

## ANDRAGOGY AND TEACHING CRITICAL COMMUNICATION

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The thesis of this article is as follows. If the content of a teaching is belied by the process by which it is taught, the instructee will take the process as the truer indicator of reality -- just as one goes by nonverbals in a crossed communication when the verbal content is belied by the kinesics and paralinguistics of the delivery process. Thus the development of a discourse that facilitates critical consciousness raising on the topic of communication is a necessary but not a sufficient condition for producing critical consciousness in those taught, if the teaching method is pedagogy. For pedagogy is a process which socializes into unconscious acceptance of a hidden curriculum involving becoming a passive consumer of transmitted information (McQueen, 1984, 1-2; 7-12). A pedagogical teaching process belies the "critical" communication content taught. Passive, other-directed students do not automatically turn into active, inner-directed citizens by exchanging their status as directed subordinates in an academic bureaucracy for a similar status in a business, industrial or governmental one.

Moreover, as education is a prime instrument of socialization, it becomes institutionalized into, and thus comes to embody, the dominant values of its host culture and society. Mere provision of a critical discourse cannot liberate large numbers within the resulting system if the delivery methods of the system have to be used to convey the critical discourse. A critical discourse needs its own delivery system (which itself requires a well-articulated philosophy and methodology), and must itself be institutionalized with powerful interests to back it. The latter conditions are beginning to be met, in some sectors of society and academe, for andragogy. These developments do not, however, necessarily mean that departments of communication studies, as they are presently constituted, will provide an institutional context within which an andragogical instructional process will be fostered (Fairfield, 1977).

### CONCEPTS AND FINDINGS BASIC TO ANDRAGOGY

In what follows it will become evident that pedagogy by and large does not provide for pre-formative assessment of courses, nor for process evaluation, or responsive evaluation. Pedagogy likewise does little to draw attention to, or to accommodate to, individual differen-

ces in student learning styles, or to the exigencies of the learning cycle where cognitive and/or affective re-orientation is involved, or to different proclivities in regard to problem solving. There is little provision for student autonomy. Instead, course planning, limitation of choice on assignments and no student input into evaluation of students are the norm. Students are taught what they "ought" to know, rather than how to keep finding out what it is that they need to learn. The end result is a passive, "information consumer" mentality, generally acceptive of professional expertise (McQueen, 1984, 11 - 12).

Teaching critical communication as content via such a process contrasts the experiential learning induced by the process with the concepts presented in the content. The result is likely to be the usual dichotomy between "theory in the head" (and not practiced) and "theory in use" (and unconsciously practiced), among those taught (Argyris, 1982, chapter 5). Indeed, if the latter have been exposed to a consciousness-raising form of teaching, such as andragogy, the result is even more likely to be outright cynicism.

**Andragogy** has come into being as result of studies of how adults learn best (Cross, 1981; Smith, 1982). Developed by Malcolm Knowles (1973, 1975), it arose from a widespread dissatisfaction with the effects of pedagogy on mature learners, and is based on recent findings about adult learning processes (Knowles, 1973; 1975). The advent of the learning society has produced a technology and vested interests which require andragogy because of its greater effectiveness as a teaching method. Moreover, grass-roots self-help movements (in holistic health, self-directed career management and so on) have found andragogy suited to their needs (Naisbitt, 1982; Schon, 1983). So andragogy, and, with it, heightened awareness of the limitations of pedagogy are spreading.

The learning process is conceptualized by Kolb (1976) in the following terms (see Diagram One). One comes to sense an issue or problem; one reflects on it to attain insight; one tries to conceptualize and analyze it, then one tests one's understanding (there may be overlappings and recursiveness among these stages). People vary in their preferences for, and thus in their strengths in, these learning modes. The different modes go with predilections for different kinds of learning experiences.

Those whose strengths lie primarily in abstract conceptualization learn best from authorities who emphasize theory and analysis. Those whose forte is experimentation learn best from projects. The reflective observers like to do so in a disengaged fashion: lectures suit them. Those whose strength is in learning from experience learn best from feedback in discussions with peers when working on a problem.

