REFERENCE MATERIAL

Learning is an ongoing process: it is not confined within the walls of a school but continues throughout a person's lifetime.

This section contains four articles selected to tell you more about different views of adult learning.

Soto Cabrera L.,

Lo esencial para planear y facilitar el aprendizaje

[Planning and facilitating learning: the basics]

Begoña Rodas Carillo M., Amauta International, LLC,

El aprendizaje experiencial

[Experiential learning]

Pilleux M.,
¿Aprendizaje o aprendizajes?
[How many forms of learning?]

Graham, P.,
Adult Education

PLANNING AND FACILITATING LEARNING: THE BASICS

Luvia Soto cabrera (2002)

Characteristics of adult learning

How about starting with your own experience? What difference is there between the way you learnt when you were a child and the way you learnt as an adult. Make a short list showing the main differences:	
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You will certainly have noted down some differences based on your personal experiences and others based on your knowledge and experience as an adult. Perhaps you said that the main difference is that when you were a child you learned because the school or because your parents told you to while as an adult you learned from your own experience, whether that was a life experience or a work experience.

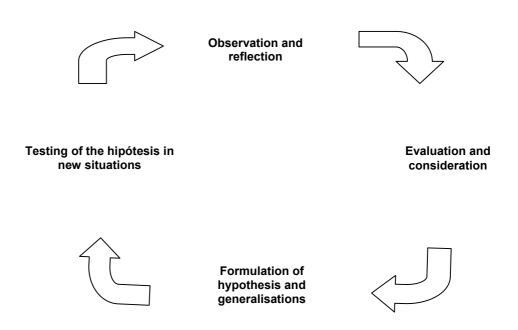
This is precisely the starting point of one of the most popular theories of adult learning, the so-called theory of learning through experience (also known as the theory of experiential learning).

Theory of learning through experience

According to this theory, adult learning is a four-stage cycle: A) you observe the action, B) you evaluate it and consider it, C) you formulate a hypothesis about its basic principles and D) you prove the hypothesis by putting the action into practice. This is explained in the following diagram:

Diagram 2

Cycle of learning through experience

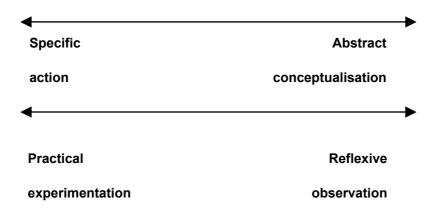


Assuming that each learning process involves a change, this theory suggests that the change occurs more easily when reference is made to a life experience than through the transfer of concepts. As far as training is concerned, experiences must be accompanied by guidelines to help build commitment and an ability to consider.

The theory suggests that learning is a product of conflict between two extremes and these two extremes have two dimensions, as is shown below:

Dimensions of learning

Figure 4



The sort of people who learn most effectively are able to operate within both dimensions because they have the ability to execute specific actions and are also capable of abstract conceptualisation, practical experimentation and reflexive observation.

It is, however, more common for people to possess more skills of one type than of the other and for this reason we talk about "styles of learning". According to Kolb and Fry, who formulated the theory, these are of four types¹:

- Convergent: this includes people who combine skills of abstract conceptualisation and active experimentation. It is characterised by qualities such as the ability to apply hypothetical and deductive reasoning to specific problems and the practical application of ideas. Such people perform well when resolving problems with one or several alternative solutions.
- Divergent: such people are good potential for specific experience and reflexive observation. People with such skills have good imaginations and a positive approach; they can analyse problems from different perspectives.

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¹ Kolb y Fry 1975, en TENNANT, Mark 1991:115,116.

- Assimilative: includes people with skills in abstract conceptualisation and reflexive observation. Their overriding qualities are: ability to create theoretical models, use of inductive reasoning, more interested in abstract concepts than people but reluctant to put theory into practice.
- Accommodative: this style of learning is characterised by specific experience and active experimentation. Subjects who apply this style of learning tend to be very active. They solve problems intuitively, are adaptable and dependent on others for information.

This theory has been criticised in several ways, for example by stating that it has not been properly confirmed by scientific studies and that not all types of learning necessarily passage through the proposed stages of the cycle. Lastly, it is also said that styles of learning change not only in accordance with the context but also the subject and even the age of the target.

The theory is nevertheless popular due to its usefulness in defining teaching/learning strategies.

Andragogy

Nowadays there are many theories about and approaches to learning. We will only mention three of the main types applied in distance training. The second theory we will discuss is andragogy. The term andragogy refers to the study of learning in adulthood, i.e. as opposed to pedagogy or the study of learning in childhood.

