

30 THINGS WE KNOW FOR SURE ABOUT ADULT LEARNING

By Ron and Susan Zemke
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A variety of sources provides us with a body of fairly reliable knowledge about adult learning. This knowledge might be divided into three basic divisions: things we know about adult learners and their motivation, things we know about designing curriculum for adults, and things we know about working with adults in the classroom.

Motivation to Learn

1. Adults seek out learning experiences in order to cope with specific life-changing events--e.g., marriage, divorce, a new job, a promotion, being fired, retiring, losing a loved one, moving to a new city.
2. The more life change events an adult encounters, the more likely he or she is to seek out learning opportunities. Just as stress increases as life-change events accumulate, the motivation to cope with change through engagement in a learning experience increases.
3. The learning experiences adults seek out on their own are directly related - at least in their perception - to the life-change events that triggered the seeking.
4. Adults are generally willing to engage in learning experiences before, after, or even during the actual life change event. Once convinced that the change is a certainty, adults will engage in any learning that promises to help them cope with the transition.
5. Adults who are motivated to seek out a learning experience do so primarily because they have a use for the knowledge or skill being sought. Learning is a means to an end, not an end in itself.
6. Increasing or maintaining one's sense of self-esteem and pleasure are strong secondary motivators for engaging in learning experiences.

Curriculum Design

1. Adult learners tend to be less interested in, and enthralled by, survey courses. They tend to prefer single concept, single-theory courses that focus heavily on the application of the concept to relevant problems. This tendency increases with age.
2. Adults need to be able to integrate new ideas with what they already know if they are going to keep - and use - the new information.

3. Information that conflicts sharply with what is already held to be true, and thus forces a re-evaluation of the old material, is integrated more slowly.
4. Information that has little "conceptual overlap" with what is already known is acquired slowly.
5. Fast-paced, complex or unusual learning tasks interfere with the learning of the concepts or data they are intended to teach or illustrate.
6. Adults tend to compensate for being slower in some psychomotor learning tasks by being more accurate and making fewer trial-and-error ventures.
7. Adults tend to take errors personally and are more likely to let them affect self-esteem. Therefore, they tend to apply tried-and-true solutions and take fewer risks.
8. The curriculum designer must know whether the concepts or ideas will be in concert or in conflict with the learner. Some instruction must be designed to effect a change in belief and value systems.
9. Programs need to be designed to accept viewpoints from people in different life stages and with different value "sets."
10. A concept needs to be "anchored" or explained from more than one value set and appeal to more than one developmental life stage.
11. Adults prefer self-directed and self-designed learning projects over group-learning experiences led by a professional, they select more than one medium for learning, and they desire to control pace and start/stop time.
12. Nonhuman media such as books, programmed instruction and television have become popular with adults in recent years.
13. Regardless of media, straightforward how-to is the preferred content orientation. Adults cite a need for application and how-to information as the primary motivation for beginning a learning project.
14. Self-direction does not mean isolation. Studies of self-directed learning indicate that self-directed projects involve an average of 10 other people as resources, guides, encouragers and the like. But even for the self-professed, self-directed learner, lectures and short seminars get positive ratings, especially when these events give the learner face-to-face, one-to-one access to an expert.

In the Classroom

1. The learning environment must be physically and psychologically comfortable; long lectures, periods of interminable sitting and the absence of practice opportunities rate high on the irritation scale.
2. Adults have something real to lose in a classroom situation. Self-esteem and ego are on the line when they are asked to risk trying a new behavior in front of peers and cohorts. Bad experiences in traditional education, feelings about authority and the preoccupation with events outside the classroom affect in-class experience.

3. Adults have expectations, and it is critical to take time early on to clarify and articulate all expectations before getting into content. The instructor can assume responsibility only for his or her own expectations, not for those of students.
4. Adults bring a great deal of life experience into the classroom, an invaluable asset to be acknowledged, tapped and used. Adults can learn well -and much - from dialogue with respected peers.
5. Instructors who have a tendency to hold forth rather than facilitate can hold that tendency in check--or compensate for it--by concentrating on the use of open-ended questions to draw out relevant student knowledge and experience.
6. New knowledge has to be integrated with previous knowledge; students must actively participate in the learning experience. The learner is dependent on the instructor for confirming feedback on skill practice; the instructor is dependent on the learner for feedback about curriculum and in-class performance.
7. The key to the instructor role is control. The instructor must balance the presentation of new material, debate and discussion, sharing of relevant student experiences, and the clock. Ironically, it seems that instructors are best able to establish control when they risk giving it up. When they shelve egos and stifle the tendency to be threatened by challenge to plans and methods, they gain the kind of facilitative control needed to effect adult learning.
8. The instructor has to protect minority opinion, keep disagreements civil and unheated, make connections between various opinions and ideas, and keep reminding the group of the variety of potential solutions to the problem. The instructor is less advocate than orchestrator.
9. Integration of new knowledge and skill requires transition time and focused effort on application.
10. Learning and teaching theories function better as resources than as a Rosetta stone. A skill-training task can draw much from the behavioral approach, for example, while personal growth-centered subjects seem to draw gainfully from humanistic concepts. An eclectic, rather than a single theory-based approach to developing strategies and procedures, is recommended for matching instruction to learning tasks.

The next five years will eclipse the last fifty in terms of hard data production on adult learning. For the present, we must recognize that adults want their learning to be problem-oriented, personalized and accepting of their need for self-direction and personal responsibility.

ACTIVE LEARNING

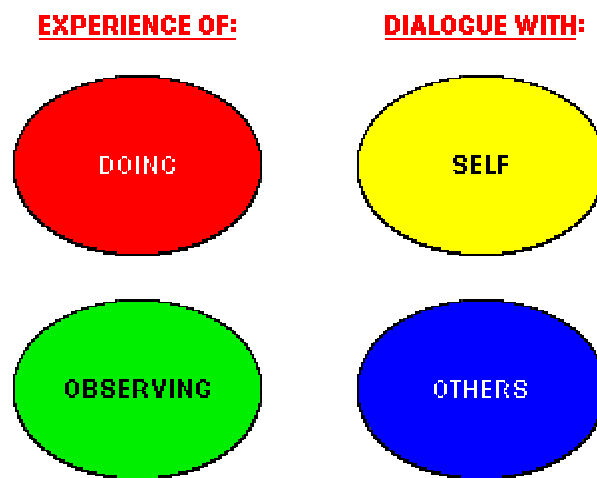
By L. Dee Fink

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Many college teachers today want to move past passive learning to active learning, to find better ways of engaging students in the learning process. But many teachers feel a need for help in imagining what to do, in or out of class, that would constitute a meaningful set of active learning activities.

The model below offers a way of conceptualizing the learning process in a way that may assist teachers in identifying meaningful forms of active learning.

A Model of Active Learning



Explanation of the Components

This model suggests that all learning activities involve some kind of experience or some kind of dialogue. The two main kinds of dialogue are "Dialogue with Self" and "Dialogue with Others." The two main kinds of experience are "Observing" and "Doing."