People have a blend of the above strengths/learning styles. Set out in the diagram as ideal types (in capitals). The diverger's greatest strength lies in imaginative ability; the assimilator's strength is



in creating theoretical models; the converger's strength lies in the practical application of ideas, and the accomodator's strength is in getting things done.

Obviously, there will be a mixture of learning styles in any one class. Different learning styles require different types of learning experiences: lectures will not suit all. Moreover, where learning involves cognitive re-orientation (as it must, with a critical approach to communication), the learning cycle has to include phases of confusion and denial. In these stages, one requires social support from fellow learners (see Taylor, 1980; Albrecht and Adelman, 1984). Typically, students move in and out of closeness to their support group several times while going through a re-orientation process. This group interaction generally will not happen unless the teaching design fosters formation of socially supportive student groups. Formation of groups requires some structured activities and maybe group projects. Again, lectures alone will not provide for these needs.

Pedagogy tends to overemphasize sequential linear analysis and certain types of experimentation. Generally it does little to foster self-directed student learning groups -- or even expertise in brainstorming, synectics, NGT, and so on. Reflective observation is usually not thought to be teachable. At any rate, little provision is made for reflective observation in the pedagogical approach. A recent study on how effective professionals "reflect in (and on) their practice" had to devise a special discourse on the subject of "reflecting while acting", before the phenomenon became amenable to study (Schon, 1983, chapters 2 and 5). Once this had been done, however, a new type of mindscape came into view. Going with this type of mental set are skills in:

1. problem setting;
2. constructing an "as if" world to "reframe" a situation;
3. conducting a "reflective conversation" with the situation via a "repertoire of themes" and images held in "double vision" (where one part of the mind scans for goodness of fit, another part monitoring for the patterning schema's inability to account for serendipitous findings).

Effectively, this type of thinking is done in terms of pattern-matching via cases.

Pedagogy's foci, (and, still more, its intolerance for other kinds of thought processes than linear, sequential analysis) have, where reflection is concerned, blinded us to a vital component in effective practice. This is done at the expense of persons whose potential is in reflective observation.

As with learning styles, so too with problem solving styles: pedagogy ignores the differences among learners. To see what these difference amount to, see Diagram Two (Ewing, 1977). Systematic and intuitive thinkers are at the polar extremes of the axis involving

tendencies in hemispheric lateralization. The other axis involves information gathering. Its polar extremes are formed by predilections for "preceptive" and "receptive" styles. "Preceptive" here means the ability to handle incoming information in terms of a pre-formed set of assumptions against which to evaluate it. "Receptive" means having a high tolerance for cognitive dissonance, and the ability to monitor incoming information, however discrepant it may be from one's expectations. This enables one to see trends emerge as the data accumulate.

Most people have one, or at most two, preferred styles. Some typical problem solving styles are named in the diagram, and activities to which they are particularly suited are indicated. Brilliance (or the reverse!) is largely a matter of working at a job which generally throws up the type of problem that one finds easy (or difficult) to cope with. So anyone can be brilliant, or stupid, depending on the match of problem solving style to problem(s) faced. Thus "passive" problem solving -- being required to cope with a series of problems not of one's own choosing, and not suited to one's interests or aptitudes -- can be very damaging to one's self-concept (Brown, 1982). Creative problem solving, on the other hand -- solving a real problem, of one's own choosing -- is a deeply personal and passionate activity, which expands the self-concept. Given that adult learning is problem-driven, the task of matching problems to styles becomes critically important for adult learners.

Two points arise in this connection. The first is that pedagogy induces a lack of appreciation for the skill of realizing that something is problematic. Yet, this skill is basic to all the other special skills which highly successful reflective professionals have. The second point involves the role of a "community of interest", and the role of dialogue, in problem solving. To see collaboration in problem solving as "cheating" -- as pedagogy tends to see it -- is to deny the problem-solver awareness of alternative ways of seeing his or her problem. And closely defining our terms in advance of exploration of controversial or little-understood matters (that is, adopting a preceptive approach) truncates dialogue and inhibits reframing of problems. These are two practices which lead to fore-shortened, problemistic search, which is notorious for the poor solutions which follow it.

