

Creating the Optimal Learning Environment for the Adult Learner

W. Fred Miser, M.D.

Along with the environment in which the teaching takes place, the four key interactions when teaching in a clinic setting are:

- 1) teacher and student,
- 2) teacher and patient,
- 3) student and patient, and
- 4) teacher-student-patient.

This article addresses these two questions: how do we learn best as adults; and how can we create the optimal environment for learning to occur?

The practice of medicine requires that we continue to learn and be students as we go throughout the process of discovery, analysis and collaboration with our patients. During our formal education, most of us were taught using a model of learning referred to as **pedagogy** (from the Greek *paedo*, meaning child). This model placed us in the role of a passive, dependent learner in a subject-centered curriculum, where grades were based on mastering content, and application was assumed to occur at some later date. We were spoon fed large amounts of information, usually in a superficial way, in order to "regurgitate" it back for exams and our professors.

Recent research in educational psychology has shown us that there is a better way we can learn as adults. The more satisfying and enduring model of learning is known as **androgogy** (from the Greek *andro*, meaning man). This model teaches us that adults learn best when they assume responsibility for their own education, with an emphasis on being active, rather than passive, participants in the process. The goal of adult learning is to build new knowledge, skills and attitudes in relation prior experiences and knowledge. Some key characteristics of the adult learner are:

- adults usually want to use what they learn soon after they learn it;
- adults like to solve problems and not just learn facts – learning is enhanced when the adult actively places meaning on an experience;
- adults are more motivated to learn when they help set the learning objectives;
- adults like to distinguish between relevant and irrelevant material, and filter out the irrelevant; and
- adults like to know how well they are doing, and use feedback to evaluate their own progress.

Our role as teachers then is to create an atmosphere that allows our students to assume responsibility for their learning. The optimal learning environment:

- encourages students to be active participants in their own education;
- promotes and facilitates the student's discovery of the personal meaning of ideas;

- encourages autonomy in the student;
- provides safety which acknowledges that mistakes will occur, and that we can learn from these mistakes;
- establishes respect for the student; and
- encourages candor and self-evaluation from the student.

Having students assume responsibility for their own education does not let us off the hook as teachers. We need to provide direction and challenges, based on our clinical experience, skills and knowledge to guide our students as they learn. We need to work hard at building a relationship with our students that becomes collaborative, stimulating and borne of mutual respect.

To make this practical for family physicians supervising students in the clinic setting, we must first show concern and interest in our students and be committed to their welfare. We should treat students with the same respect that we expect them to show our patients. We should encourage our students to be candid with us in terms of what they do and do not know, when they are doubtful and when they are confident, and when they need help and when they do not. We should give them permission to identify their needs and weaknesses, and provide a safe environment that allows them to come to us when they are unsure of something, and to admit when mistakes occur. We should also provide continued feedback to our students on how they are progressing.

When teaching, we need to base our instruction using our patients as cases. This allows the students to see the direct relevance of the information to be learned so they are highly motivated to learn it and more likely to remember it. There is no substitute for clinical experience. Begin with what the student already knows about the case, and then connect the case to broader concepts that they can apply to similar patients in the future. Be practical and relevant, selective and realistic, and organize the material around the case so that it becomes memorable. Encourage the student to learn one basic, applicable principle from each patient they see. For example, when seeing a child who has an earache, do not expect the student to read and learn everything about otitis media. Instead, have the student select one key area, perhaps the diagnosis, and teach clinical pearls that can be generalized and applied to future children with earaches.

Finally, our role as teachers is to capture attention, stimulate and challenge the student, and have fun. As we know, we are all learners, and we can often learn as much from our students as they can from us.

For those who wish to read more about adult learning and the learning environment, I recommend the book by Dr. Jane Vella entitled Learning to Listen, Learning to Teach: The Power of Dialogue in Educating Adults (San Francisco: Jossey-Bass Publishers, 1997).