

Adult Learning Principles and Process - Back To Basics

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Introduction

The teaching of adults (andragogy) has many differences to the teaching of children and other young people (pedagogy).

Adults have considerable life experience to bring to the training room and are more likely to question training input that does not accord with their life experience.

This brings considerable challenges but also considerable satisfaction to the facilitator.

Andragogy

Critical reflection is an important element in andragogy and this happens most naturally when the content of a class invites involvement, when students are encouraged to respond to the material by drawing in a disciplined way from their life experiences. For students creative reflection and criticism depend on seeing themselves as central to their learning, a feat accomplished not by a teacher saying that something is "student-centred" but through the experience of being at the centre. Reflection helps move learners to greater complexity and sophistication in their understanding of any material presented.

The following is a selection of theoretical concepts relevant to facilitation of adult learning.

What the adult learning theory means to the learning facilitator.

A. Minimise the use of lecture style presentations

There is room for the content expert to explain the theory but this should be minimised.

For the learning to have meaning activities should be organised to allow participants to discover the concepts for themselves (not always an easy thing to do). Discussions, case studies, practical exercises, role plays are preferred. These are usually more effective learning methods than the lecture but they take a longer period of time. Activities must be as close to real life as possible and a content expert must be on hand should participants feel the need for his/her input.

Some theoretical input is given and the opportunity for critical reflection (via an activity or discussion) is important.

Assessment is regarded as an opportunity to revise concepts as well as evaluation.

The focus must be on the learner not the facilitator.

Learning objectives must be stated for each session and a participative process put in place to achieve these objectives.

Learning must relate to learners prior experience and knowledge.

Avoid the impression that the facilitator is the all knowing "expert", rather he/she is an organiser and facilitator of a participative supportive learning environment.

Far too often training activities are devised by trainers or managers who are removed from the workplace environment of

trainees. The content represents what the trainer or manager thinks is what is required, often this approach misses the mark. Major efforts must be made to consult with the work force on their perceived training needs. The SKILLS, KNOWLEDGE and ATTITUDES (OR ABILITIES) to perform tasks must be examined to gain insight into deficiencies; in some cases when gaps between current competencies and desired competencies are revealed, training will be an appropriate remedy.

Explain "What's in it for me" early in the session and elicit participants expectations of the training in initial stages.

Learning must be appropriate for what is necessary for people to do the job.

Have frequent breaks and don't overload participants with theory.

You might like to keep the following phrases in your mind.

Learning is what you do to yourself.

Training is what others do to you.

Learn a little - well.

B. Interactive Learning Strategies

For adults interactive rather than passive learning strategies are preferred.

It has been suggested that we retain:

10 percent of what we read;

20 percent of what we hear;

30 percent of what we see;

50 percent of what we hear and see;

70 percent of what we say;

90 percent of what we say and do.

Saying and doing are certainly important for retention and later application.

Interactive strategies, provide advantages to both student and teacher, compared with other methods:

They suit most learning styles.

Interactive strategies help us achieve a wide range of objectives.

Most students enjoy learning or consolidating knowledge by taking part in such activities. They enjoy the variety.

C. Smith and Delahaye Learning Principles

In their excellent text *How To Be An Effective Trainer* Smith & Delahaye refer to certain learning principles.

Whole or part learning Divide the learning into manageable segments and work from the known to the unknown.

Spaced Learning Learning that is spaced at reasonable levels is usually superior to massed or crammed learning if you want long term retention.

Active Learning

If trainees are actively involved in the learning process (instead of listening passively), they will learn more effectively and become self-motivated. Active learning is often described as "learning by doing".

Feedback

Give the trainees feedback on progress early and regularly and also obtain feedback on how you are progressing as a trainer.

Overlearning

Stated simply, overlearning means learning until one has perfect recall - and then learning it some more. In other words, forgetting is significantly reduced by frequently attempting to recall learned material.

Reinforcement

Learning that is rewarded is much more likely to be retained.

Primacy and Recency

Given any sequence of facts, trainees will tend to remember what they heard first and last. What they heard in the middle they often forget. Therefore, emphasise and reinforce facts that are in the middle.

Meaningful Material

When presented with new information, we unconsciously ask two questions:

Is this information valid when I compare it with experiences I've had in the past?

Will this information be useful to me in the immediate future?

The implication of these questions means that one must move from the known to the unknown and ensure information is readily usable by participants.

Multiple-Sense Learning

Always use sight and hearing but do not neglect the other senses.

Transfer of Learning

The amount of learning that trainees transfer from the training room to the workplace depends, mainly, on two variables: The degree of similarity between what was learned in the training program (and this includes how it was presented) and what occurs at the workplace.