The research done into how mature self-directed learners actually learn has contributed to the development of andragogy. Once 'high learners' -- learners who are good at learning, and who do a lot of it -- were identified, it became possible to work out how best to facilitate adult learning (Tough, 1979, chapters 2 & 9 - 10). It turns out that adults tend to learn only what they feel a need to learn; they learn by doing, and they focus on realistic problems which they can relate to their experience, in an informal atmosphere involving guidance, not grades. Usually the high learners' vision of their learning needs alters during the learning process, so they will resist over-early delimitation of what their goal "should" be. (This tendency has serious implications for the "teaching by objectives" approach discus-

sed below.) Yet even the high learners appear to have little awareness of such things as learning styles and learning cycles -- pedagogy does not call attention to these things. Also, they have poor appreciation of the intricacies of choosing learning resources (including resource persons). This appear to be a consequence of the dependence on instruction induced by pedagogy.

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TABLE ONE  
A COMPARISON OF PHILOSOPHIES OF EDUCATION

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ANDRAGOGY	PEDAGOGY
Learners are mature and self-directed, bent on autonomous learning.	Learners are adolescents, dependent on expert tuition (so teaching is centered on the instructor's expertise).
Learning is problem-focused; pooling the experience of group members is important, and a Theory Y approach is most appropriate.	Learners are to instructed in a discipline. Learning is focused on prescribed content. Students experience is inadequate/irrelevant, so learning must be directed (a Theory X approach is usual).
The instructor functions as and coach or resource person the team is apt to contain stars).	A specialist expert controls (and directs the students' instruction. Students operate as independent individuals).
Simulations, cases and role plays; the workshop is the main teaching approach, combined with field experience/internships or practica.	Lectures and seminars are the instructional modes favoured, and the thesis is the sumprme test.
Feedback is rapid and continuous: process and formative evaluation is emphasized, while summative evaluation may continue after 'end' of the learning experience.	Tests usually come at the halfway and end points of the course; emphasis is on summative evaluation.
Problems: evaluating experientail learning; validating methods and materials used.	Problems: student motivation; failure to develop an aptitude for autonomous learning.

## OTHER DEVELOPMENTS WHICH HAVE ADVANCED ANDRAGOGY

Andragogy resulted out of the work discussed above. Table One indicates how andragogy differs from pedagogy (see also, Knowles, 1973, 40 - 49 & 102 - 104). A number of other developments are further increasing the effectiveness of andragogy. **These are as follows.**

Firstly, the thrust of andragogy is towards learner-centered, problem-focused experiential learning. It can, and indeed does, accommodate other forms of learning. After all, simple information gathering is best done via reading books or listening to lectures. But the greatest strength that andragogy has is probably in its workshops -- though several other types of format are also regularly employed: "institutes" and "clinics," for example (Dambeck, 1983). "Workshop" is a term that has become fuzzy through loose usage, so a definition is in order.

**The term workshop refers to a relatively short-term, intensive, problem-focused learning experience that actively involves participants in the identification and analysis of problems and in the development and evaluation of solutions. As a temporary educative system, the workshop provides people concerned with a common problem with an opportunity to come together to share their own and other's knowledge and experience and to develop and practice new capabilities under the leadership of a person who can orchestrate the process so that the limited time available is used efficiently and the desired outcomes achieved. (Sork, 1984, 5; see also Cooper and Heenan, 1980; Davis and McCallon, 1974)**

Workshops can be conducted by multi-media telecommunications, with learners all at a distance from each other (Buskey, 1984; Sork, 1984, chapter 7). By now, there is considerable expertise available in regard to the design, delivery and evaluation of such workshops, which have developed into extremely powerful procedures for facilitating learning.

