OPEN STRUCTURES FOR ADULT LEARNING

A Theoretical Base

Elizabeth Jones

Twenty years ago, my sweet, old ed-psych prof told us, "You must individualize because children are different physically, intellectually, emotionally, socially." (We copied *physically, intellectually, emotionally* and *socially* down in our notebooks; memorized P-I-E-S to help us remember the correct answer for the final exam!)

"But, Dr. Foonman," someone questioned timidly, "why don't you individualize in *this* class?"

(Sweet smile for sophomoric stupidity) "My dears, you can't do that *here*."[1]

On The Uses Of Theory

Most people learn best, I think, by beginning with experience and getting to theory later. Theory develops in order to help people understand their experience. Our schools don't usually teach us this way. Course outlines tend to come in logical sequence: first, theory; then, application.

Most contemporary teaching of adults is traditional in style; the instructor defines and "covers" the cognitive content of the class, and learners do what they are told to do. I began as this sort of college teacher, teaching as I had been taught. But before that I was a teacher of young children, and when I realized that I gave choices to the children I taught but not to the adults, and when I became concerned about those of my students whose learning styles were least like my own, then I began to experiment with other ways of teaching at the college level. What would an open classroom for adults look like? I know what it looks like for children. What are the similarities; the differences? I tried a lot of things, inventing some and borrowing freely wherever I could. Eventually, things began to come together.

It was after I had amassed a good deal of concrete experience in creating open structures for adult learning that I began to wonder whether there were existing theoretical rationales for the kinds of things I was doing. Did Piagetian theory have implications for adult learning environments? Were any humanistic psychologists concerned with educational as well as therapeutic settings? Was I, as a colleague suggested, actually using behaviorist principles to structure student behavior in my classes? The answer to each of these questions, I discovered, was yes.

Piagetian Theory

While Piaget's work has focused on children, his theory also has notable implications for adult learning, and some research and educational practice have moved in this direction.[2] It is useful, for example, for educators to examine his distinction between different kinds of knowledge.

Logical knowledge, as Piaget describes it, is acquired as the outcome of the interactions between the learner and his environment. Through active exploration of the physical world, the child acquires direct sensory experience of the things around him. Gradually, through discovering patterns and creating relationships, he constructs theories about the world and how it works.

Interaction with peers is an essential part of this process. Through arguing, sharing and criticizing, the learner finds out whether he understands the experience well enough to communicate actively about it.[3]

It is also helpful for teachers of adults to know Piaget's formulation of stages of knowing. Young children encounter the world directly through

their senses, without mediation or representation through symbols. As they mature, they are able to organize their experience symbolically. Eventually, in the formal operations stage, they are able to reason symbolically, without needing the presence of the concrete object to reinforce and check out their understanding.

While formal operations can be achieved by adolescence, this is the most variable stage in the developmental sequence, showing wide differences between individuals and within each individual in different areas of his experience.[4] A variety of research studies have shown that a large number of high school and college students are not, in fact, operating at this level.[5] To function at the formal operations level in any area, the individual needs to have worked through all the previous stages in that area of knowledge.

Faced by such students, a college instructor has two choices. The first and most common is to teach the course content by rote, as what Piaget calls *social*, as distinct from *logical*, knowledge. Social knowledge is arbitrary; it concerns the conventions of one's culture, and it is necessarily taught directly, as a set of rules and expectations. The names of things in any language are social knowledge; so are rules of etiquette. Students who are able to memorize the logically-derived knowledge in such fields as mathematics or economics or child development can probably pass the course, but they are unlikely to apply its principles to their daily lives. They don't know it at the level of action.

The second possibility is to provide for experiential learning—laboratory instruction[6]—in all areas of knowledge. The sort of traditional laboratory which takes all students through a standard series of exercises does not fall within this definition. Rather, this "laboratory" is an active-learning environment in which the teacher provides many suggestions and ideas to guide students' explorations; these take the form of choices, not a single plan for everyone. Students need many opportunities for first-hand experiences, in and out of class, which can generate their discovery of the principles of the subject being taught. They need interaction with their peers focused on these experiences. Brief lectures by the teacher serve to sum up generalizations derived from shared experiences, rather than to present content at the start. In Piaget's view, learning is necessarily an active process, and there are no shortcuts to understanding. I have found this to be true of adult learners as well.

Psychodynamic Theories

The psychodynamic view of learning has its roots in psychoanalytic theory and its contemporary expression in humanistic psychology. It emphasizes social-emotional development, motivation, and issues of psychological sickness and health.

When do people—students—grow, make changes and take risks? When do they protect themselves from involvement and resist new ideas? Maslow has described the function of growth needs and deficiency needs as motivating factors in choice-making and learning:

> Every human being has *both* sets of forces within him. One set clings to safety and defensiveness out of fear, tending to regress backward, hanging onto the past, afraid to jeopardize what he already has. The other set of forces impels him forward toward full functioning of all his capacities, toward confidence in the face of the external world.[7]

Maslow reflects Erikson's ideas about basic trust as the first stage of growth.[8] In a choice between giving up growth and giving up safety, safety will ordinarily win. Only the individual himself knows when it is safe enough, when courage outweighs fear.

