



ADULT LEARNING - THEORIES METHODS AND TECHNIQUES

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Abstract:

Learning opportunities for adults exist in a variety of settings ranging from a formal institution to a place of employment. It is important to acknowledge prior knowledge and experiences of learners, including their ability to recognize their own skills as lifelong learners, Merriam, 1999, (Conlan, Grabowski, Smith). Considerations for adult development and learning include biological and psychological development including deterioration and disease processes that may occur and sociocultural and integrative perspectives on development (Merriam, 1999 in Conlan, Grabowski, Smith). While the most common reason for adults to place themselves in a learning environment is a life-changing event, once in that environment there are many factors that affect the learning experience. The most significant is referred to here as the briefcase brought with them. Briefcase may include (Conlan, Grabowski, Smith):

- Life experience (including life altering events that affect cognitive abilities);
- Work experience (including development of thinking patterns based on this experience);
- Positive/negative previous adult learning experiences;
- Performance affectors, including cognitive abilities;
- Time between learning interactions;
- Aging factor.

In developing countries, these factors may not be considered when planning adult education programs, and with high rate of illiteracy in those countries, it is very significant to have sufficient knowledge about philosophies and theories of adult education, the psychology of adult learner and to have the necessary tools to plan successful adult education programs. Therefore, this paper discusses the following issues: andragogy, adult learning programs, adult learning theories, kinds of learning and settings for learning. The paper concludes with recommendations for practitioners, adult teachers and adult program planers when dealing with adults and conducting adult education programs.

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1. Introduction

Andragogy is the art and science of helping adults learn. Malcolm Knowles is the father of andragogy as he proposed five factors involved in adult learning.

The five assumptions underlying andragogy describe the adult learner as someone who:

- Has an independent self-concept and who can direct his or her own learning
- Has accumulated a reservoir of life experiences that is a rich resource for learning
- Has learning needs closely related to changing social roles
- Is problem-centered and interested in immediate application of knowledge
- Is motivated to learn by internal rather than external factors (Merriam, 2001, p.5, in Conlan, Grabowski, Smith).

Conlan, et al said Knowles used these principles to propose a program for the design, implementation and evaluation of adult learning. Since the development of his theory, Knowles has acknowledged that the principles he outlined did not apply solely to adult education. The development of the theory simply illustrates that the designer "*should involve learners in as many aspects of their education as possible and in the creation of a climate in which they can most fruitfully learn*" (Merriam, 2001, p.7, in Conlan, Grabowski, Smith). Knowles' main focus with the development of andragogy was the notion of the material being very learner centered and the learner being very self-directed.

Principles (Conlan, Grabowski, Smith):

- Adults need to be involved in the planning and evaluation of their instruction.
- Experience (including mistakes) provides the basis for learning activities.
- Adults are most interested in learning about subjects that have immediate relevance to their job or personal life.
- Adult learning is problem-centered rather than content-oriented.

2. Adult Learning programmes

With our ever-accelerating speed of change in both knowledge and technology, it is clear that we adults have a choice: We either continue to learn throughout our lives, or we allow our skills and knowledge to quickly slide into obsolescence. The same principle applies to companies: Those who fail to continually teach and train employees quickly slide into obsolescence.

Private employers spend \$210 billion a year for training, while the government spends an additional \$5 billion these numbers have increased many times. But, are these training programs doing the job? Some are; some are not. Highly effective adult learning requires certain conditions. The question is: what are those conditions? (Billington, 1996)

Because few studies have examined what type of learning environment best helps adults to grow and develop, Billington conducted a four-year study of this question. Why connect growth with learning? Because significant learning and personal

growth are inseparable, growth is learning. The term growth here refers to the maturity of our thought processes. Just as children develop from simple to complex thinking, we adults can continue to mature in the way we think. And the way we think affects our character development, moral judgment, interpersonal relationships, impulse control, self-concept, and how well we function in our environment. Yet we have all noticed that not all adults continue to grow; some cease to learn; thus they cease to grow.