Dialogue with Self:

This is what happens when a learner thinks reflectively about a topic, i.e., they ask themselves what they think or should think, what they feel about the topic, etc. This is "thinking about my own thinking," but it addresses a broader array of questions than just cognitive concerns. A teacher can ask students, on a small scale, to keep a journal for a course, or, on a larger scale, to develop a learning portfolio. In either case, students could write about *what* they are learning, *how* they are learning, what role this knowledge or learning plays in their own life, how this makes them *feel*, etc.

Dialogue with Others:

This can and does come in many forms. In traditional teaching, when students read a textbook or listen to a lecture, they are "listening to" another

person (teacher, book author). This can perhaps be viewed as "partial dialogue" but it is limited because there is no back-and-forth exchange. A much more dynamic and active form of dialogue occurs when a teacher creates an intense small group discussion on a topic. Sometimes teachers can also find creative ways to involve students in dialogue situations with people other than students (e.g., practitioners, experts), either in class or outside of class. Whoever the dialogue is with, it might be done live, in writing, or by email.

Observing:

This occurs whenever a learner watches or listens to someone else "Doing" something that is related to what they are learning about. This might be such things as observing one's teacher do something (e.g., "This is how I critique a novel."), listening to other professionals perform (e.g., musicians), or observing the phenomena being studied (natural, social, or cultural). The act of observing may be "direct" or "vicarious." A direct observation means the learner is observing the real action, directly; a vicarious observation is observing a simulation of the real action. For example, a direct observation of poverty might be for the learner to actually go to where low income people are living and working, and spend some time observing life there. A vicarious or indirect observation of the same topic might be to watch a movie involving poor people or to read stories written by or about them.

Doing:

This refers to any learning activity where the learner actually does something: design a reservoir dam (engineering), conduct a high school band (music education), design and/or conduct an experiment (natural and social sciences), critique an argument or piece of writing (the humanities), investigate local historical resources(history), make an oral presentation (communication), etc.

Again, "Doing" may be direct or vicarious. Case studies, role-playing and simulation activities offer ways of vicariously engaging students in the "Doing" process. To take one example mentioned above, if one is trying to learn how to conduct a high school band, direct "Doing" would be to actually go to a high school and direct the students there. A vicarious "Doing" for the same purpose would be to simulate this by having the student conduct a band composed of fellow college students who were acting like (i.e., role playing) high school students. Or, in business courses, doing case studies is, in essence, a simulation of the decision making process that many courses are aimed at teaching.

Implementing This Model of Active Learning

So, what can a teacher do who wants to use this model to incorporate more active learning into his/her teaching? I would recommend the following three suggestions, each of which involves a more advanced use of active learning.

1. **Expand the Kinds of Learning Experiences You Create.**

The most traditional teaching consists of little more than having students read a text and listen to a lecture, a very limited and limiting form of Dialogue with Others. Consider using more dynamic forms of Dialogue with Others and the other three modes of learning. For example:

- Create small groups of students and have them make a decision or answer a focused question periodically,
- Find ways for students to engage in authentic dialogue with people other than fellow classmates who know something about the subject (on the web, by email, or live),
- Have students keep a journal or build a "learning portfolio" about their own thoughts, learning, feelings, etc.,
- Find ways of helping students observe (directly or vicariously) the subject or action they are trying to learn, and/or
- Find ways to allow students to actually do (directly, or vicariously with case studies, simulation or role play) that which they need to learn to do.

2. **Take Advantage of the "Power of Interaction."**

Each of the four modes of learning has its own value, and just using more of them should add variety and thereby be more interesting for the learner. However, when properly connected, the various learning activities can have an impact that is more than additive or cumulative; they can be **interactive** and thereby multiply the educational impact.

For example, if students write their own thoughts on a topic (Dialogue with Self) *before* they engage in small group discussion (Dialogue with Others), the group discussion should be richer and more engaging. If they can do both of these and then observe the phenomena or action (Observation), the observation should be richer and again more engaging. Then, if this is followed by having the students engage in the action itself (Doing), they will have a better sense of what they need to do and what they need to learn during doing. Finally if, after Doing, the learners process this experience by writing about it (Dialogue with Self) and/or discussing it with others (Dialogue with Others), this will add further insight. Such a sequence of learning activities will give the teacher and learners the advantage of the Power of Interaction.

Alternatively, advocates of Problem-Based Learning would suggest

that a teacher start with "Doing" by posing a real problem for students to work on, and then having students consult with each other (Dialogue with Others) on how best to proceed in order to find a solution to the problem. The learners will likely use a variety of learning options, including Dialogue with Self and Observing.

3. **Create a Dialectic Between Experience and Dialogue.**

One refinement of the Interaction Principle described above is simply to create a dialectic between the two principle components of this Model of Active Learning: Experience and Dialogue. New experiences (whether of Doing or Observing) have the potential to give learners a new perspective on what is true (beliefs) and/or what is good (values) in the world. Dialogue (whether with Self or with Others) has the potential to help learners construct the many possible meanings of experience and the insights that come from them. A teacher who can creatively set up a dialectic of learning activities in which students move back and forth between having rich new experiences and engaging in deep, meaningful dialogue, can maximize the likelihood that the learners will experience significant and meaningful learning.

PRINCIPLES OF ADULT LEARNERS

From "Getting the Most out of Your AIDS/HIV Trainings"
East Bay AIDS Education Training Center

Adapted from: California Nurses Association, AIDS Train the Trainer Program for Health Care Providers (1988)

"Treat Learners Like Adults"

- **Adults are people with years of experience and a wealth of information.** Focus on the strengths learners bring to the classroom, not just gaps in their knowledge. Provide opportunities for dialogue within the group. Tap their experience as a major source of enrichment to the class. Remember that you, the teacher, do not need to have all the answers, as long as you know where to go or who to call to get the answers. Students can be resources to you and to each other.
- **Adults have established values, beliefs and opinions.** Demonstrate respect for differing beliefs, religions, value systems and lifestyles. Let your learners know that they are entitled to their values, beliefs and opinions, but that everyone in the room may not share their beliefs. Allow debate and challenge of ideas.
- **Adults are people whose style and pace of learning has probably changed.** Use a variety of teaching strategies such as small group problem solving and discussion. Use auditory, visual, tactile and participatory

teaching methods. Reaction time and speed of learning may be slow, but the ability to learn is not impaired by age. Most adults prefer teaching methods other than lecture.

- **Adults relate new knowledge and information to previously learned information and experiences.** Assess the specific learning needs of your audience before your class or at the beginning of the class. Present single concepts and focus on application of concepts to relevant practical situations. Summarize frequently to increase retention and recall. Material outside of the context of participants' experiences and knowledge becomes meaningless.
- **Adults are people with bodies influenced by gravity.** Plan frequent breaks, even if they are 2-minute "stretch" breaks. During a lecture, a short break every 45-60 minutes is sufficient. In more interactive teaching situations, breaks can be spaced 60-90 minutes apart.
- **Adults have pride.** Support the students as individuals. Self-esteem and ego are at risk in a classroom environment that is not perceived as safe or supportive. People will not ask questions or participate in learning if they are afraid of being put down or ridiculed. Allow people to admit confusion, ignorance, fears, biases and different opinions. Acknowledge or thank students for their responses and questions. Treat all questions and comments with respect. Avoid saying "I just covered that" when someone asks a repetitive question. Remember, the only foolish question is the unasked question.
- **Adults have a deep need to be self-directing.** Engage the students in a process of mutual inquiry. Avoid merely transmitting knowledge or expecting total agreement. Don't "spoon-feed" the participants.
- **Individual differences among people increase with age.** Take into account differences in style, time, types and pace of learning. Use auditory, visual, tactile and participatory teaching methods.
- **Adults tend to have a problem-centered orientation to learning.** Emphasize how learning can be applied in a practical setting. Use case studies, problem solving groups, and participatory activities to enhance learning. Adults generally want to immediately apply new information or skills to current problems or situations.