According to the theory of andragogy, one key consideration aspect of adult learning is that because an adults are mature beings who have achieved a certain level of integration in their physical, social and psychological development, they learn due to an inbuilt need to understand their context and/or due to external demands, generally job-related, that require them to extend their skills

This means that adult motivations and requirements for a training programme are skewed toward the direct and clear applicability of learning with their life and work experiences.

When adults learn in a natural way, they are more motivated and prepared to make the commitment than when someone "teaches" them. This is the reason why andragogy, particularly the Merizow programme, is based on the idea that adult training promotes the self-management of learning. A summary of the Merizow andragogy programme is given below.²

- 1. Gradually reduce the pupils' dependency on the educator.
- 2. Help pupils to understand how to use the learning resources, especially the experiences of others including those of the educator and how to ensure that others participate in mutual learning relationships.
- 3. Help pupils to define their learning needs with regard to their immediate awareness-raising and the understanding of cultural and psychological assumptions that influence the way they perceive their needs.
- Help pupils to assume an increasing amount of responsibility for defining their learning objectives, planning their learning programme and assessing their progress.
- 5. Arrange for pupils to learn about their preoccupations and levels of understanding with regard to their current personal and job-related problems.
- Encourage decision-making by pupils: select learning experiences that may be relevant to pupils and that require a choice, extend the pupils' range of options and promote the adoption of other people's perspectives with alternative ways of understanding.
- 7. Promote the use of criteria for the pronouncement of judgments that are increasingly extensive and differentiated with regard to awareness-raising. This should be self-reflexive and include experiences.
- 8. Promote a reflexive and self-correcting attitude to learning, from the perspective of learning habits and also learning relationships.
- Promote exposure to problems and problem solving, including problems associated with the application of an individual and collective action. The recognition of relationships existing between personal problems and public topics.
- 10. Reinforce the idea that pupils have of themselves as pupils and as active people, promoting progressive control, an atmosphere of documented support to stimulate provisional efforts directed toward change and risk-taking, avoiding competitive judgement of results and encouraging the use of mutual support groups.

2 Merizow 1983: 136-137. En TENNANT, Mark.

- 11. Making use of experimental, participative and descriptive instruction methods and also sufficient use of learning contracts.
- 12. Make a moral distinction between helping pupils understand their range of choices and how to improve the quality of choice versus encouraging pupils to make a specific choice.

Other psychological approaches suggest that learning something new presents adults with the problem of relinquishing one way of thinking, acting or feeling that had sometimes served them for many years. As far as they are concerned, the method has worked well in the past because it has allowed them to control certain situations and this control has given them security because it has come about through their own efforts and forms part of their personal capital. Because new knowledge is unknown it causes fear. It is something in which adults do not recognise themselves and alters their customary way of controlling situations.

Accepting new knowledge also therefore involves accepting something that we once believed was not completely acceptable, that there were gaps in our underlying philosophy, in the ideas and attitudes that supported our knowledge throughout all this time and this fact threatens our self assurance. Herein lies the root cause of resistance to change.

All this suggests that there is a moment of conflict in adult learning, a lack of continuity, a choice we cannot always agree to make. For this reason it is suggested that adult education always involves a relinquishing of the old and that in order for this to take place, people must be supported with a satisfactory group environment.³

According to another theory that to some extent coincides with the previous viewpoint, some authors who support the idea of andragogy suggest that we can take into account the importance of the cultural, social and life baggage in the case of adult learners by introducing the concept of "unlearning".

In this case, adult education thus requires us to "unlearn" certain experiences, knowledge, beliefs and that only in this way can room be made for new learning.

The constructivist model and meaningful learning

Constructivism states that knowledge does not begin with the plain and simple observation of reality. A reality, an action or a fact are only observable when their characteristics can be fitted into the observer's framework of reference.

Similarly, learning does not begin with the first contact (by reading, listening or seeing) with the unknown information. Learning begins when an interaction takes place between the person who learns and the information. The interaction involves people who are learning putting their internal interpretation systems in order to give the information meaning and in this way to be able to assimilate it.

When adults learn, they place the new information in relation to information they already knows. By doing this, he or she attributes significance and fixes it within his or her previous frames of reference. The frames of reference, in turn, are changed and enriched. When recently acquired knowledge is recalled, our memories do not give us a faithful copy of the original information but a specific version that depends on our personal learning frame of reference. This is how we build up learning.