The study investigated which factors in adult learning environments best facilitate adult growth and development. Sixty men and women who began doctoral programs when between ages 37 and 48 participated. They completed two tests measuring adult development, a questionnaire, and 17 were interviewed. All measures revealed the same results. It was as though this research snapped multiple pictures of a barely visible phenomenon from various angles, and when developed, all pictures revealed the same clear image.

Billington said that *"results revealed that adults can and do experience significant personal growth at mid-life."* However, adult students grew significantly only in one type of learning environment; they tended not to grow or to regress in another type. What was the difference? The seven key factors found in learning programs that stimulated adult development are:

1. An environment where students feel safe and supported, where individual needs and uniqueness are honored, where abilities and life achievements are acknowledged and respected.
2. An environment that fosters intellectual freedom and encourages experimentation and creativity.
3. An environment where faculty treats adult students as peers--accepted and respected as intelligent experienced adults whose opinions are listened to, honored, appreciated. Such faculty members often comment that they learn as much from their students as the students learn from them.
4. Self-directed learning, where students take responsibility for their own learning. They work with faculty to design individual learning programs which address what each person needs and wants to learn in order to function optimally in their profession.
5. Pacing, or intellectual challenge. Optimal pacing is challenging people just beyond their present level of ability. If challenged too far beyond, people give up. If challenged too little, they become bored and learn little. Pacing can be compared to playing tennis with a slightly better player; your game tends to improve. But if the other player is far better and it's impossible to return a ball, you give up, overwhelmed. If the other player is less experienced and can return none of your balls, you learn little. Those adults who reported experiencing high levels of intellectual stimulation--to the point of feeling discomfort--grew more.
6. Active involvement in learning, as opposed to passively listening to lectures. Where students and instructors interact and dialogue, where students try out new ideas in the workplace, where exercises and experiences are used to bolster facts and theory, adults grow more.

7. Regular feedback mechanisms for students to tell faculty what works best for them and what they want and need to learn--and faculty who hear and make changes based on student input.

In contrast, in learning programs where students feel unsafe and threatened, where they are viewed as underlings, life achievements not honored, those students tend to regress developmentally, especially in self-esteem and self-confidence. In programs where students are required to take identical lockstep courses, whether relevant to professional goals or not, and where they are often expected to spend several years working on a dissertation that is part of a professor's research project instead of on a topic of their choice, they grow less. In other words, students grow more in student-centered as opposed to faculty-centered programs.

A clear and simple mini-lab on effective and ineffective adult learning environments can be observed in English-as-Second-Language classes for new immigrants. In classes where students feel safe, where lessons are focused on current language needs, where students are asked for input on what helps them most to learn, where students are actively involved in interesting and fun exercises, where there's lots of laughter and congeniality, students of all ages and backgrounds learn English fast and well. In classes where students are made to feel inadequate and threatened, little is learned.

These findings support the thinking of Malcolm Knowles, recognized as the father of adult learning; his trailblazing work underlies many of our most effective adult education programs. He reminded us that in optimal adult learning programs, where adults learn best, both students and faculty also have fun, for it is exhilarating to really learn (Billington, 1996).

3. Overview of Adult Learning Theory

Learning can be defined formally as the act, process, or experience of gaining knowledge or skills. In contrast, memory can define the capacity of storing, retrieving, and acting on that knowledge. Learning helps us move from novices to experts and allows us to gain new knowledge and abilities (Conner, 2007).

She continued that, *"learning strengthens the brain by building new pathways and increasing connections that we can rely on when we want to learn more."* Definitions that are more complex add words such as comprehension and mastery through experience or study.

Physiologically, learning is the formation of *cell assemblies* and *phase sequences*. Children learn by building these assemblies and sequences. Adults spend more time making new arrangements than forming new sequences. Our experience and background allow us to learn new concepts.

