



Learning For Our Times

No longer are youngsters leaving school expected never to re-enter a classroom. Today, people of all ages are learning in droves. The onus has shifted from the teacher to the adult learner. The challenge now is to learn on one's own . . .

□ If there is one attribute above all that has lifted human beings into their special place in creation, it is their capacity for learning. Of all the earth's species, only *Homo sapiens* is capable of receiving, retaining and applying ideas. Given the supreme importance of this ability, it is surprising that, until recent years, it came in for very little study. A considerable body of knowledge existed on how to *teach*, but the question of how people went about learning was largely ignored.

This is evidently because there was no perceived need to examine learning as a distinct process. In terms of formal education — as opposed to the acquisition of knowledge in everyday life — teaching and learning seemed as interdependent as the chicken and the egg. A person was taught, therefore he or she learned: that was all there was to it. The possibility that people might be willing and able to undertake the responsibility for teaching themselves never entered anybody's mind.

The notion that teaching and learning were inseparably intertwined is understandable in historical context. Until well into the early part of this century, formal education for the majority of people in the western world ended when they left primary school. Having been given a grounding in the "Three R's," they were expected to go out and learn from experience, never again to open a textbook or enter a classroom. Some went on to high school or university, but these were exceptions.

Structured learning was like having the mumps — something a great many children, but not many adults, went through.

No one 50 years ago could have imagined the current phenomenon of vast numbers of adults receiving instruction either for occupational or recreational reasons. The technological revolution had not yet made continuing training a necessity, and people past the voting age were disinclined to enter into learning projects voluntarily.

As long as education was synonymous with childhood, it was natural to neglect the learning side of the educational equation. The system of teaching pupils and then testing them on what had been taught worked passably well with the mass of children in school. Children are necessarily dependent on adults for instruction along with everything else. They generally respond predictably to rewards and punishment, especially the latter. The function of the school was to make up for their deficiencies in experience by passing on the knowledge, skills and attitudes deemed necessary for entry into the adult world.

On the theory that children went through more or less uniform stages of development in their learning ability, they were taught the "right" things at the "right" stages according to a system of grades and fixed curricula. The name for the art and science of teaching, pedagogy, defined the function neatly. It is derived from the ancient Greek words *paid* ("child") and *agogus* ("guide").

It was widely taken for granted that old-style pedagogical techniques could be applied to teaching adults as well as children and teenagers. This impression was strengthened by the fact that most adult educational institutions were originally formed to provide remedial education — to teach men and women with little or no education the things they had missed in school.

Then came World War II, when millions of men and women temporarily in uniform had to be equipped with new knowledge and skills in an urgent hurry. The requirement to turn out a continuing supply of qualified people to meet the demands of both the military and industrial machines sparked a practical interest in the ways in which adults learn best.

We know how to be taught, but we haven't learned how to learn

A number of discoveries were made in the field, notably in the efficacy of audio-visual instruction. But the greatest discovery was also the simplest. It was that, far from resenting being herded back into the classroom, adults had a positive desire to learn. "Far more people were exposed to education as part of their adult experience and are motivated to continue learning if suitable opportunities are provided," the report of a study of education in the U.S. Armed Forces stated. "The more education people have the more they are likely to want."

The wartime learning boom disposed of the traditional canard that you can't teach an old dog new tricks: adults proved themselves far more capable of learning than had been expected. What the war did *not* do, however, was change the basic approach of teaching a man or woman the way one would a child.

The service personnel were in much the same position as the children then in school. They formed a captive audience constrained to do what they were told by military discipline. For the most part, they were not self-motivated; they learned because they had to. They followed a strict syllabus laid down by the system. The regimentation of service life was not conducive to opening up the world of knowledge by oneself.

After the war, structured training became more common in large corporations. Yet it was not until the 1960s that it became obvious that technological change was making training and retraining a way of life for every working person. Receptiveness to new knowledge, and the ability to acquire it, thus became a matter of keen concern both to individuals and their employers.

At the same time, increasing leisure was creating a surge in voluntary learning. This was confirmed by the pioneering studies of adult education done by Allen Tough of the Ontario Institute for Studies in Education in the early seventies. Dr. Tough's research showed that an astonishing 80 per cent of adult Canadians undertook at least one major learning project a year.

Out of all this, it slowly became clear that a fresh look had to be taken at the methods of conveying knowledge that would take into account the differences between adults and children. The differences, it has been found, lie not so much in the natural learning process as in the reasons for learning. Children learn in a general fashion to prepare themselves for the future. Grown-ups, in the main, learn specific things which they want to know to improve themselves.

We must know how to acquire new knowledge all our lives

In his 1975 book, *Self-Directed Learning* (Association Press, New York), the well-known American adult educator Malcolm S. Knowles lamented that the distinction between *teaching* for children and *learning* for adults had still not been fully recognized. "It is a tragic fact," he wrote, "that most of us know how to be taught; we haven't learned how to learn."

Dr. Knowles justifies his use of the word "tragic" by pointing out that traditional teaching methods are out of step with adult psychological development. As a result, he says, adults do not learn either happily or well when knowledge is imposed on them from above.

He is concerned not only with adults, but with "developing adults" in the secondary school system. At the same time as teaching-oriented learning has persisted, post-secondary education has

become less structured with the advent of free-form study programs. "Students entering into these programs without having learned the skills of self-directing inquiry will experience anxiety, frustration and often failure," he writes.

As for full-fledged adults, "learning how to learn" is a simple imperative in this age of constant changes. "In a world in which the half-life of many facts (and skills) may be 10 years or less, half of what a person has acquired by the age of 20 may be obsolete by the time that person is 30," Dr. Knowles points out. "Thus, the main purpose of education must now be to develop the skills of inquiry. When a person leaves schooling he or she must not only have a foundation of knowledge acquired in the course of learning to inquire, but, more importantly, have the ability to go on acquiring new knowledge the rest of his or her life."