We are now therefore increasingly relinquishing our old tendency to believe that learning can only take place following the disclosure of concepts and ideas. Nowadays we are aware of the importance of knowledge being assimilated in the most appropriate way to learners. We put this into practice by helping them to discover their own knowledge building processes by considering and reacting to real life situations (whether directly experienced or simulated). This is what is known as meaningful learning.

Four types of meaningful learning are represented within adult education⁴:

- a) Meaningful learning and active assimilation of content: the adult carries out a task that involves making a relationship between the new and old knowledge, comparing them, establishing differences and similarities, making adjustments etc.
- b) Meaningful learning and the building of new knowledge: the new knowledge incorporates what we call "inclusive concepts" that are broad concepts or structures that the learner already possesses. In this way old knowledge is fed by new knowledge and vice versa. New inclusive concepts can also be created using the new information. In this way people learn to change their own frames of reference and begin to learn in an independent manner.

³ CIF-OIT-ACTRAV. Metodologías sindicales para la detección de peligros y riesgos en el lugar de trabajo y el medio ambiente. Módulo 1, Unidad didáctica 1. 2000.

⁴ JABONERO 1999: 47-48.

- c) Progressive differentiation of knowledge: the greater the learning, the higher the number of inclusive concepts and the more complex and extensive they will be. This is achieved by supplying information in order from the general to the specific so that the details may be differentiated little by little.
- d) Integratory reconciliation: during learning, a process we refer to as "cognitive dissonance" takes place. This occurs when a new concept is incorporated within a frame or reference but it is at odds with another existing concept. In this case, we must break down the contradiction so that we can continue the learning process.

EXPERIENTIAL LEARNING

Maria Begoña Rodas Carrillo Amauta International, LLC (2000-02)

http://www.iaf-world.org/AprendizajeExperiencial.htm

Background

During the time of the Ancient Greeks, Plato believed that young people should acquire basic virtues such as wisdom, bravery, justice or temperance in order to become good leaders. He backed his belief with the conviction that such virtues could be acquired more productively through the direct and guided experience of being exposed to situations that forced the young people to be virtuous.

Centuries later, the idea of "Pragmatism" was developed by William James. The "maxim of pragmatism" stated that any theory, experience or learning is only of value if it is practical, in other words if it contributes to individual learning and the application of new learning in our daily lives.

At the beginning of the Twentieth century, education began to be reformed and one of the new educational philosophers was John Dewey, the father of modern experiential education. In his book "The Theory of Experiential Education" (1985) about the work of Dewey, R. Kraft set out the basic premises of experiential learning:

- Individuals need to be involved in what they are learning.
- It is vital to learning through experience inside and outside the classroom and not merely by being taught.
- Learning must be relevant for those involved.
- Those who learn must act and live for the present and also for the future.
- Learning must prepare those who learn to live in a changing, evolving world.

Comparison of Experiential Learning and Learning Based on the Assimilation of Information.

The assimilation of information involves the receiving of information on principles and/or general topics that the learner organises and assimilates as knowledge. This infers possible future application of the knowledge in a real action whereby the learning is put into practice and evaluated. In experiential learning, however, the learner starts with the action itself and then observes and evaluates the effects of the action. Once the general principles have been considered and evaluated, the thing that has been learnt can be effectively applied in new situations.

Each of these forms of learning offers different advantages and disadvantages that make them different and complementary when applied in different situations. They can offer great benefits when applied in combination.

Definition

Experiential learning is more than a tool, it is a philosophy of adult education based on the principle that people learn better when they come into direct contact with their own experiences and life events, it is a hands-on form of learning that is concerned with "doing". This form of education is not restricted to the simple disclosure of concepts. Instead it involves the performance of meaningful exercises, simulations or dynamic actions that allow people to assimilate principles and then put them into practice to develop their personal and professional competencies. This will only occur provided the learner has a sufficient capability for reflective processes and the desire to experiment.

Why dynamic activities and practical exercises?

People learn 20% of what they see, 20% of what they hear, 40% of what they see and hear simultaneously and 80% of what they experience or discover by themselves (National Training Laboratories, 1977). The outcome is better when people change in the face of life experiences than when they are told what to do or when ideas are transferred to them. A true change of attitude (set of thoughts, feelings and behaviours) can come about only when learning is based on real experience and in the development and reinforcement of skills. This occurs because the participants in such experiences were able to discover for themselves the contents and criteria that we wish to reinforce and in this way we bring about an increase in the level of learning.