Conner, 2007 said that *"at the neurological level, any established knowledge (from experience and background) appears to be made up of exceedingly intricate arrangements of cell materials, electrical charges, and chemical elements"*. Learning requires energy; re-learning

and un-learning requires even more. We must access higher brain functions to generate the much-needed energy and unbind the old

Our discussion here assumes learning, from the most fundamental to complex, to be any increase in knowledge, memorizing information, acquiring knowledge for practical use, abstracting meaning from what we do, and a process that allows us to understand.

Remarkably, people can learn from the moment of birth. Learning can and should be a lifelong process. Learning shouldn't be defined by what happened early in life, only at school. We constantly make sense of our experiences and consistently search for meaning. In essence, we continue to learn.

Though humans like the familiar and are often uncomfortable with change, the brain searches for and responds to novelty. *"Ah-ha!" you may think. "That's why I hated freshman English. No novelty!"*

Rote learning frustrates us because the brain resists meaningless stimuli. When we invoke the brain's natural capacity to integrate information, however, we can assimilate boundless amounts.

Conner, 2007, added, *"another 'Ah-ha!'? This may explain why sometimes a tough class, one you never thought you would get through, was one of your all-time favorites."*

Western society once believed adults didn't learn. Even today, if you ask a group why adults cannot learn, it may surprise you how many begin answering the question without challenging the premise. Unfortunately, many adults deny themselves what should be one of the most enriching parts of life because they assume they can't learn.

We can learn from everything the mind perceives (at any age). Our brains build and strengthen neural pathways no matter where we are, no matter what the subject or the context. In today's business environment, finding better ways to learn will propel organizations forward. Strong minds fuel strong organizations. We must capitalize on our natural styles and then build systems to satisfy needs. Only through an individual learning process can we re-create our environments and ourselves (Conner, 2007).

Speck (1996) notes that the following important points of adult learning theory should be considered when professional development activities are designed for educators:

- *"Adults will commit to learning when the goals and objectives are considered realistic and important to them. Application in the 'real world' is important and relevant to the adult learner's personal and professional needs.*
- *Adults want to be the origin of their own learning and will resist learning activities they believe are an attack on their competence. Thus, professional development needs to give participants some control over the what, who, how, why, when, and where of their learning.*
- *Adult learners need to see that the professional development learning and their day-to-day activities are related and relevant.*
- *Adult learners need direct, concrete experiences in which they apply the learning in real work.*

- *Adult learning has ego involved. Professional development must be structured to provide support from peers and to reduce the fear of judgment during learning.*
- *Adults need to receive feedback on how they are doing and the results of their efforts. Opportunities must be built into professional development activities that allow the learner to practice the learning and receive structured, helpful feedback.*
- *Adults need to participate in small-group activities during the learning to move them beyond understanding to application, analysis, synthesis, and evaluation. Small-group activities provide an opportunity to share, reflect, and generalize their learning experiences.*
- *Adult learners come to learning with a wide range of previous experiences, knowledge, self-direction, interests, and competencies. This diversity must be accommodated in the professional development planning.*
- *Transfer of learning for adults is not automatic and must be facilitated. Coaching and other kinds of follow-up support are needed to help adult learners transfer learning into daily practice so that it is sustained.” (pp. 36-37)*

3.1 Kinds of learning and settings for learning

The following discussion is taken from the source www.fsu.edu/adult_ed/jennyllearning.htm. I put it as a direct quotation to have an overview of kinds and settings for learning. The writer said:

“When we discuss adult learning, we need to clarify whether we’re talking about the learning itself, the design and facilitation of the learning, or where the learning is taking place. As you can imagine, there are scores of charts and lists out there describing every possible kind of learning and various educational settings. Below, you’ll find a sampling of a few of these ideas (it’s much easier to digest that way!).”

3.2 Kinds of Learning

Cranton does a very nice job of quickly running through kinds of knowledge and kinds of learning... and it goes somethin' like this:

3.3 Habermas' Three Domains of Knowledge

A. Technical Knowledge: includes information about cause and effect relationships in the environment and behavioristic learning theories.