Note: New information and skills must be relevant and meaningful to the concerns and desires of the students. Know what the needs are of individuals in your class. Students do not wish to learn what they will never use. The learning environment must be physically and psychologically comfortable.

PRINCIPLES OF ADULT LEARNING

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Adults As Learners

Part of being an effective instructor involves understanding how adults learn best. Compared to children and teens, adults have special needs and requirements as learners. Despite the apparent truth, adult learning is a relatively new area of study. The field of adult learning was pioneered by Malcom Knowles. He identified the following characteristics of adult learners:

- Adults are *autonomous* and *self-directed*. They need to be free to direct themselves. Their teachers must actively involve adult participants in the learning process and serve as facilitators for them. Specifically, they must get participants' perspectives about what topics to cover and let them work on projects that reflect their interests. They should allow the participants to assume responsibility for presentations and group leadership. They have to be sure to act as facilitators, guiding participants to their own knowledge rather than supplying them with facts. Finally, they must show participants how the class will help them reach their goals (e.g., via a personal goals sheet).
- Adults have accumulated a foundation of *life experiences* and *knowledge* that may include work-related activities, family responsibilities, and previous education. They need to connect learning to this knowledge/experience base. To help them do so, they should draw out participants' experience and knowledge which is relevant to the topic. They must relate theories and concepts to the participants and recognize the value of experience in learning.
- Adults are *goal-oriented*. Upon enrolling in a course, they usually know what goal they want to attain. They, therefore, appreciate an educational program that is organized and has clearly defined elements. Instructors must show participants how this class will help them attain their goals. This classification of goals and course objectives must be done early in the course.
- Adults are *relevancy-oriented*. They must see a reason for learning something. Learning has to be applicable to their work or other responsibilities to be of value to them. Therefore, instructors must identify objectives for adult participants before the course begins. This means, also, that theories and concepts must be related to a setting familiar to participants. This need can be fulfilled by letting participants choose projects that reflect their own interests.
- Adults are *practical*, focusing on the aspects of a lesson most useful to them in their work. They may not be interested in knowledge for its own sake. Instructors must tell participants explicitly how the lesson will be useful to them on the job.
- As do all learners, adults need to be shown *respect*. Instructors must acknowledge the wealth of experiences that adult participants bring to the classroom. These adults should be treated as equals in experience and knowledge and allowed to voice their opinions freely in class.

Motivating the Adult Learner

Another aspect of adult learning is motivation. At least six factors serve as sources of motivation for adult learning:

- **Social relationships:** to make new friends, to meet a need for associations and friendships.
- **External expectations:** to comply with instructions from someone else; to fulfill the expectations or recommendations of someone with formal authority.
- **Social welfare:** to improve ability to serve mankind, prepare for service to the community, and improve ability to participate in community work.
- **Personal advancement:** to achieve higher status in a job, secure professional advancement, and stay abreast of competitors.
- **Escape/Stimulation:** to relieve boredom, provide a break in the routine of home or work, and provide a contrast to other exacting details of life.
- **Cognitive interest:** to learn for the sake of learning, seek knowledge for its own sake, and to satisfy an inquiring mind.

Barriers and Motivation

Unlike children and teenagers, adults have many responsibilities that they must balance against the demands of learning. Because of these responsibilities, adults have *barriers against participating in learning*. Some of these barriers include lack of time, money, confidence, or interest, lack of information about opportunities to learn, scheduling problems, "red tape," and problems with child care and transportation.

Motivation factors can also be a barrier. What motivates adult learners? Typical motivations include a requirement for competence or licensing, an expected (or realized) promotion, job enrichment, a need to maintain old skills or learn new ones, a need to adapt to job changes, or the need to learn in order to comply with company directives.

The best way to motivate adult learners is simply to *enhance* their reasons for enrolling and *decrease* the barriers. Instructors must learn why their students are enrolled (the motivators); they have to discover what is keeping them from learning. Then the instructors must plan their motivating strategies. A successful strategy includes showing adult learners the relationship between training and an expected promotion.

Learning Tips for Effective Instructors

Educators must remember that learning occurs within each individual as a continual

process throughout life. People learn at different speeds, so it is natural for them to be anxious or nervous when faced with a learning situation. Positive reinforcement by the instructor can enhance learning, as can proper timing of the instruction. Learning results from stimulation of the senses. In some people, one sense is used more than others to learn or recall information. Instructors should present materials that stimulates as many senses as possible in order to increase their chances of teaching success. There are four critical elements of learning that must be addressed to ensure that participants learn. These elements are

1. **motivation**
2. **reinforcement**
3. **retention**
4. **transference**

Motivation. If the participant does not recognize the need for the information (or has been offended or intimidated), all of the instructor's effort to assist the participant to learn will be in vain. The instructor must establish rapport with participants and prepare them for learning; this provides motivation. Instructors can motivate students via several means:

- **Set a feeling or tone for the lesson.** Instructors should try to establish a friendly, open atmosphere that shows the participants they will help them learn.
- **Set an appropriate level of concern.** The level of tension must be adjusted to meet the level of importance of the objective. If the material has a high level of importance, a higher level of tension/stress should be established in the class. However, people learn best under low to moderate stress; if the stress is too high, it becomes a barrier to learning.
- **Set an appropriate level of difficulty.** The degree of difficulty should be set high enough to challenge participants but not so high that they become frustrated by information overload. The instruction should predict and reward participation, culminating in success.

In addition, participants need specific knowledge of their learning results (*feedback*). Feedback must be specific, not general. Participants must also see a *reward* for learning. The reward does not necessarily have to be monetary; it can be simply a demonstration of benefits to be realized from learning the material. Finally, the participant must be **interested** in the subject. Interest is directly related to reward. Adults must see the benefit of learning in order to motivate themselves to learn the subject.

Reinforcement. Reinforcement is a very necessary part of the teaching/learning process; through it, instructors encourage correct modes of behavior and performance.

- *Positive reinforcement* is normally used by instructors who are teaching participants new skills. As the name implies, positive reinforcement is "good" and reinforces "good" (or positive) behavior.
- *Negative reinforcement* is normally used by instructors teaching a new skill or new information. It is useful in trying to change modes of behavior. The result of negative reinforcement is *extinction* -- that is, the instructor uses negative reinforcement until the "bad" behavior disappears, or it becomes extinct.

When instructors are trying to change behaviors (old practices), they should apply both positive and negative reinforcement.

Reinforcement should be part of the teaching-learning process to ensure correct behavior. Instructors need to use it on a frequent and regular basis early in the process to help the students retain what they have learned. Then, they should use reinforcement only to maintain consistent, positive behavior.