This goes some way towards saying that learning skills have become the most important skills a person can gain in the latter part of the 20th century. They are basic to equipping ourselves to meet the challenges that confront us as the world around us changes. But they do far more than merely enable us to adapt to the exterior environment. They also give us the power to expand our mental and spiritual horizons in any direction we choose, so that we may meet our full potential as human beings.

Dr. Knowles is the father of the concept of "andragogy," a word formed by taking the "ped" out of pedagogy and replacing it with the Greek prefix for "man" — *andra*. By giving it this name, he and his disciples hope to make the point that, if adults are to learn up to their full potential, the traditional approach will not do.

To begin with, adults have more experience than children or youths. They do not need teaching as a substitute for experience. Some see this as an impediment to learning. Experience that has been misinterpreted can cause people to become set in their ways and reject new ideas.

Proponents of andragogy take a different view, citing the educational "law of association" which states that facts, concepts and skills are best learned when they are related to facts already in the learner's possession. They liken learning to a set of building blocks; each new piece of information is added to the structure of information acquired through experience. Since most adult learning takes

the form of highly deliberate attempts to gain definite knowledge and skill, the content usually supplements what the learner already knows.

Given that each individual's experience is unique, it follows that learning based on experience cannot be delivered effectively by mass-production methods. For adult educators, this implies a shift in orientation from teaching students to helping them to learn by themselves.

"The role of the educator becomes one of supporting, rather than planning or directing, the natural energies and talents for learning possessed by so many adults," writes Professor Robert A. Luke Jr. of George Washington University. In conventional schools, the diagnosis of learning needs, planning of courses and evaluation of work are all done by the teacher. In andragogy, these are done by the learner in consultation with the "teacher" and the learner's peers.

Nearly everyone learns better in a group or a partnership

The responsibility for the success or failure of a learning project rests squarely on the learner. The educator acts as a consultant to the person who plans and executes the work. One method is to begin with consultations on the wording of a "learning contract" which spells out the objectives of the project, the learning material to be used, the steps to be taken, and a realistic timetable for its achievement. In "negotiating" the contract, the educator identifies the problems involved, clarifies the objectives, and informs the learner of the resources at his or her disposal.

The learning contract has proved a useful device in semi-formal situations such as in-house training and after-hours courses. But the fact is that the bulk of adult learning is already planned and executed by individuals acting on their own initiative — 73 per cent, according to Dr. Tough. How can a person acting alone avail him- or herself of the discipline conferred by a learning contract? If you are learning all by yourself, adult educators advise, you should make a contract with a friend or family member — keeping in mind that the ultimate contract is the one you make with yourself.

Most people are inclined to picture learning as a solitary enterprise in which you sit at a desk strewn with open books and take notes as the clock moves towards midnight. In fact, successful self-directed learners rarely go it all alone: even when no one else is learning a subject with them, they call on the help of tutors, mentors and friends. Studies show that practically everybody learns better in a group or partnership, partly because people have blank spots in their learning habits. People with different mental characteristics complement one another to produce what is called "whole brain learning" by exchanging ideas and perceptions. On the premise that two heads are better than one, people are counselled to seek at least one partner (preferably more) in any learning venture they undertake.

Self-directed learning begins with self-analysis

Still, a certain amount of home study is required for most learning projects. That being so, it is handy to be aware of some proven study techniques. For example, research has shown that it is best to skim through a book, picking up its main themes, before attempting to read it thoroughly. For some reason, people read more retentively when they have a pencil or Hi-Liter in hand. But they should guard against the urge to underline too much or take too many notes, because this leads to confusion. Underlining and note-taking should be confined to the most significant or illustrative ideas — and notes should be written in your own words to confirm that you really grasp the point.

Self-directed learning begins with self-appraisal. It has been found that people tend to favour one of four basic ways to learn. These are through feeling; analyzing; doing or experimenting; and observing. Some professional trainers give learning preference tests which identify peoples' particular "styles" with the object of making them aware of their blind spots. The object is to compensate for these gaps by consciously bringing the learner's other mental faculties into play.

An intuitive type, for instance, might rely too much on intuition at the expense of analysis; an observant type might neglect to try ideas out to see if they work in practice. In the absence of learning preference tests, prospective learners are advised to recall their past learning experiences and analyse just how they have gone about learning. If they find they consistently use one set of powers over others, they should make an effort to use the others by attacking questions and problems in a different way.

Though self-directed learning is by nature highly individualized, some general rules have emerged from observations of learning projects. The most effective learning occurs, it seems, when people acknowledge the need to learn something, then set specific objectives and realistic timetables: if the goals are vague or the deadlines unreasonable, projects are likely to be dropped.

People learn best when they move systematically from general principles to specific points; when they concentrate on one item at a time; and when they have a definite plan for using the knowledge being acquired. If a skill is concerned, practice really does make perfect. Self-promises of small rewards provide a needed incentive. The most satisfactory results are obtained when people evaluate their own work with a critical eye and ask for honest second opinions from their mentors and peers.

Self-directed learning obviously calls for self-control, but it has been found that those who are the most successful at it come to the point where they learn confidently and fairly easily. And success in "learning how to learn" apparently leads to success in other aspects of life. In a study of individuals noted for outstanding personal growth and achievement, Dr. Tough found that a distinguishing characteristic was that they spent more time on learning projects than their colleagues.

But career advancement is only a bonus attached to cultivating the ability to learn. The real pay-off comes from having the inner resources to constantly renew the joy of discovery and the glow of accomplishment throughout your life. That life might be short or long in terms of chronology. But as long as you can keep on learning, you will never know an empty day.