficient reward in enriching life through constant, periodic, or occasional study. [Gould, 1973, p. xv]

Botkin, Elmandjra, and Malitza, in the classic report to the Club of Rome, *No Limits to Learning* in 1979, call for a new dimension of learning:

> Serious doubt must be raised as to whether conventional human learning processes are still adequate today. Traditionally, societies and individuals have adopted a pattern of continuous *maintenance learning* interrupted by short periods of innovation stimulated largely by the shock of external events. Maintenance learning is the acquisition of fixed outlooks, methods, and rules for dealing with known and recurring situations. It enhances our problem-solving ability for problems that are given. It is the type of learning designed to maintain an existing system or an established way of life. Maintenance learning is, and will continue to be, indispensable to the functioning and stability of every society.
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> But for long-term survival, particularly in times of turbulence, change, or discontinuity, another type of learning is even more essential. It is the type of learning that can bring change, renewal, restructuring, and problem reformulation—and which we shall call *innovative learning.* [Botkin, 1979, pp. 9-10]

This list of responsible social analysts who join in the chorus calling for a new way of thinking about education could be added to by the score, with such names as Adiscshiah, Cropley, Dave, Dumazedier, Husen, Jessup, Lengrad, Maheu, Michael, Morphet, Sarason, Shimbori, and Toffler among

them. The keynote of this chorus may well have been struck by one of the leading educational historians of our time, Lawrence A. Cremin of Columbia University, when he said at the Fall Conference of the Educators in Non-School Settings in 1981, "We may be living through a revolution in education which may be as fundamental as the original invention of the schools."

The Promise of Systems Theory

Systems theory provides us with the tools for this new way of thinking about education. Ludwig von Bertalanffy (1968), one of the pioneers in the development of systems theory, describes the concept as follows: ". . . systems theory is a broad view which far transcends technological problems and demands, a reorientation that has become necessary in science in general and in a gamut of disciplines from physics and biology to the behavioral and social sciences and to philosophy. (p. vii) . . . In one way or another, we are forced to deal with complexities, with 'wholes' or 'systems,' in all fields of knowledge. This implies a basic re-orientation in scientific thinking." (p. 5)

Hayman (1975) comments that . . . "this is not a theory in the usual scientific sense of a discrete system of assumptions, constructs, and functional relationships which explains and predicts the behavior of some particular phenomena. Systems theory is rather a set of principles, an orientation in thinking, a general body of knowledge applicable in a wide variety of circumstances. It applies in circumstances where 'wholeness' is important, and this is usually the case when dealing with the problems of education." (p. 3)

Capra (1982) makes an even broader and more contemporary case for the application of systems theory to our global situation:

> We find ourselves today in a state of profound, worldwide crisis. We can read about the various aspects of this crisis every day in the newspapers. We have an energy crisis, high inflation and unemployment, pollution and other environmental disasters, the ever-increasing threat of nuclear war, a rising wave of violence and crime, and so on.
>
> All of these threats are actually different facets of one and the same crisis—essentially a crisis of perception. We are trying to apply the concepts of an outdated world view—the mechanistic world view of Cartesian-Newtonian science—to a reality that can no longer be understood in these terms.
>
> We live in a globally interconnected world, in which biological, psychological, social, and environmental phenomena are all interdependent. To describe this world appropriately we need an ecological perspective that the Cartesian world view cannot offer.

> What we need, then, is a fundamental change in our thoughts, perceptions, and values. The beginnings of this change are already visible in all fields, and the shift from a mechanistic to a holistic conception of reality is likely to dominate the entire decade. The gravity and global extent of our crisis indicate that the current changes are likely to result in a transformation of unprecedented dimensions, a turning point for our planet as a whole. (p. 19)

Further support of the application of systems theory is given by W. G. Walker in a previous publication of the UNESCO Institute for Education (1980): "Systems theory provides a promising foundation for approaching the question of the administration of lifelong education. The extraordinarily rich and diverse institutional resources which demand co-ordinating and communicating links for their optimum utilization can be seen clearly in their interacting reality through the eyes of this theory. Although it originated in the area of engineering (Griffiths, 1964), its significance in demonstrating relationships among institutions (systems and subsystems) and directions of change is too valuable to ignore. A system is a complex of elements in mutual interaction." (p. 145)

The central thesis of this paper is that any social system (family, neighborhood, organization, agency, community, state, nation, world) can be conceptualized as a system of learning resources, and that when it is so conceptualized, one perceives the organization and delivery of educational services in a different way from the traditional view of education as a mosaic of educational programs conducted by a plethora of largely unconnected institutions. It calls for a new institutional form for education—a lifelong learning resource system or "Learning Community." I shall try to sketch out in broad strokes how I visualize how such a system can be organized and how it will operate in a community in North America.