Retention. Students must retain information from classes in order to benefit from the learning. The instructors' jobs are not finished until they have assisted the learner in retaining the information. In order for participants to retain the information taught, they must see a meaning or purpose for that information. They must also understand and be able to interpret and apply the information. This understanding includes their ability to assign the correct degree of importance to the material.

The amount of retention will be directly affected by the degree of original learning. Simply stated, if the participants did not learn the material well initially, they will not retain it well either.

Retention by the participants is directly affected by their amount of practice during the learning. Instructors should emphasize retention and application. After the students demonstrate correct (desired) performance, they should be urged to practice to maintain the desired performance. Distributed practice is similar in effect to intermittent reinforcement.

Transference. Transfer of learning is the result of training -- it is the ability to use the information taught in the course but in a new setting. As with reinforcement, there are two types of transfer: *positive* and *negative*.

- Positive transference, like positive reinforcement, occurs when the participants use the behavior taught in the course.
- Negative transference, again like negative reinforcement, occurs when the participants do not do what they are told not to do. This results in a positive (desired) outcome.

Transference is most likely to occur in the following situations:

- *Association* -- participants can associate the new information with something that they already know.
- *Similarity* -- the information is similar to material that participants already know; that is, it revisits a logical framework or pattern.
- *Degree of original learning* -- participant's degree of original learning was high.
- *Critical attribute element* -- the information learned contains elements that are extremely beneficial (critical) on the job.

Although adult learning is relatively new as field of study, it is just as substantial as traditional education and carries and potential for greater success. Of course, the heightened success requires a greater responsibility on the part of the teacher. Additionally, the learners come to the course with precisely defined expectations. Unfortunately, there are barriers to their learning. The best motivators for adult learners are interest and selfish benefit. If they can be shown that the course benefits them pragmatically, they will perform better, and the benefits will be longer lasting.

TIPS TO IMPROVE INTERACTION AMONG THE GENERATIONS TRADITIONALISTS, BOOMERS, X'ERS AND NEXTERS

From the National Oceanographic and Atmospheric Association Office of Diversity

Values can collide when members of different generations work and learn together. Having a better understanding of others can make the working and learning environment more productive.

What generations are generally represented in today's society?

Traditionalists

Baby Boomers

Generation Xers

Nexters or Generation Y

The Baby Boomers make up the largest percentage of the population today according to U.S. Census statistics. Boomers consist of people currently between the ages of 37-55 (born between 1947-1965). When we discuss the generations in our society, we can't forget the Boomers' parents. These are the Traditionalists, War Babies or Veterans, who are now older than 55. How about our younger generations? The Generation Xers are people in the 25-36 age group (born between 1966-1977). Last are our youngest citizens, the Nexters or Generation Y, representing people age 7-24 (born between 1978

and 1995). These are the cyber kids who grew up with the Internet, and speed and access to information is something that they are accustomed to.

What Do The Members of Each Generation Value?

Fundamental value differences exist between those of different generations. Understanding these values may help understand differences that may arise in the learning environment. Organizational development scholar, Dr. Morris Massey, began looking at generational values and argues that our behaviors are driven by our value system or our value programming. He offers that what we are now is closely rooted to what we were when we were value programmed. If we examine the value system shared by generational groups then we can better understand their diverse beliefs and behaviors. We don't have to agree with the values of different generations but we can strive to understand the mind-sets of different generations and how each group sees the world based on their experiences. While it's important to recognize that many dimensions of diversity from race, sex, sexual orientation, geographic location, etc., shape who we are and how we behave, we can generalize values based on generations. Let's take a look at some of the espoused values or beliefs held by each of the generations so that you will be better able to appreciate the challenge that we face as an educator trying to create an inclusive learning environment. Please note that these are generalizations and will not apply to all members of a particular generation.

TRADITIONALISTS

Traditionalists values are influenced by the experiences of their parents whose values go back to the 1800s. This generation experienced the Great Depression and World War II both of which shape how they view the world.

Traditionalists Value...

- o Privacy: Traditionalists are the private, silent generation. Don't expect members of this generation to share their inner thoughts.
- o Hard Work: They believe in paying their dues and become irritated when they perceive others are wasting their time. Members of this generation often feel that their career identifies who they are.
- o Trust: A traditionalist's word is his/her bond.
- o Formality: Whether written or in oral communication a formal communication style is preferred. This generation values formal dress and organizational structures.
- o Authority and institutional leadership: Traditionalists have a great deal of respect for authority.
- o Social Order: Other generations may view this desire for social order and

placement as bias, prejudice or even racism or sexism.

o Things: This group loves their stuff and they won't get rid of it. Some may call them pack rats but others would argue that they remember the depression days and going with out. You never know when you might need it.

Supportive Behaviors and Tips For Communicating with Traditionalists...

o By nature Traditionalists are private, the "silent generation". Don't expect members of this generation to share their thoughts immediately.

o For the Traditionalist a educator's word is his/her bond, so it's important to focus on words rather than body language or inferences.

o Face to face or written communication is preferred.

o Don't waste their time, or let them feel as though their time is being wasted.

BABY BOOMERS

Morris Massey calls this group the Nuagers. This generation represents the children of our World War II veterans. They did not go through economically hard times as their parents did, they had the good life - the Traditionalists wanted them to have the best and as a result, the "Me" decade arrived.

Baby Boomers Value...

o Competition: Boomers value peer competition and can be see by others as being egocentric.

o Change: Boomers thrive for possibilities and constant change.

o Hard Work: Boomers started the "workaholic" trend. The difference between Traditionalists and Boomers is that Boomers value the hard work because they view it as necessary for moving to the next level of success while Traditionalists work hard because they feel that it is the right thing to do.

o Success: This generation is committed to climbing the ladder of success.

o Body Language: Boomers are the show me generation and body language is important.

o Teamwork: This group embraces a team based approach to business-they are eager to get rid of the command and control style of their Traditionalist predecessors.

o Anti Rules and Regulations: They don't appreciate rules for the sake of having rules and they will challenge the system.

o Inclusion: This generation will accept people on an equal basis as long as they can perform to their standards.

o Will Fight For A Cause: While they don't like problems, if you give them a

cause they will fight for it.

Supportive Behaviors & Tips For Communicating With Baby Boomers...

- o Boomers are the "show me" generation, so your body language is important when communicating.
- o Speak in an open, direct style but avoid controlling language.
- o Answer questions thoroughly and expect to be pressed for the details.
- o Present options to demonstrate flexibility in your thinking.

GENERATION XERS

Morris Massey refers to this group as the Syn-Tech generation. This generation is both economically conservative, remembering double-digit inflation and the stress that their parents faced during times of on and off unemployment. Unlike their predecessors, they will not rely on institutions for their long-term security.

Generation Xers Value...

- o Entrepreneurial Spirit: Xers believe in investing in their own development rather than in their organization's. While others may see them as disloyal they are cautious about investing in relationships with employers because experience has shown that these relationships are not reliable. Cavalier as it may sound, one Xer told a Boomer that if you want loyalty get a dog.
- o Loyalty: To an Xer, this may mean two-weeks notice.
- o Independence and Creativity: Xers have clear goals and prefer managing their own time and solving their own problems rather than having them managed by a supervisor.
- o Information: They value access to information and love plenty of it.
- o Feedback: This group needs continuous feedback and they use the feedback to adapt to new situations. This generation is flexible.
- o Quality of Worklife: This generation works hard but they would rather find quicker more efficient ways of working so that they have time for fun. While Boomers are working hard to move up the ladder, Xers are working hard so that they can have more time to balance work and life responsibilities.