Much of the increased sophistication evident in workshops is due to the use of structured activities like case studies or instructional simulation games (Argyris, 1982, chapters 2 & 3; Cooper, 1980; Parry and Reich, 1984; Leenders and Erskine, 1978; Erskine, Leenders and Mauffette-Leenders, 1981). These instructional forms are to be placed close to the centre of the two axes in Diagram One. People with different learning styles are usually able to relate well to them. Teaching by indirection, the educational philosophy underlying use of cases and games, allows considerable latitude in how learners perceive and use their learning experiences. They are also used to deepen understanding of complex issues or procedures, rather than to transmit "facts."

Cases are particularly well suited to the investigation of policy issues, a purpose for which other disciplines regularly use them. However, exploration of a related series of issues requires the development of a case program -- a series of cases progressively illustrating issues of ever greater complexity. No one individual can build such a case program: constructing and de-bugging even one case is a laborious and time-consuming business. Usually a school's faculty or a national association undertakes such program building. There is little sign of awareness of the need for a case program in the teaching of policy in communications.

From Medicine (where enormous developmental funds are available) has come a new type of simulation, which is highly appropriate for use in communication as well as in andragogy. Misleadingly termed "written simulation" though they are much more suitable for computerized use, these simulations have been shown to develop and/or test for skills in diagnosis of complex, evolving situations (see McGuire, Solomon and Bashook, 1976, chapters 1 & 2). Again, the costs, in time and effort, of developing even one of these simulations are considerable. These simulations work best in series that build from one simulation to the next. Again, there's little sign of awareness of the potential of, or the need for, such simulations, even in Schools of Journalism, where their utility would be greatest.

Thus, andragogy has added to its philosophy some powerful teaching techniques. It has also acquired a research component in "new paradigm research" (Reason and Rowan, 1981; Van Maanen, 1983; Morgan, 1983; Schwartz and Jacobs, 1979). This approach is concerned about the issue of passive problem solving. Indeed, its protagonists seem unique in their abhorrence of forcing students into "safe" thesis topics. This can happen when a quantitative analysis, such as content analysis, is prescribed because of faculty misgivings about qualitative research -- or even, on occasion, for the convenience of having student research feed into on-going faculty research (Reason and Rowan, 1981, xxiii-xxiv).

New paradigm research is also concerned about the choice of topics. These must, according to its tenets, be meaningful to the researcher, to his or her collaborators (no top down research involving research "subjects" in this paradigm), and to the larger society. The "collaborative inquiry" approach proposed by this new paradigm presents an alternative to "the bureaucratic-autocratic mode of domination implicit in much modern social science" (Wilson, 1983, 248). Moreover, this movement is concerned that the researcher should learn how she or he learns and senses problems during the research. Given its philosophy, this approach complements andragogy. It provides andragogy with a research strategy that enhances the applicability of andragogy to tertiary education.



The Achilles' heel of andragogy has been evaluation, always a bug-bear where experiential learning is concerned. The same problems have plagued many innovative instructional programs (Tough, 1982; Fairfield, 1977, chapter 6). There has been cogent and well-grounded criticism of the conventional way of evaluating courses and programs (Guba and Lincoln, 1981). The criticism holds that those for whom the course is meant should have a say in whether it will do -- then later, whether it is doing -- what its designer claims for it. Pre-formative, formative and responsive evaluation should precede summative evaluation (Guba, 1981). Possibly the idea of responsive evaluation -- of interaction, between the designer of a course and the designed-for, in achieving the desired results -- best sums up what this type of evaluation produces. This philosophy and procedure of evaluation complement the philosophy and procedure of andragogy. Responsive evaluation provides an evaluatory system that works effectively in assessing experiential learning.