Adults bring with them to college classes all their previous learning experiences and anxieties. They will grow in an environment which minimizes anxiety and maximizes the delights of growth. The teacher who offers learners "unconditional positive regard," in Rogers' words,[9] offers them a chance to redefine their potential. Self-fulfilling prophecies play an important role in education at all levels; when we treat people as if they were motivated and competent, we often find that they are. The application of psychodynamic principles to the planning of learning experiences for adults involves: (1) helping students deal with the negative impact of previous learning experiences, (2) taking into account students' current emotional needs, (3) increasing students' awareness of others' needs, and (4) increasing students' self-awareness.

Looking at oneself as a learner may be a legitimate part of any class. Talking about anxieties is safer in small groups than in the whole class; sometimes writing is safer than talking. Such sharing requires a psychologically safe space—an atmosphere characterized by acceptance, where there is no threat or ridicule, and where the teacher demonstrates qualities of warmth, empathy and respect.

A positive environment for learning also responds to students' individual needs by allowing them to move around freely in space for some portion of a class, engage actively with ideas and materials, make choices among learning options, and learn from each other in small-group discussions and group projects. Individual learners have different styles and rhythms; these must be taken into account if emotional needs are to be met.

Taking social-emotional factors seriously implies that we are willing to be there as persons in our teaching, if we are asking students to

be fully present in their learning. The most effective way I have discovered for de-fusing my own fears and negative feelings about teaching is to acknowledge them in appropriate ways: "You know, I thought that discussion would work, and it bombed. Has that ever happened to you? What do you do when your plans don't work? How could we make it better next time?" By doing this I am modeling for students, making it clear to them that teaching is a learning process, and that learning isn't always full steam ahead; there's a lot of slippage. We can turn our failures into real learning experiences if we can detach ourselves a bit from them. If that is true, then it is possible for all of us to take risks together.

Behaviorist Theory: A Tool

The theories just described present a rationale for *why* open structure may be appropriate for adult learning. What behaviorist theory offers is the *how*—a basis for designing strategies for implementing more open structures in college classrooms.

Behaviorist technology is typically used in quite a different theoretical context—one which views the learner as a *tabula rasa*, modifiable at the will of the rationally operating educational planner. I don't view myself as that rational or my students as that shape-able, and I am grateful that they are not. Teaching and learning are, for me, very much trial-and-error processes, and the errors are essential in defining the problems which keep learning lively and challenging. As my experience in teaching increases, I become increasingly accurate in predicting students' responses to things I do, but never altogether accurate. Teaching, for me, remains more an art than a science.

Artists as well as scientists need technical skills. Behaviorists have paid much more attention than other theorists to the details of how learning occurs and the strategies which can be used to facilitate learning. I find that I can use their strategies in the service of my educational goals, and that by doing so I gain more understanding of what I am doing and why.

Intrinsic and extrinsic motivation—In behaviorist theory, all behavior occurs because it is reinforced. The most obvious kind of reinforcement is that which someone provides for someone else: You give me correct answers, I'll give you an A. Sometimes this interaction is called *extrinsic motivation*. The underlying assumption is that I can't expect you to motivate yourself in this effort, so I'll motivate you.

However, tasks which have been chosen by the individual doing them will often be continued on the basis of *intrinsic motivation*. When the task itself is interesting to the doer, the rewards are built in. Some theorists[10] have presented evidence to support the view that human beings are naturally curious and stimulus-seeking, and that there is motivation inherent in doing. White calls this *competence motivation*—the need to bring about an effect by acting on an environment.

College teachers typically motivate with grades. In my experience, however, the most effective reinforcers are those which support the accomplishment of the individual's own learning goals. Initial reinforcement of such choices, to help people get started, is all that is necessary. Then the intrinsic rewards take over. While not all learning can be intrinsically motivated, much can—though we teach as if this were not true.

For example, one of the reading lists for my course in human development is comprised mostly of novels. None of the reading is required; that is, there are no penalties for not reading. Reading is reinforced positively by scheduling book discussions, by encouraging students to write their personal reactions to what they read, and by providing prompt written response to what they have to say. But it is sustained by its own immediate interest. Several students expressed delight at finding novels on a class reading list, which gave them permission to do what they wanted to do. One student said, "This course means hard work, but it's the kind of hard work I used to reward myself with only after I'd done the hard work I was supposed to do." Good novels are worth reading for their own sake. That is rarely true of textbooks; teachers who persist in assigning them usually must rely on extrinsic motivation.

Behavioral objectives—The application of behaviorist theory in education requires that the teacher choose the behavioral goals for the learners. I find it much more satisfactory to set what I call behavioral goals than to set knowledge goals. In the first place, I have no satisfactory way of measuring knowledge, since I regard tests as poor samples of what an individual knows. In the second place, unlike the behaviorists, I really am not sure what any given student should know as a result of taking my class. It depends on what he knew when he began, and where he's going. On the other hand, I am increasingly sure what behaviors are likely to promote a student's learning, wherever he is in his knowledge.