Supportive Behaviors & Tips for Communicating With Generation X...

- o Use email as a primary communication tool.
- o Talk in short sound bites to keep their attention.
- o Ask them for their feedback and provide them with regular feedback.
- o Share information with them on a regular basis and strive to keep them in the loop.
- o Use an informal communication style.

GENERATION Y (Also Called Nexters)

If you think that Generation Xers were challenging for Traditionalists and Boomers to teach just wait until Generation Y arrives. Generation Y represents people who have grown up during the high tech revolution. They have never known a world without high speed video games, speed dial and ATMs. The secret to motivating this group is to provide systematic and frequent feedback - as it happens.

Generation Y Values...

- o Positive Reinforcement: Members of this cyber generation value positive reinforcement at accelerated rates compared to older generations.
- o Autonomy: This group wants more input into how they are learning and the independence to do it.
- o Positive Attitudes: This group grew up during tranquil times and as a result have a very optimistic outlook on life in general.
- o Diversity: This group grew up with more diversity than their predecessors and if not exposed to it in their community then they were introduced diverse people and cultures through the media.
- o Money: This group is used to making and spending money.
- o Technology: Technology is valued and is used as a tool for multi-tasking.

Supportive Behaviors & Tips for Communicating With Generation Y...

- o Use action words and challenge them at every opportunity.
- o They will resent it if you talk down to them.
- o They prefer email communication.
- o Seek their feedback constantly and provide them with regular feedback..
- o Use humor and create a fun learning environment. Don't take yourself too seriously.
- o Encourage them to take risks and break the rules so that they can explore new ways of learning.

Managing the Generational Mix

How do we keep a generationally diverse group of learners motivated in today's environment? The first step to making the generational diversity work is to understand what motivates members of different generations and to institute teaching techniques that are flexible enough to meet their needs. In today's complex mix of generations, Traditionalists are found with Boomers and Boomers with Generation Xers. Trends toward later retirements mean that traditionalists are still happy working and learning and Generation Xers are quickly moving into positions of power and influence where they are supervising and educating members of older generations.

Educators are beginning to recognize that the changing demographics of the learning environment can affect morale and productivity. Companies like Pitney Bowes have incorporated an intergenerational component to leadership training. Executives experience how different generations react and interact with each other. Chairman and CEO Michael Critelli also focuses on opening the channels of communication by encouraging employees of all levels to email questions and comments to him. The company has also focused on creating a more fun working environment to address the needs of incoming generations. Pitney Bowes also strives to match people with their jobs and to ensure that they are continuously challenged.

Other successful companies such as TGI Fridays, Ben & Jerry's and Lucent Technologies understand that it is important to focus not only on what needs to get done but on accommodating the work and learning styles of the various generations. Lucent Technologies instituted a training center called IdeaVerse that focuses on creativity. Another company created what they call generational play grounds, from cafe.com an on-site coffee house attracting twenty somethings to a bookstore which carries the latest in self actualization books which seems to attract the Boomer generation.

Section 2. Adult Learning

(The following material is excerpted from the NVAA specialized offering "[The Ultimate Educator](#)" by Edmunds, C., K. Lowe, M. Murray, and A. Seymour, 1999.)

Historical Roots of Adult Learning Principles

Since the 1970s, adult learning theory has offered a framework for educators and trainers whose job it is to train adults. Malcolm S. Knowles (1973) was among the first proponents of this approach. In his book, *The Adult Learner: A Neglected Species*, he resurrected the word "andragogy" a term popular in German education circles in the early 1800s, and used it to label his attempt to create a unified theory of adult learning. Knowles' contentions were based on four assumptions:

1. As they mature, adults tend to prefer self-direction. The role of the instructor is to engage in a process of inquiry, analysis, and decision-making with adult learners, rather than to transmit knowledge.
2. Adults' experiences are a rich resource for learning. Active participation in planned experiences—such as discussions or problem solving exercises, an analysis of those experiences, and their application to work or life situations—should be the core methodology for training adults. Adults learn and retain information more easily if they can relate it to their reservoir of past experiences.
3. Adults are aware of specific learning needs generated by real-life events such as marriage, divorce, parenting, taking a new job, losing a job, and so on. Adult learners' needs and interests are the starting points and serve as guideposts for training activities.

4. Adults are competency-based learners, meaning that they want to learn a skill or acquire knowledge that they can apply pragmatically to their immediate circumstances. Life or work-related situations present a more appropriate framework for adult learning than academic or theoretical approaches.

Robert W. Pike (1989), an internationally recognized expert in human resources development and author of the book *Creative Training Techniques*, has conducted thousands of adult training seminars. His principles of adult learning, referred to as "Pike's Laws of Adult Learning," have built upon the original philosophy to provide similar guidance for trainers:

Law 1: Adults are babies with big bodies. It is accepted that babies enjoy learning through experience, because every exploration is a new experience. As children grow, educators traditionally reduce the amount of learning through experience to the point that few courses in secondary and higher education devote significant time to experiential education. It is now recognized that adult learning is enhanced by hands-on experience that involves adults in the learning process. In addition, adults bring a wealth of experience that must be acknowledged and respected in the training setting.

Law 2: People do not argue with their own data. Succinctly put, people are more likely to believe something fervently if they arrive at the idea themselves. Thus, when training adults, presenting structured activities that generate the students' ideas, concepts, or techniques will facilitate learning more effectively than simply giving adults information to remember.

Law 3: Learning is directly proportional to the amount of fun you are having. Humor is an important tool for coping with stress and anxiety, and can be effective in promoting a comfortable learning environment. If you are involved in the learning process and understand how it will enable you to do your job or other chosen task better, you can experience the sheer joy of learning.

Law 4: Learning has not taken place until behavior has changed. It is not *what you know*, but *what you do* that counts. The ability to apply new material is a good measure of whether learning has taken place. Experiences that provide an opportunity for successfully practicing a new skill will increase the likelihood of retention and on-the-job application.

Adult Learning and the Ultimate Educator

DESIGN AND DELIVER TRAINING FIRMLY GROUNDED ON PRINCIPLES OF ADULT LEARNING

For more than two decades, adult learning theory has served as the framework for training adults. The idea that adults as learners require different educational strategies than children was first voiced fifty years ago when Irving Lorge (1947), writing about effective methods in adult education, suggested that to reach the adult learner, you have to teach to what adults want. He stated that adults have "wants" in the following four areas:

1. To gain something.
2. To be something.
3. To do something.
4. To save something.

Eduard Lindeman, also writing in the 1940s, proposed that adults learn best when they are actively involved in determining what, how, and when they learn. Since the 1970s, several authors and training experts have expanded upon the original concepts presented as adult learning theory.

Ultimate instruction, as used here, means helping adults to learn and involves far more than lecturing or presenting information. It involves instructing for results—powerful, highly effective instruction that results in applicable learning for adult participants. The material presented here is intended as a guide for both new and experienced trainers and educators. The reader is encouraged to adapt these ideas and techniques freely and to modify them as necessary to compliment his or her unique style of instruction. You, too, can become an ultimate educator.