Andragogy thus has its own philosophy, its teaching techniques, and its research and evaluation components. Yet, it has made few inroads into tertiary education. This is because it is ill suited to the constraints of the system of tertiary education. To advance and then survive in this system, an academic has to publish in refereed journals. This requires him or her to invest a great deal of time and energy in the kind of research deemed appropriate by the gatekeepers of such journals (see Broad and Wade, 1982; Rice, 1982; Adams, 1980; Freeman, 1983, concluding chapter). [Guba and Lincoln (1981) provide a built-in control, in their advocated research procedure: the "audit trail". This facilitates evaluation of the type of research that they recommend (pp. 112 - 123, 186 & 328.) To free this amount of time and energy, the academic has to see to it that the courses that he or she has to give fall within his or her "special areas" (these are determined by the research he or she is engaged in). Also, the courses must be designed both for economy of effort and to withstand criticism from peers and students. "Teaching By Objectives" is a method that will achieve these ends (Mager, 1962; Gronlund, 1970).

Teaching By Objectives works as follows. The instructor defines what the students need to know, what means of evaluation will dependably assess this, and how to teach so that this evaluation can be fairly applied. Then he or she designs a course that will meet these specifications. **Lectures are the preferred mode of exposition: they are an efficient method of transmitting information, and they economize on preparation and class-follow-up time.** The course work set is determined by the form of evaluation to be used. It too is designed to minimize the time required to mark it. As the instructor is certifying mastery of subject matter, there can be no question of student input into grade determination. The professor-oriented course is thus essential if the academic is to write the articles required by refereed journals.

It is very difficult to produce these articles and simultaneously to teach student-oriented courses. Such courses are very costly in time and effort, as they have to be customized to a wide variety of student needs:

- 1) Cases and simulations have to be developed, focused on course-related problems that students find meaningful.
- 2) A variety of teaching techniques will be necessary to accommodate the variety of student learning styles. Many of these techniques involve double the time lectures take to prepare, because of the contingencies that have to be planned for when teaching by indirection.
- 3) A variety of course projects (many customized to individual students) have to be designed, to meet the variety of student problem solving styles. A wide choice of projects -- and freedom for students to negotiate others -- is essential if students are to effectively have a say in how they are graded and thus gain a sense of autonomy. Student autonomy is perhaps the most crucial issue raised by andragogy. It highlights the traditional relationships of students subordination and dependence inherent in pedagogy (Boud, 1981).
- 4) Emergent course design results from formative evaluation by students of what course material is, or is not, coming across well. This means redesigning the course during term-time.
- 5) A great deal of counseling results from negotiations of projects and from formative evaluation.

An academic who provides such courses is likely to have to move into new paradigm research projects, as these complement the teaching load and style that now increasingly dominates his or her time. Such research is unlikely to prove acceptable to the gatekeepers of refereed journals. Moreover, the grades of students in student-oriented courses tend to be high because students motivation is high, because a variety of learning and problem-solving styles is accommodated, and because feedback at the frequent counseling sessions produces excellent student-instructor co-orientation. Such instruction also tends to produce students with a heightened consciousness of the cost to them of professor-oriented courses.

Thus, teaching style, research approach and grade averages (student course evaluations, too, likely) all differ from those of colleagues in ways which the latter do not appreciate. Meanwhile, this expenditure of time and energy counts for very little within the academic hierarchy. Observably, the only place where andragogy flour-

ishes is Continuing Education, which is generally looked down on by 'regular' academics (see Fales and Burge, 1984; Farquharson, 1983; and Canadian Journal of University Continuing Education for debate on this issue).

### PRESSURES FOR ANDRAGOGY

For andragogy to challenge pedagogy within academe, then, it needs groups whose interests will be served by the spread of andragogy as a teaching method. Such groups come together in areas where teaching has to be mediated by high technology and where learners have to learn how to learn while they are acquiring currently needed, but soon-to-be-outdated knowledge. In the writer's university, the Bio-Learning Centre is a good example. Elsewhere programs developed along andragogical lines have performed remarkably well. The following is a description of McMaster's deservedly famous medical program.