B. Practical Knowledge: Concerned with understanding what others mean; includes understanding social norms, values, political concepts, and making ourselves understood--humanistic learning theories are partly involved in this.

C. Emancipatory Knowledge: Gained through critical self-reflection and can be seen as a component of the constructivist paradigm. Mezirow's theory of transformative learning is concerned with this kind of knowledge. (p. 9)

3.4 Mezirow's Three Domains of Learning

- Instrumental: gaining of technical knowledge

- Communicative: gaining of practical knowledge
- Emancipatory: gaining of emancipatory knowledge (p. 9).

3.5 Cranton's Three Perspectives of Adult Learning

Note: While reading this, ask yourself if Cranton is assuming that there's an external agent involved in facilitating the learning? What about self-directed learning?

Subject-Oriented Learning: The goal is to acquire content (e.g. facts, problem solving strategies, practical or technical skills); it is positivistic and most often meets the expectations of the learner and is, therefore, comfortable. The expert makes the decisions, not the learner.

Consumer-Oriented Learning: Takes place when an individual expresses a need to learn, looks to the educator for fulfillment of those needs, and then proceeds to learn under the guidance of the educator. The learner makes each decision about learning--for this reason, this kind of learning falls under constructivism.

Emancipatory Learning: A process of freeing ourselves from forces that limit our options and our control over our lives, forces that have been taken for granted or seen as beyond our control. This kind of learning is constructivist in nature and can be transformative. At times, this learning occurs independently of the educator; at other times it is fostered deliberately. Unlike the other two kinds of learning, emancipatory learning is often a difficult and painful process. (pp.10-20).

All of the above taken from: Cranton, C. (1994). *Understanding and Promoting Transformative Learning*. San Francisco: Jossey-Bass, 3-21.

Situated Cognition

Situated cognition sees context as central in understanding how adults know something. It is, "*based on the idea that what we know and the meanings we attach to what we know are socially constructed. Thus, learning and knowing are intimately linked to real-life situations*" (p.156). This is not a new idea, but, as Merriam and Brockett note, adult educators are becoming more committed to respecting the role of context in learning by looking beyond individual psychology and by creating real-life contexts for learning. (*The Profession and Practice of Adult Education*, 1997).

Settings for Learning

When you read about providers of adult education, you usually only see the kinds of learning that are attached to specific educational institutions, but learning can happen in many kinds of settings. Several educators have attempted to come up with frameworks to include learning in nontraditional settings. There is some overlap here between the settings and the kinds of learning that takes place in them. And, as you've seen in kinds of learning, the framework ranges from having external direction to self-direction. (Both are educational, but one tends to emphasize instruction, the other learning.) From: Apps, J (1989). "Providers of Adult and Continuing Education: A Framework." In Merriam, S. and Cunningham, P. (Eds.) *Handbook of Adult and Continuing Education*. San Francisco: Jossey-Bass, 275-286.

3.6 Coombs' Framework

- Formal Learning: Schools and universities
- Nonformal Learning: Organized outside the formal system
- Informal Learning: From everyday interactions

3.7 Peterson's Framework

- Deliberate Education and Learning
- Unintentional Learning

Peterson puts adult education into the context of the rest of education; he recognizes the power of the self-directed learner who chooses a wide variety of approaches to learning; and he points out the importance of unintentional learning at home, work, from friends or the mass media, etc. (p.277)

Merriam and Caffarella (1999) discussed settings for learning and include, for non-formal settings, community-based learning and indigenous learning. Community-based learning can take many different forms--citizens of a town gathering to overcome an issue in their community, cooperative extension programs, literacy and job skills programs, "A common thread to all of these programs is their focus on social action and change for the betterment of some part of the community" (p.30) Indigenous learning, "...refers to processes and structures people within particular societies have used to learn about their culture throughout their history" (Brennan, 1997 cited in Merriam and Caffarella, 1999, p. 31). This kind of learning is often connected to oral traditions and indigenous arts and can be used in other nonformal learning programs to enhance learning.