KEY DIFFERENCES BETWEEN ADULTS AND CHILDREN AS LEARNERS

Adults differ from children as learners. An adult has assumed responsibility for himself/herself and others. Adults differ specifically in self-concept, experience, readiness to learn, time perspective, and orientation to learning. Traditional teaching applied to children is "jug and mug" with the big jug (the teacher) filling up the little mugs (the students). Students are asked to pay attention and have few opportunities to make use of their own experience (Klatt 1999).

The following chart identifies some key differences between children and adults as learners:

Child and Adult Learning Characteristics

| Children | Adults |
|---|--|
| Rely on others to decide what is important to be learned. | Decide for themselves what is important to be learned. |

| | |
|--|--|
| Accept the information being presented at face value. | Need to validate the information based on their beliefs and values. |
| Expect what they are learning to be useful in their long-term future. | Expect what they are learning to be immediately useful. |
| Have little or no experience upon which to draw, are relatively "blank slates." | Have substantial experience upon which to draw. May have fixed viewpoints. |
| Little ability to serve as a knowledgeable resource to teacher or fellow classmates. | Significant ability to serve as a knowledgeable resource to the trainer and fellow learners. |

INSTRUCTION BASED ON FIVE BASIC PRINCIPLES OF ADULT LEARNING

Leadership

Experience

Appeal

Respect

Novel Styles

Often, peoples' expectations about the role of an instructor and beliefs about how adults learn are derived from personal experience in a college lecture hall or a job training program or from studying classical learning theories. However, learning in adult human beings seems to be a more complex phenomenon than some of the classical theories suggest. Three principles that provide the foundation for adult learning today can be summarized as follows:

1. The adult learner is primarily in charge of his or her own learning. Remember that instructors do not have the power to implant ideas or to transfer skills directly to the learner. They can only suggest and guide.
2. An instructor's primary responsibility is to do a good job of managing the process through which adults learn.
3. The learners are encouraged to use their own judgment and decision-making capabilities.

Instructors are leaders, not dictators. They do have responsibility to make decisions, provide guidance, and be a resource for the students' learning. Although instructors often view themselves as the ultimate authority on the subject matter, it is still up to the learners to determine whether the ideas presented in the session should be incorporated into their work or personal lives. Despite the primary role of the learner, instruction is not a passive, laid-back, go-with-the-flow process for the instructor. As the facilitator and catalyst for participants' learning, the instructor makes it possible for learning to happen by designing and performing all the activities that the learning processes requires.

In their research on adult learning, Sullivan, Wircenski, Arnold, and Sarkees (1990) assert that the establishment of a positive learning climate hinges on understanding the characteristics of adult learners who will be participating in the instructional process. They report the dynamics of the instructional process are very much dependent on the instructor having a clear understanding of the participants. Sullivan et. al. cited applicable characteristics of relevance, motivation, participation, variety, positive feedback, personal concerns, and uniqueness.

Principle 1: Leadership. The adult learner enters the training or educational environment with a deep need to be self-directing and to take a leadership role in his or her learning. The psychological definition of "adult" is one who has achieved a self-concept of being in charge of his or her own decisions and living with the consequences; this carries over into the instructional setting. Thus, instructors can help learners acquire new knowledge and develop new skills, but they cannot do the learning for learners.

Although adults may be completely self directing in most (if not all) aspects of their lives, some can fall back to their conditioning in school and college and put on their hats of dependency, fold their arms, sit back, and say "teach me" when they enter a program labeled "education" or "training." (This is especially true when adults enter a "training room" set up "classroom style.") To resolve the "dependency" problem, adult educators have developed strategies for helping adults make a quick transition from seeing themselves as *dependent learners* to becoming *self-directed learners*. Adult educators, in the development of a learning environment, define the process through which learning takes place. For example:

- The instructor guides the learners in determining the relevance of the learning for their own lives and work; whereas,
- The learners are encouraged to use their own leadership, judgment, and decision-making capabilities.

To reinforce the notion of learner responsibility in the instructional process, a variety of activities can be used to obtain information from participants regarding what they want to get out of the session and to ensure a match between instructor and participant objectives.

Information should be gathered from participants prior to the session to assess participants' skill levels, prior training, education, and professional experience and interest in, need for, and expectations for the session. This can be done through an application form, learning contracts, a mail (electronic or paper) survey of registered participants, or a brief telephone interview if the number of participants is small. This information can be used to organize instructional objectives, sequence content, and design-reinforcing activities.

During an introductory section, participants can be asked to write down their most important goal for the session, and then be asked to share their expectations. Students are asked to put their comments regarding goals on a wall chart labeled "expectations" or "learning goals." Instructors can also ask participants to list the skills, experience, and positive characteristics they bring to the learning environment. This process honors participants, identifies participant resources for the group, and provides additional assessment data. The instructor can read goals from the sheet periodically throughout the session and indicate when a section is particularly designed to meet that learner's need, thereby reinforcing learner investment in the session.

The ultimate educator remains alert to the first principle of adult learning: Adults enter the learning environment with a deep need to be self-directing and take a leadership role in his or her learning.

Principle 2: Experience. The word "experience" holds two meanings for the ultimate educator. Experience is the accumulated knowledge an individual arrives with at the session, as well as an individual's active participation in events or activities during the session.

Adults bring to a learning situation a background of experience that is a rich resource for themselves and for others. In adult education, there is a greater emphasis on the use of experiential learning techniques (discussion methods, case studies, problem-solving exercises) that tap into the accumulated knowledge and skills of the learners and techniques such as simulation exercises and field experiences that provide learners with experiences from which they can learn by analyzing them. A rich, adult-focused instructional approach takes into account the experiences and knowledge that adults bring to the session. It then expands upon and refines this prior knowledge by connecting it to new learning, making the instruction relevant to important issues and tasks in the adults' lives.

In discussing what all learners have in common, Robert F. Mager (1992) stated that the more you know about participants, the better you can tailor instruction to meet their needs. He provided the following list of key points concerning experience:

- Everyone comes to the learning situation with a lifetime of experience, regardless of age.
- The lifetime experiences of each learner are different from those of others.
- Lifetime experiences also includes misconceptions, biases, prejudices, and preferences. In other words, some of what people think they know is actually wrong.

It is also important to recognize that the experience that adults possess is significantly different in quality from that of youths:

- Few youths have had the experience of being full-time workers, spouses, parents, voting citizens, organizational leaders, or other adult roles. Accordingly, adults have a different perspective on experience: it is their chief source of self-identity.
- To youths, experience is something that happens to them, whereas adults define themselves in terms of their unique experiences.
- An adult's experience is who he or she is. So if an adult's experience is not respected and valued, it cannot be used as a resource for learning. Adults experience this omission as a rejection of their experience and as a rejection of them as persons, which negatively affects learning.

Few individuals prefer to just sit back and listen to a teacher or trainer go on and on about the topic. The effective instructor keeps this point in mind and designs learning experiences that actively involve adults with various levels of experience in the instructional process. This entails practice activities such as discussion, hands-on work, or projects for each of the concepts that the instructor wants the participants to master. Concentration is also an important issue. Humans can only consciously think about one thing at a time. It is essential to provide learning environments that help learners concentrate on their learning tasks. Contents, formats, and sequences must be interesting to compete with other attention-demanding thoughts and environmental intrusions (McLagen 1978).