Learning process

Provided the learner experiences a need to learn, the learning process will be more effective if it takes into account the following three stages based on experiential learning and attains a proper balance between these stages and the assimilation of information. The stages are described with reference to studies and coparticipative learning model C3 developed by Dr. Gilbert Brenson-Lazán and Dr. María Mercedes Sarmiento Díaz.

- Awareness raising: Through experiences and exercises, the participants become aware of all their cognitive, effective and behavioural options in relation to the chosen topic. This first stage is based on the assumption that the two hemispheres of the brain play different parts in learning. One of these, the right hemisphere, learns through experience and not through theoretical reasoning. As we have already mentioned, investigations have shown that people learn due to their own needs and experiences and if a theory that they hear or read is not related to their needs and experiences, they will not learn it. A dynamic activity or practical exercise carried out during this stage should be followed by individual or group discussion of the experience with the aim of analysing, prioritising and sharing reflections. Members can listen to, attach value to and evaluate the views of others before choosing their own approach.
- Conceptualisation: Through the technical comparison of individual cases, people evaluate their own situations in order to formulate and test a consistent action model. They share theoretical concepts to approve a language and promote a better understanding of experiences. One of the reasons this stage is included is based on the idea that the two brain hemispheres play different parts in learning; the left learns through theoretical reasoning. A form of learning based exclusively on experience that lacks a theoretical framework to provide a logical, rational explanation, will tend to be forgotten.
- Contextualisation: The participants apply and contextualise the topic and examination to their working and personal situation in order to outline strategic action and self-assessment plans. The aim is that everyone should get into touch with their own situation and with the part they play as individuals in achieving results. This is based on the fact that if you do not practice you will not learn. Similarly, true learning will only come about when people change their behaviour or lifestyles.

Advantages

Some of the advantages of applying experiential learning within the framework of a proper facilitating process are as follows:

- It takes into account the cognitive processes associated with each brain hemisphere and facilitates assimilation by people with different styles of learning.
- It involves all the related systems and includes all dimensions (physical, mental, social and spiritual).
- It increases learning and the effectiveness of learning when compared with other methodologies.
- When experiential learning is promoted within a group, the trust between group members is increased by performing tasks foreign to the members that demand group support and contributions.
- The performance of dynamic activities in natural environments allows the mind to acquire new and revitalising actions that are applicable to different fields.
- When the environment is changed, the true behaviour of individuals becomes apparent and the learning curve accelerates when new, more effective and productive forms of behaviour are found as an outcome of learning.
- The responsibilities of different participants in consolidating development processes and achieving shared objectives are specifically reinforced within a team.
- Specific results are obtained for people, for the teams and for their organisation or community.

Application

Experiential learning may be applied in very different sectors: education, organisation, community, health and others. It may be directed toward the development of different and varied programmes: development, organisational conversion and change; strategic planning, total quality processes; development of leadership skills, teamwork and communication; process management; mediation and conciliation; decision-making and rehabilitation, amongst others. The most important thing is to contextualise the learning at the outset to suit the situation of participants, their sector and their perceived needs

and also to strike a balance between and integrate experiences and life events with the concepts and principles required to achieve the learning objectives.

As facilitators, we have the great responsibility of using experiential learning as what it really is - i.e. "a philosophy of adult education" with solid, well-developed foundations - and not simply as a fashionable tool that we can include in our workshops to make them more flexible and entertaining when we carry out simulations outside the classroom. The method is just as effective outdoors as in a classroom or a hospital ward, provided the basic fundaments are considered.

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The Authors

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Amauta International, LLC is an organisation for the mentoring of organisation and social change facilitators. It helps organisational or community facilitation teams to improve their effectiveness and competencies through a dynamic process of personal and professional growth. It creatively combines the most effective attended facilitation and vocational training methods with the most up to date virtual mentoring methods using the internet, e-forums and other cyber technologies. Its founding members are María Mercedes Sarmiento Díaz, Gilbert Brenson-Lazán and Maria Begoña Rodas Carrillo.

HOW MANY FORMS OF LEARNING?

Mauricio Pilleux D. (2001)

http://contexto-educativo.com.ar/2001/2/nota-02.htm

The basic aim of this article is to examine the various forms of learning that are available. Some of these are dependent on the environment yet - without doubt - all are centred on the individual because, as Carl Rogers tells us, authentic learning brings about a change in the behaviour of individuals, in the set of actions they choose for the future, in their attitudes and their personalities for a knowledge that penetrates to every part of their being.