Assumptions on Which This Model Is Based

This model of a Lifelong Learning Resources System is based on the following assumptions:

1. Learning in a world of accelerating change must be a lifelong process.
2. Learning is a process of active inquiry with the initiative residing in the learner.
3. The purpose of education is to facilitate the development of the competencies required for performance in life situations.

4. Learners are highly diverse in their experiential backgrounds, pace of learning, readiness to learn, and styles of learning; therefore, learning programs need to be highly individualized.
5. Resources for learning abound in every environment; a primary task of a learning system is to identify these resources and link learners with them effectively.
6. People who have been taught in traditional schools have on the whole been conditioned to perceive the proper role of learners as being dependent on teachers to make decisions for them as to what should be learned, how it should be learned, when it should be learned, and if it has been learned; they therefore need to be helped to make the transition to becoming self-directed learners.
7. Learning (even self-directed learning) is enhanced by interaction with other learners.
8. Learning is more efficient if guided by a process structure (e.g., learning plan) than by a content structure (e.g., course outline).

Steps in Creating a Lifelong Learning Resource System

1. Identifying all the learning resources in a community. By using community survey techniques (see Knowles, 1980, pp. 106-118), information can be assembled regarding the wide variety of learning resources available in every community, including the following:
   a. Institutions: educational, religious, health and social service agencies, governmental agencies, libraries, etc.
   b. Voluntary organizations: labor unions, consumer and producer cooperatives, civic and fraternal societies, agricultural organizations, youth organizations, political organizations, professional societies, etc.
   c. Economic enterprises: business and industrial firms, farms, markets, trades, etc.
   d. The media.
   e. Episodic events: fairs, celebrations, exhibits, trips, rituals, etc.
   f. Environmental resources: parks, reserves, zoos, forests, deserts, streams, etc.
   g. People: workers, elders, specialists, families, neighbors, etc.
   h. The inner resources of the individual learner: curiosities, aspirations, past and present experiences, etc.
2. Incorporating information about these resources into a data bank. What is called for here is a new institutional form that is spreading rapidly in North America and is being called an "educational brokering agency." [See Heffernan, et al., 1976] Its function is to assemble information about the learning resources in a community, organize it according to categories, and make it available for individual learners, teachers, and counselors. This information can be stored in card files or, where available, in computers.
3. Establishing a mechanism for policy making and administration. A cardinal principle in systems theory is that all parties that have a stake in a system should be represented in its management. In the case of our Lifelong Learning Resources System, this would include representatives of the participating institutions, organizations, economic enterprises, media, and various categories of learners. The kind of "flat" administration and "adhocracy" proposed by Cropley (1980) and his associates would seem to be most appropriate for a system such as this.
4. Designing a lifelong learning process. As Capra (1982, p. 23) puts it, "Systems thinking is process thinking; form becomes associated with process, interrelation with interaction, and opposites are unified through oscillation . . . The systems view is an ecological view. Like the view of modern physics, it emphasizes the interrelatedness and interdependence of all phenomena and the dynamic nature of living systems. All structure is seen as a manifestation of underlying processes, and living systems are described in terms of patterns of organization." My vision of a *process design* for a Lifelong Learning Resource System is described here.