Boud, Keogh, and Walker (1985) found that adults have a broader base of experience to which new ideas and skills can be attached; furthermore, a broader experience base allows adults to incorporate new ideas and skills with much richer and fuller meaning than do youths. The more clearly defined the relationship between the old and the new (through discussion and reflection), the deeper and more permanent the learning will be. For example:

- On-the-job training, small group discussions, case study work, or even computer-based training all embrace the concept that participation helps increase involvement in the learning process and retention of the knowledge.

Information that goes into the participant's memory will likely be remembered if learners practice remembering the information soon after they process it. Therefore, it is important to provide opportunities in the session for review and remembering by means of activities like written summaries, application exercises, and discussions (Zemke and Zemke 1995).

Studies show that over a period of three days, learning retention is as follows:

- 10% of what you read.
- 20% of what you hear.
- 30% of what you see.
- 50% of what you see and hear.
- 70% of what you say.
- 90% of what you say as you do (e.g., orally work out a problem) (Pike 1989).

The ultimate educator knows that experience is a rich resource for adult learning and therefore actively involves adults in the learning process.

Principle 3: Appeal. Appeal is the power of attracting or arousing interest. Adult learners are motivated to learn when they have a need to know. They want to know how the instruction will help them and often ask themselves the following questions:

- What's in it for me?
- Why do I need this information?
- How will I benefit from it?
- How can I make use of it in a practical, real way?
- How will it help me be a better person or professional?

Training and development expert Robert F. Mager (1992) brings this point home with his first two rules of training:

- Rule #1: Training is appropriate only when two conditions are present:
 - There is something that one or more people do not know how to do.
 - They need to be able to do it.
- Rule #2: If they already know how, more training won't help.

Adult orientation to learning is centered on life or work. Therefore, the appropriate frameworks for organizing adult learning are life and/or work-related situations, not academic or theoretical subjects. Meaningful learning can be intrinsically motivating.

The key to using adult's "natural" motivation to learn is tapping into their most teachable moments: those points in their lives when they believe they need to learn something new or different (Zemke & Zemke 1995).

Sometimes, adults enter the learning environment with little interest or motivation. Many genuinely want to improve their job performance or to learn new knowledge and skills in order to move up the career ladder. Their motivation can diminish if the instructor fails to direct and encourage this or other interests and motivations.

Trainers can help learners develop an early and appropriate "mental set" for learning programs by overviewing the course objectives, describing upcoming activities, and helping them see the future advantages of the instruction to them and their work (McLagen 1978). Introductory exercises early in the session can help establish the mental set. For example, an exercise titled "hopes and fears" allows participants the opportunity to express their learning goals and concerns. In this exercise, participants are instructed to write down on tear sheets their hopes (goals and desires) and fears (concerns and specific issues about the instructional session), individually or in small groups. The instructor then uses this

information to ensure that instructional objectives are on the mark and that the instructor is sensitive to individual participants.

Motivation can be improved and channeled by the instructor who provides clear instructional goals and learning activities that encourage and support strong learner interest. To best capitalize on this high level of learner interest, the instructor should explore ways by which the needs of each learner can be incorporated into the training sessions. This would include:

- The use of challenging and exciting learning experiences.
- Learning activities that are self-paced and tailored to individual rates of learning.

Five Ways to Squelch Motivation

- Have little personal contact.
- Get participants in a passive mood and keep them there.
- Assume the class will apply what is taught; do not bother with examples.
- Be alert to criticize.
- Make them feel stupid for asking questions in class (Pike 1992)

Studies show that part of an adult's preparation to learn is determining the benefits of the learning, as well as the disadvantages of not learning. Allen Tough (1972) found that adults would expend considerable time and energy exploring the benefits of learning something, and what the costs would be of not learning it before they would be willing to invest time and energy in learning it.

Therefore, a key principle in adult learning is that the ultimate educator needs to develop an appeal, a "need to know" in the learners-to make a case for the value in their life performance of learning what is offered. At the minimum, this case should be made through testimony from the experience of the instructor or a successful practitioner; at the maximum, by providing real or simulated experiences through which the learners experience the benefits of knowing and the costs of not knowing.

Principle 4: Respect. The word respect here is defined as "esteem." The instructor of adults must show deferential regard for the learner by acknowledging an adult learner's experience and creating a climate in the learning setting that conveys respect.

People are more open to learning if they feel respected. If they feel that they are being talked down to, patronized, or otherwise denigrated, their energy is diverted from learning to dealing with these feelings. The following suggestions are offered as ways in which the instructor can help foster a comfortable, productive learning climate through the attitude that he or she projects:

- Show respect for the learner's individuality and experience.
- Be sensitive to the language you use so that learners are not inadvertently offended.
- Be open to different perspectives.
- Adopt a caring attitude and show it.
- Treat the learners as individuals rather than as a group of people who are all alike.
- Support all learner comments by acknowledging the "rightness" that is in each comment and each person.
- Take the learning process seriously because it is serious and important (McLagen 1978).

Establish a learning climate of:

- Mutual respect.
- Collaboration rather than competition.
- Support rather than judgment.
- Mutual trust.
- Fun.

Adult learners respond to reinforcements. Although adult learners are usually self-directed, they do need to receive reinforcement. Most people are like dry sponges waiting for a drop of appreciation. Instructors should take every opportunity to demonstrate appreciation in the classroom.

Sullivan, Wircenski, Arnold, and Sarkees (1990) write that the need for positive feedback is a characteristic of the adult learner. Like most learners, adults prefer to know how their efforts measure up when compared with the objectives of the instructional program. Adults have a tendency to "vote with their feet"; that is, if they find the program to be a negative experience, they will find some reason to drop out of the program before its completion.

The ultimate educator honors adult learners' individuality and experience and creates a safe, respectful, and participant-centered environment for learning to take place.

Principle 5: Novel Styles. The last principle refers to individual or novel styles that characterize learners. Novel styles are defined as different, unique learning styles and preferences. Generally, most adults prefer to be treated as individuals who are unique and have particular differences. The instructor must keep in mind that although adults have common characteristics as learners, adults also have individual differences and most adults have preferred methods for learning. Adult learners respond better when new material is presented through a variety of instructional methods, appealing to their different learning preferences. No matter how well planned a program is, individual differences among participants often make it necessary to make some adjustments during the program. Flexibility can be incorporated into programs, but such flexibility must be grounded in an understanding of how learners may differ. When developing an instructional program, the instructor must take into consideration the novel styles of learning that each adult brings to the session. The following section discusses a variety of approaches to learning style.