Education may be delivered only to a human being who learns. Obviously we can devise methods to facilitate this process but, at the final count, it is the human being who learns. This means that learning can take place without teaching and teaching can take place without learning. If we accept this fact, not merely intellectually but as part of our behaviour and attitude to such processes, we can no longer say that learning is something that occurs in a particular place, for example, Tuesday and Thursday from 10 to 11.30. The principles of learning and teaching only suggest how such processes are related, but are no guarantee that these relationships will always give the best result.

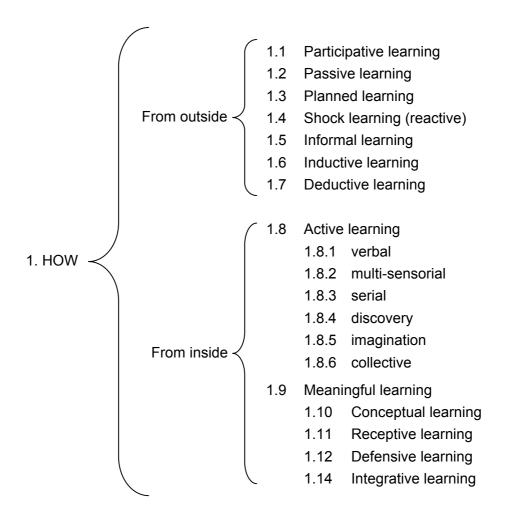
Before analysing the different forms of learning, it is worth stressing that if we wish to facilitate learning by our students, we must become facilitators ourselves. To do this, we can do no better than remember the ten suggestions given to us by Carl Rogers (1969), in the chapter on the "Facilitation of teaching" in his book "Freedom to Learn":

- 1. Facilitators play a big part in establishing the general mood or environment of experience in the group or class.
- 2. Facilitators help to produce and clarify the intentions of individuals in the class and group intentions in general.
- They trust in the desire of each student to implement those intentions that hold meaning for him or her as the driving force behind meaningful learning.

- 4. They make an effort to organise and make available the widest range of resources for learning.
- 5. They consider themselves to be a flexible resource to be used by the group.
- 6. They accept both the intellectual content and the emotional attitudes in responding to the expressions of the group or course. They make an effort to allocate to each aspect the approximate level of emphasis that it holds for the individual or group.
- 7. When they have established a mood of acceptance in the classroom, facilitators are increasingly able to become participating students, members of the group who express their viewpoints in the same way as any other participant.
- 8. They take the initiative to share their feelings and also their faults with the group in such a way that they do not demand or impose but instead represent a personal way of participating that the students may or not may not accept.
- 9. Through their experiences in the classroom, they remain alert to expressions that indicate very deep or very strong feelings.
- 10. In their role as facilitators of learning, they seek to recognise and accept their own limitations.

The nomenclature of the various types of learning was obtained from the sources indicated; the present division is our own.

Types of learning



1.1. **Participative learning**: this style of learning creates and stimulates solidarity within the space or the groups where it is applied. It involves the individual aspiring to integrity and dignity and also taking the initiative in learned tasks. The right to participate is closely linked to the right to learn and the level of problem-solving triggers the individual's participation at different levels. The individual will feel more confident in decisions reached if he or she agrees with these. This stimulates the ability to cooperate and makes the participant less likely to be obstructive (Botkin, 1983).

- 1.2. **Passive learning:** a person is a mere receptacle for information that has been planned, organised and delivered by the teacher. This style reflects the objectives of the teacher and not the pupil. At the supra-educational level, the information media (newspapers, magazines, radio stations, TV) have assumed this role.
- 1.3. **Planned learning:** a type of learning organised from outside, or by the students, the objectives and the actions to be learnt with regard to these objectives, the means for achieving them and an analysis of their content, their control and application. Although the learning may take place informally, it is no less certain that the principles, ends, means and applications may be mastered through harmonious agreement between the different parties. Kidd (1973, 279) mentions Lippit's stages, which resemble those occurring during planned learning. These are as follows:
- "Stage 1: the student discovers he or she needs help, sometimes with the prompting of the teacher.
- Stage 2: They establish and define a helping relationship.
- Stage 3: The problem of change is identified and clarified.
- Stage 4 : Possible alternatives to change are examined. Purposes or intentions are established.
- Stage 5: Efforts are made to change within the situation to be faced.
- Stage 6: The change is generalised and established.
- Stage 7 : The helping relationship ceases or a different type of ongoing relationship is defined.
- 1.3. **Shock learning:** Botkin (1983:10) suggests that this type of learning arises by dealing inattentively with situations over which one should have control or by inducing preconceived situations with the aim of giving rise to a certain effect on the individual. Unfortunately, humanity expects events to occur (shortages, extinction of flora or fauna, failure to prevent situations, etc) or crises and continues to learn by the shock effects. If we continue to depend on this learning equation, however, particularly at global level, this is a recipe for disaster. On a personal level, this type of compulsory learning forces us to wake up from our indifference to events and to maintain a vigilant attitude.
- 1.4. **Information learning:** this basically refers to the fact that every individual, with or without formal education, is learning at all levels, intensities and speeds with the aim of successfully dealing with the complexities of modern life. It is held up as the opposite to formal education in school and includes learning through the family, peer groups, play, work and the communications media (Botkin, 1983).
- 1.5. **Inductive learning:** Requires students to compare and contrast different stimuli. Based on a set of empirical observations. The students train themselves or