How easily the trainees can integrate into the work environment the skills or knowledge gained in the training program. The presence of these two variables stresses the importance of referring continually to the workplace when looking for ideas on how to present information or skills and when designing activities and tests for the training session.

D. Retention and Transfer of Learning

In order for learning to occur successfully, the adult learner must (Morgan, Holmes and Bundy, 1976):

Be motivated to learn.

Establish an attentional set.

Be in a state of developmental readiness to learn.

Be in an environment conducive to learning.

Adults are best motivated to learn when that which is to be learned relates or is meaningful to their needs, goals, habits, values, and self-concept. The adult's willingness to participate in learning depends upon such factors as: perception of the value of learning, acceptance of what and how to learn, need for self-esteem or social affiliation with others, and expectations from life.

Teachers of adult learners can facilitate the retention and transfer of learning by such activities as the following:-

Encouraging the learner to search for relationships between what is currently being learned and past learning.

Providing reviews in which the learner encounters previously learned material within new activities.

Providing well-distributed practice in problem solving.

Relating materials learned in instruction to the abilities, needs and interests of the learner.

Stressing generalisations, but making certain that the learner understands the meaning and factual basis for each generalisation thought.

Scheduling frequent tests or in other ways creating a "set" to remember.

Inducing low stress by arranging for success or anticipation of successful experiences in learning.

E. Lawler's Principles of Adult Education (Lawler 1991)

- Principle 1. Adult education requires a physical and social climate of respect.
- Principle 2. A collaborative mode of learning is central to adult education.
- Principle 3. Adult education includes and builds on the experience of the participant.
- Principle 4. Adult education fosters critical reflective thinking.
- Principle 5. Problem posing and problem solving are fundamental aspects of adult education.
- Principle 6. Learning for action is valued in adult education.
- Principle 7. Adult education is best facilitated in a participative environment.
- Principle 8. Adult education empowers the participant.

In *The Keys to Adult Learning Theory and Practical Strategies* Lawler offers practical advice on utilising these adult learning principles and is well-worth a read.

F. Action Learning

There is a large body of research literature that suggests that action learning is particularly appropriate for adults.

Learning may be defined (Mezirow 1991,1) as the process of making a new or revised interpretation of the meaning of an experience which guides subsequent understanding, appreciation and action. Critical reflection involves a critique of the pre-suppositions on which our beliefs have been built.

Marsick (1991, 23-45) speaks about action learning (Project work on real-life problems and reflection where participants draw out the lessons learned from their project work.)

There are three key components of the action/learning facilitation process : action, reflection and the building of ones own theories (Marsick 1991, 32-33). The action component is developed in two ways " through appropriate experience provided by the project work and through an action oriented approach to the way in which people learn from experience.

For action learning to be effective (Marsick 1991, 44) a climate must be fostered that allows participants to examine beliefs, practices and norms. The facilitator must make sure learners look at problems from many perspectives, challenge one another, ask stupid questions, draw contrasts, probe connections and try out new behaviours.

The video "An Introduction to Action Learning" The National Staff Development Committee (1995) outlines the benefits and process of action learning.

The following equation is referred to:

$$L = P + Q \text{ where } \begin{array}{l} L = \text{Learning} \\ P = \text{Programmed knowledge balanced with} \\ Q = \text{Questioning insight} \end{array}$$

G. Experiential Learning

This has some similarities to action learning and once again is thought to be particularly relevant to adult learners.

Boud, Cohen and Walker (1993, 8-16) have developed five propositions which will help the adult educator to develop effective experiential learning.

Experience is the foundation and stimulus for learning.

Learners actively construct their experience.

Learning is a holistic experience.

Learning is socially and culturally constructed.

Learning is influenced by the socio-emotional context in which it occurs.

Kolb and Fry (1975, 33) have developed an experiential learning model.