What I care about in the long run is how my students behave, rather than what they know. This is the point made by the advocates of behavioral objectives. However, most behavioral objectives are, for me, stated with far too great precision, focusing on essentially trivial behaviors. They reflect a conservative view of education—a training model, in which specific skills and obedience are emphasized. And they are stated without regard for individual differences.

Consequently, they are likely to get in the way of the evolving teaching-learning process; the teacher keeps focusing on predetermined objectives whether or not they remain relevant for the individual learner.

Instead, I establish a set of *gross behavioral objectives* based on my assumptions, derived both from my own teaching experience and from Piagetian and psychodynamic theories that learners need direct experience with the things or people being learned about, that they need to examine that experience in interaction with peers, and that they need to experience the learning environment as non-threatening. All these are behaviors in which I want students to engage, in and out of class: Come to class; participate actively in discussions; take initiative, contributing ideas and arranging to have things happen in class; read; write; observe/participate in field settings; work cooperatively with peers; get to know peers and learn from their experiences; and, make choices: choose things to do, and do them.

The behaviors with which I am concerned are those in which students engage while they are in my class, rather than those they should be able to engage in upon completing my class. Most behavioral objectives are stated in *outcome* terms: "At the end of the prescribed course of study, students will. . . ." I state mine in *process* terms, as in the list above.

I think there is a direct relationship between means and ends, and the best way to teach to outcomes is to get a process going. If a student is excited about reading while he is in my class, the chances are good that he'll continue to read. If he is working cooperatively with peers, he is gaining a base of experience to be used in future relationships with others. For me, observed behavior over time is a much better predictor of future success than scores on a test. My task as a teacher, then, becomes one of structuring a learning environment in which students will engage in these behaviors.

Summary

My experience in college teaching, supported by my understanding of Piagetian and psychodynamic theories, has led me to explore open classrooms for adults as alternatives to the traditional lecture/textbook/exam model. Adults are not necessarily formal-operating, in Piagetian terms; like younger learners, many adults need concrete experiential referents for their abstract thinking. Adults do not necessarily behave rationally in educational settings; it is important to take anxiety and motivation into account, building a climate of trust in which both teachers and students can take the risks which learning always involves.

In setting gross behavioral objectives and in seeking to tap students' intrinsic motivation, I have the aim of empowering students, of making them increasingly independent of teachers—including me.[11] I try to help them, first, to clarify what they want to do and then to develop the skills and understanding to do it well. I want them to think logically, not by rote, about the subject matter I teach; to relate it to their own real lives, and to be able to rely on accessible resources, on peers, and on their own experiences for their continuing learning.

Footnotes

[1]Wasserman, Selma. "The Open Classroom in Teacher Education, or Putting Your Money Where Your Mouth Is," in *Childhood Education*, March 1973, pp. 295-301.

[2]For example, see Milton Schwebel, "The Role of Experience in Cognitive Development," in Marie K. Poulsen, James F. Magary and Gerald I. Lubin, *Piagetian Theory and the Helping Professions*, Los Angeles: University of Southern California, 1976, pp. 1-18; Jan D. Sinott, "Everyday Thinking and Piagetian Operativity in Adults," in *Human Development*, XVIII, 1975, pp. 430-433; John W. Renner and Anton E. Lawson, "Promoting Intellectual Development through Science Teaching," in *Physics Teacher*, XI, 1973, pp. 273-276.

[3]Piaget, Jean. *To Understand Is To Invent*, New York: Grossman (Viking Press), 1973.

[4]Furth, Hans G. "Piaget, IQ, and the Nature-Nurture Controversy," in *Human Development*, XVI, 1973, pp. 61-73.

[5]Schwebel, *op. cit.*

[6]Renner and Lawson, *op. cit.*

[7]Maslow, Abraham. *Toward a Psychology of Being*, New York: Van Nostrand Reinhold, 1962, pp. 46-47.

[8]Erikson, Erik H. *Childhood and Society*, New York: Norton, 1950.

[9]Rogers, Carl. *Client-Centered Therapy*, Boston: Houghton Mifflin, 1951; and, *Freedom to Learn*, Columbus: Merrill, 1969.

[10]White, Robert. "Motivation Reconsidered: The Concept of Competence," in *Psychological Review*, LXVI, 1959, pp. 297-333; J. McVicker Hunt, *Intelligence and Experience*, New York: Ronald, 1971.

[11]A smiliar view is expressed by Ira Shor in *Critical Teaching and Everyday Life*, Boston: South End Press, 1980.

Elizabeth Jones, PhD, is a Member, Faculty in Human Development, Pacific Oaks College, Pasadena, California. She teaches children as well as adults and is interested in the continuity of education throughout the life cycle.