Process Design for a Lifelong Learning Resource System

This model proposes that the process of lifelong learning consists of individuals engaging in a series (or, perhaps even better, spirals) of learning projects involving these elements: (1) a broadening and deepening of the skills of self-directed inquiry; (2) the diagnosis of learning needs (or, perhaps even better, competency-development needs); (3) translation of these needs into learning objectives; (4) identification of human and material resources, including guided experiences, for accomplishing the objectives; (5) designing of a plan of strategies for using these resources; (6) executing the plan; and (7) evaluating the extent to which the objectives have been accomplished. Let me follow an individual learner through this process:

1. The individual enters one of the centers of the system (and I visualize that there would be a main center with satellite centers within walking distance of every citizen) and is referred to a learning skill assessment

laboratory. Here an assessment would be made of the individual's current level of skill in planning and carrying out a self-directed learning project (see Exhibit D-1). Skill-development exercises would be provided to help the individual move to a higher level of ability in self-directed learning.

2. The individual would then be referred to an educational diagnostician. This person would have access to a set of models of the competencies for performing the various life roles (see Exhibit D-2).

Exhibit D-1
The Skills of Self-Directed Learning

On the assumption that the primary purpose of schooling is to help individuals develop the skills of learning, the ultimate behavioral objective of schooling is: "The individual engages efficiently in collaborative self-directed inquiry in self-actualizing directions." I believe that these skills of learning include at least the following:

1. The ability to develop and be in touch with curiosities. Perhaps another way to describe this skill would be "the ability to engage in divergent thinking."
2. The ability to perceive one's self objectively and accept feedback about one's performance nondefensively.
3. The ability to diagnose one's learning needs in the light of models of competencies required for performing life roles.
4. The ability to formulate learning objectives in terms that describe performance outcomes.
5. The ability to identify human, material, and experiential resources for accomplishing various kinds of learning objectives.
6. The ability to design a plan of strategies for making use of appropriate learning resources effectively.
7. The ability to carry out a learning plan systematically and sequentially. This skill is the beginning of the ability to engage in convergent thinking.
8. The ability to collect evidence of the accomplishment of learning objectives and have it validated through performance.

The diagnostician and learner would determine which life role, at what level of performance, is appropriate for the learner's next stage of development. The diagnostician would then engage with the learner in a set of performance assessments to determine what knowledge, understandings, skills, attitudes, and values the learner needs to acquire in order to achieve the level of performance specified by the competency model. Much of this process can be accomplished through group activity in conjunction with self-administered assessment modules. Each learner would leave the diagnostician with a profile of diagnosed learning needs.

3. The individual would next be referred to an educational planning consultant. This person would have immediate access to the data bank of learning resources and would work with the individual learner (again, often in groups) in designing a learning plan (currently often called a "learning contract") that would specify: (a) the learning objectives translated from the diagnosed needs; (b) the resources which the learner would utilize in accomplishing each objective; (c) perhaps a time frame for completing each objective; (d) specification of the evidence to be collected to indicate the extent to which each objective has been accomplished; and (e) specification of the means by which the evidence will be validated (preferably through some form of performance assessment rather than information recall).
4. The learner would then go to the resources, wherever they are in the community, alone or with groups, and carry out the learning plan.
5. Upon completion of the learning plan the individual would return to a center of the system for a rediagnosis of learning needs and the development of a next level of learning plan. This is what is meant by "spirals" of learning projects. A three-year-old might start with the simplest competencies of performing the role of "friend," as described in Exhibit D-2 and then move to one of the competencies of the role of "citizen" and then to one of the competencies of the role of "learner." These roles might well be the focus for the next several years, with increasingly complex competencies for each role—particularly those of the role of "learner"—being undertaken. In early adolescence the emphasis would gradually shift to the roles of "unique self," "citizen," and "worker." In the young adult years the emphasis would be on the roles of "worker," "citizen," "family member," and "leisure-time user." In middle-adult years "worker," "family member," and "leisure-time user" might get most attention; and in later years, "leisure-time user."