come up with their own ideas or hypotheses based on various specific observations after testing these hypotheses empirically (Clifford, 1981).

1.6. **Deductive learning**: under a deductive learning system, the student learns concepts which have been defined previously and also used to create examples. It has the advantage of taking less time than inductive learning. The use of one or other system depends on the time available, the learning objectives, the type of students, etc. (Clifford, 1981).

1.8. Active learning:

- 1.8.1. **Verbal learning:** this is a form of active learning that occurs when we react appropriately to verbal stimuli. In practice, this is the type of learning that we apply from the cradle, provided the stimuli are in the person's mother tongue (Clifford, 1981).
- 1.8.2. **Multisensorial learning:** the sensory system does not merely include the senses of sight, hearing, touch, smell and taste but also proprioceptive senses, in other words the *kinesthetic, vestibular and visceral systems that control internal sensations. The vestibular system located in the inner ear records the position, movement, direction and speed of the body. The kinesthetic system is located in the muscles, joints and tendons and provides us with information on body movements. The visceral system conveys sensations arising in the internal organs" (Williams, 1986:159-60).*
- 1.8.3. **Serial learning:** involves mastering responses given in sequence or in order; for example, memorising a poem, ordering a set of cards in a time sequence, etc. Clifford (1981: 275) reports that investigators who have studied serial learning have reached certain conclusions:
 - 1. That the beginning or end of a list of series is learnt more easily than the middle part.
 - 2. That the speed at which the learning takes place increases with the meaningfulness of the content.
 - 3. That items which have grammatical structures are learnt more easily than those which lack such a structure.
 - 4. The use of aide memoires or images improves serial learning.
- 1.8.4. **Learning by discovery:** this is a style of learning that arises basically through direct experience. It has the property of stimulating more personal involvement of he pupil, leading him or her to become interested in a topic that otherwise would pass unnoticed. It has been extensively

used by educators due to its importance (Williams, 1986). It involves the use of specific materials and specific physical activities. Examples of such learning in our daily lives includes attempting to set up electrical equipment or build something by following a set of instructions.

- 1.8.5. **Learning through imagination:** this is the opposite of learning through direct experience with the environment. The use of the imagination opens the door to the inner world of the pupils. By using their imaginations, they can do away with all the obstacles and limitations of real life. Time and space may be used and handled to motivate and activate our creative processes. Williams (1986:130) informs us that this type of thought help Albert Einstein to discover the theory of relativity because by using his imagination he was able to see himself astride a ray of light.
- 1.8.6. **Collective learning ("societal")**: this is the term suggested by Botkin (1983: 8). According to this theory, learning is carried out not only by individuals but also by social groups: an organisation, a company, a country, etc. Although this is a relatively new concept, the experiences of history appear to bear it out.
- 1.9. **Meaningful learning:** meaningful learning refers to the custom of relating new material with past learning in an effective way that holds meaning. Students are taught to compare, contrast and associate new content with information that has already been acquired, organised and stored in their memory beforehand. In other words, you file the new material in your memory file by topic and place it in the necessary compartment. Anyone who does not have the ability to put the new material in order is making use of a mechanical type of learning that is not associative (Ausubel, 1963).
- 1.10. **Conceptual learning:** a concept is an idea of characteristics common to various objects or events. Conceptual learning involves recognising and associating characteristics with a group of objects or events. From the time we are small children, we apply this style of learning. When we are called to eat, for example, we know we must leave what we are doing, wash our hands, go to sit down in a certain place etc. When a child does all the things associated with "eating" without needing to be told to do each of them individually, we can say that he or she has understood the concepts. Concepts change with the person's age. The same concepts of "eating" may be associated with different objects and events in the case of an adolescent, a young working person or an adult (Clifford, 1981).
- 1.11. **Receptive learning:** this is the form of learning that takes place when the self-defence mechanisms of students and the teacher are at a minimum or are almost non-existent. The teacher communicates, in other words he or she reduces the uncertainty to a minimum. The pupil understands that the teaching-learning situation is not a threat to his or her ego and knows what is expected of him or her (Stevick, 1976). The psychological climate is optimum.