Learning Style

Most adult learners have developed a preference for learning that is rooted in childhood learning patterns. To understand and address adult learners, it is important to understand differences in children's development and learning. As children develop, their ability to process information is affected by their own individual strengths and weaknesses and the environment in which they grow and learn. Individual differences in children's interests, aptitudes, abilities, and achievement can be quite pronounced. For example, some children have an especially strong auditory memory that enables them to remember what they hear with little effort, while others may be less skilled. This can be seen in differences in following verbal directions given by a teacher or coach, or in the ability to learn the words to a new song. Some children have an especially keen eye for noticing detail in pictures or a design in a pattern. This can be seen in differences in speed in recognizing letters of the alphabet or understanding principles of geometry. Some children are very talented artists from the first moment they are given crayons or other tools to draw, while others develop such a skill through structured learning opportunities at school and at home. Behavioral characteristics can also affect learning in children. Children may have a short attention span or be easily distracted by sounds or movement around them, while others can stay with a task for a lengthy period of time, regardless of what might be going on around them. Some children appear more "emotionally mature," which can translate into greater patience, ability to cooperate, or a higher tolerance for frustration, while others become upset quickly if a task is frustrating. Some children have a "need to move" or be more active than is typical for their age group; others simply have more stamina, and so on. In addition, stimulation and opportunity can affect ability and achievement. If a child is deprived of opportunities to move, explore, touch, grasp, and/or interact with sound and speech, long-term learning ability is diminished. Furthermore, without opportunities to use once learned skills, the ability to perform tasks is often lost and must be relearned.

It must be emphasized that adult learning theory is based in the notion that we are not "just teaching grown-up children." It must be recognized that a person's aptitudes and abilities are shaped by individual differences and early learning experiences and continue to be influenced by experience and training throughout adulthood. In fact, many adults seek jobs that consistently give them opportunities to display special talents and rely upon their preferred learning style.

ADULT LEARNING STYLES

(Portions of the following section were excerpted with modification from National District Attorneys Advocacy Center, *Train the Trainers Workshop*, 1999.)

In adult learning theory, several approaches to learning style have been developed and are prominently used in training and educational programs. These include learning styles based on the senses that are involved in processing information; theories of intelligence, including emotional intelligence and "multiple intelligences"; and preferences for learning conditions, i.e., the environment in which learning takes place. In order to provide a framework for a discussion on adult learning style differences, each of these approaches is briefly discussed.

Auditory, visual, and kinesthetic learners. Differing aptitudes, abilities, and experiences have caused individuals to develop a preference for sending and receiving information through one sense over another. Most often people prefer auditory or visual input; however, some people have a preference for kinesthetic learning, i.e. learning that involves movement. A preference for one type of learning over another may be seen in the following ways:

- *Visual learners prefer, enjoy, or require:* Graphic illustrations such as bar graphs or crosstabs to explain data; color codes to highlight salient information; maps to find their way on the subway or while driving in a new city; written material to study new concepts; wall charts that display points to be remembered; written outlines; drawings or designs to illustrate overhead presentations; sitting "up close" in a presentation in order to see the presenter's face, gestures, or visuals; taking notes during a lecture; instructors to repeat verbal directions.
- *Auditory learners prefer, enjoy, or require:* A verbal presentation of new information, such as a lecture; group discussions to hear other points of view or practices; fast-paced verbal exchanges of ideas; a good joke or story that they can repeat for others; verbal cues or mnemonic devices to help them remember information; music at the beginning or during transitions in a training setting; words to accompany a cartoon; oral reports of working groups.
- *Kinesthetic learners prefer, enjoy, or require:* Movement, such as rocking or shaking a leg during a lecture; hands-on experience to learn a task; gestures while making a point; role play exercises over discussion groups; shaking hands when meeting or greeting people; trying new things without a lengthy explanation of the activity; frequent breaks; regular opportunities to change seating or room arrangement; "just doing it" rather than talking about it.

While it is thought that people have developed a preference for or have greater skill in processing one type of input over others, most people simultaneously process information through multiple senses. In fact, the retention of learned material is enhanced if the learner is asked to process information using more than one sense. Presentations that are multisensory (using visual and auditory components) in combination with interactive activities will increase learning and retention for most adults.

THEORIES OF INTELLIGENCE

(Portions of the following section were excerpted with modification from National District Attorneys Advocacy Center, *Train the Trainers Workshop*, 1999.)

Intelligence has long been considered a key factor in predicting and evaluating learning. Educators have developed a variety of teaching strategies to accommodate varying levels of intelligence, most of which have been based on a traditional Western approach to intelligence. Theories of adult intelligence have evolved considerably in recent decades. The traditional constructs of IQ (intelligence quotient) derived from verbal and nonverbal intelligence have been expanded to include EQ (emotional quotient, suggesting that emotional maturity and ability contribute significantly to achievement), as well as theories of "multiple intelligences." Howard Gardner (1982), a proponent of "multiple intelligences" theory, suggests that educators do people a disservice by thinking of intelligence levels in traditionally narrow dimensions that relate most significantly to academic achievement. Gardner proposes seven broader dimensions of intelligences:

- *Verbal and linguistic.* Ability to deal with words and language, both written and spoken.
- *Logical and mathematical.* Ability to do inductive and deductive thinking, numbers, abstract patterns, and reasoning ability.
- *Musical.* Ability to recognize tonal patterns, pitch, melody, rhythms, and tone.
- *Kinesthetic.* Ability to use the body skillfully.
- *Visual and spatial.* Ability to observe and process visual stimuli and visualize or create visual images.
- *Interpersonal.* Ability to develop and maintain relationships and understand, communicate, and work with other people.
- *Intrapersonal.* Understanding of self and one's own feelings, values, and purpose.

Many instructors have found applications for this new way of defining intelligence or aptitude. In general, the instructors have utilized this theory to support the notion that instruction should entail far more than a verbal/linguistic presentation of ideas, and include experiential opportunities that enable people with varying types of "intelligence" to be successful.

Learning Environment Conditions Affect Learning

The physical environment in which instruction takes place and the structure of the activities in the course can also affect learning positively or negatively. People react differently to such factors as room temperature, arrangement of the room (e.g., closeness of seats), time of day (early morning versus late in the day), brightness of the lighting, and sound (e.g., noise distractions from nearby construction or talking among participants). In addition, adults differ with regard to whether they prefer to work alone or in groups. Sharon Fisher (1989) has combined all of these factors to depict the various types of preferences that adults may have when they enter the learning environment:

Adult Preferences Regarding a Learning Environment

| Physical Factors | Emotional Factors | Learning Factors |
|--|----------------------------------|-----------------------------------|
| <i>Learning Setting:</i> | <i>Social Needs:</i> | <i>Learning Styles:</i> |
| Noise Level Lighting Temperature Structure Time of Day | Learn Alone Learn with Others | Auditory Visual Kinesthetic |
| | <i>Motivation:</i> | |
| | Extrinsic Intrinsic | |

An instructor must recognize that adults' preferences in these areas may affect their responsiveness in the session. Efforts should be made to accommodate differences by providing a variety of learning activities in which participants may feel comfortable.

The ultimate educator delivers instruction in a stimulating, rich, and diverse environment through a variety of instructional methods to appeal to adult participants' learning styles and preferences.

The Ultimate Educator Is an Adult Learning Expert!

Adult learning theory is grounded in the notion that adults are in charge of and need to be active participants in their learning. Adults bring a wide range of experiences and perspectives to any instructional setting, and are most likely to be motivated when they see a connection between the learning objectives and activities and their own work or life. Adults also bring preferences for how they learn as well as varying aptitudes and abilities. Ultimate educators provide opportunities for adults to use what they already know and apply what they are learning in the instructional setting.

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