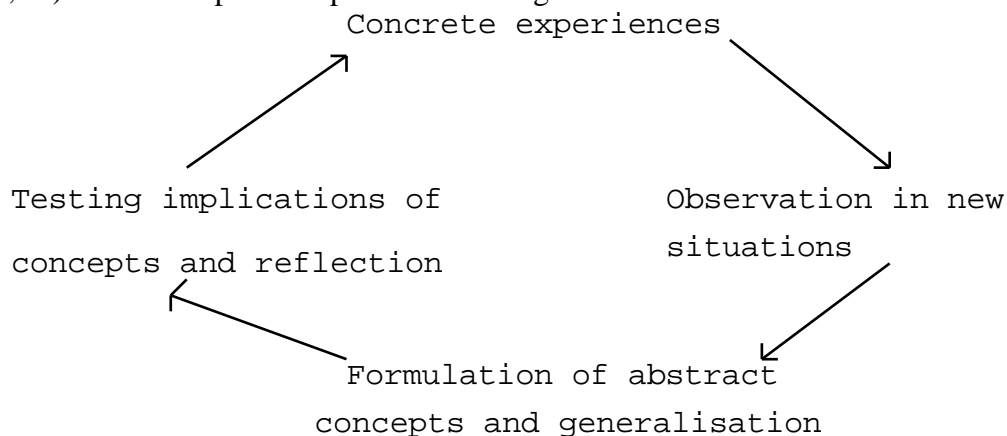


Figure 1 : *Experiential Learning Model, Kolb and Fry (1975, 33)*

Experiential learning is based on three assumptions (Johnson 1990, 20). People learn best when they are personally involved in the learning experience; knowledge has to be discovered if it is to mean anything or make a difference in behaviour and commitment to learning is highest when people are free to act their own learning goals and actively pursue them within a given framework.

The process of experiential learning is shown below. (Johnson 1990, 20) The learner reflects on their concrete experiences and examines their meaning in order to formulate a set of concepts or principles. The sequence is concrete personal experiences followed by:-

Observation and reflection and examination of one's experiences and this leads to the formulation of abstract concepts and generalisations which leads to hypotheses to be tested in future action.

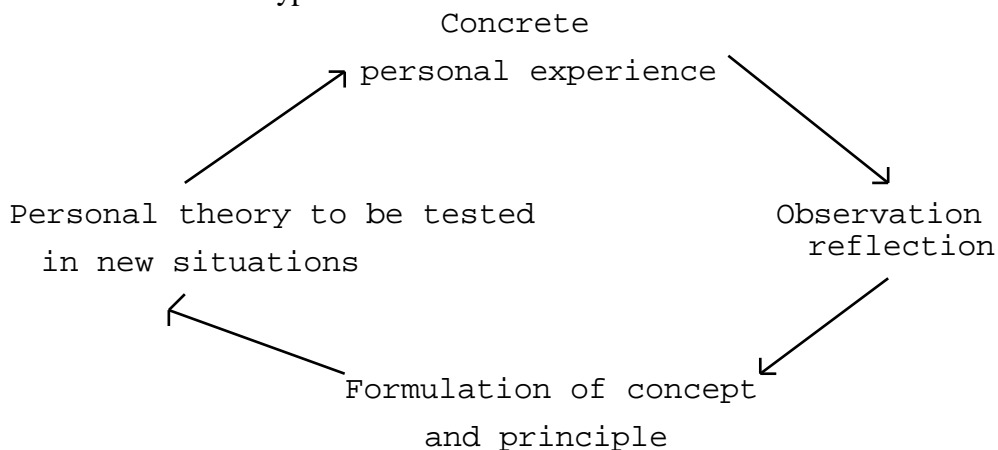


Figure 2 : *Experiential Learning Cycle (Johnson 1990, 20)*

H. Learning in the Workplace

In Billett (1993, 1) it is argued that informal learning settings such as workplaces provide an optimal place for the acquisition of robust and transferable vocational skills. The training that is conducted is in the workplace using situations as close as practicable to those encountered in the workplace. The process used models the most traditional forms of learning - the notion of an expert novice relationship (Billett 1993,2). The approach used utilises activity theory originally proposed by Vygotsky who claimed that knowledge is socially and culturally constructed. Central to Vygotsky's view is that the relations between the learner and the teacher/expert is socially constructed. Consequently, the quality of the relationship will determine what type of knowledge the novice has access to and is allowed to learn (Billett 1993,3).

Billett (1993,4) maintains the authenticity of learning activities is a determining quality of learning experiences.

Research carried out by Billett (1993,5) in the Queensland Coal Mining Industry revealed a preference for learning by doing on behalf of respondents. The respondents also believed that the expertise for learning was already on site. The following quote from Billett (1993,10) appears relevant.

"The engagement of learners in authentic activities in natural settings, guided by experts with reference to other learners and by allowing the learner to experience both the process and the product of their activities have the potential to make the workplace a powerful learning experience."

Billett (1992,4) indicates the skill development activities and assessment should only be conducted by those who have and are seen to have a strong base of skills in a specific area (a content expert). It is also postulated that activities should closely reflect the activities that are used as part of everyday practice in the workplace (authentic activities). This emphasises the role of natural settings and authentic activities and reflects the research of Glaser (1984), Glaser and Bassok (1989), Collins Brown and Newman (1989), Collins and Duguid (1989), Gott (1989) and Raizer (1991). Billett (1992,5) speculates that a learning process that gives responsibility for the learning to the learner, engages them in dialogue with more expert workers, asks them to problem-solve real situations and then provide an analysis of their approach is appropriate. Billett (1992,6) says that learning tasks must be realistic, challenging but ultimately achievable.

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