- 1.12. **Defensive learning:** this is the type of learning carried out to comply with academic requirements: pass an exam, complete a course, etc. The teacher teaches: regulations, minimum assistance, qualifications. The ego's defence mechanisms are at a maximum. These mechanisms come into operation whenever someone is not sure of the reality of the situation in which he or she finds him or herself and does not know (has not been told clearly) how to face it (Stevick, 1976).
- 1.13. **Integrative learning:** this is the form of learning that takes place when a person tries to join a social, economic, ethnic group or a group of any other kind. The aim is not only to find a way to approach this given group in order to increase one's knowledge but to form part of the group and be accepted as a member. This learning is typical of ethnic minorities, who wish to be able to take advantage of the privileges enjoyed by the majority who hold the economic or political power (Stevick, 1976).
- 2.1. **Conservative learning:** this type of learning is designed to uphold a system or a lifestyle within society. It is considered essential for the functioning of any human group. This system is used to acquire different perspectives, methods, forms of behaviour and skill to tackle and resolve known situations that are habitually repeated. This is the 'maintenance learning' or conservative learning model, which is adopted by companies and also by individuals, normally interrupted by short periods of innovation or by the shock of external events (Botkin, 1983).
- 2.2. **Anticipative learning:** involves acquiring skills to face new situations in the future, prevent the occurrence of certain events and create new problem-solving alternatives. It requires people not only to learn from experience but also to experience new situations. This form of learning can prevent individuals and also society from sustaining costly damage due to shock events. It also makes it possible to have a substantial influence on the development of future events. Planning teams at all levels make use of anticipative learning (Botkin, 1983).
- 2.3. **Innovative learning:** this type of learning is used to bring about change, renewal, reorganisation and reformulation of problems. This style of learning allows individuals and social groups to act as consumers. Two aspects of innovative learning are anticipation (as opposed to adaptation) and participation, which involves both rights and responsibilities. "Innovative learning is a necessary way of preparing individuals and companies to act in a concerted manner in new situations, especially those created by humanity itself (Botkin, 1983: 12). This type of learning is becoming more and more necessary at an international level in order to resolve political, scientific, technological and economic problems on a planetary scale.

3.1. Learning for individual growth: we learn to:

- become aware of our motivations and actions towards ourselves and others;
- recognise the consequences of our behaviour on others and the consequences of the behaviour of others towards ourselves;
- develop the ability to listen to others, not only at a superficial level but also at a deep level;
- to overcome our resistance to accept suggestions and reactions of others and thus not block out the possibility of learning through experience;
- to take advantage of and learn from failure. In most cases these are the milestones that we probably learn from most (Bradford, and Kidd, 297).
- 3.2. **Life learning:** we mature when we do not try to set conditions on our lives, when we do not expect that people should act or that things should be exactly as we would like. We mature when we realise that life is a constant creative process and that at every moment we must try to see, feel, discover, create and act in the most appropriate way to each situation (Rogers, 1969). We learn vitally when we take responsibility for resolving our own problems and deciding on our own interior lives.

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ADULT LEARNING

Paul Graham (1998)

http://www.aceproject.org/main/espanol/ve/vec01a01.htm

There is a rich tradition of adult education throughout the world. The history of this educational endeavour is different from place to place but inevitably reflects a variety of strands.

Amongst these strands are vocational or on-the-job training at a technical or managerial level, personal growth and enrichment, social mobilisation, literacy and numeracy, and professional career development. Out of this heritage have come certain insights:

- adult characteristics
- where and when adult education takes place
- who is likely to get involved
- how adults learn
- how best they should be taught or, according to some, helped to learn

While there are some suggestions that these insights apply more generally to how humans learn, the dominance of school as the central site and methodology of educational instruction for children has left adult educators with postgraduate and informal education as their primary areas of study.

Adults do have some attributes that are almost universally recognised. In fact, these attributes are used to define when a person becomes adult rather than their chronological age. The legal age of adulthood may vary from one society to another--and there are indeed some societies that have extended both childhood and adolescence--and in this way separated out even large sections of postgraduate education from the study of adult education.