The M.D. program at McMaster University is in its fifth year. An important factor in the growth and development of this program has been a commitment to a central set of ideas, known as the "McMaster Philosophy." Component features include self-directed learning, problem-based learning, and small group tutorial learning. Additionally, there is an emphasis on diagnostic evaluation, on the selective use of learning resources, and on integrated learning and educational planning. Several other factors are described briefly, including educational faculty roles and the student selection process. (Neufeld and Barrows, 1982, 60)

McMaster also has another equally well-known innovative program in engineering, in which learning is based on problem solving. An exceptionally wide range of projects is provided and underdevelopment. This program is run by D. R. Woods, the editor of P-S News (Dept. of Chemical Engineering, McMaster University, Hamilton L8S 4L7). Indications are that other such programs are in the offing most in professional schools, to the best of the writer's knowledge. Besides, all campuses now have a Program for Teaching and Learning, in some form or other. The members of such programs constitute a nucleus of faculty who are informed and concerned about the issues discussed in this paper. They are a hidden resource available to those who wish to liberate their teaching from the constraints of pedagogy.

We are now in a learning society: that is, we will have to keep learning across our lifetimes to keep up with the changes. So the importance of learning how to learn is now becoming evident. As a result, awareness of such things as learning styles, learning cycles and social support has increased. Quite simply, one cannot acquire computer literacy without becoming conscious of such things. The often atrociously written manuals, the punishing early stages of the learning

curves of the series of new languages and applications programs which successively have to be mastered, and the vast pool of talent in the user groups all re-inforce such consciousness.

Besides this, the hardware needed to train people in or through "hi-tech" is expensive. Yet, the need for such training is great indeed. The logic of this situation requires that the technology be put to maximum use. Andragogically designed courses maximize use of technology by allowing students to direct their own learning, using whatever features at whatever time they wish. The work stations in -- for example -- Windsor's bio-learning lab are run fifteen hours a day, with tutors present, allowing self-directed instruction via a wide variety of learning materials and activities.

This variety of learning resources can meet the needs of a rich diversity of learning and problem solving styles. So it has become economically worth while for instructional design teams to develop complex and sophisticated learning programs, capable of being continuously modified and/or expanded, given the numbers of learners who can benefit from their products (see Fales and Burge, 1984). What these learners also have learn is how to learn effectively, and how to keep learning when they're out of school. In short, they have to learn how to learn while learning the current vision of what needs to be known.

There is now more computing power in the hands of individuals than in those of companies in North America. The pressure to keep up with these learning machines is not likely to abate. Nor will demand abate for interactive instruction with third generation user-friendly manuals which facilitate self-directed adult learning.

Pedagogy as a process trains an inability to comprehend approaches opposed to it. This inhibition develops despite the content taught, because of messages implicit in the delivery process and the context of delivery. Students have to take in masses of information, presented in a way that curtails the learning process while speeding up the transmission of information (that is, through over-reliance on lecturing). The topics prescribed for them are unfamiliar, and sometimes not particularly relevant, as they see things. They will not be able at the same time to maintain a critical posture, as this requires some familiarity with, and time to digest, the material being taken in. Hence, Freire (1971) termed this process the "banking concept" of information transfer, and saw in it the key to what he described as "the pedagogy of oppression."

Now, however, we are coming into a time when students will have to know about such things as:

- learning styles;
- problem solving styles (discovery learning is hampered without such knowledge);
- interaction needs during the learning cycle;

the need for responsive evaluation;  
the need to re-think the issue of competency training (a succession of different learning tasks and a 'straight A' record go ill together).

Currently, these are non-discussable items in most academic departments. Andragogy can provide a discourse that will facilitate their discussion, while demonstrating some of the benefits that go with an alternative mode of teaching. Once a learner's consciousness of his or her own learning needs is raised, the primacy of pedagogy is not likely to go unchallenged.

#### ANDRAGOGY AND CRITICAL COMMUNICATION TEACHING: THE PROGNOSIS

However, there is little indication that major shifts in instructional philosophy are imminent, so far as the teaching of communication is concerned. There seems little awareness among communication faculty of the changes that would be necessary. Such a conclusion holds whether one goes by the near absence of the agenda setting discussion foreshadowing such a change, or by the limited elaboration of the discourse on instructional issues, or even by the non-availability of the requisite case or simulation programs. Communication scholars are notable by their absence from Canada's (by now internationally renowned) Annual Conference on Teaching and Learning in Higher Education. Hopefully the symposium brought together by this issue of the **Canadian Journal of Communication** will do something to set a new direction by at least initiating discussion.