Notice that there are no "teachers" in this system. There are educational diagnosticians, educational planning consultants, and resource

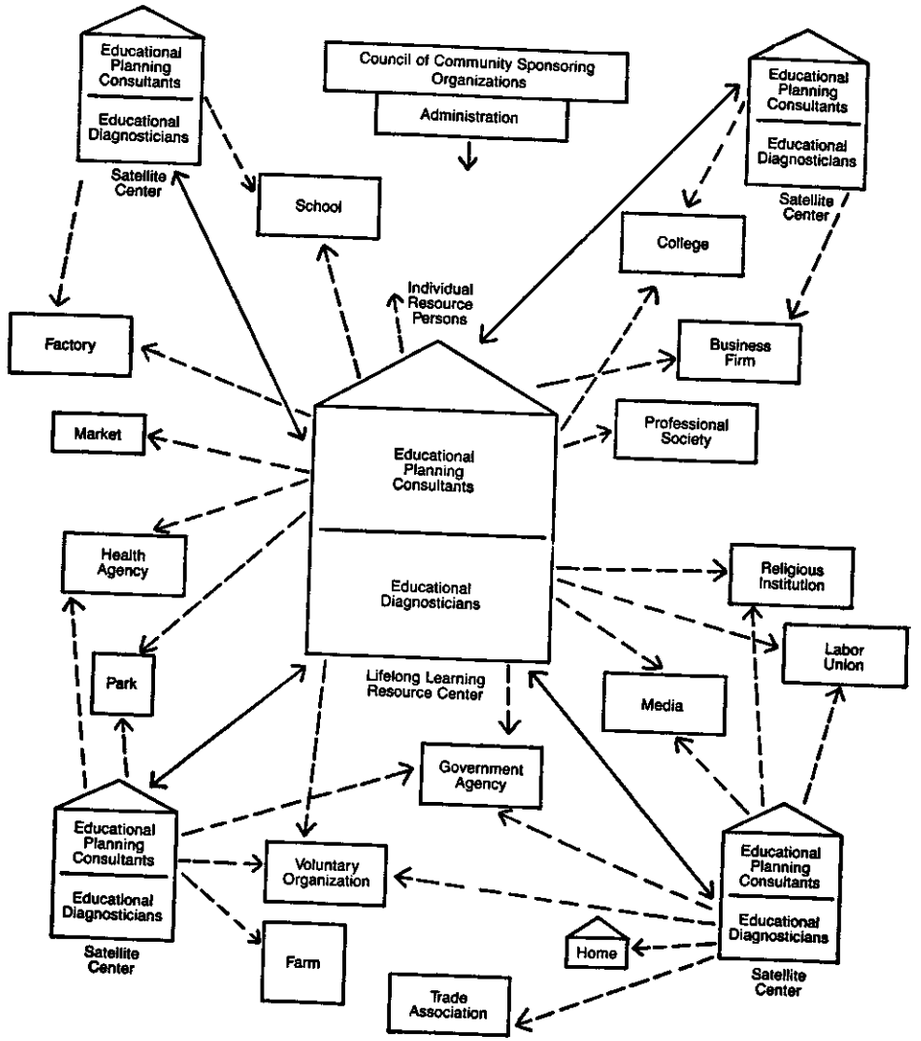
Exhibit D-2
Competencies for Performing Life Roles

Roles	Competencies
Learner	Reading, writing, computing, perceiving, conceptualizing, imagining, inquiring, aspiring, diagnosing, planning, getting help, evaluating
Being a self (with unique self-identity)	Self-analyzing, sensing, goal-building, objectivizing, value-clarifying, expressing, accepting, being authentic
Friend	Loving, empathizing, listening, collaborating, sharing, helping, giving constructive feedback, supporting
Citizen	Caring, participating, leading, decision-making, acting, "conscientizing," discussing, having perspective (historical and cultural), global citizen
Family member	Maintaining health, planning, managing, helping, sharing, buying, saving loving, taking responsibility
Worker	Career planning, using technical skills, accepting supervision, giving supervision, getting along with people cooperating, planning, delegating managing
Leisure-time user	Knowing resources, appreciating the arts and humanities, performing, playing, relaxing, reflecting, planning, risking.

people (and, of course, administrators or coordinators). These are roles that require a very different set of skills, attitudes, and values from those of the traditional classroom teachers, and so a process of retraining of teachers would be required to put the system into operation. The resource people would function most like teachers, in that they would be the content specialists. But they would be working with proactive rather than reactive learners, and so their content resources would be used differently from those of traditional teachers.

An attempt is made in Exhibit D-3 to portray this model of a Lifelong Learning Resource System graphically.

Exhibit D-3
A Lifelong Learning Resource System
(Learning Community)



Suggested Reading

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