Adults are assumed to be aware of their educational needs, mature enough to select whether and in what form to obtain education, experienced through life and work to be able to reason and apply any particular learning to this range of experience, to be able to choose when and where to study and learn, and to be

willing to bear the cost of that learning (whether this is a cost in terms of time, money or lost opportunities). Adults are assumed to have limited time and to have to balance the demands of family, job, and education. They may also be assumed to have already acquired knowledge of themselves and the world, sufficient to survive on a daily basis if not to control their environment to their own satisfaction. In other words, adults are not *tabularasa*, or empty slates, on which someone else can write.

Where does adult education occur?

Adults choose the place where they wish to engage in educational activities. Mainly, they prefer places that are oriented to their needs, and a large proportion of adult education takes place in the workplace or the home or at sites where adults have a positive association. These may include community halls, churches, or other gathering places and, in some countries at least, in postgraduate institutions.

While some of the venues may be prepared for specialist instruction, adults often use venues that are used for some other purpose. Primarily, adult education takes place in small groups, although there is an increasing trend toward the mass convention both in commercial and religious educational opportunities. Where social movements engage in educational activity, they may also do this in large group settings.

When do adults engage in educational activities?

Where education is programmed, as opposed to informal, it is likely to occur outside normal working hours. As a result, many programmes are scheduled for the evening or the weekend. Adults must therefore make choices about attendance at such events and exchange other activities during their personal time unless they are able to arrange education during working hours.

When working hours are used, adults may be forced to forego earnings in order to attend. Otherwise they may have to put in additional hours to make up time spent on education. In these cases, as in the decisions about use of personal time, there are significant costs and, therefore, those adults who do attend educational activities are both highly motivated and highly demanding of the outcome.

Education programmes that are able to make attendance easy, or least reduce any possible conflicts with attendance, are likely to have a better chance of attracting a wider group of people.

How do adults learn?

People do not need to attend an educational programme in order to learn. Many people will continue to learn from experience---from doing things themselves, from watching others and imitating or improving on what they do, from trying something and, when all else fails, "reading the manual" or following sets of procedures drawn up by those who have gone before them.

Those who learn best, as opposed to merely repeating themselves, are those who reflect on what they have done and how they have done it. The insights of these reflections determine the manner in which they behave in the future, and this in turn leads to experience and to change.

Over time, adults become better at what they do if they are able to make sense of and reflect on their experience.

This disciplined reflection is not always easy, particularly if the experience is complex or if it comes laden with emotions that cloud what is happening. It may also be the case that people do not have all the knowledge available to make sense of what is happening. Certainly generations of people looked at and navigated by the stars without changing their view that the earth was at the centre of the universe.

Educators, therefore, play a role in providing this knowledge to assist adults in reflection, frame their experiences by listening carefully to and providing educated insights into this experience, and by creating opportunities for adults to "unpack" or differentiate experience through limited, safe, and constrained exercises and assignments, and through guided reading and study.

The lecture

If adult learning is about disciplined reflection upon experience, and if educators are charged with assisting adults to learn rather than to teach, why are the majority of educational activities so similar? Most consist of lectures or presentations by someone presumed to have experience or knowledge desired by those listening.

Lectures are not necessarily an efficient way of transmitting knowledge. Nor are they an effective way of assisting people to learn. Yet they continue to dominate educational programs. Adults are not necessarily reliant on others for their learning. Even when they have chosen to attend the lecture, they are likely to come to it with a range of skills, knowledge, prejudices, and reflective ability that they use to assess and evaluate the information they are being given. Where they want knowledge or information, a good lecture can provide this in a setting that enables the adult to draw conclusions about the reliability of the information - by assessing

the reactions of others, by asking questions, and even by monitoring and assessing the demeanour of the lecturer. These cues make a lecture or talk quite different from watching a film of the same lecture in private, and they are potent additives to the learning experience.

Given access to resources, and the time to experiment, an adult may even discover that a lecture makes an impact on substantially behavioural skills. But educators will not want to rely on inefficient forms of information transmission if they have the ability to extend the learning experience to include rehearsal, practice, and reflection.

Learning styles

Adults do appear to have different learning styles. Some find it easier to learn in community or small group settings, others from individualised or more anonymous learning activities, some from doing things and experimenting (with concomitant failure), and still others require coaching and small successful increments.

Given that education for adults, especially voter and civic education, is voluntary and multifaceted, those who find a particular approach most congenial are likely to select a programme that fits. Where this does not happen, adults are quite likely to drop out of the programme. Programmes that have an element of the compulsory about them will need to come to terms with the styles of those who are participating.

In a programme attempting to reach a large number of adults, variety will need to be incorporated to allow people to select facets that enable them to learn most effectively.