#### REFERENCES

NOTE: An asterisk (\*) indicates a work which is basic to the understanding of andragogy and the arousing of critical consciousness.

- Adams, V. What's in a Name? Maybe Everything, **Psychology Today**, 1980, 14 (2), 42.
- Albrecht, T. A. and M. B. Adelman. Social Support and Life Stress: New Directions for Communications Research, **Human Communication Research**, 1984, 11 (1), 3 - 32.
- Argyris, C. Reasoning, Learning and Action, Individual and Organizational. San Francisco: Jossey-Bass, 1982.
- Boud, D. (Editor). Developing Student Autonomy in Learning. London: Kegan Paul, 1981. (\*)
- Broad, W. J. and N. Wade. Science's Faulty Fraud Detectors, **Psychology Today**, 1982, 16 (11), 51 - 57.
- Brown, S. I. A Search for Problematics in Problem Solving, **Problem Solving**, 1982, 4 (7), 1 - 4. (\*)

- Buskey, J. H. Using Technology to Enhance Learning, chapter 6 in T. J. Sork (Editor). *Designing and Implementing Workshops*. San Francisco: Jossey-Bass, 1984.
- Cooper, S. and C. Heenan. *Preparing, Designing and Leading Workshops: A Humanistic Approach*. New York: Van Nostrand Reinhart, 1980.
- Cooper, W. H. Play Well Thy Part, *Training and Development Journal*, 1980, 34 (8), 64 - 68.
- Cross, K. P. *Adults as Learners: Increasing Participation and Facilitating Learning*. San Francisco: Jossey Bass, 1981.
- Davis, L. N. and E. McCallon. *Planning, Conducting and Evaluating Workshops*. Austin, Texas: Learning Concepts, 1974.
- Dombeck, M. The Theme-centered Interactional Group Model of Small Group Interaction, *Small Group Behavior*, 1983, 14 (3), 275 - 300.
- Erskine, J. A., M. R. Leenders, and L. A. Mauffette-Leenders. *Teaching With Cases*. London, Ontario: Research and Publications Division, School of Business Administration, University of Western Ontario, 1981. (\*)
- Ewing, D. M. Discovering Your Problem-solving Style, *Psychology Today*, 1977, 11 (7), 69 - 73 and 138 - 140. (\*)
- Fairfield, R. P. *Person-Centred Graduate Education*. Buffalo, New York: Prometheus Books, 1977.
- Fales, A. W. and E. J. Burge. Self-direction by Design: Self-directed Learning in Distance Course Design, *Canadian Journal of University Continuing Education*, 1984, 10 (1), 68 - 78. (\*)
- Farquharson, A. competencies for Continuing Learning in the Professions, *Canadian Journal of University Continuing Education*, 1983, 9 (2), 38 - 47.
- Freeman, D. Margaret Mead and Samoa. Cambridge, MA: Harvard University Press, 1983.
- Freire, P. *Pedagogy for the Oppressed*. New York: Herder and Herder, 1971.
- Griffin, V. Self-directed Adult Learners and Learning, in R. Herman (Editor). *The Design of Self-Directed Learning: A Handbook for Teachers and Administrators*. Revised Edition. Toronto: Ontario Institute for Studies in Education, 1982.
- Gronlund, N. E. *Stating Behavioral Objectives for Classroom Instruction*. Toronto: Macmillan, 1970.