3.8 Self-Directed Learning

"Learning on one's own, being self-directed in one's learning is itself a context in which learning takes place. The key to placing a learning experience within this context is that the learner has the primary responsibility for planning, carrying out, and evaluating his or her own learning. Participation in self-directed learning seems almost universal--in fact, an estimated 90 percent of the population is involved with at least one self-directed learning activity a year...Adults engaging in self-directed learning do not necessarily follow a definite set of steps or linear format. In essence, self-directed learning occurs both by design and chance--depending on the interests, experiences, and actions of individual learners and the circumstances in which they find themselves...Self-directed learning does not necessarily mean learning in isolation--assistance is often sought from friends, experts, and acquaintances in both the planning and execution of the learning activity."
From: Merriam, S. & Caffarella, R. (1991). *Learning in Adulthood*. San Francisco: Jossey-Bass, 54-55.

3.9 A word to teachers

Self-directed learners are not necessarily students who work alone and need no guidance from an instructor. As a teacher or trainer, you may have learners who wish to be more self-directed than they are capable of being. Brookfield points out that our

function as facilitators is to challenge our learners to examine their ways of thinking and doing--regardless of their level of self-direction.

"To say one is meeting felt learner needs sounds humanistic, learner-centered, and admirably democratic, yet to do so without allowing one's own ideas, experience, insights, and knowledge as an educator to contribute to the educational process makes the facilitator a service manager, not a full participating contributor. It also condemns learners to staying within their own paradigms of thinking, feeling, and behaving."
From: Brookfield. S. *Understanding and Facilitating Adult Learning*. San Francisco: Jossey-Bass, 21.

3.10 Candy's Four Dimensions of SDL

- Personal Autonomy (SDL as a person attribute)
- Self-Management (SDL as the willingness and capacity to conduct one's own education)
- Learner Control (SDL as a mode of organizing instruction in formal settings)
- Autodidaxy (SDL as the individual non-institutional pursuit of learning opportunities in the "natural society setting")

Cranton uses Candy's dimensions as a framework for some of her writing on this subject; See Cranton. P. (1996). *Professional Development as Transformative Learning*. San Francisco: Jossey-Bass, 50-74 (www.fsu.edu/adult/_jenny/learning.htm).

4. Conclusion and Recommendations

Much of adult learning occurs in a corporate environment involving a variety of training processes. In addition to applying the various learning styles discussed in previous ebook chapters, trainers/facilitators in such environments need to have a working skill set to meet the demands of fast-paced, changing environments. New trends involve instructional designers and facilitators becoming long-term assets to training departments. Expectations are for trainers to arrive not only with delivery skills, but also with design experience and application of learning theories in a variety of settings (Meyer, 2003, in Conlan, Grabowski, Smith).

The most significant trend that continues to make an impact on facilitators is the demand for the incorporation of technology into the content and delivery of professional development (King, 2003, in Conland, Grabowski, Smith).

The professional development toolkit for trainers should include:

- The basics of design and delivery - needs assessment, developing objectives, creating an agenda, selecting appropriate activities, providing for transfer, and designing and conducting evaluation activities
- An understanding of diverse clients and their different learning styles
- The ability to read the context, assess needs, and select or create appropriate mini-learning sessions that are often delivered as just in time learning

- The use of reflective practice skills to make sense of their situation, tailoring learning solutions to their own and other local learning needs, developing and nurturing collaborative communities of practice
- The ability to coordinate university-based, certificate, and in-service programs designed as learning laboratories
- The ability to develop activities that increasingly involve active experiential learning and debriefings
- The ability to use more than one delivery system, particularly online and eLearning.
- The use of learner-centered instruction, especially self-directed learning, means trainers will need to create better ways to include opportunities for reflection, clarification, and guidance (Conlan, Grabowski, Smith).

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