- Guba, E. G. Criteria for Assessing the trustworthiness of Naturalistic Inquiries, *Educational Communication and Technology Journal*, 1981, 29 (2), 75 - 91.
- Guba, E. G. and Y. S. Lincoln. **Effective Evaluation: Improving the Usefulness of Evaluation Results Through Responsive and Naturalistic Approaches**. San Francisco: Jossey-Bass, 1981. (\*)
- Herman, R. **The Design of Self-Directed Learning: A Handbook for Teachers and Administrators**. Toronto: Ontario Institute for Studies in Education, 1982. (\*)
- Knowles, M. **The Adult Learner: A Neglected Species**. Houston, Texas: Gulf Publishing, 1973. (\*)
- Knowles, M. **Self-directed Learning: A Guide for Learners and Teachers**. New York: Associated Press, 1975. (\*)
- Kolb, D. A. **The Learning Style Inventory Technical Manual**. Boston: McBer and Co., 1976. (\*)
- Kolb, D. A. **Experiential Learning**. Englewood Cliffs, N.J.: Prentice-Hall, 1984. (\*)
- Leenders, M. R. and J. R. Erskine. **Case Research: The Case Writing Process**. London, Ontario: Research Division, School of Business Administration, University of Western Ontario, 1978. Second Edition. (\*)
- Mager, R. F. **Preparing Behavioral Objectives**. Belmont, CA.: Lear Sigler/Fearn Publishers, 1962.
- McGuire, C. H., L. M. Solomon, and P. G. Bashook. **Construction and Use of Written Simulations**. U.S.A. (sic): The Psychological Corporation, 1976. (\*)
- McQueen, G. **Education as a Soporific Activity: The Challenge to Peace Education in the University**, unpublished paper presented to the Third Annual Conference of the Canadian Association for the Study of Adult Education, Learned Societies Conference, University of Guelph, 1984.
- Morgan, G. (Editor). **Beyond Method: Strategies for Social Research**. Beverly Hills, CA: Sage, 1983.
- Naisbitt, J. **Megatrends: Ten New Directions Transforming Our Lives**. New York: Warner Books, 1982.

- Neufeld, V. R. and H. S. Barrows. The 'McMaster Philosophy': An Approach to Medical Education, in R. Herman (Editor). **The Design of Self-Directed Learning: A Handbook for Teachers and Administrators**. Revised Edition. Toronto: Ontario Institute for Studies in Education, 1982.
- Parry, S. B. and L. R. Reich. An Uneasy Look at Behavior Modeling. **Training and Development Journal**, 1984, 38 (3), 57 - 62.
- Reason, P. and J. Rowan (Editors). **Human Inquiry: A Sourcebook for New Paradigm Research**. Chichester, Sussex: Wiley, 1981. (\*)
- Rice, B. The Hawthorne Defect: Persistence of a Flawed Theory, **Psychology Today**, 1982, 16 (2), 70 - 74.
- Schon, D. A. **The Reflective Practitioner: New Professionals Think in Action**. New York: Basic Books, 1983.
- Schwartz, H. and J. Jacobs. **Qualitative Sociology: A Method to the Madness**. London: The Free Press, 1979.
- Smith, R. M. **Learning How to Learn: Applied Theory for Adults**. Chicago: Follett, 1982. (\*)
- Sork, T. J. (Editor). **Designing and Implementing Effective Workshops**. San Francisco: Jossey-Bass, 1984. (\*)
- Taylor, M. The Social Dimension in Adult Learning When Learning Constitutes Perspective Re-orientation, unpublished paper presented at the annual meeting of the Canadian Communication Association, Learned Societies Conference, Universite de Quebec a Montreal, Montreal, 1980.
- Tough, A. **The Adult Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning**. Second Edition. Toronto: Ontario Institute for Studies in Education, 1979. (\*)
- Tough, A. Post-secondary Applications, in R. Herman (Editor). **The Design of Self-directed Learning: A Sourcebook for Teachers and Administrators**. Revised Edition. Toronto: Ontario Institute for Studies in Education, 1982. (\*)
- Van Maanen, J. **Qualitative Methodology**. Beverly Hills, CA: Sage, 1983.
- Wilson, H. T. Anti-Method as a Counterstructure in Social Research Practice, in G. Morgan (Editor). **Beyond Method: Strategies for Social Research**. Beverly Hills, CA: Sage, 1983. (\*)